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PRINCIPLES

OF THE

NEW ECONOMICS

BY

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PRINCIPLES

OF

THE NEW ECONOMICS

DEDICATED TO MY WIFE

MARIE BRUCE EDIE

EDITOR'S NOTE

There is an increasing recognition of the necessity of approaching economic topics and problems from the psychological and historical viewpoints, as well as from the standpoint of the classical economists; and also of taking into account the far-reaching effects on economic processes produced by the industrial applications of modern science. Indeed, it is safe to say that our economic system can scarcely be comprehended unless it is viewed as an organization, on a grand scale, of historical, mental and physical factors as these are prepared or revealed by scientific inquiry. Professor Edie's book offers an admirable introduction to economics considered as a realistic description of the economic system produced by these groups of factors.

S. E.

PREFACE

THE primary purpose of this volume is to integrate the varied developments of recent years in economic thinking, and to relate them to the body of economic ideas which have been evolved through a long history of economic reflection. A number of departures from the orthodox economic doctrines prevalent at the close of the last century have led to the development of several important schools of new economic thought. Each separate school has departed from the worn and beaten paths of economic theory in ways distinct and peculiar to itself, and each represents an independent and original direction of economic interpretation. In the early stages of such a movement in economic thinking, it is natural for both the adherents and critics of each branch of the movement to interest themselves in the unique and unusual features of the new doctrines of each independent branch. The stage has been reached, however, when it is of deep importance that the several divergent tendencies in economic interpretation should be integrated in their fundamental relations. The attempt at such an integration takes full cognizance of the many contradictions and inconsistencies between the various branches of thought, but it also acknowledges fully the many basic ways in which the various branches are supplementary and coordinate. The guiding principle of this volume is that the true value of all the independent developments in recent economic thought is realized not merely from a view of each branch of thought by itself, but more completely from a view of the composite evolution in economic thinking. The recent pluralistic progress in economic thinking has a fundamental unity.

Some of the outstanding branches of economic thinking may be mentioned for the sake of illustrating the scope of this undertaking. There has appeared within the last few years a powerful psychological school of economic thinkers, whose distinctive characteristic is not that they have introduced psychology into economic theory, for earlier schools of value theorists made that introduction some time ago; but that they have introduced a new type of psychology into economic thinking,—the scientific psychology which has made its monumental discoveries and progress during the last two decades or so. This scientific psychology has, as John Dewey observes, displaced the exploded psychology of the nineteenth century, and has brought out the advances embodied in modern social psychology, comparative psychology, behavioristic psychology, normal and abnormal psychology, and numerous other special fields of modern psychological research and discovery. The psychological developments in economic thinking are at bottom in thorough harmony with what has been called "institutional economics." Moreover, these schools of modern economic thought integrate in fundamental ways with descriptive economics, with functional economics, with social economics, with price economics, with dynamic economics, or with welfare economics. The paramount and striking feature of these several branches of economic thought is the fact that in their general bearing and broad scope they represent a great forward movement in the interpretation of the economic phases of life.

It should not be assumed that a recognition of recent advances in economic theory implies a repudiation of old economic theory. The old economic theory, it is true, is charged with many fallacies, but at heart its principles were enduring. Probably the chief cause of uneasiness in fields of economic thought has been the feeling that former economic theory was inadequate. Many of its doctrines are essential, but are too limited to account fully for economic

life. Hence, the present integration of recent tendencies in economic thinking has an ungrudging tolerance for a large part of previous economic thinking. The spirit of this study is not to cut loose from the orthodox theory of the recent past, but to associate the new with the old in their rightful relationships.

This process of integrating the new and relating it to the old necessarily involves much comparison and contrast of economic doctrines. The literature of the field presents an endless amount of controversy and dispute. However, the method of the present volume is not to controvert, to dispute or to argue, but rather to make as direct and clear a statement as possible of the integrated and related bodies of interpretation. No attempt is made to explain the ways and processes by which the present organization of thought has been arrived at, for the simple reason that such an explanation would involve a volume of controversy. Nor is the discussion contained in these chapters framed for the purpose of convincing professional economists of the defensibility of the author's views. The positive endeavor is to state the body of thought in a form which can be readily understood by a university student or by a general reader of good intelligence. It is hoped that such a statement of the body of thought will be convincing to economists, and the writer prefers to let the plain statement of the case do what convincing it will, rather than to confuse the statement by entering constant anticipations of objections and criticisms. The method is expository and non-controversial.

In the course of the work of constructing the book, deeply appreciated help has been received, either in the form of critical suggestions about the organization of the thought or of sympathetic reading of parts of the manuscript, from Dr. Leon C. Marshall, Dean of the School of Commerce and Administration, of the University of Chicago; Dr. Elmer Burritt Bryan, President of Ohio University; Mr. Ordway Tead, Bureau of Industrial Research of New York City;

Dr. H. G. Good, Associate Professor of Psychology and Education, of Colgate University; Professor J. M. Shortliffe, head of the Department of Economics, of Colgate University; Professor E. W. Smith, head of the Department of Rhetoric; Dr. F. H. Allen, head of the Department of History and Politics; Associate Professor C. E. Gates, Associate Professor C. A. Kallgren, and Mr. R. M. Gidney, Controller at Large, Federal Reserve Bank of New York. The author is, of course, solely responsible for the contents of the volume.

Cordial appreciation is also due many friends and students who have aided in many ways in carrying on the work.

I am especially glad to enter here a full recognition of the partnership of my wife in all phases of the undertaking. Her thoughtful and patient collaboration is embodied in each page of the volume.

LIONEL DANFORTH EDIE.

March 21 ,1922.

CONTENTS

PART I—ECONOMIC PSYCHOLOGY

CHAPTER PAGE

I. THE SIGNIFICANCE OF PSYCHOLOGY IN ECONOMICS . . 1

II. ECONOMIC EXPRESSION OF INSTINCTS 8
The Instinct of Workmanship—The Instinct of Possession—Disposition to Self-Assertion—Instinct of Submissiveness—The Parental Instinct—Sex Instinct—The Gregarious Tendency—Instinct of Flight and Fear—Pugnacity and Rivalry—Some Instincts of Minor Significance — Hunting — The Housing Instinct — The Instinct of Migration—The Instinct of Play—Disposition to Mental Activity.

III. THE ORGANIZATION OF HUMAN NATURE 39
Habit—Imitation, Sympathy, Suggestion—Inequalities of Human Equipment.

IV. HUMAN ADAPTATION TO ECONOMIC ENVIRONMENT . . 52
Discipline — Elimination — Sublimation — Rationalization—Revolt.

PART II—ECONOMIC INSTITUTIONS AND FUNCTIONS

V. THE MECHANICAL AND SCIENTIFIC BASIS OF ECONOMICS 72
Machinery — Transportation — Chemistry — Geology —Electricity—The Science of Economic Organization—Psychology of Industrial Engineering.

VI. LABOR: ITS PART IN PRODUCTION 99
The Job—Hours of Work—Wages—Standard of Living —Incentives—Bargaining Power—Custom and Habit—Wages and Labor Efficiency—Power—Environment—The Mind of the Worker—Immigration—Population —Economic Significance of the National Character.

CHAPTER PAGE

VII. CAPITAL: THE RIGHTS AND DUTIES OF OWNERSHIP . . 175
Statistics of Wealth and Income—Interpretation of the Facts—Property a Group of Rights—Ownership as a Corporate Phenomenon—The Principles of Minimum and Surplus—Inequalities Due to Unequal Privileges—Monopoly Privileges a Cause of Inequalities—Unforeseen Chance as a Cause of Inequalities.

VIII. MANAGEMENT: ITS TECHNIQUE AND RESPONSIBILITIES . 236
Classification of Types of Management—The Mechanism of Corporation Management—Technique of Executive Direction—Business Combination and Concentration of Management—Reasons for the Combination Movement—Successes and Failures in Combination.

IX. MARKETS: THEIR PRINCIPLES AND STRATEGY . . . 279
The Cost of Production Theory of Prices—Supply and Demand—The Analysis and Creation of Demand—Advertising—Sales Management—Guidance of the Ratio Between Supply and Demand—Variations from the General Principles of the Market—Market Mechanism Geographically Considered—Market Mechanism Functionally Considered — Price Movements in Various Stages of the Market Process—Price Policies—Below the Market Level—Above the Market Level—Business Combinations and Price Policies—Monopoly Price and What the Traffic Will Bear—Monopolies and the Steadying of Prices—Price Discrimination—The Science of Spending Money—Technology for Guidance of Consumption.

X. MONEY AND CREDIT: THEIR SERVICES AND DANGERS . . 366
Forms of Money—Banking and Commercial Credit—Forms of Loans—Discounts—The Network of Financial Institutions—Savings Banks—Trust Companies—Foreign Investment Banking—Other Financial Organizations—Federal Reserve System—Centralization—Note Issue—Deposit Currency—Reserves—Clearance and Other Functions—International Banking and Credit—The Principles of Foreign Exchange—The Dangers of the Credit System—Business Cycles—Psychological Foundations of the Credit System.

PART III—ECONOMIC ADAPTATION

CHAPTER		PAGE
XI.	PUBLIC CONTROL . . . . . General Regulation of Business—Governmental Control of Labor—Reform—Public Opinion and Public Control.	453
XII.	ECONOMIC RADICALISM . . . . . General Characteristics of Radicalism—Particular Types of Radicalism—Economic Analysis of Socialistic Proposals.	487
XIII.	ECONOMIC DEMOCRACY . . . . . Fundamental Conceptions—Democracy a Process of Growth—Works Councils—Labor Unions.	499
	INDEX	521

PART I

ECONOMIC PSYCHOLOGY

CHAPTER I

THE SIGNIFICANCE OF PSYCHOLOGY IN ECONOMICS

Economics is the science of human nature in its relations to the ordinary business of life. It involves a threefold analysis,—first, of the motives and satisfactions of men in their dealings with wealth; second, of the processes and organization by which wealth is controlled; third, of the forces and directions of improvement and change. Thus economics has a human factor, an organization factor, and a progress factor. Economics is the science of all three as a unit and to study any one exclusively is to secure only a partial analysis of the science.[1]

The human side of economics is approached chiefly by psychology. Men are the vital part of the economic order. It is men who invent machinery and make scientific discoveries. It is men who operate machines and guide the process. It is men who compete for the ownership of property and who manage the economic system from top to bottom. It is men who bring about progress in the countless parts of the system. It is to satisfy the needs and wants of men that all economic activity is carried on. The human factor of economics is fundamental, and the science of this human factor is economic psychology.

Psychology approaches the problem by a study of the primary motives of conduct. Psychology attempts answers

[1] See Alfred Marshall, "Principles of Economics," p. 1. Seventh edition.

to the questions,—Why do men behave in the business world as they do? Do these forms of behavior make for the proper amount of satisfaction and welfare? What other forms of behavior are possible and practicable? What are the chief motives which urge men forward in their whole dealing with these questions of wealth?

Men are bundles of tendencies to act. Whether in the banker's office, or around the table of the board of directors, or on the salesman's route, or at the worker's machine, men are aggregates of urges to act in certain directions. In technical psychological terms, these tendencies are instinctive tendencies. For purposes of economic thinking they are as well termed dispositions, or urges, or motives, or drives.[1] A comprehensive definition of them is given by McDougall as follows: "The human mind has certain innate or inherited tendencies which are the essential springs or motive powers of all thought and action, whether individual or collective, and are the bases from which the character and will of individuals and of nations are gradually developed under the guidance of the intellectual faculties. . . . Directly or indirectly the instincts are the prime movers of all human activity; by the conative or impulsive force of some instinct (or of some habit derived from an instinct), every train of thought however cold and passionless it may seem, is borne along toward its end, and every bodily action is initiated and sustained. The instinctive impulses determine the ends of all activities and supply the driving power by which all mental activities are sustained. . . . Take away these instinctive dispositions with their powerful impulses, and the organism would become incapable of activity of any kind; it would lie inert and motionless like a wonderful clockwork whose mainspring had been removed or a steam engine whose

[1] For discussion of definitions of instinct, see McDougall, "Social Psychology," pp. 23-29; O. Tead, "Instincts in Industry," p. 5; T. Veblen, "Instinct of Workmanship," Chapter I; G. Wallas, "The Great Society," Chapter I; M. Parmelee, "Science of Human Behavior," Chapters XI, XII, XIII; E. Thorndike, "Original Nature of Man," pp. 1-5; J. B. Watson, "Psychology from the Standpoint of a Behaviorist," pp. 231-240, 261; H. C. Link, "Instinct and Value," *American Journal of Psychology*, Jan., 1922, pp. 1-17.

fires had been withdrawn. These impulses are the mental forces that maintain and shape all the life of individuals and societies.'"[1]

These impulsive forces cannot be classified in any hard and fast, absolute divisions. Indeed, such a cut and dried classification is unnecessary; as will appear from the following list of some of the paramount tendencies. There is an urge to *self-assertion* toward leadership, mastery, power, which makes men move heaven and earth to sit on a coveted board of directors and map out the policies of corporations. There is an instinct of *possession* or *acquisition* which drives men to the collection of great blocks of real estate or of multimillionaire fortunes. There is an instinct of *workmanship* or *constructiveness,* which determines whether production shall be 50 per cent. or 100 per cent. of its possibilities, and which virtually compels men of great genius to build up the large business organizations of the modern day for the sheer joy of achievement. There is a *parental* instinct which underlies kindliness, sympathy, sacrifice and service, wherever it appears in the economic world, whether strictly within one's own immediate family or through the community at large. There is a *sex* instinct which is utilized effectively in a large part of advertising display, and which makes the proper entertainment of workers while off the job a highly important business problem. There is a *herd* instinct under whose force a rumor of pessimism may aid in dragging the financial community to a temporary or prolonged state of depression, which may influence in vital ways the formation of labor unions, or which may determine degrees of congestion of population in large industrial centers. There is an instinct of *submission* which may lead a corporation manager to prefer the status of a subsidiary in a large amalgamation to the status of an independent cut-throat competitor, or which may determine the attitude of workers toward movements for industrial democracy. There is an instinct of *pugnacity* which flashes out from time to time in strikes or in the bitter struggles

[1] "Introduction to Social Psychology," p. 45.

of commercial competition. There is an instinct of *curiosity* or *thought* which inspires the inventiveness of men, concentrates their mental powers on the possibilities of an ever better science of organization, and encourages countless endeavors at increased efficiency. There is a disposition to *fear* which worries the business man with the dread of bankruptcy and strikes into the heart of the laborer the terrors of unemployment.

It is not meant to give the impression that this sort of classification is all in all. The significance of the list is that it brings within small compass some of the paramount dispositions of men in so far as those dispositions affect their economic conduct. From other standpoints, other groupings might be of greater practical value, but from the economic standpoint, the most useful procedure is to draw from psychology those parts which have most value for the study of economics. In the economic world, therefore, it is indispensable to recognize that men move and work and plan and achieve in response to certain primary springs of action,—such as the desire for power, or ownership, or achievement, or parental satisfaction, or sex contentment, or herd unity, or submission, or pugnacity, or thought.

With this brief picture of some of the predominant tendencies in mind, some important characteristics of their activity can be pointed out with greater definiteness. First of all they are born into the human being. Through hundreds of generations they have been built into the life blood of the human race. They are hereditary tendencies in human nature, passed on from generation to generation, primitive, ineradicable, inescapable, the stuff of which human nature is made. They are all part and parcel of man's inheritance, his racial birthright, and in their applications to his modern economic life, this origin, with all that it implies of vitality and power, needs to be held vividly in mind.

A second important characteristic of these tendencies is their dynamic quality. They push and urge and drive men from within. There is something compelling about

them. They do not make for quiet, but for change. They are the restless qualities, the forces behind initiative. They are motives to behavior, sources of animation, filled with purpose and desire and aspiration. From the town loafer to the captain of industry, they are drives toward behavior. Under their urge, growth, life, change is the keynote of the economic world. They are the incentives behind the hundreds of thousands of inventions of industry, behind the explorations which have opened the world to commerce, behind the gigantic business combinations and the myriads of lesser enterprises,—behind the whole economic organization.

A third important feature is their pliability. At birth, they are general tendencies, indefinite urges, broad forces. By development and experience the tendency to self-assertion may lead to the struggle for power as a labor leader or as a corporation president. Environment, family, school, reading all serve from early life to mold and shape and fashion a particular tendency in certain ways. Every outside influence counts in the application of the basic tendencies to the channels of life. A man born with a dominant love of power will weld all these outside influences into the real metal of his nature, and whether in statesmanship or finance or education or labor, will be a leader under the domination of the original tendency to power. So with all the instincts. At birth they are "unlearned tendencies." Childhood and the experiences of adult years color and shape them, but they are still true to their essence.

A fourth important feature is their interplay. One separate tendency does not commonly hold exclusive sway. Parental love, possessiveness, self-assertiveness may, for example, combine in any proportion among themselves, or with any of the other tendencies to produce behavior. But in most of the affairs of industry, some one tendency or small group of tendencies is paramount in the policies of the individual, the class, or the nation. Different instincts may leap into the ascendency at different times. Pugnacity may master the man to-day and fear to-morrow.

There is interaction, combination, succession, waxing and waning, fitting the demands of the hour, rising to the occasion.

Finally, the instinctive dispositions involve the phases described by McDougall as follows: "Every instance of instinctive behavior involves a knowing of some thing or object, a feeling in regard to it, and a striving towards or away from that object. . . . We may then define an instinct as an inherited or innate psycho-physical disposition which determines its possessor to perceive, and to pay attention to objects of a certain class, to experience an emotional excitement of a particular quality upon perceiving such an object, and to act in regard to it in a particular manner, or, at least, to experience an impulse to such action."[1] For the biologist or physiologist or pure psychologist, it is often desirable to analyze and dissect the instinctive tendencies and concentrate attention upon their unit elements. But for purposes of economic psychology it is commonly more serviceable to think in terms of the whole disposition. We perceive danger, experience the emotion of fear and the impulse to escape. They are separate phases of a whole process, a total instinctive tendency. The usefulness of this conception is apparent from a more detailed definition of emotion. Angell explains that "All the more profound types of human emotions are based upon the life of instinct." Sherrington remarks of emotion, "If developed in intensity, it impels toward vigorous movement," and Cannon writes, "That the major emotions have an energizing effect has been commonly recognized." The important conception therefore is the whole process, perceptual, emotional and energizing or impulsive, because the whole process is the determining factor in social and economic behavior.

Considered in these ways, economic psychology is not one of the exact sciences. It is true, of course, that certain phases of psychological study can be reduced to exact measurement, such, for example, as intelligence tests, advertising tests, fatigue studies, etc. However, in its gen-

[1] Social Psychology, pp. 27, 30.

eral aspects, it has to proceed without the units of measurement which prevail in physics or electricity or chemistry. There are no calories or meters or volts or grams in human dispositions. The dispositions are incapable of measurement by any form of yard stick or weighing scale. Motives and tendencies are always matters of more or less. The combinations of instincts allow for infinite variation. Mathematical exactitude is not the exclusive mental power in psychological thinking; an important power is judgment. Economic psychology is not for this reason any less a science. The test of a human science is not whether it is amenable to statistical computation; the test is whether it marshals knowledge and experience to effective and serviceable ends. Economic psychology endeavors to come up to that fundamental test. In this respect psychology works with essentially the same technique as is employed in most of the phases of economic thinking and of social science thinking generally.

CHAPTER II

ECONOMIC EXPRESSION OF INSTINCTS

The Instinct of Workmanship

Men have an innate desire for constructive effort. They are disposed toward making something, building something, fashioning something. Veblen has said, "Chief among those dispositions that conduce directly to the material well-being of the race and therefore to its biological success, is perhaps the instinctive bias here spoken of as the instinct of workmanship." And James in a forceful chapter on the psychology of instincts declares, "Constructiveness is as genuine and irresistible an instinct in man as in the bee or the beaver." In explaining the paramount motive in his gigantic industrial achievements, Charles Schwab states, "Why do I work? What do I work for? . . . I work just for the pleasure I find in work, the satisfaction there is in developing things, in creating."

It is not implied that this constructive motive is isolated from other motives in the lives of successful business men. The fundamental impression should be that with a substantial group of business leaders, an enjoyment of constructive achievement is a dominating motive. Such men are not animated solely or even primarily by the lure of a fortune, but by the lure of great creative achievement. This impulse is particularly outstanding in the engineering feats of recent years, such as the erection of large bridges, the digging of tunnels, the building of skyscrapers. Where this creative incentive is uppermost the achievements resulting usually have a high social value. The creative incentive is directed toward ends more serviceable to the community than are the incentives of pure profit and possession, and the tendency to consider business

as one of the professions is a sign that more and more men endowed with the creative incentive will play a leading part in the business world. Managerial positions are demanding in larger and larger proportions trained engineers whose chief ambition is not mere size of salary, but size of achievement. An economic society in which men imbued with this motive come to the top obviously has high social advantages.

But what of the rank and file? Does an instinct of constructiveness exist in a coal miner or a machine feeder? Probably most business men have believed at one time or another that the great bulk of laborers are utterly lacking in creative ambition and are dominated by an innate laziness, a native disposition to soldier on the job. In spite of a widespread impression of this sort there have developed in the industrial world hundreds of plant organizations where the laborers speed up production spontaneously, enjoying the effort, displaying keen enthusiasm and a real instinct of workmanship. What has often been thought to be a disposition to loaf is found to be, on the contrary, a lack of opportunity for expression of a dormant impulse to create and construct.

Modern machine industry not only fails to present an opportunity for creative expression but positively stifles inclinations in that direction. To quote Herbert Hoover, "With the high specialization and intense repetition in labor in industrial processes there has been a loss of creative interest."[1] And from a business viewpoint, John D. Rockefeller, Jr., states, "What joy can there be in life, what interest can a man take in his work, what enthusiasm can he be expected to develop on behalf of his employer, when he is regarded as a number on a payroll, a cog in a wheel, a mere 'hand'?"[2] In the same vein an industrial engineer of wide experience writes, "If we take the standard of production as one hundred, I can say that it is impossible to force a man much above fifty and even then after a few days he will become rebellious and lag

[1] *Industrial Management*, May, 1920, p. 346.
[2] *Ibid.*, Nov., 1919, p. 404.

and the quality of the work will suffer. But if the creative power of that man be stimulated, he can almost constantly touch one hundred, apparently without the slightest effort.''[1]

Recent experience in industrial effort is sufficient to indicate that production is doomed to remain at low levels, labor unrest is inevitable, human satisfaction in workmanship is out of the question, high economic standards are hopeless unless industrial organization devises ways and means for bringing out this potential energy of the worker. A due expression of the instinct of workmanship, both in employers and in employees, has profoundest bearings upon wealth production.

The Instinct of Possession

Ownership, like constructiveness, satisfies a natural craving. Men instinctively seek to acquire objects of which they can say, ''These are mine.''

For a large class of people this impulse is paramount. To possess more and ever more brings to them the great joy of living. They are insatiable; they never possess enough. The possession of money, or the property or goods which it represents, gives a real relish to life, and they acquire purely for the sensation of possessing on a gigantic scale. This motive has amassed many of the multimillionaire fortunes of the present day and has driven men on to the accumulation of properties vastly beyond the point where the properties could do them any personal good.

Men animated primarily by acquisitiveness are found remarking, ''I'm not in business for my health,'' or ''I'm after my pile and I'm going to get it,'' or ''I admit I'm after the Almighty Dollar. Business is business.'' Men in whom this impulse is supreme have frequently been notorious for lack of a high social and ethical sense. When carried to extremes under its spell some captains of industry have discredited themselves in the public esteem. But it has proved one of the most irresistible of human

[1] W. R. Bassett, "When the Workmen Help You Manage," p. 254.

motives and has fired men of great genius to mighty accomplishments, sometimes good, sometimes otherwise.

The wage worker too has a possessive disposition. In the eyes of the employer the wage worker often appears to be animated almost solely by avarice for higher wages. There are many obstacles however to the worker's expression of such an instinct. The worker has, of course, no claim to possession of the machine which he operates, or of the raw material which he handles, or of the finished product which he turns out. He has no possessive title to his job; his employer has the right to hire and fire at will. If he lives in a tenement district or a company town he owns nothing in the form of a house, a garden, or a lawn. One thing he does own, however, and that is his labor. This he possesses and aims to sell under as good a bargain as he can strike. Here his impulse of possession often comes into vehement play. Demands for wage increases come in rapid succession. A great labor leader has offered to digest the aims of labor under three headings, "More, more, more." Laborers assert, "We're not in for a boom unless it booms us." Wage incentives, bonuses, piece-rates, rewards, are the ceaseless efforts of progressive employers to control and harness the workers' acquisitive nature.

Farseeing employers have in some instances endeavored to link the possessive instincts of the workers with the best interests of the business by such devices as stock ownership, profit-sharing and thrift plans. It is anticipated, for instance, that ownership of a few shares of common stock with attendant dividends, will stimulate feelings of ownership which will identify the workers' interests with the interests of stock holders generally. The response to this sort of stimulus is still of doubtful force.

Not all business men, however, or all laborers are dominated by the love of possession. A recent observer has ventured to write, "The real news about business, it seems to me, is that it is being administered by men who are not profiteers. The managers are on salary, divorced from ownership . . . the motive of profit is not their personal

motive."[1] Managers are on the increase whose paramount motives are similar to those of the soldier or the doctor or the teacher or the engineer,—non-possessive. Moreover, the frequent accusation that all labor wants is more wages fails to take into account the workers' non-financial instincts. After all, the latter group of instincts is fundamental in the worker's life. To quote again Mr. Rockefeller, Jr., "A man who recently devoted some months to studying the industrial problem and who came in contact with thousands of workmen in various industries throughout the country has said that it was obvious to him from the outset that the working men were seeking for something which at first he thought to be higher wages. As his touch with them extended, he came to the conclusion, however, that not higher wages but recognition as men was what they really sought."[2] President Wilson's Second Industrial Conference reported, "It cannot be denied that unrest in our industrial community is characterized more than ever before by the purposes and desires that go beyond the demand for higher wages and shorter hours."

It is obvious that with both employers and employees, even where money-getting appears the chief aim in life, the money itself may be but a means to an end. The real end and aim may be creating a new invention, attaining a position of power or prestige or making possible a higher standard of living for one's family. All of the satisfactions of life are given a price value. In order to satisfy the non-possessive desires men have to acquire money. The end and aim of economic endeavor in such cases is not acquisition merely for the sake of acquisition. The real end and aim is to satisfy non-financial wants and ambitions.

But after all allowances have been made for these exceptions and qualifications the fact remains that the possessive instinct has a driving dynamic power in the economic world. A sheer delight in the collection of a huge

[1] W. Lippmann, "Drift and Mastery," p. 45.
[2] *Industrial Management*, Nov., 1919, p. 404.

fortune has impelled men to tireless business effort and has molded and directed perhaps more than any other single motive the economic system that now prevails. The possibility of its modification or partial displacement by other instincts has momentous significance for the economic community in the future.

Disposition to Self-Assertion

In the field of labor leadership it is common to find personalities who are moved not primarily by acquisitiveness but by an intense impulse of self-assertion and mastery. The prevalence of such an instinct in varying degrees of intensity is conspicuous in all business circles. Self-assertive managers are fond of the warning, "This is my business, I will run it as I please." Out of desperate rivalries, weathering of financial depressions, cut-throat competition, the most self-assertive men are apt to emerge triumphant, and to wield the power, mastery and leadership that they have won. The consciousness of such power brings to thousands of great captains of industry the sweetest satisfaction which life affords and to attain to the heights of it, they give lifetimes of hazard, worry and exhausting toil. The ambition to win admission to an inner circle of financiers, to be quoted in affairs of great moment in the daily press, to be sought out for advice on legislative or international policies, to affect Presidential campaigns, to hold high office on commercial committees, to swing a backing of 100,000 union men, in short, to exercise power in the tide of human affairs, is one of man's most potent incentives to mighty deeds.

For some people it is sufficient satisfaction merely to hold the power. They prefer to be confidential adviser to the president of the concern, to direct silently and unseen the major affairs of the board of directors. They are satisfied to boss behind the scenes, to pull quietly the strings for other men to jump. They enjoy the power for its own sake, without ostentation or show or publicity.

But more frequently the self-assertive character yields to the thrill of prestige and fame. He wants to be known

as the great railroad genius. He wants his position to be heralded as great. He wants other big men to know that he is big and he wants little men to recognize his superiority. To him power without fame is nothing; power with fame is everything. Publicity gives the finshing touches to self-assertiveness.

As with business leaders so with labor leaders there are different types. The walking delegate is in disrepute because of his extreme self-assertiveness. He has on various occasions swaggered into a shop, peremptorily ordered a strike and laid down an ultimatum, just to let everybody know who is boss around the works. His excessive craving for "showing off" his power, his extreme desire for ostentation and display, has made him a feared and hated figure in the industrial world. There are just as many labor leaders of another type who have built up reputations for sober and conservative use of the enormous powers in their hands, with little care for fame and publicity.

The ordinary laborer has this same impulse to self-assertiveness, even though often not in so powerful a degree, and his insistence on expressing the impulse is the direct cause of much economic difficulty. The status of labor as a mere "hand," a commodity to be bought and sold like coal or pig iron, has been challenged by workers demanding a new status of recognition and power. The demand for a voice in those industrial issues which affect the welfare of labor, the movement for employee representation and the assertiveness of modern labor unions are traceable to an instinctive desire to have some real control over one's own work and life. The great obstacle to successful welfare work is the fact that the laborer has little or no voice in directing the welfare policies. The use of shop committees, employee representation and "industrial democracy" plans is an endeavor on the part of business men to harness this instinct of self-assertion and self-control to the interest of the business. Ideas of cooperation, or partnership, or even of a share in management between laborer and employer are a product of this deep-

seated human tendency. The worker craves the satisfaction of a degree of power and independence in his job and far-sighted employers are endeavoring to invent safe and sound ways and means to bind this outburst of human feeling to the practical necessities of successful business.

Most laborers too are highly susceptible to appeals of display and show in their self-assertiveness. "Pace setters" and "speeders" gloat over their superior skill and efficiency, and as a guard against their spurts of extreme energy labor unions have widely established a standard. This standard is supposed to be the pace that a man can follow safely for a lifetime. Rivalry and competition between individuals and departments is a means of firing their self-assertive impulses by the prospect of display. Prizes for machine operatives, photos of the fastest riveters, posting of the relative rating of girls at telephone switchboards, all are utilized to draw upon the vanity of the worker and secure maximum self-assertion along productive lines.

Thus the self-assertive impulses offer potential sources of rich energy for economic activity. Self-expression, mastery, leadership, power, display, fame,—all these alter the courses and consequences of the economic order, and lie at the center of economic science.

Instinct of Submissiveness

In contrast with the self-assertive impulses must be considered the submissive impulses. Many men enjoy inertia, indifference, apathy, lethargy. The line of least resistance is to let well enough alone, accept things as they are and be content. To turn over the worries and risks and problems to strong leadership is satisfying. The slave often preferred his slavery to the responsibilities of freedom, and the worker often prefers unconditional acquiescence in all the mandates of the shop, be they harsh, or pleasant, to the responsibilities of some form of industrial citizenship. The agitator encounters at every turn the willingness of his audience to bow to the inevitableness of things as they are. The labor union organizer is lucky to be able to get

even a minority in the industry to sign up, pay dues, attend meetings and shape policies; the rest find it too much trouble.

In national and state political conventions, it is notorious that time and again the slate is "doped out" by a boss or inside party leader; and the convention, relieved of the awful puzzle, receives the announcement with as great applause and hurrah as if it had shouldered the burden itself. The doctrine of non-resistance or pacifism applied to industrial life meets the impulses of hundreds of thousands in the rank and file. Roosevelt's warning not to "Chinafy" the U. S. was an effort to bring home to a people in a political way the lesson of the fruits of submissiveness, and the lesson is fully applicable to industrial affairs. The success of an open or a closed shop campaign must depend eventually upon the balance which is struck between the self-assertive and the submissive instincts of the parties concerned. A campaign in a particular industry "to smash the union" stakes everything upon the belief that a certain amount of submissiveness of the workers can be counted upon. The corporation president who claims that his workers can bring any grievance or suggestion to the superintendent or to himself personally does not take into account the feelings of inferiority and self-effacement in the laborer at the prospect of such an interview. But submissiveness is not by any means always forced upon the worker; it is as often the course of his own choice. It satisfies a real instinctive desire, a vital trait of human nature, and is just as much innate as any of the other major instinctive dispositions.

The Parental Instinct

That the parent feels an instinctive love for the child is too obvious to need argument. The love of the mother is commonly more intense than the love of the father, but with both, the affection between parent and child is one of the most vivid experiences of life and exercises momentous influences in the organization of society. The desire of a father to be with his children, to play and romp or to

read and spin stories or merely to watch their antics, leads to a demand for a shorter work day with more leisure for home enjoyments. The desire to clothe and house and feed the laborer's family leads to demands for the wherewithal in the form of increased wages. The desire to improve the family standards may lead the mother to take a factory job to increase thereby the family income; or conversely may lead her to insist on remaining at home to rear and train the children by her own direct care and supervision. Actions which superficially look sordid and greedy and selfish in labor groups are often dominated by underlying motives of parental solicitude, and to cope with these situations, an understanding of the underlying motives is the height of necessity.

Intimately allied with the parental regard for one's immediate kith and kin, is an original disposition to kindliness toward one's fellowmen generally. Wallas says "My opinion is that a certain degree of Love is stimulated by our perception of other human beings, both generally and particularly when we feel that it is within our power to injure or benefit them," and further he finds among men an "original Love and Pity for their fellow human beings as such."[1] And Thorndike writes that one aspect of original kindliness "is the positive satisfyingness of witnessing behavior characteristic of welfare in our fellows. . . . The happy behavior of others is pleasant, as flowers and sunshine and food are."[2]

This original trait finds expression in those features of modern economic life which bear such names as sacrifice, reform, altruism, public spirit, welfare, humanitarian motives, philanthropy, uplift, charity, service, the common good, etc. Those people who are steadily trying to "mix religion with business" are merely bringing to bear the

[1] "The Great Society," pp. 143, 147.

[2] Thorndike, "Original Nature of Man." "Whether this last issue (*i.e.*, kindliness) is a consequence of the original bonds described under the instinct of motherly behavior or is a somewhat independent and differently specialized kindliness, is of little importance for our purpose. The former is the likelier. . . ." p. 103.

impulses which underlie such great parental conceptions as the Fatherhood of God and the Brotherhood of Man.

These religious ideas are parental metaphors, and are the stimuli for incentives to economic good will. Certain individuals are endowed with exceptionally powerful instinctive energies in this direction and commonly become the so-called Public Spirited leaders of their times. Our complex economic society is vitally dependent upon men of this caliber rising to positions of power and prominence from time to time. Personalities of this type take out some of the sordid and materialistic features of economic activity, and manage to radiate among others the contagion of their genuine love for their fellow men.

The awakening of these kindly dispositions is the only means toward achieving amelioration of some of the black pains of the economic community. To quote Tansley, "The instinct of human tenderness is the hope of the world."[1] The American people, by responding to appeals for charity during and immediately following the World War, are reported to have saved the lives of 15,000,000 children across the Atlantic. Similar human impulses have brought into being, especially during the last ten years, a flood of child labor laws, minimum wage laws, eight hour laws, workmen's insurance laws, old age laws, maternity protection laws, factory sanitation laws. Prohibitionist orators saturated the public imagination with mental pictures of the wrecked home, the beaten wife, and the degraded child, and the constitutional amendment was thereby assured. Leaders in the woman suffrage movement incessantly appealed to the women of America to use the ballot to put the protection of the law over their sisters in industry and their children on the streets and to put something of the gentleness and tenderness of the mother's spirit into politics and economics. An aroused public conscience is intolerant of the sweatshop, and resents the high death rate of infants among the lowest paid workers' families in congested industrial centers. Wherever suf-

[1] "The New Psychology," p. 267.

fering and distress and pain are found, there tends to arise a general social kindliness and pity, and if the emotions are aroused intensely enough, reform is forthwith achieved. In a recent effort to organize the steel workers, union delegates spread throughout the steel districts photographs of a woman alleged to have been murdered by agents of the company, and thereby made a powerful appeal to the general parental sympathy of the whole labor group.

Another outgrowth of this general disposition to care for other people's welfare is the solicitude for the welfare of the succeeding generation. The conservation of natural resources makes an appeal directly to an instinctive desire to protect and conserve the welfare of "our children's children." Population questions, immigration regulations, warnings of race suicide, all are settled in light of an instinctive concern for a happy and comfortable posterity. Even the arguments deciding the relative amounts of revenue to be raised by loans and by taxation during the war were constantly guided by a spontaneous feeling that we must not hand on to the next generation any larger burden than might be absolutely necessary. This sense of social responsibility for the economic and human welfare of generations yet to come is a constant, steadying influence in shaping the direction of economic movements.

In a broad and comprehensive way, this original disposition of kindliness is the same force which is often called service. And service is commonly contrasted with selfishness. Progressive and radical movements, in varying degrees of course, throw out the challenge to what is called capitalism to establish a new motive of service in economic life. This challenge claims that economics today is primarily animated by private, non-humanitarian, unsacrificial motives. It claims that it must be animated by new, public, social, humanitarian motives. The retort often flies back, that human nature cannot be changed. Out of such a mental battle, there emerges this much that ought to be obvious, namely, that the economic order at present needs more of the public motive, and will suffer bitter attacks unless this motive is forthcoming,—but that any sud-

den shift to an economic society which depended absolutely or even primarily upon altruistic motives for its driving force would be ill fated. Economics must become more humanitarian, but the process must come by a gradual fusion of newly stimulated instincts with the old. To grasp this balancing and proportioning of private and public motives is a first essential in any attempt to understand the science of economics.

Sex Instinct

Discussing the sex instinct, McDougall remarks, "It is unnecessary to say anything of the great strength of its impulse or of the violence of the emotional excitement that accompanies its exercise." Probably the paramount economic implications of the sex instinct arise not so much from the expression of the instinct as from its repression. The consequences for economics of this repression will be taken up in a following chapter.

Some branches of business depend to a very substantial extent upon a carefully planned excitement of this impulse. Advertising, for example, creates a demand for many lines of cosmetics, candies, silks, clothing, etc., by ingenuous forms of sex appeal. The method of appeal is based upon the desire to be attractive to the opposite sex; hence any means of securing beauty or becoming attractive is in high demand. By different and well-known means a good proportion of the moving picture industry stakes its success upon the sex appeal. "The dress models of the wholesale clothing shops of New York are undoubtedly an enormously important and determining factor in the sale of women's dresses."[1] Good looking waitresses in restaurants, pretty sales girls at store counters, attractive girls on magazine covers, all enter into the strategy of salesmanship. Consumers' motives in buying are thus very frequently influenced, even though unconsciously, by this sex impulse.

Personnel administration encounters certain sex problems. Girl operators of machines are often unwilling to

[1] Ordway Tead, "Instincts in Industry," p. 36.

wear safe clothing or head dress while at the machines because they hate the looks of "safety first" styles. Whether to allow men and women to work in the same or separate machine rooms, how to maintain due protection and independence for women working under men bosses, how to keep the office girls from spending too many hours of the day before the mirror, are all personnel problems with a sex basis. Taken all in all, however, the direct expression of the sex instinct has only minor relations to economic life; the instinct's greatest bearing on economics arises from nervous consequences of its repression.

The Gregarious Tendency

Thorndike remarks: "Man responds to the absence of human beings by discomfort and to their presence by positive satisfaction." This gregarious tendency exercises a deep influence in economic groupings and over the chief policies which they carry out. Men incline to huddle together, to think and act as a herd, to work and fight by groups. To mix with other people, to be one with them, to feel their presence, brings a contagious pleasurable sensation, and men's economic actions seek the maximum of this positive gregarious satisfaction.

For one thing, the congestion of population in urban centers has causes directly traceable to this human tendency. The 1920 census reveals the fact that approximately one-half of the population of the country is now huddled inside the cities and towns with populations above 2500. A fundamental reason for this concentration of people is given by McDougall as follows: "It is the crowd in the towns, the vast human herd, that exerts a baneful attraction on those outside it. . . . As in the case of the animals, the larger the aggregation the greater is its power of attraction; hence in spite of high rents, high rates, dirt, disease, congestion of traffic, ugliness, squalor, and sooty air, the large towns continue to grow at an increasing rate, while the small towns diminish and the country villages are threatened with extinction." [1]

[1] McDougall, "Social Psychology," p. 302.

Because of the potency of this instinct we are faced with problems of housing, of city transportation, of food and fuel supplies, of location of industries, of organization of markets, of immigrant quarters, of Americanization, of adequate farm labor, of "back to the land" movements, of class struggle, of economic organization, and of large scale economic activity in general.

"It is, however, sensitiveness to the behavior of the herd which has the most important effects upon the structure of the mind of the gregarious animal. . . . To know that he is doing what would arouse the disapproval of the herd will bring to the individual the same profound sense of discomfort which would accompany actual physical separation, while to know that he is doing what the herd would approve will give him the sense of rightness, of gusto, and of stimulus which would accompany physical presence in the herd and response to its mandate. . . . He is more sensitive to the herd than to any other influence."[1] In thus emphasizing the gregarious factor in mental life and behavior generally, Trotter indicates an explanation of some of the most widespread economic phenomena. Approved industrial morale exists where every worker is so thoroughly sensitive to the voice of the factory herd that he conforms wholeheartedly to the established rules, regulations, standards and ideas of the plant. Attacks by radicals, Reds or agitators upon the sensitiveness of this unit herd are resented bitterly.

In time of strike, the herd is on the aggressive; it must "hang together or hang separately." Men by the thousands throw their lot in with the striking crowd, scarcely knowing the aims of the strike, but feeling the urge to stand by their labor herd. Employers, in similar form, rally to the colors of a leader who throws down a challenge on the open shop or some other great economic issue, because they are sensitive to the influence of the dominant note of the employing group.

This is an age of great associations of labor and capital.

[1] Trotter, "Instinct of the Herd in Peace and War," pp. 32, 40, 114, 133.

Employers' Associations, Chambers of Commerce, Engineering Societies, Rotary Clubs, Manufacturers' Associations in a great variety of forms spring from the impulses of men to defend their rights in unison, to protect their interests by group action. Laborers, through local branches, international unions, and huge federations, struggle for what they conceive to be their rights, even their self-preservation, by throwing their resources under the control of the herd, and working and fighting with a class consciousness. The shop committees, for instance, insist that the natural, logical and useful labor unit is the local shop or plant; whereas, in sharp contrast, the trade union insists that the right labor herd is all men following a certain craft; and again in further contrast the industrial union insists that the only adequate labor herd is one based upon all men in a given line of industry the country over. How best to apply the gregarious bond to economic life is therefore one of the salient problems of the present day.

Moreover much of statesmanship is concerned with the economic loyalties of men to different groups. The class consciousness of labor in extreme forms found in the socialist pleas for the Internationale, the World Brotherhood, the World Revolution, etc., is one thing; the patriotic allegiance to the nation as sovereign is another; the support of an international League of Nations or world government of some sort is still another thing. The distribution of gregarious feeling within these three circles obviously conditions world politics, national strength, international commerce, economic rivalries, and peace and war.

James remarks, "The same acts performed with a crowd seem to mean vastly more than when performed alone." Men experience comfort and pleasure from being in an audience, or on a parade, or at a banquet with their fellows. Labor organizers get a mass meeting and harangue the crowd until they are swept into the union ranks. The spirit of the mob bursts out in terrific applause at the words of the speaker, whereas if the words were imparted to the individual on the street they would seem stupidly commonplace. The lynching party reveals the staid, re-

spected citizen furiously dragging and kicking the victim and feverishly tying the noose, and the strikers' mob commits acts of violence which individuals could never be persuaded to commit.

The factory system, and the use of machinery and science have made modern economic life almost entirely a social affair. The directions of gregarious expression, the limits of herd organization, the centers of group loyalty, the possibilities of morale are fundamental economic issues. How to control men in the mass becomes a paramount economic problem.

Instinct of Flight and Fear

In McDougall's analysis, "The instinct to flee from danger is necessary for the survival of almost all species of animals and in most of the higher animals the instinct is one of the most powerful. . . . Fear, whether its impulse be to flight or to concealment, is characterized by the fact that its excitement, more than that of any other instinct, tends to bring to an end at once all other mental activity, riveting the attention upon its object to the exclusion of all others; owing, probably, to this extreme concentration of attention, as well as to the violence of the emotion, the excitement of this instinct makes a deep and lasting impression on the mind. . . . Fear, once aroused, haunts the mind; it comes back alike in dreams and waking life, bringing with it vivid memories of the terrifying impression."[1]

Instead of fears of the jungle, modern business supplies to all classes of the community economic fears which are almost equally compelling. Especially in periods of business depression is fear and emotion of great force. Workers by the millions are seized by the fear of losing their jobs, with the prospect which that entails of lost income, privation, worry and distress. Under the spell of such a fear, workers are said during the depression period to have a great spurt of workmanlike efficiency in the hope that a partial shut-down of the plant will find them picked

[1] "Social Psychology," pp. 51, 57.

for their superior efficiency to remain on the job. In describing these fears, Steinmetz writes, "Over most of the workers hangs throughout all their life the fear of unemployment, the fear of sickness, the fear of old age. . . . It is these three great fears which distinguish the majority from the minority and make the former dissatisfied with society."[1] In normal times many employes build the morale of their men on the fear-emotion by giving everyone to understand that a man is waiting at the factory gates to take his place if he fails to measure up to the employer's mark. For such a policy, a liberal supply of immigrants and a constant oversupply of labor are indispensable.

Fear of the rival who is trying to steal a market from his competitors, fear of bankruptcy, fear of laborers threatening a strike,—these grip the business man from time to time. He may seek flight by retiring from business, or he may brave it out by submissiveness, or in extreme cases seek escape by the route of suicide, or he may be carried along through a strike, or be pushed into bankruptcy.

Such periods leave indelible imprints on the memories of the victims. They are the mountain peaks of life and men ponder, puzzle and wonder about them at great length after they are past. Fear and flight smack of the primitive, of life and death, of struggles for existence, and arouse the whole nature to extremes of vivid experience. Insurance devices of many sorts have been devised to take out of industrial activity some of the more dangerous forms of fear, and to avert some of its distressing consequences. The immense growth of both workers' and employers' insurance in recent years is an indication of the desire of men to diminish and control the element of fear in economic life. The excessive economic fears of the laboring groups are dangerous factors in industrial life for they are active causes of industrial nervousness, discontent and unrest. A sound industrial morale is jeopardized by an extreme discipline of fear, and pioneer indus-

[1] "America and the New Epoch," p. 51.

trial managers are undoubtedly trying gradually to reduce the fear element in discipline to safer levels and to substitute appeals to other human instincts, such as constructiveness or self-expression.

Pugnacity and Rivalry

James remarks: "Fear is a reaction aroused by the same objects that arouse ferocity. We both fear and wish to kill anything that may kill us."[1] In the presence of danger a man may seek safety by flight, or he may squarely fight the danger off. The frightened animal, when the chase has brought it to bay, will turn and fight madly for its life. To flee or to fight is the pair of alternatives. The manufacturer whose existence is threatened by a trust or monopoly may sell out or retire, or he may devote his whole energy to a bitter, desperate struggle to maintain his independence regardless of all the tactics used to crush him. In the latter event, as James further points out, "In many respects, man is the most ruthlessly ferocious of beasts."

His fighting spirit is aroused when any of his other instincts are thwarted. To obstruct his creativeness or self-assertiveness or possessiveness fires him to a belligerent mood. Obstacles which cross the pathway of sex, or gregariousness or submissiveness bring forth aggravation, and the will to brook no opposition. Balk the man in any of his motives, and pugnacity and anger begin to warm his blood. As Wallas remarks, "Obstructed sex love, for instance, normally produces a violent outbreak of Pugnacity."[2] That is to say, pugnacity acts not so much as a separate instinct by itself, but is the reaction when any of the other instincts are denied an adequate expression.

As a matter of fact, this thwarting, balking, and repressing is exactly what the economic environment accomplishes. In one way and another and at one time and another the economic environment checkmates and foils all of the great human motives and desires. Some of these instincts deserve to be thwarted for the safety of society, but the thwarting of others is dehumanizing for the individual

[1] "Psychology," Vol. II, pp. 409-415.
[2] "The Great Society," p. 54.

and dangerous for the community at large. The consequence, speaking in the broadest way, is a widespread condition of antagonism, pugnacity and unrest. The repressed instincts produce a state of nervous tension amounting to hostility. Hence it happens that most wars, be they industrial or international, are struggles for freedom, *i.e.*, struggles to remove the obstruction, to hurl aside the thwarting force, to throw off the repressing environment. Pugnacity and anger strive to hew and slash their way through to escape and liberty.

For example, the activities of unions thwart the self-assertive dispositions of employers and, angered by such opposition, employers decide it is time to "go to the mat" with labor and fight it out. Vice versa, the orders and mandates of an autocratic employer may so cross the self-assertive spirit of his workers that, furious at his domineering policies, they will walk out on a strike which requires grim and enduring pugnacity. So the man intimidated from joining a union by the likelihood of losing his job is in no peaceful frame of mind; and the business man who finds his chance to reap a fine profit blocked by the cunning of a rival, nurses his aroused pugnacity by the planning of sweet revenge. The instinct of constructiveness, when balked by the installation of automatic machinery, sets the worker on edge with hostility and he looks upon himself as an "iron slave" to the machine. Unrest saturates the economic world,—arising from a maelstrom of stifled desires and subdued motives.

In spite of all theories of partnership and good will, there remains all too great an abundance of antagonism and warlikeness in the economic arena, and will remain until the economic environment calls forth a more balanced and healthy expression of the instincts which when balked are potent with pugnacity. There is no more fundamental law in all economics than the law that antagonism may be alleviated not by attempting to abolish the pugnacious instinct but by providing wholesome expression for all the great instincts of the human being.

Intimately allied with the pugnacious feeling is the

spirit of rivalry. Keen competition between business rivals, intense effort to win promotion, determination to excel one's fellows, whether employers or employees, are forms of pugnacious energy turned in the direction of useful rivalry. These forms of rivalry furnish a civilized outlet for much of man's warlike energies, and sustain in large measure the vigor and hardihood of economic endeavor.

Some Instincts of Minor Economic Significance

Hunting, housing, migration and play are human tendencies which, although not as important as others that have been considered in shaping economic conduct, are nevertheless influential in many lines of endeavor.

Hunting

Parmelee observes: "Indeed it has become true in our modern civilized society that some impulses now find their expression for most individuals only in the form of play. For example, few people to-day need to hunt for purposes of securing subsistence . . . . but many indulge in hunting for purposes of play."[1]

But the most important diversion of this instinct, which in his early history kept man from starvation and death, is pointed out by Thorndike as follows: "The older indulge the propensity at great cost of time and money in hunting beasts, or at still greater cost of manhood in hounding Quakers, abolitionists, Jews, Chinamen, scabs, prophets, or suffragettes of the non-militant variety. Teasing, bullying, cruelty, are thus in part the result of one of nature's means of providing self and family with food: and what grew up as a pillar of human support has become so extravagant a luxury as to be almost a vice."[2] The popular pastime of "heresy hunting" is one of the more recent revelations of the impulse. Hunting down union agitators by a force of detectives and spies has appealed to a considerable number of business leaders. The hunting instinct, merged with the instinct of pugnacity and rivalry, led men into the

1 "Science of Human Behavior," p. 250.
2 "Original Nature of Man," p. 53.

struggles of cut-throat competition with such primordial intensity that it became necessary to place drastic limitation upon the code of hunting and fighting practices in the form of a long catalogue of forms of "unfair competition." Raiding the Reds, ferreting out the socialists, hounding the pacifists, and stalking the "scabs," are all modern twists given to the original hunting impulse. Just as the fruits of the parental instinct were seen to be for the most part social comfort, kindness, and progress, so, in contrast, the fruits of the hunting instinct in modern economic life are in the nature of social torments, harryings and persecutions.

The Homing Instinct

The problem of high rents, of housing workers, of building new homes arises not merely from the necessity of protection from climate and the elements but from a true instinct of shelter and habitation. This has been admirably described by James as follows, "There can be no doubt that the instinct to seek a sheltered nook, open only on one side, into which he may retire and be safe, is in man quite as specific as the instinct of birds to build a nest. . . . The first habitations were caves and leafy grottoes, bettered by the hands: and we see children to-day, when playing in wild places, take the greatest delight in discovering and appropriating such retreats and 'playing house' there."[1] The economic system to-day finds it difficult to serve this instinct adequately,—for example, it is estimated that there is an urgent need for fully a million new homes. How to catch up in the national building program is an urgent economic problem, and it is being pressed for solution by the deep human impulse to have a suitable cover and retreat for social and physical comfort.

The Instinct of Migration

Under conditions favorable to the exercise of the impulse, many men take delight in continually moving from place to place. Habits, customs, traditions, bonds of a thousand sorts to the local community are of no avail against the

[1] "Psychology," Vol. I, p. 400.

"roving" disposition. Many of the serious problems of labor turnover consist in finding strong means of satisfying impulses related to adventuresomeness. The laborer who is here two weeks, a hundred miles farther on the next two weeks, and so on, usually is acting under an effective stimulus to his instinctive wanderlust. A close connection exists between this love of being on the go and a delight in the physical and mental activity called forth by ever new and curiosity-provoking experiences. Exploration satisfies curiosity. The appetite for newness inspires restlessness. Many an employer chafes at the experience of remaining in one line of business long at a time; he seeks new business fields to explore. Millions of employees each year change their jobs under the spell of what may lie beyond,—a process which, as will be pointed out more fully in a later chapter, entails a heavy waste and disruption in the economic organization.

The Instinct of Play

Play, in the form of games, amusement, entertainments, exercise, motoring, etc., is the business man's method of recreating his nervous force from day to day, and maintaining a state of bodily and mental vigor. Personal efficiency, clearness of mind, and the power to see hard business ventures through without suffering a nervous breakdown,—all depend upon whether the individual has discovered the art of relaxing his jaded nerves, and of draining the fatigue products out of his system by the proper amount of play and recreation.

The most effective forms of play are undoubtedly those which involve considerable bodily activity and a real degree of skill. Baseball, golf, tennis, football, etc., have the maximum recreational value. But with the advancing complications of the economic system, great difficulties to direct participation by everybody in such sports have arisen. The modern man has to enjoy his sport largely from the grandstand and the bleachers as an excited onlooker, and probably he enjoys himself more from the thrills of the crowd spirit, from the high pitches of the mob emotion,

than from the mere sportsmanship of the play itself. The recreational value of this sort of play has obvious limitations.

The need of the worker for recreation is no less imperative. However, he finds participation directly in the skilled sports practically impossible. He becomes an onlooker, and takes his play by proxy. Often he seeks relief from the tedium of his life through thoroughly unwholesome expedients. "Drinking and the new sedative pleasures of smoking and saloon card-games are the vices of a faulty economic system. . . . They are irrational and extravagant, for they sate appetite and deaden acute pain, without renewing force or directing vigor toward the days work."[1] Men crowd to amusement parks, beaches, lakes, etc., for the sake of the shute-the-shute, or the ocean wave, or the scenic railway.

Patten explains, "We experience a bodily refreshment, a brightening of blood and tissue, as we watch the suppleness of a dancer, the posturing of acrobats, and the beautiful delicacies of wire walkers. We are attracted by danger, and the unguarded trapeze yields us a pleasant qualm. We enjoy the mock perils of the scenic railway and the real risks of the popular 'loops' and 'chutes,' and say that they have given us new sensations that are, in fact, as old as society itself. . . . Amusement is stronger than vice and can stifle the lust of it. It is a base of economic efficiency upon which depends the progress of multitudes."[2] Pioneer corporations, being farsighted enough to perceive these economic bearings of play, are utilizing regular vacations for their employees, are conceding more time for leisure after working hours, are installing company moving pictures, glee clubs, orchestras, baseball teams, etc. Play can serve to eliminate much friction and many ugly moods, to improve the tone of the factory morale, and to put the life of both employer and employee on a higher plane of economic efficiency.[3]

[1] S. N. Patten, "The New Basis of Civilization," p. 123.
[2] *Ibid.*, pp. 135-143.
[3] See G. T. W. Patrick, "Psychology of Relaxation," especially Chap. II.

Disposition to Mental Activity

"May we not complete the list by adding the instincts of thought, reason, intelligence?"[1] writes C. S. Myers and again states: "There is not one nervous apparatus for instinct and another for intelligence. We ought to speak not of instinct and intelligence, but of instinct-intelligence, treating the two as one indivisible mental function."[2] The economic man is not a purely rational creature, with the power of detached and aloof thought utterly free from any instinctive drive; on the contrary, when he thinks most, then are most operative in him the energies of an innate disposition to curiosity and creativeness of the mind. So Wallas has argued that "Thought is a true natural disposition. Under appropriate conditions, that is to say, we are naturally disposed to enter into a state of reverie, during which our ideas are so combined and arranged as to produce new mental results."[3] And Thorndike emphasizes, "Intellect is of the same flesh and blood with all the instincts, a brother whose superiority lies in his power to appreciate, harmonize, use and save them all."[4] The remark of James Harvey Robinson is significant, "A creature which lacked curiosity and had no tendency to fumble could never have developed civilization and human intelligence."[5]

The economic student must come to look upon his fellowmen engaged in all the different activities of making and spending money not as pure rationalists calculating ways and means for overcoming instincts and emotions, but as men who are expressing all their instincts in greatly varying degrees and with all sorts of intensities. To think is not to combat or mortify instinct, but is to give vent to the highest and most useful forms of instinctive energy which human nature is heir to.

Moreover all of the other instincts tend to set in motion the intellectual energies. The engineers who un-

[1] *British Journal of Psychology*, III, 215.
[2] *Ibid.*, III, 267.
[3] "The Great Society," p. 176.
[4] "Original Nature of Man," p. 310.
[5] *Harper's*, Sept., 1920, p. 489.

der the urge of the instinct of constructiveness set about the erection of a railroad bridge across Great Salt Lake found a delight in the scientific investigations and experiments and the mental concentration on ways and means of securing stable foundations in spite of the lake muds. The instinct of pugnacity gives rise to intense thought on the strategy for winning a strike. The self-assertive captain of industry is given to constant deliberations on how to realize his power. And so each of the instincts serves to set off the energies of the mental organism, and to provoke severe, prolonged, profound thought.

As a consequence of this intimate relation between thought and all the other dispositions, it occurs that thought is continually influenced, shaped, and often dominated by each and all of the tendencies of human nature. The public-spirited bank president thinks in terms of social responsibility, whereas the profiteering president thinks exclusively in terms of private gain. The worker subject to the spell of economic fears thinks in terms of a class philosophy which promises to alleviate his fears. In general, those opinions of which we are surest are the ones which are most dominated by the instincts. To quote Trotter, "As a matter of fact, it is just those fundamental propositions which owe their origin to instinct which appear to the subject the most obvious, the most axiomatic, and the least liable to doubt by any one but an eccentric or a mad man. When, therefore, we find ourselves entertaining an opinion about the basis of which there is a quality of feeling which tells us that to inquire into it would be absurd, obviously unnecessary, unprofitable, undesirable, bad form, or wicked, we may know that opinion is a non-rational one, and probably, therefore, founded upon inadequate evidence." [1] In other words, just when we feel most certain of our opinion, we are apt to be most the victim of our instinctive nature.

Among opinions carrying this feeling of certitude are those common convictions about the divine right to strike,

[1] Trotter, "Instincts of the Herd in Peace and War," pp. 44, 96.

or the rights of private property, or the so-called "American" or open shop, or the doctrines of economic radicalism, or conceptions of freedom of contract, or of the sanctity of the courts, and so on. About these matters most people have settled and emphatic opinions, and any question about them is a question about something, to quote James, "needing no proof but its own evidence." And James further explains, "And we may conclude that to the animal which obeys it, every impulse and every step of every instinct shines with its own sufficient light, and seems at the moment the only eternally right and proper thing to do."[1] Consequently, our convictions about economic fundamentals ought not to be treated as if they were uniformly the outcome of uninfluenced rationalism, but should be recognized for the instinctive products which in so large a degree they really are. The play of economic forces makes for a constant flux and evolution in the economic organization, all of which creates in many and diverse ways a new status for property, a new status for labor, and a new status for consumers generally. Each alteration of status requires changed opinions and new forms of thought. Because so many of the old convictions are primarily instinctive, it is extremely difficult for men deliberately and rationally to adapt their minds swiftly enough to the new facts of the economic environment. Instinctive opinion, engendered as it is in large degree by the suggestibility of the herd and fixed as it is by mental habit, finds great difficulty in making adjustments to new inventions, new industrial relations, new economic facts.

But this is only one-half of the story, for just as truly does thought in turn influence and control the impulses struggling for release. Every time that sex, pugnacity, fear, kindliness and the other tendencies find expression, the experience takes on a more or less intelligent significance, and by the gradual exercise and growth of all the dispositions, experience builds up an accumulation of ideas, solutions, convictions and thoughts which stand ready thereafter to guide the instincts. So Parmelee finds,

[1] James, "Psychology," Vol. II, 387.

"Intelligent behavior is therefore made up of tropic, reflex, and instinctive actions which have been confined in new ways as a result of experience so as to constitute new forms of behavior."[1] More explicitly, Dewey shows that "Intellect . . . is the sum total of impulses, habits, emotions, records and discoveries which forecast what is desirable and undesirable in future possibilities, and which contrive ingeniously in behalf of imagined good. Faith in the power of intelligence to imagine a future which is the projection of the desirable in the present, and to invent the instrumentalities of its realization, is our salvation."[2]

In no part of the life of society do the non-rational passions of men threaten the harmony and efficiency that is desirable more than in the economic sphere. Rivalries, class consciousness, cut-throat competition, depression and prosperity, these and a hundred other common features of the economic order reveal instinct which has not come properly under the control of this power "to contrive ingeniously in behalf of imagined good." In fact, a non-intelligent control of sex leads to vice, of possessiveness leads to profiteering, of kindliness leads to bankruptcy, of pugnacity leads to war, of self-assertiveness leads to autocracy, of submissiveness leads to pacifism, of hunting leads to cruelty. "Thought," says Dewey, "affords the sole method of escape from purely impulsive or purely routine action. A being without capacity for thought is moved only by instincts and appetites, as these are called forth by outward conditions and by the inner state of the organism."[3] And he adds, referring to instinctive tendencies, "Most of them are of little use till they are intelligently combined and directed."

The controversy between those who maintain that man is almost wholly rational and those who maintain him to be an irrational animal seldom leads to useful conclusions. In the economic world, high instinctive energy gives initiative, ambition, aggressiveness, determination, success,

[1] Parmelee, "Science of Human Behavior," p. 258.
[2] Dewey, "Creative Intelligence," p. 69.
[3] Dewey, "How We Think," p. 15.

and these harnessed by keen intellectual guidance, make for economic progress. It would of course be an untrue claim that the unsuccessful groups in industry and commerce are always the irrational ones, and that the successful groups are always most plentifully endowed with powers of reason. Success usually indicates high intelligence along some specific line, such as engineering or finance. The same brainy engineer may be a most irrational being in his dealings with labor, in his notions of property rights, and in his whole economic philosophy. And the financial genius may hold convictions about democracy which are blindly impulsive and would not stand cool rational analysis for a minute. Business has come to be so completely a matter of applied science and technical organization that none but the quick and efficient of mind can hope to play a leading part in it. Successful groups indicate a superior intelligence in handling technical problems, but may just as commonly indicate blind instinctive fumbling in all the more social problems arising from economic activity.

Executives everywhere complain of the scarcity of leaders who can handle large groups of men effectively. When the successful man has to handle impulses, instincts, moods, prejudices and emotions in the mass, he is playing with fire. It is difficult for him to be patient, to size up human nature, to enthuse and inspire, to create morale, to secure loyalty, to settle differences. These problems tend to inflame instinctive opinions in his own mind, and are the most aggravating materials to handle in a calm, intelligent fashion. Leaders of labor unions as well as managers of workers on the executive staff of the corporation face here a most provoking problem. It is the center of most of the irrationalities of the industrial world.

As a matter of careful observation, therefore, it would appear to be a fair conclusion that economic success, and intelligence along technical lines, go hand in hand. But this observation would be a futile one if side by side with it were not placed the equally important observation that such successful men may be dominated in many of their

fields of interest by the clearest kind of instinctive irrationality. Management has its incompetency and irrationality no less than labor, and it is a question later to be considered whether a large part of the incompetencies of labor are not due to the fact that management has allowed itself to defend policies from blindly instinctive motives rather than from impartial analysis of the economic situation.

There is one field of intelligence which has been developing mightily of late years and which holds out the promise of a more intelligent treatment of economic questions on everybody's part,—that is, applied and abstract science. Scientific management, efficiency, physical and chemical research, industrial laboratories, psychological experimentation,—all these are being brought to bear scientifically upon the harassing problems of the times. Of profound significance was the recent statement by the President of the American Institute of Electrical Engineers, "What is true of the electrical art is also true of all the other arts and applied sciences. They are all based upon fundamental discoveries made by workers in pure science who were seeking only to discover the laws of nature and extend the realm of human Knowledge."[1]

And of greater hope for the future in the control of scientific thought over groping instinct is the situation described by the President of the American Psychological Association in 1919 as follows:

"It has been estimated that during the nineteenth century the power of the human race to produce food, clothing and shelter was doubled by the application of increased knowledge to the material elements of the universe. All the significant advances in knowledge of the material world were brought about by possibly a few thousand progressive minds devoted to that study. . . . It is quite probable that the productive power of the human race is being doubled again during the present century. . . . Such an increase in the efficiency of the race will probably be due to the advance in our knowledge of personnel rather

[1] Yerkes' "New World of Science," p. xiii.

than to further increase in our knowledge of the material universe." In short, the economic order is able to go through another drastic transformation because it happily possesses a number of minds animated by intense instinctive energy, working out along scientific lines. The instinct of thought is pushing the whole thing along.

CHAPTER III

THE ORGANIZATION OF HUMAN NATURE

The great fact of human nature is not separated, unconnected tendencies but the whole man,—all of the original tendencies organized into a grand total, a unity. The instincts are not single, separated, isolated strands; they are integrated into a solid, organic whole.

It has been necessary for purposes of description and analysis to take up different dispositions one by one. There is danger that this unavoidable method of presentation will give the impression that the dispositions can be oversimplified. Nothing could be further from the intent of the account; nothing could be further from the truth. As Thorndike has most emphatically urged, "The original tendencies of man, however, rarely act one at a time in isolation from one another. . . . On the contrary they cooperate in multitudinous combinations. . . . Original nature is not a set of perfectly independent mechanisms any more than it is a hodge-podge for chance. It is a factory or hierarchy of mechanisms, with very many components, of which many cooperate in response to any one situation."[1]

For example, a banker decides to organize a syndicate to finance a $100,000,000 corporation. His motives are a complex organization of, say, a desire for gain, a desire for power, a creative imagination, a spirit of rivalry, a sense of public responsibility. The whole genius of the captain of finance is evoked and all the motive powers of all his dispositions become welded together in establishing the new corporation on a solid financial foundation. This unifying process of mind is aptly described by McDougall when he writes, "The various instincts become organized in systems, and, with the development of self-

[1] Thorndike, "Original Nature of Man," pp. 10, 196.

consciousness, all these become organized and duly subordinated within the one all-comprehensive system which is the character of the individual man."

The "economic man" is this blended, integrated, organized array of original human tendencies. He is not an oversimplified helter-skelter of nicely separated tendencies but the whole man so well described by Angell in the following words, "Instincts . . . . are the basic activities of mind . . . . In a general way it may be said that all the common and persistent human interests, all the fundamental forms of human desire, all the more profound types of human emotions are based upon the life of instinct. . . . However divergent, then, the sources from which our native impulses flow, modern psychology teaches without reservation that our volitional life, our conduct and our character are built up around these factors as a center."[1]

And yet, even though the economic man be so complex and multitudinous a composite of tendencies, we need not feel thwarted and confounded in attempting to understand his economic behavior. The truth of the matter is that the study of this instinctive nature of man gives the very key to economic behavior which best fits the problem. For in and through the unified group there run commonly certain master impulses which predominate, and these guide the economic conduct of the life. These ruling passions deserve to rivet the attention of the student of economic behavior, for they are the best clues to predicting and controlling human nature in the economic field. As observed by Woodworth, "Some tendencies and interests are stronger than others in the individual, and a well-integrated personality is organized about its master motives, these acting as selective agencies with respect to other tendencies."[2]

Instead of the fictitious banker assumed above, a real case may well be taken for purposes of illustration, Mr. Harriman, the railroad banker and builder. In him the master impulses were love of power and of constructive

[1] Angell, "Chapters from Modern Psychology," p. 28.
[2] Woodworth, "Dynamic Psychology," p. 126.

achievement. When some of his associates implored him to be more diplomatic and gentle, and less forceful and combative in carrying out his ruling impulses, his answer was:

"You may be right that these things could be so accomplished, but not by me. I can work only in my own way. I cannot make myself different, nor act in a way foreign to me. They will have to take me as I am, or drop me. This is not arrogance on my part. I simply cannot achieve anything if I try to compromise with my nature and to follow the notions of others."[1]

By what method then are these driving forces of human nature organized into an integrated whole? By what process does the fusion and blending take place? How are the multitudinous combinations made into the sum and substance of the character and personality of the economic man?

The answer is to be found in observation of the forms which instinct expression takes. Each of the specific instincts tends to find expression along certain well recognized lines. Each instinct does not fly off into wild, haphazard, totally unpredictable expressions. It tends on the contrary to work out along fairly uniform, general lines. Each specific instinct has general tendencies which determine how it shall work into the whole fabric of character. These general directions and tendencies of the specific instincts may be called: habit, imitation, sympathy, and suggestion.

Habit

From the moment the infant first grasps for playthings, through the stage when the boy hoards marbles, down to the days of the acquisitive real estate dealer who gets possession of a thousand city lots, the instinct of possession is settling into habitual modes of expression. All of the instincts tend to find habitual forms of outlet. The thousand and one little details of everyday life and the mighty concepts of industrial strategy all serve to organize the

[1] Kahn, "Our Economic and other Problems," pp. 1-22.

instincts along certain fairly definite channels. In Thorndike's words, "In the last resort all habits are formed in the service of instincts, and the great majority of human instincts function by being modified through training."[1]

Those experiences which show a smooth working out of the instinctive energies, which bring a sense of satisfaction to the individual, which indicate that a particular form of expression of the instincts actually serves and fits life,—those experiences are the ones which tend to be conserved in the character of the individual. Under a similar emergency next time, the same instinct will tend to work out along the same channels. "It is undoubtedly the tendency of all living organisms to perform an action more easily on repetition. After this ease has been gained, the act is spoken of as a habit."[2]

Moreover, once the channel has become fairly well fixed and ingrained, the conscious mind will not thereafter have to direct the right expression. Automatically, habitually, unthinkingly, the human nature will take care of itself. The instincts will function quietly and serviceably of their own accord, and the thinking mind will be freed from the necessity of deciding each trivial movement and response in the daily round of duties. The thinking mind will be freed to concentrate upon those higher, more enormous, more far-reaching problems which require constant originality for their solution. Thus human nature comes to be in a large degree a bundle of habits formed in the service of a bundle of instincts.

Habit, therefore, tends to bring about a degree of uniformity and sameness in human nature. It tends to bring about settled and stable modes of business. In McDougall's words, "In short, the formation of habits by the individuals of each generation is an essential condition of the perpetuation of custom, and custom is the principal condition of all social organization."[3] So habit facilitates the established process of economics, and serves to link

[1] Thorndike, "Original Nature of Man," p. 198.
[2] Parmelee, "Science of Human Behavior," p. 254.
[3] McDougall, "Social Psychology," p. 355.

the instincts in stabilized and settled ways to the methods of the economic order. The instincts of curiosity and thought fall under the régime of habit and we become accustomed to think along fixed and stable lines. The more securely thought becomes thus habitualized, the more difficult become change, progress, and improvement in economic processes. In the field of thought, therefore, habit makes for a defense of things as they are. In organizing man's instinctive nature, habit becomes the ally of the *status quo* and the foe of whatever is new and different. So James remarks, "Habit is thus the enormous flywheel of society, its most precious conservative agent." New economic processes, new economic ideas, new economic institutions involve not only the breaking of old habits, but the laborious and difficult task of forming new ones in their place.

Imitation, Sympathy, Suggestion

Imitation, sympathy and suggestion are three different, yet related, phases of instinctive response. Imitation refers particularly to the tendency to copy actions of a social group; sympathy, to the tendency to experience the emotions of the group; suggestion, to the tendency to accept without criticism the ideas and opinions of the group. Each of the instincts, in seeking expression, tends to follow along the lines of behavioristic, emotional and intellectual unity of the group. With due allowance for individuality, originality and independence of character, these tendencies to act as others act, feel as others feel and believe as others believe serve to organize the several instinctive energies into a social whole which is fairly normal, typical and standard.

Owing to their natural imitativeness, men can accept and assimilate the economic practices and customs of their day and age, and behave toward the economic environment with a high degree of sameness. As Parmelee points out, "Imitation causes uniformity of behavior and concerted action, and is therefore an important force for association. It is an effective mode of transmitting habits and other

ways of doing things from one generation to another."[1] Hence imitation, like habit, serves to mould the instincts into a support of the established economic order of things. It thereby insures that the *status quo* in economic life shall die hard and innovation come slow. But it is equally true that imitation may be made the ally of economic progress. McDougall well says, "It is only by imitation that any improvement conceived by any mind endowed with that rarest of all things, a spark of originality, can become embodied in the tradition of his society."[2] The rank and file of business men adopt new inventions by gradual imitation of a certain few adventuresome pioneers who first try the inventions out and prove them to be a success. The masses learn the virtue of thrift when they observe certain leaders who command great prestige setting the good example. New practices become established by getting a few prominent authorities and leaders to champion them; the rank and file imitate. In brief, although imitation commonly plays a conservative rôle in the economic order, it nevertheless is potentially a fundamental force for economic progress.

The tendency of sympathy to organize the emotional phase of response is clearly stated by Woodworth, "What is certainly true . . . is that we have a liking to have others feel as we do and to feel as others do."[3] Economic life teems with vivid emotions of fear, anger, elation, depression, tenderness, admiration, anxiety, jealousy,—the emotions of our companions and contemporaries, our own emotions, at times ours because theirs, at times theirs because ours. The craving on the part of the corporation president for loyalty among his working staff is a craving for emotional solidarity. The yearning on the part of aggrieved laborers to get the whole labor force aroused over their fear or hatred is a yearning to share their emotions with their crowd. The feeling among all sorts of economic groups that "We must stick together" is the result of this

[1] Parmelee, "Science of Human Behavior," p. 407.
[2] McDougall, "Social Psychology," p. 335.
[3] Woodworth, "Dynamic Psychology," p. 189.

"internal process which," according to McDougall, "leads to the stimulation in one person of an emotion already experienced by another." Broadly speaking, this sympathetic tendency does not make either for organized conservative or progressive results, so much as for unity of feeling, solidarity of spirit, group morale in whatever economic circle or faction or clique happens to be involved.

Suggestion is a tendency to accept opinions which are generally held by one's fellowmen. Trotter speaks of suggestion as "the desire for identification with the herd in matters of opinion. In the individual mind there will be an unanalysable dislike of the novel in action or thought. It will be 'wrong,' 'wicked,' 'foolish,' 'undesirable,' or as we say 'bad form.' . . . " Accordingly trains of thought set up by almost any stimulus lead into fields of opinion which the best authorities accept, which a financial expert or a labor leader approve of, which a great scientist expounds, and a ready suggestibility in the minds of the masses of people brings a quick and natural wide-spread adoption of the orthodox opinion. A substantial proportion of the convictions firmly held by the average man are thus built up without the process of reasoning or logic. It is enough that the opinions are popular, or held by a leader who has his confidence. The fundamental ideas about freedom of contract, economic rights, advantages of socialism or capitalism are built up among the general run of common folk by this tendency to accept the suggestion of the herd to which they belong. Just as the sympathetic tendency serves to organize a unity of feeling in economic groups, so the suggestive tendency serves to organize human nature around a unity of thought and conviction.

With habit playing a conservative rôle, and imitation potentially either conservative or progressive, and sympathy and suggestibility making for unity in feeling and thought, it will be obvious that these four factors exercise a major influence in organizing all of the dispositions into human nature and human behavior. Emphasis then is rightly placed upon the compounding and combining of

the several dispositions, rather than upon their isolation and exclusiveness.

In this upbuilding of character, the organization of instincts, emotions, impulses and ideas into the finished product of human nature is the work of experience. The particular form of combination in each individual is conditioned by his original nature plus nurture. The original tendencies are given by heredity, and all subsequent modification is acquired in the life of the individual. This process of modification tends to attach the several primary forces of human nature to certain objects, institutions, personal titles, and causes in the outside world. In consequence, whenever the outside factor is present as a stimulus, or when the memory or idea of it is brought to mind, it tends to call into force the corresponding group of instincts, emotions, habits, etc., which have been built up by experience around it.

So a worker becomes attached to a particular machine which he has operated for thirty years, and this machine stands for a vast background of industrial episodes and experiences. Another worker has skill in a particular branch of building, and this skill as practised for a lifetime is the central organizing feature of his economic experiences. Another worker has spent his best days striving to install a union in his plant, and this labor cause becomes the systematizing force in his mental equipment. A financier finds that his profession of banking has correlated and unified a vast collection of experiences about itself as a center.

But it is not to be intimated in the least that all such organization takes place about a single object or cause. Each individual has a number of environmental factors which are pivotal for his character formation. The financier will find certain moods and wishes flocking to his mind at the mention of the word, socialist; another group at the mention of the words, labor union; another group at the mention of the name of a great rival financier. In each individual character, these outside factors will connote great chunks of experience. Stimulated by them, the man

will feel a certain series of emotions or compound emotions made up from a scattered mass; he will feel certain tendencies to action; he will be wishing that he could cope with each pivotal object in certain instinctive ways; he will find certain ideas, opinions, beliefs, hovering around the particular suggestion which the object offers. Some of these pivotal groupings will be of greater, some of lesser importance. But all serve to occupy their due relative importance in organizing the hates and fears and hopes and loves and convictions of the man into a completed whole.

The personality of the man becomes branded by the outstanding interests which he thus acquires by experience. The man becomes a great "Roosevelt-man," or is marked by the influence of some financial magnate, corporation executive, reform leader, or labor chief. He becomes a peculiar type of captain of industry or industrial engineer. He becomes a liberal, a conservative, or a radical. He is stamped with certain characteristic qualities, modes of behavior, emotional responses. In short, there become certain strategic centers in his human nature about which all his mental possessions are organized. These centers correspond to certain features of his environment, economic or otherwise, and the key to the man's character lies there. Such strategic centers vary greatly. They may be an occupation, an institution, a profession, a machine, a personality, a great cause, a political party. When groups of men come to develop among themselves similar interests, with a common strategic center for their instincts, emotions and thoughts, they become a nation and the name of their country becomes the rallying point for their human nature; or they become a class and the name of their class is the hub of the psychological wheel, or they become the human part of an institution and the name of the institution serves to bring about the concentrations of their life experience. Thus the organization of human nature is a biological process in which the inner nature, and the outside object acting as stimulus, cooperate to create the finished product of the human personality.

This conception of economic psychology puts man at the center of economics. It is dynamic in its outlook and conceives economics as a human or social science. It views man not as an inert, indifferent mass, nor yet as a purely rational, calculating being, but as a dynamic organism, moved by inherited instinctive tendencies, energized from within, with innate dispositions to create new things by the work of his hands, to assert his powers among his fellowmen, to acquire some portion of the wealth of the community, to render some service to his community, to be curious and thoughtful about perplexing problems, to express at one time and another and in one way and another his original instinctive nature through his economic environment. In a word it is a blending together of the inseparable sciences of dynamic psychology and social economics.

Inequalities of Human Equipment

The original equipment of instinctive tendencies and capacities differs very greatly between individuals. The dynamic drive of instincts varies in intensity from individual to individual, and the strength of emotions and impulses shows endless variations. Some men are born with a gift of human equipment which qualifies them for lives of great achievement and successful leadership; whereas others are born with so limited a human equipment that they are qualified to perform only the least difficult of tasks. At no point do these inequalities of human power appear in more striking extremes than in the instinctive tendencies to use the mental powers. The glaring inequalities of intelligence are susceptible of a fairly accurate degree of measurement through intelligence tests. It is more difficult to subject instincts, emotions and impulses to quantitative measurement, but it may safely be assumed that the inequalities of the other human tendencies and powers are no less extreme or widespread than are those of the tendency and power to think.

The technique of mental measurement made its greatest advances during the war, in the army mental tests of the

drafted personnel. Over one million, seven hundred thousand men in the army were put through these tests, and their mental levels were recorded and classified. The draft troops were representative of all classes and strata of people and it may be assumed therefore that the findings for this group represent with approximate accuracy the findings that would be arrived at if it were possible to apply the test to every individual in the country. It should be borne in mind, too, that intelligence tests are not tests of memory, or of knowledge, or of feeling, but of the power of the mind to think.

The plain facts revealed by these comprehensive tests are briefly as follows: About 10 per cent. of the population of the country is of very inferior intelligence. The best of this group are unable to get beyond the third or fourth grade in school, no matter how long they attend, and the others are either on the border line of mental deficiency or are feeble-minded. Their mental level is comparable to that of a child of ten years or less. More striking than these facts are the numbers of those individuals in the country whose mental level is comparable to that of a child twelve years of age or less. Forty-five per cent. of the population are limited in intelligence to that level. Seventy per cent. of the population register an intelligence equivalent only to an age of fourteen years or less. At the top of the rating scale are a group of people of very superior intelligence amounting to four and one-half per cent. of the total population. And just below this grade of intelligence are a group whose mental level makes them average college material, amounting to nine per cent. of the population. The sharp contrast between the two extremes of very superior and very inferior intelligence, and the enormous proportion, nearly one-half, of the total population, showing only a very moderate intelligence, give a fairly definite basis for a conception of the great inequalities of intelligence.

The upper grades of intelligence furnish the leadership of society. From these grades come the great statesmen, educators, officers, lawyers, doctors and business executives.

To the extent that these groups of high native mentality are elevated to positions of power and responsibility, there is some assurance of efficiency in economic and social organizations. The grossest incompetencies occur, however, when individuals of low mental ability have power and responsibility thrust upon them. Democracy requires that the influence of these men in the highest levels of intelligence shall be paramount, for the influence of the lower levels is characterized primarily by non-rational tendencies. The lowest 10 per cent. in the army were deemed unfit to send over seas. They are scarcely able to behave with the minimum of self-guidance necessary to get along in industry under favorable circumstances; and under unfavorable circumstances, they become the glaring misfits and frequent tragedies of the industrial system. Just above this lowest ten per cent. is a group of fifteen per cent. of the population slightly but not much better off. This group includes many foreigners and many who are illiterate. They are weak in initiative and show very little resourcefulness. To get along in their jobs successfully they require close supervision by men who understand sympathetically their limitations. The grades just above this level suffer from similar limitations and handicaps in diminishing degrees. Industry abounds with individuals who cannot restrain themselves from outbursts of temper or from irrational obstinacies; with individuals who repeatedly make mistakes and who require an unusual amount of training before they can perform their work habitually and well; with individuals who are unable to think their way out of difficulties, but who blunder and fumble through, at great distress to themselves and their families and at great waste to society. The science of personnel administration is a serious attempt to understand and control the great inequalities of intelligence for the better comfort of the individuals and the greater efficiency of economic society.

These facts indicate how misleading it is to make sweeping references to "the people" or the "masses" as if they were all on a dead level and all alike. Difference, not uni-

formity, is the cardinal feature of the human equipment, and the inequalities of intelligence between various mental levels give the real character of the human nature which is of interest to economics. The inequalities of intelligence are matched by the inequalities of all the instinctive tendencies. The entire human equipment of each individual qualifies that individual to cope with a certain amount of responsibility and no more, and the prime task of economic democracy is to adapt the distribution of power and responsibility in economic life to the unequal distribution of human equipment.[1]

[1] See H. H. Goddard's "Human Efficiency and Levels of Intelligence," McDougall's "Is America Safe for Democracy?"; "Personnel System of the United States Army," 1919, Vol. I; L. W. Stern, "The Psychological Methods of Testing Intelligence."

CHAPTER IV

HUMAN ADAPTATION TO ECONOMIC ENVIRONMENT

We are encircled by an economic environment. It is made up in part of pig iron, india rubber, wheat, automatic machines, elevators and an endless host of material things. It is made up in part of a technical science of molding and refining metals, of arranging dynamos, machines, furnaces, railroads for productive purposes. It is made up in part of an institutional organization, involving relations between owners and non-owners of property, involving rights and duties of property or labor, involving customs, traditions, ideals, laws, principles. In the maelstrom of this environment we carry on our "wealth getting and wealth using activities." Here human nature meets economic environment, merges with it, absorbs it, destroys and recreates it, or succumbs to it. "Man's impulses and thoughts and acts result from the impact of his nature upon the environment into which he is born."

In this impact with economic surroundings, human nature undergoes a constant process of internal conflict. Contradictory impulses steadily appear. The man desires to play but decides to finish a report instead; his desire for possession must compromise with calls for philanthropy; his family instincts must not lead to undue promotion of inefficient relatives; his anger toward labor leaders must be controlled by his calmer judgment, and this control is in turn affected by influences arising from his creative ambitions or profit motives, or his love of power. Some tendencies have to be eliminated altogether, some selected for expression, some modified or redirected. The fact of conflict between the great instinctive tendencies however is constant, and the consequences of this conflict and the

processes of its control introduce the next step in analyzing economic behavior.

The outcome of the conflict is adaptation of man's original nature to his economic environment. This adaptation is in the nature of a compromise between expression and repression of instinctive tendencies. In the economic environment men's ambitions find the widest opportunities for expression. There are the great financial achievements of constructive genius, the huge fortunes of successful wealth seekers, the concentrations of economic power in the hands of leaders of labor or capital, the bitter wars and friendly rivalries of industry. The native dispositions find remarkable opportunity for expression in every phase of wealth relations. But at the same time, repression is universal. The economic environment is stubborn in demanding that a worker shall repress all instincts which might lead him to run a machine in other than the one right way; or that a labor union shall obey an injunction restraining its ambitions, or that managers of corporations shall curb their self-assertive longings in obedience to the rules against unfair competition. Thus the economic world insistently rebuffs a host of cravings and propensities, and obdurately requires their repression throughout society. The balance struck between expression and repression constitutes adaptation of human nature to economic circumstances.

Growing out of these two phases of adaptation are two great schools of economic viewpoint and thought. Those men, whether corporation executives, labor organizers, reformers or detached economic scientists, whose attention is glued chiefly to the splendid opportunities for economic expression of human desires are wont to insist that if human desires do not harmonize with the environment, the human desires ought to undergo a change. To men of this outlook, human nature is wrong; the system is right. Keep the system; change human nature to fit the system. Men are believed to need a new spirit of good-will, or to require a change of heart. The old system will work all right if only people will approach it in the right mood. All the normal and right expressions of instinct can be given in the order

as it is. If the times seem out of joint, the fault is in ourselves. Education to a new viewpoint is thought necessary; training in self-control is thought the sufficient recourse; anything to alter human nature.

Simultaneously, another group of men in all ranks and classes of the business world rivet their observation upon the overbearing proportion of repressions in economic life. To them, the economic environment needs drastic alteration to the end that it may relieve human nature of its worst repressions and furnish a more generous outlet for the instinctive tendencies. The system is wrong; it outrages human nature. The laws affecting economic enterprise are unwise; they cramp the free assertion of men's spirits. The institution needs overhauling, customs need reforming, organization and process need transformation the better to give opportunities for human nature to express itself. If only an amendment to the constitution can be passed, or a new system of labor administration be introduced, or a new type of management installed, in short, if only the system can be altered, human nature will be freed from stifling repressions, and all will be well.

The different viewpoints have each their share of serviceability. Their difference arises from over emphasizing one phase of the process of adaptation. Each over simplifies the problem. A sense of balance and proportion observes that some improvements are of one type, some of another, and most involve both. Human nature needs refinement, control, redirection; system needs constant readjustment. Adaptation involves an equilibrium between expression and repression of the instinctive tendencies.

This process of adaptation takes place in a wide variety of ways. As a means of describing them in a serviceable and comprehensive form, the following classification will be followed: discipline, elimination, sublimation, rationalization, revolt.

Discipline

Discipline is a common means of adapting human nature to the economic task of making and spending money. The

fundamental necessity for discipline is so ably stated by Thorndike that he may be quoted at length: "The life to which original nature adapts man is probably far more like the life of the wolf or the ape, than like the life that now is, as a result of human art, habit and reasoning, perpetuating themselves in language, tools, buildings, books, and customs. . . . The original tendencies of man have not been right, are not right, and probably never will be right. By them alone few of the best wants in human life would have been felt, and fewer still satisfied. . . . Man is now as civilized, rational and humane as he is because man in the past has changed things into shapes more satisfying, and changed parts of his own nature into traits more satisfying to man as a whole. Man is thus eternally altering himself to suit himself. His nature is not right in his own eyes. Only one thing in it, indeed, is unreservedly good, the power to make it better." This mastery of original interests requires to "put the useful ones to work and guard against the dangerous ones. . . . The native impulses and cravings of man have to be tamed and enlightened by the customs, arts and sciences of civilized life, but every item of these arts and sciences was first created by forces within man's own nature. Instincts may be trusted to form desirable habits only under a strong social pressure whereby the wants of one are accommodated to the wants of all."[1]

The economic system as it now stands has to its credit a high degree of success in this disciplinary control of human impulses. The credit system, the market system, the production system, the management system, the ownership system all operate to bring human nature under control and to harness the great urges of men to economic accomplishments. What often seems harsh and exacting in these economic processes is often a necessary and inescapable yielding of certain untamed impulses. As T. N. Carver insists, "Human nature is, within limits, adaptable and can without harm adjust itself to many non-psychological conditions whenever there is a mechanical or economic advantage in doing so. . . . Shall we school and discipline ourselves into conform-

[1] Thorndike, "Original Nature of Man," pp. 280, 281, 296, 311.

ity with the conditions of successful living, or shall we follow our own proclivities and insist that it is an unjust world that does not bestow success upon us? . . . The progressive parts of the world, that is, those parts where industry has been efficient enough, and governments liberal enough to permit considerable numbers of people to make a living, have all followed the stony road of self-discipline. . . . Those individuals who cannot readily discipline themselves or conform their behavior to the mechanical or economic necessities of a situation, or who suffer serious harm from such conformity, tend to be weeded out, while those to whom the self-discipline which proves to be mechanically or economically advantageous is easy and harmless, will tend to survive."[1]

This power of adaptation of human nature to the inexorable and inviolable requirements of the economic order is fundamental in economic psychology. Human nature cannot be given free reign, and allowed to carouse and rebel and romp whithersoever "the wind listeth." For "the capitalistic system has evolved and survived," to quote John R. Commons, "out of experiments and in spite of continuous protests and opposition. And, I take it, one reason is that it is a system of repression of natural instincts, a system of discipline, regimentation, submission to foremen, superintendents, executives, over whom the employees have little or no control. . . It is the business of management to sustain the credit system by restraining the instincts of labor."[2]

Elimination

Elimination of dangerous impulses is an auxiliary to discipline. Much of the impulsive nature behind hates, jealousies, cruelties, persecutions, vices, fightings, stealings, slaveries and inertias has to be stamped out with a heavy hand. One form of elimination is mere atrophy through disuse. The mild, docile, obedient, orderly loyal worker is apt to be one in whom combativeness and pugnacity have

[1] *Quarterly Journal of Economics*, Vol. 35, pp. 144-146.
[2] *American Economic Review*, Vol. 9, p. 312.

died a natural death over a period of one or two score years. Self-assertion may under similar lack of stimulus wither up and lose its force in the worker's motivation. Another form of elimination is to make the consequences of the instinctive expression so unpleasant and painful that it will thereby tend to be eliminated. The instinct of creativeness and originality in workmanship may lead to such great distraction of attention from the exact operation of the machine that the operator becomes a nuisance and loses his job, and thereby learns to abolish his craftsmanlike longings. The instinct of pugnacity and rivalry between business men may lead to such damaging results as to lead to combination of business units and the consequent substitution of co-operation for cut-throat rivalry.

The economic population is replete with characters who have forgotten how to play, or who have lost the parental tendencies, or who have mortified the love of riches, or who are incapable of resentment and wrath, or who have given up the exercise of thought, or who know not the meaning of human tenderness. In the process of eliminating the dangerous and harmful, it is inevitable that much which is valuable in character should also be cast out. But a civilized and safe economic institution of necessity strikes out some of the more brutish and incompatible primitive tendencies. Human nature allows thereby a wise and useful adaptation to economic obligation, and by permitting the atrophy or stifling of non-civilizable urges enables men to subordinate their worst nature and capitalize their best nature in economic endeavor.

Sublimation

Sublimation is a method of devoting instincts which are, so to speak, "loaded with dynamite" to useful ends. Instead of annihilating the more dangerous energies of human nature, we may turn them into great and good expressions. Freudian psychology has stressed heavily the energy of the sex instinct in character formation and has emphasized the possibilities of sublimating the sex energies in high and useful non-sexual forms. Without debating at all the extremes

of many of the Freudian doctrines, we may safely accept the fundamental proposition that "Sexual desire relinquishes either its goal of partial gratification of desire, or the goal of desire toward reproduction, and adopts another aim, genetically related to the abandoned one, save that it is no longer sexual but must be termed social." And again Freud states of the sexual impulses, "They are diverted from their sexual goals and directed to ends socially higher and no longer sexual."[1]

Parker has shown that among the few millions of casual and migratory laborers, fully 90% are unmarried and have no normal sex life; that this sex repression contributes to unrest, discontent, and labor difficulties generally; and that the thwarted energies may find a moral equivalent in forms of self-expression if opportunity is provided during work and leisure hours.[2] Ross finds that "industrialism holds apart the sexes" and that consequently the "sex instincts are needlessly thwarted or perverted."[3] And Lippmann's illuminating study of the Chicago Vice Commission Report leads to his plea to "see sex as an instinct which can be transmuted, and turned into one of the values of life." What is needed is civilized means of "transmuting the sex impulse into art, into social endeavor, into religion." The full economic bearing is further suggested by Lippmann's broad proposition that, "No one can doubt that to abolish prostitution means to abolish the slum and the dirty alley, to stop overwork, underpay, the sweating and the torturing monotony of business, to breathe a new life into education, ventilate society with frankness, and fill life with play and art, with games, with passions which hold and suffuse the imagination." Psychology reveals that the task of sound business statesmanship is to work out moral equivalents for the sex energies of the workers. Without such equivalent expressions, the powerful sex energies are almost sure to play havoc from time to time with economic harmony and efficiency.[4]

[1] Freud, S., "Introduction to Psychoanalysis," pp. 8, 300.
[2] C. H. Parker, "The Casual Laborer," Chapters II-III.
[3] Ross, E. A., "Principles of Sociology," p. 50.
[4] See W. Lippmann, "Preface to Politics."

William James has made an historic contribution to the understanding of the pugnacious and emulative instincts in his essay on "The Moral Equivalent of War." The necessity is not merely for a moral equivalent of war between nations, but for a moral equivalent of the equally damaging war between classes within nations. Economic foresight comes to consist more and more of devising methods of finding productive expressions of the energies which underlie military and industrial war. History teaches the futility of attempts to abolish the instincts and energies which give rise to war, but psychology teaches the soundness of efforts to give men the thrill and glory and hardihood and zest of combativeness in the arena of economics. Rivalry with one's fellow workers, keen exertion to win promotion, a clear vision of increasing efficiency in work, a sense of pride and mastery—accomplishment—all these are capable of drawing upon the instinctive energies that are potential for war. They offer what Wallas calls the "nervous tonic" for belligerency. They are the background of the assertion by R. B. Wolf, based upon wide experience as an industrial engineer, that "The present labor unrest is the natural result of diverting the creative instinct of the workman from *con*structive to *de*structive channels. . . . Just so long as the majority of workmen are using their brains merely to direct their bodies and are doing work which requires little or no thought, just so long shall we have industrial unrest." . . .

Lippmann lays down the significant assumption that "every lust is capable of some civilized expression. . . . Behind evil there is power. . . . Training and opportunity decide in the main how men's lusts shall emerge. Left to themselves, or ignorantly tabooed, they break forth in some barbaric or morbid form. Only by supplying our passions with civilized interests can we escape their destructive force."[1]

This principle of substitute expression of instinct energies is accepted from the physiological and psychological standpoint by W. B. Cannon, who writes, in reference to

[1] "Preface to Politics," pp. 50-51.

the instinct to fight, "What is needed is not a suppression of these capacities to feel and act, but their diversion into other channels where they may have satisfactory expression." In addition to the moral equivalents, Cannon finds physical equivalents for warlike energies in the form of games and sports. His conclusion is, "In competitive sports the elemental factors are retained—man is pitted against man, and all the resources of the body are summoned in the eager struggle for victory. And because, under such circumstances, the same physiological alterations occur that occur in anticipation of mortal combat, the belligerent emotions and instincts, so far as their bodily manifestations are concerned, are thereby given complete satisfaction."[1]

Rationalization

There is another way by which the instinct tendencies can settle the conflict and deal with the repressive agencies; they may carry out the tendency in such disguised and camouflaged form that the repressing agency does not detect the real incompatibility. In brief, we go ahead and do what we feel we want to do, and then justify the deed with excuses that seem perfectly plausible to everybody and even to ourselves. So our thinking becomes an effort to find plausible reasons for what we want to do and think and feel and be.

For example, owing to the herd instincts and the general tendencies of imitation, suggestion, etc., Trotter declares that the "belief of affirmations sanctioned by the herd is a normal mechanism of the human mind, and goes on however much such affirmations may be opposed by evidence" and furthermore, that "reasons cannot enforce belief against herd suggestion." So economic beliefs that can be paraded under the name of loyalty, or Americanism, secure the adherence of masses of people through first exciting instinctive herd emotions and later attaching thereto a plausible moral. Thus we have the chief labor leaders arguing against the chief business men on the open

[1] "Bodily Changes in Pain, Hunger, Fear and Rage," pp. 291, 297.

or the closed shop, the labor chiefs pleading for "American freedom for the working man," the business chief pleading for "the American or open shop." Both are instinctive emotional appeals first and rational justifications afterwards.

It is natural for men to consider an unpleasant idea ridiculous, and arguments are easily marshalled against an odious proposition. "Society thus brands what is unpleasant as untrue."[1] New ideas are apt to be unpleasant ideas, because they disrupt habitual modes of thought. "The result is," according to Robinson, "that most of our so-called reasoning consists in finding arguments for going on believing as we do." The editor of a business magazine or of a labor periodical may stretch and strain his logic mercilessly and go around Robin Hood's barn many times before he finds ample justification for the latest move of his group, but he is always able to assign a reason, even though to one not captivated by the same emotions, it may seem often a very absurd one. When we "get down on" a President of the country or the President of a bank, all of his deeds are apt to look black and false.

It is not important that such beliefs be logical—the important fact is that they square with the psychological demands from within. An interesting observation made by Martin in "The Behavior of Crowds" shows how the wish of the radical leads to a philosophy of revolution in which the economic order is seen as a collection of forces which are steadily, irresistibly rolling forward to the day when they will culminate in revolution,—a philosophy admirably fashioned to please and satisfy the wish and longing underneath. In a multitude of mental conflicts the will has decided before thinking has even gotten under way. The reasoned justification is an afterthought.

Our own failure is rationalized by placing the blame on someone else. So an inferiority, a weakness, an inefficiency may be reasoned away by ascribing the fault to the behavior of others. As White states,[2] "The man who is fail-

[1] Freud's "Introduction to Psychoanalysis," p. 9.
[2] "Mental Hygiene," p. 59.

ing in mental efficiency believes that other members of the office force are putting up jobs on him, annoying him, interfering with him in all sorts of ways so he cannot do his work."

The foreman who exults in power excuses petty tyrannies over his workmen on the ground that they are unruly, or insolent, or need discipline, his real reason being his delight in self-assertiveness. The bad workman finds fault with his machinery, or his boss or the factory system, his real trouble being his own industrial inefficiency, which he would be ashamed to confess, even to himself. The engineer, having failed in getting his task done or the advertising manager, having failed to sell the goods, attributes the failure to the impossibility of the task. "It is recorded that Lord Kitchener, when a subordinate during the South African War began to explain a failure to obey orders, said 'Your reasons for not doing it are the best I have ever heard; now go and do it.'" The executive whose self-assertive instincts make him determined to "run his business as he pleases" surrounds his determination by a host of excellent reasons for maintaining industrial autocracy. The profiteer, the labor autocrat, the conservative, the liberal, all too often resolve their mental conflict by doing what their instinctive nature wants to do and then finding good and sufficient reasons for their wilfulness.

Most motives that are selfish, or licentious, or unsocial, or shameful, tend to become sugar-coated with altruistic-sounding explanations and righteous justifications. A man who foresees depression, and fears to suffer the loss of having a large stock of goods on hand, suddenly cuts prices somewhat in order to sell out in time and takes credit to himself as being the great foe of profiteers. Another sees workmen's insurance coming and takes up a "safety first" crusade to save himself insurance costs, meantime complimenting himself on his humanitarian business policies. A worker who dreads to lose his job welcomes a philosophy of industry which approves restriction of production. The conflict of instinct motives becomes solved by doing what men feel impelled to do by

their instinctive energies and thereupon contriving plausible reasons. All this is not necessarily in the nature of hypocrisy but is the natural, unconscious way of avoiding psychic revolt and maintaining mental harmony, peace and consistency.

Revolt

The hereditary endowment of instincts of many hundreds of thousands of economic workers is so defective or near defective that even under the most favorable environmental conditions, their adaptation to life's economic needs is next to impossible. It is estimated that this class of defectives numbers upwards of 10,000,000 individuals in the United States. When these people find themselves in an environment which is not simple and easy to cope with, but severely complex and difficult, their mental machinery suffers breakdown. In addition to these groups who are weakly equipped mentally to begin with, there are other large groups who, though normally set up by nature, nevertheless suffer nervous maladjustment and mental disorder when they are obliged to cope with the harsher sections of the economic environment. These disrupting features of the economic order, by thwarting certain instinctive energies and suppressing normal cravings, are direct causes of widespread industrial revolt, mania, psychosis, sulkiness, viciousness, and neurosis generally. Such environmental factors appear under such terms as "unemployment," "bad housing," "immigrant congestion," "hire and fire," "automaton," "poverty," "foreman's tyranny," "unsanitary factory conditions," "industrial accidents," "industrial autocracy," "overwork," "monotony," "fatigue," "bankruptcy," "lockouts and strikes."

To understand the origin of such psychic failures, the concept of the unconscious comes into play. What we are aware of at any one moment, or in any one day is at most only a very small portion of all the experiences packed away in our mental storehouse. Below the level of the conscious is the unconscious. Part of it is past recall; part comes back by an effort of recollection. Here exist dynamic

energies of the instincts, craving outlets which environment denies. This conflict of nervous energies gives rise to inner states of mental and organic tension. Wallas explains that "If we balk any one of our main dispositions, Curiosity, Property, Trial and Error Sex, and the rest, we produce in ourselves a state of nervous strain."[1]

Sciences of psychoanalysis, psychiatry, psycopathology and psychotherapy have developed to diagnose and remedy the states of conflict and strain. Although still in their initial stages and subject to much controversy these studies of mental disorders contain some fundamental, and generally accepted assumptions which are highly serviceable in any attempt at understanding economic behavior. The genius of Freud gave these studies their great impetus. However, Freud's extreme emphasis upon the sex energies, suppressed as they are by the taboos and revulsions of social standards, and his attributing of virtually all neurotic disease to this sex repression is generally conceded to be too narrow an application of fundamental human processes. Jung extended the doctrines to the ego-energies, the life impulses as well as to sex, and asserted that nervous derangement ensued not merely from sex repression, but from denial of the "energy of life" which manifests itself in "growth, development, hunger, and all the human activities and interests."[2] Rivers relates the successful results in treating breakdowns in military life among British soldiers, by applying the essential Freudian methods to the so-called "danger instincts, i.e., flight, pugnacity, etc.[3] Certain American students have found that any of the primary emotions—love, hate, hunger, shame, sorrow, fear, disgust—may cause a neurosis under appropriate conditions of repression.[4]

Trotter has pointed out in comprehensive terms that the conception of mental conflict is the central feature of this whole system of analysis, and he insists that "Of its

1 "The Great Society," p. 65.
2 Jung, "Psychology of the Unconscious," p. xxvi.
3 W. H. River's "Instinct and the Unconscious."
4 See E. J. Kempf, "Psychopathology."

importance and validity there can be no doubt."[1] He finds that the repressive factor in this conflict has the impulsive energy which comes from the instincts of the herd, and that the whole social and economic environment, by setting up taboos and standards and laws which the social instincts accept and enforce, creates the conflict that leads on to the mental derangements which are so widespread. Repression, conflict, derangement are the cause to effect links in the chain.

A condensed application of these basic principles is attempted by Parker in the following form: "The monotony, indignity, dirt, and sexual apologies of, for instance, the unskilled worker's life bring their definite fixations, their definite irrational inferiority obsessions. The balked laborer here follows one of the two described lines of conduct:

First, either weakens, becomes inefficient, drifts away, loses interest in the quality of his work, drinks, deserts his family, or,

Secondly, he indulges in a true type inferiority compensation and in order to dignify himself, to eliminate for himself his inferiority in his own eyes, he strikes or brings on a strike, he commits violence or he stays on the job and injures machinery, or mutilates the materials; he is fit food for dynamite conspiracies. He is ready to make sabotage a part of his regular habit scheme. . . . If one leaves the strata of unskilled labor and investigates the higher economic classes he finds parallel conditions."[2]

A sweeping survey of the many business geniuses suffering from neurasthenia, of the frenzied and distracted efforts of executives to adjust their mental powers to kaleidoscopic changes in business affairs, of the tortuous struggles of labor leaders to maintain themselves in power, and of the rebellious, sullen attitudes of irascible laborers, indicates the profoundly significant economic consequences of repression, conflict, and derangement.

No small portion of this revolt psychosis arises from the all too abundant stimulus of the danger and anxiety in-

[1] "Instinct of the Herd in Peace and War," p. 79.
[2] "Casual Laborer," p. 49.

stincts and emotions in the economic struggle. The worries and fears of the laborer are matched by the worries and fears of everybody else in the economic groups. If it is not the fear of unemployment, or underpayment, or accident, or discrimination, or petty foreman's tyranny, it is the fear of bankruptcy, failure, loss of position or of promotion, rivalry, competition. In the economic struggle for survival, anxiety states and distress forebodings hem in the participants. Cannon has proved by extensive laboratory experiments that where the normal instinctive life is held in subjection by these fears, "the emotional accomplishments—such as the satisfaction of food and of sexual affection, the feeling of self-pride, and the tender love of a parent—are whirled suddenly into anger." All of the energy that would normally flow into thought, creativeness, self-expression, public-spiritedness, and their like is arrested and redirected by an overlord in human nature,—by the danger and distress mechanisms. This recentering of energy involves far-reaching bodily changes, such as interference with healthy digestive processes, the shifting of blood from the abdominal organs to the lungs, the heart, the central nervous system, the increased force of heart action, the mobilization of blood sugar, the secretion of special glands such as the adrenal. The normal self-control and rational influence over conduct becomes minimized, and militant behavior comes to the front. Where the anxiety states are not so violent, but none the less real, the behavior reaction is likely to be seen in inertia, discouragement, depression, loss of interest, malice, surliness, or alcoholic indulgence.

Cannon's work points in the same direction as that of Crile. Crile writes, "It is obvious, therefore, that the absence of worry and fear may aid in stopping the body wide activations which lead to an organic breakdown. . . . The effect of fear, grief, worry and jealousy on the physical body is seen in the changes in the cells of the brain, the adrenals and the liver, and in the numerous resultant diseases and disabilities. Against man's inhumanity to man, religions and philosophies have been evolved, each of which

aids in proportion to its power to substitute altruism for selfishness, to substitute faith for fear. . . . The mere knowledge, the mere conviction, that excessive anger, work, jealousy, envy, worry or grief cause physical damage as serious as that produced by infections or crushing blows will constitute a powerful protection to man."[1]

Such is the conclusion drawn from elaborate biological, physiological, and psychological investigation. It points in the direction of the studies of the more careful of the psychoanalysts, namely, the repressions of the economic environment with its herd taboos and fears and compulsions, the consequent conflicts of great human impulses, both conscious and unconscious in their workings, and the final inner derangements, manias, irascibilities, neuroses, and aberrations. In a word, psychic revolt and mental disease are the finished product of man's futile attempts to adapt his human nature to certain repressive features of his economic environment.

Two ways of escape from the difficulty present themselves: change the economic environment, or educate and change human nature. Any particular economic problem has to be solved on its individual peculiarities, but such a solution will be some varying combination of these two lines of procedure. Keller has warned that "We get the idea that man does not adapt to environment, but adapts the environment to himself and his needs. But we learn no power over nature till we learn natural laws, to conform and adapt ourselves to them. . . . Our lordship over nature consists in the adroitness with which we learn to conform."[2] The ability to discipline one's instincts and emotions, to eliminate the injurious tendencies, to sublimate the potentially dangerous energies of the mind, and to avert the calamity of psychic revolt is an indication of the efficiency and success of men in their economic pursuits. But many features of the environment make smooth adaptation next to impossible, and even when possible, humanly damaging. Such dark and pernicious elements

[1] "Man, an Adaptive Mechanism," pp. 12, 377.
[2] A. G. Keller, "Societal Evolution," p. 22.

need eradication, the environment itself needs alteration. Both processes enter into any rational and healthful adjustment between men and their work.

The remedial treatment of human nature is a process of revelation. Men need to be shown wherein their repressions and maladjustments have gotten the better of them. The nature of the conflict, the repressive force and the inner craving, the meaning of a healthy adaptation,—all these need to be revealed to those suffering from the psychic distresses of the economic order. It is this procedure which Holt summarizes in his book, "The Freudian Wish," in his plea for "a more complete discrimination of the elements in the situation to be reacted upon, to resolve every situation rather than do violence to it by a summary Yes or No."[1]

The human maladjustments are so frequent and so damaging that economic activity has created a pressing need for a science of mental hygiene in industry. Industry abounds with mental diseases, nervous derangements, psychic revolts. Misfits and misfortunes harass the productive processes. Psychological smash-up occurs at every hand. False ideas launch men on fatal ambitions, and abnormal habits and defective inborn traits encumber their life experiences with distress and tragedy. A science of mental hygiene would offer a hope of understanding such mental liabilities as are suggested in the following list mentioned by Dr. E. E. Southard, "queer guys, eccentrics, disturbers, queruleous persons, unreliable and unstable fellows, misfits, the irritable, the sullen, socially disgruntled, unsociable, negative, conscientious, litigious, bear-a-grudge, peculiar, glad-hand, gossipy, roving, restless, malicious, lying, swindling, sex pervert, false accusator, abnormal suggestibility, and mental twist types."[2] Southard's opinion appears well founded when he urges that mental hygiene is indispensable if there is ever to be an adequate analysis and effective control of these pathological or near-pathological groups.

[1] Holt, "The Freudian Wish," pp. 134-135.
[2] *Industrial Management*, Vol. 59, pp. 100-106.

The conception of economics as a human science does not militate against a careful study of the laws and principles which traditionally enter into economic thinking. It is indispensable to maintain conceptions of land, labor and capital as more or less abstract factors in production. It is indispensable to think of the law of demand and supply, the principles of exchange, the processes of distribution, the theories of value and price, and the statistics of output and trade. Economics is indissolubly related to all these generalizations and interpretations. But economics which ends there, ends too soon. All this is essential but it is not enough. Economics is equally a science of the imponderables of human nature,—of the motives, emotions, thoughts and satisfactions of men engaged in earning and spending an income. The ambitions or lack of ambitions of the men who work at machines, the degree of dullness or imagination in the mind of common labor, the extent to which the distribution of comfort and well-being coincides with the distribution of income, the human qualities which distinguish what some term the successful from the unsuccessful classes,—these and the vast outlay of invisible human realities to which they may be expanded are an integral part of any completed economic thought. Laws, principles, statistics all require the vitalizing outlook of the psychology of men.

Which is the more important? As well might the question arise, Which is greater, the life of the plant, or the sunshine and the soil? There is no rank of precedence,—they are a unit. Man is at the center of economics,—a human factor,—and it is for him, and by him, and through him that all economic control over nature proceeds. Economics is not mainly the science of things; it is the science of life. It concerns the realization of human energies, and at the basis of all economic behavior lies instinctive nature.

The chapters thus far have attempted to explain in very condensed form the chief psychological conceptions that have value in such an analysis of economics. The remainder of the book is an application of them to the more outstanding economic processes of the present day.

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PART II

ECONOMIC INSTITUTIONS AND FUNCTIONS

CHAPTER V

THE MECHANICAL AND SCIENTIFIC BASIS OF ECONOMICS

Machines and science are the means by which men deal with wealth. The processes of manufacture, the scale of production, the method of transportation, the demands for credit, all spring from the state of the mechanical and physical sciences. Advances in these sciences determine the amount of wealth available for use, the forms which it takes, the happiness of men in fitting wealth for consumption, in fact, all that goes into the make-up of economic life.

Even the simplest processes of machine operation are so much a matter of scientific calculation that the worker's common sense cannot be trusted as a guide to efficient or reasonably intelligent operation. Specialists and experts, by long study, experiment, and statistical computation, are needed to determine the right and effective way of making each minute maneuver. But each single maneuver has meaning and use only in so far as it is properly related and co-ordinated with a hundred or a thousand other maneuvers by hundreds or thousands of other workers, in many separate and scattered plants, often located in several countries thousands of miles apart. This vast ramification and interdependence requires the most elaborate form of scientific calculation, observation and

forecast, for if one link in the process is cut, the entire chain is broken and the economic process is at a standstill. Whether a man shall produce more or less, or whether he shall produce at all, hangs upon an infinitely complicated network of factors, machines, processes, and materials. A failure to make the right adjustment at any part of the process entails waste, idleness, anxiety, distress.[1]

The paramount significance of the mechanical equipment is that it serves to increase the output from a given amount of labor. Owing to the use of machinery, the average worker producers today more than two and one-half times as much as in 1850.[2] The worker to-day has productive equipment four times as valuable per capita as that of his father working back in 1850. This increased investment in productive capital, by giving the worker a superior mechanical and scientific equipment, has nearly trebled his productive capacity. As King summarizes it, "Evidently the popular impression is true that, as far as dwelling, vehicles, clothing, etc., are concerned, we live in a state of luxury that our fathers knew not of."

Of course not all of this increased production is available for consumption. A great part of production is machinery and materials to be used for further production. By no means is all of the output in the nature of clothing or food or furniture or drugs. In large part it is new buildings, new transportation facilities, new machinery, and new equipment for carrying on all the processes of economic life.[3] Since the depression of 1893-1896, we have invested as much capital in manufacturing, railroads, public utilities and mines as we had invested in those industries in all our previous history.[4] Some conception of the magnitude of this class of goods will be gained from the estimate that in 1913, the new productive capital turned out was about $6,500,000,000, in 1918, $22,000,000,000, and in 1919, $15,000,000,000. Goods to these amounts were our

[1] See T. Veblen, "Theory of Business Enterprise," Chapter I.
[2] King, "Wealth and Income of People of United States," p. 43.
[3] Friday, "Profits, Wages, and Prices," p. 78.
[4] Friday, *idem*, p. 91.

national excess of production above consumption. The excess each year over consumption is in turn devoted to more production, and to that extent serves to make possible an increase in the productive capacity of the worker.

On the average between one-seventh and one-fifth of the total product goes to the making of these non-consumable goods. Any notion of productive efficiency due to mechanical and material equipment must take this non-consumable portion of the full national product into account. With due allowance for this factor, it is estimated that the net efficiency of the laborer in making consumable goods has been at least doubled. Progress in the future depends upon improvements in this mechanical, material and scientific factor. Only by this means is it possible substantially to increase the output from a given amount of labor, and to increase to the maximum the available wealth for human consumption.

Power

Virtually all economic endeavor nowadays involves in some way the use of natural power. Non-human power turns the wheels of the economic world. The history of human progress is the story of the development of power and its application to man's use. Only a half century ago, the total horse-power used to drive manufacturing machinery was only slightly above two million. In 1914 it was over twenty-two million. Of this vast amount of harnessed power, about 70 per cent. is steam power, about 3 per cent. water power, about 4.5 per cent. power from the internal combustion engine, and about 20 per cent. electric power.[1] Obviously, the great bulk of power in manufacturing is still derived from the steam engine, with electric power second in importance. Since 1904, the machine power used in this country by the average industrial worker has increased from two and one-half horse-power to more than three and one-half horse-power. The effect is apparent, for example, in the coal mining industry. Owing in large part to his greater use of mining

[1] "Abstract of Census of Manufactures," 1914, p. 492.

machinery, the American miner digs out two to three times as much coal as the miner in English fields.[1] Steam, our main form of power, has been in turn dependent upon supplies of cheap coal and "we are nationally what we are to-day because always we could get plenty of cheap coal."[2]

About two-thirds of all coal mined is used for generation of power. And so abundant have been our coal supplies that the most profligate waste has prevailed in its utilization. On the average only 6 to 15 per cent. of the fuel energy is actually realized in power. The amount of wastage is staggering and an awakening to the need of conservation is one of the most pressing economic needs of the time.

Scientists are of the opinion that if the recent past has been the age of coal and steam, the future will be an age of electricity. Already the hydro-electric power in use is equivalent to the energy of 40,000,000 tons of coal. And each year the electric power created directly by burning coal consumes 30,000,000 tons of that fuel. The most abundant future source of electric power is water power. This potential energy is at hand for the harnessing. "It is estimated that the water power readily available in the U. S., if converted into electric energy, is more than capable of turning every industrial wheel and illuminating every street and building throughout the Republic."[3] Electric power has already been utilized in hoisting machines, cranes, conveyors and trucks, in transportation by railroad, surface cars, and subways, in mining pumps, ventilators, crushers, etc., in refining steel and iron, welding and cutting metals, in textile, flour and paper mills, and factories of almost every variety. It is displacing coal because it is cheaper, cleaner, less bulky, more easily transported, and more easily handled. In manufacturing lines, it is for the most part utilized through the individual motor attached

[1] "Report of United States Bureau of Mines," 1920, "Monthly Labor Bulletin," Vol. XI, pp. 118-130.

[2] S. Crowther, *World's Work*, December, 1920, p. 173.

[3] W. N. Polakov, "Industrial Management," September, 1920, p. 234.

to the individual machine. Congress in 1920 passed legislation which makes it possible for private corporations to secure federal grants for the conversion of water power into electrical energy. This law makes possible the utilization of the vast potential electric resources of the country.

The use of electric power releases coal for fuel and by-products. The fuel gain is important from the standpoint of conservation; the by-products gain is important for industrial processes and for consumption purposes. More than one thousand coal by-products are in use. Illuminating gas, ammonium sulphate, benzol, coal tar, dyes, photograph developers, flavors, perfumes, tanning materials, medicinals, explosives, are only a few of these by-products. They are indispensable in a large number of the most important industries of the country. To use the words of a power and fuel engineer, "One thing is clear, in the economic conditions now arising, the principle of electricity as a commodity, the principle of common public carrier applied to the transmission of power, and the principle of multiple production for the utilization of sources of energy will be the most important, if not the basic, economic force in the life of the people." [1]

The internal combustion engine, by utilizing gasoline as a source of energy, has had far-reaching effects upon the tides of business enterprise. If it had done nothing more than make possible the automobile, its accomplishment would have stood as a fundamental contribution to economic life in modern times. In terms of capital invested, of workers employed, of profits and wages paid, and of volume of product, the automobile industry has become one of the major industries of the country. It has set men scouring the world for new sources of petroleum, has covered the country with a network of good roads, has established a demand for the basic raw materials, and has drained the credit supply in financial centers. The invention of the Diesel engine, based upon the internal combustion of oil, has practically revolutionized the methods of

[1] W. N. Polakov, "Industrial Management," September, 1920, p. 239.

water transportation, because of the advantages of oil over coal as fuel for shipping purposes.

In its various forms, natural power has been man's constant and indispensable aid in developing resources, producing wealth, and making possible the intricate economic structure of modern times.

Machinery

Power combines with machinery to give the economic organization its technical character. Most men who work, work at a machine. It may be a machine to generate power, or a machine to lift material, or a machine to fashion a finished product, or a machine to make another machine, or a machine to transport men or material or machines a distance of ten feet or ten thousand miles. From start to finish the economic process rests upon the machine technique.

The outstanding quality of the machine is that it enables the laborer, by the use of power, to multiply his productive efficiency. In this respect the machine is a labor saver. One man with a machine and power is equal as a producer to from a few to a small army of men working with bare hands or with plain tools.

The greatest increase of efficiency is attained through the principle of automatic machinery. An excellent example is the weaving loom. Years ago one woman tended one or two slowly moving looms. Now one woman may tend anywhere from 12 to 36 looms at the same time, with the result that her record of production for the day is increased 75 times or even more. One girl in charge of 1000 spindles spins from 10,000 to 12,000 times the length of cotton yarn her grandmother could turn out from her spinning wheel. In one type of mill, the machine makes 82,000 yards per hour as against 75 yards as the record of the old spinning wheel. In the needle trades, a girl operator sits at a power sewing machine carrying 12 needles instead of one, setting almost 4000 stitches a minute.[1] A milling machine enables an operator to drill several holes at one stroke of a

[1] Goldmark, "Fatigue and Efficiency," pp. 10, 57.

lever; other machines cut several chunks from the metal plate at one fall of the multiple blades. The automatic machine in its most perfected forms increases the productive power of the operator on the average from 75 to 100 times.[1]

During the last fifteen or twenty years, this principle of automatic machinery has been applied in some degree to practically all of the important production processes. The automatic principle is the transfer of human skill and intelligence from the man to the machine. Steel fingers, wheels, levers and releases perform the motions of craftsmanship,—the duty of the laborer being reduced to the minimum of simplicity and taking such forms in the highest types of machinery, as merely feeding the raw material into the mouth of the machine and taking the finished product away from the outlet.[2] Typical of these automatic devices are molding, screw and grinding machines, turret lathes, and pneumatic hammers.

A recent investigator has found that as a consequence of the rapid development of automobile manufacturing, "in approximately the decade 1904 to 1914, the automatic tool developed into a production power of the highest importance. In the making of motor cars it became and has remained indispensable. Nor is its principle to-day less indispensable in the making of thousands of other articles of common necessity and use."[3] Most package goods, bottled goods, and canned goods rely upon automatic processes. The president of a large chain of retail stores, doing business in all these lines, and both manufacturing and selling 5000 different kinds of articles, depends upon "standardization, in which lies the future of large volume business. . . . The way to manufacture most cheaply is to establish a separate department for each article and to put it through in continuous repetitive process with a minimum of human handling."[4] In other words, the secret of such manufacturing is the automatic machine.

[1] *Scientific American Supplement*, 85:278.
[2] E. F. Lloyd, *Journal of Political Economy*, 27:457.
[3] *Ibid.*
[4] *System*, Vol. 39, p. 355.

This automatic process necessitates breaking up the manufacturing of an article into a score, or into hundreds, of minute, separate stages. Each stage requires a distinct sort of automatic machine treatment. The treatment of each stage is standardized and in this form can be repeated millions of times without variation. For example in the canning process the cans are filled automatically by one machine. An automatic capper hermetically seals the cans. The cans are carried from filler to capper by an automatic conveyor. "The capping girl sits close to the red hot sealing irons, dropping a cap on each can as it is carried swiftly by."[1] "Without touch or aid of human hand, an automatic machine produces complete one-dram bottles at the rate of 165 per minute."[2] Of the 30 operations required in the manufacture of farm machines, one operation requires a man to feed sheets of metal into a machine which cuts them into a particular form at the rate of 20,000 per day."[3] The automatic switchboard is fast eliminating the telephone "central." Automatic machinery has displaced human effort in many parts of office practice,—in typing, sorting, scaling, classifying, filing, addressing, computing figures and keeping records. The Webb press for newspaper printing turns huge cylinders of paper into finished news sheets at the rate of 288,000 eight-page papers per hour. Ten operatives are required to handle the gigantic contrivance, but the increase of production per worker over that of the operator of Benjamin Franklin's printing press is about 8,000 times.[4] The achievements of the automatic machine are often uncanny in their imitation on a grand scale of the skill of the human hand and brain. They are the typical mechanical facts of the present economic age and they are daily being extended in new and ingenious ways to all branches of industrial production. They represent standard quality of products, vastly increased quantity of output, and large scale production at minimum cost. This development is nowhere better represented than

[1] Goldmark, "Fatigue and Efficiency," p. 61.
[2] United States Tariff Commission Report, 1918.
[3] C. H. Parker, *Atlantic Monthly*, Vol. 125, pp. 12-22.
[4] *Scientific Manufacturer's Supplement*. 85:278.

in the steel industry, where "the pig casting machines, the open hearth charging machines, not to mention the blast furnace, skip hoist, the electric crane, and the mechanically operated rolling mills have revolutionized the industry. For the most part the steel worker of to-day is simply moving levers, or watching and waiting while the heat and machinery do the work."[1]

The automatic principle is capable of all degrees of application. Some machines which require real skill and mechanical training are commonly called "semi-automatic." Others reduce the automatic principle to a minimum, and rely primarily upon a high-grade vocational training. In certain operations the hand tool is still necessary. But the automatic principle runs through most mechanical processes in some form or other. The original industrial revolution was attributed to the invention of machinery and the use of power; the automatic machine of the last twenty years or so is working out what amounts to a second industrial revolution. It bids fair to increase the productive power of the nation above its record of twenty years ago by a much larger ratio than the original industrial revolution did over its preceding stage.

Transportation

Just as power and machinery are indispensable in the economic order, so a third factor, transportation, may claim indispensability. Machinery and power have to be concentrated in small circles of industrial activity. Then the output has to be distributed on a nation-wide or world-wide scale. In a general way, this importance of transportation is obvious and axiomatic.

But transportation has become an economic problem of the first magnitude. Transportation by railroad has been strained to the breaking point.[2] In spite of 230,000 miles of railroad track, bearing 2,500,000 freight cars, and 30,000 freight locomotives, railroad transportation, at times of great business activity, comes perilously near to break-

[1] Industrial Management, January 1, 1921, p. 63. H. B. Drury, Three Shift System, address before Taylor Society.

[2] *Scientific American*, October 30, 1920, p. 440.

down. Upwards of one-third of all freight carried is coal. To reduce this huge burden, electricity is being called to the rescue. A super-power zone is likely to be developed within the next few years in the general Boston to Washington district. In a district here comprising about two per cent. of the area of the country, a large part of all industrial activity is centered. By huge central stations, coal energy at the mouth of the mine can be converted into electric energy and transmitted, free from any freight problem, for manufacturing uses, or electric locomotive uses, thereby relieving the railroads from the equivalent load of coal freight. The harnessing of water power by electric generators will serve yet further to solve the problem. Into the heart of the problem, too, comes the motor truck, often carrying its load in "fleets," and growing in importance and use with amazing rapidity. Ocean transportation creates the merchant marine problem for both economists and statesmen to face, and the prospect of reducing costs of shipping by substituting oil for coal as driving energy has caused a sharp rivalry among the great world powers to discover and possess the world's future resources of oil.

The cheapest and most efficient form of transportation of petroleum has proved to be pipe lines. Such lines make possible the pumping of oil from the Oklahoma oil wells to the New Jersey refineries of the Standard Oil Company. A grand total of approximately 34,000 miles of pipe lines provides the network for oil transportation over the country.

With the developments of automatic and standardized production in manufacturing processes, a new science of intra-factory transportation has grown up. "In the average plant to-day from the time raw materials leave the storehouse until they reach the finished product they are actually being *worked on* less than one-third of the time, while in certain industries the ratio is as low as one-sixth." [1] This idleness occurs in the interval required to pass the

[1] W. F. Merrill, "Industrial Management," LXI, pp. 261-265, April, 1921.

material from machine to machine. Under a scientific routing of the production, and an ordering of the processes in natural sequence, the material is carried by conveyors, belts, trolleys and trucks so that the intervals between machine operations are reduced to a minimum. Gaps, pauses, delays, waits are eliminated. The material leaves the storehouse and is transported mechanically to and from each machine or workman in order of sequence. Lifting and hauling by hand is done away with. Each specialized machine operator performs his unit function with the material as it passes his hands; the next piece is automatically at hand on the conveyor. Automobile manufacturing was one of the first lines of industry to perfect the science, but it has been taken up widely, and such industries as grocery food products manufacturing, meat packing, mail order handling, sheet metal products manufacturing, and boot and shoe manufacturing take advantage of its methods. In the last named industry, conveying has cut the time interval of manufacture from raw material to finished product from eighteen to less than five days. In textile mills, the process of manufacture begins at the top story of the factory, and the product follows down from stage to stage, in a continuous flow from machine to machine and floor to floor, without any carrying by hand. The economy in floor space, in time saved, in labor saved, is of the highest significance for productive efficiency.

A branch of this transportation problem has been the problem of loading and unloading at terminals. A great part of the life of a freight car is spent in idleness, waiting to be loaded or unloaded, and mechanical facilities for handling material at terminals reduces such periods of idleness. A single city is said to have released 66,000 freight cars formerly used in local transfer and switching service by utilizing, on a large scale, electric cranes, motor trucks, and conveyors. The loading of ships has attained marvels of efficiency by mechanical contrivances in the form of conveyors, hoisters, cranes, etc. Quick handling of material has become a primary necessity in efficient use of transport facilities.

The demands for transportation of people are met for the most part by three great types of machinery: the railroad is of course the standard means of long distance conveyance; for local travel, subways, elevated and surface car lines are the chief reliance; and the past twenty years has put America on wheels with the automobile. The aeroplane is of value within limits, but has not yet justified itself for wide-scale commercial uses. The correlation of all these travel services affects in substantial ways the lines of economic endeavor, the fields of new investment, and the future labor question.

In a broad way, it may be said therefore that the transportation tendency of the time is to utilize oil and electric substitutes for coal in transportation, to utilize equipment fully by increasing loading and unloading efficiency, and to flood the country with the automobile.

Chemistry [1]

The science of chemistry has become, along with the sciences of power, of machinery, and of transportation, one of the indispensables in economic organization. The importance of chemistry was beginning to be apparent before the World War, but it took the demands of the war period to demonstrate beyond question the imperative importance of the science in modern economic technique. Most concerns now make use of chemical tests to determine the quality of the material which enters into the productive process. Steel, coal, copper, paint, wood, in fact almost every commodity must measure up to certain chemical standards. Only by that means can the manufacturer be sure of the standard quality of his finished product. The chemical laboratory has become a necessary part of the strategy of production. Some of the laboratories are of such size and importance that they employ several hundred chemists. Any conception of the industrial technique

[1] For many of the judgments expressed on Chemistry, the author is indebted to information and suggestions given by W. H. Nichols, President of the Eighth International Congress of Applied Chemistry and Chairman of the Allied Chemical and Dye Company, and by B. C. Hesse, Secretary of the Eighth International Congress.

would be incomplete without an idea of the significance of economic chemistry.

The war cut American manufacturers off from their European source of dye supplies and forced American chemists to work out processes by which America could in large measure manufacture her own supply. "American industries employing over two million men and women and producing over three billion dollars' worth of product a year are dependent upon dyes."[1] Among such industries are textile manufacturing, leather manufacturing, paper making, paint and ink production. The dyes are a chemical by-product of the coal tar industry. The chemistry of coal tar dyes is, therefore, an indispensable requisite in a large proportion of our needful activities in peace and in war. Artificial daylight as the outcome of the chemical combination of gases and a simultaneous electrical process promises to supply all the properties of daylight. Such an achievement will have many important consequences. It will make work more safe, will relieve the strain on workers' eyes, will reduce the amount of spoiled product, will improve the quality of workmanship, and will increase production. In industries requiring night work or the three shift system, the service of chemically produced light will obviously be of highest importance.

Synthetic ammonia and nitric acid derive their nitrogen from the atmosphere. Before the war America drew her nitrogen from the nitrate beds of Chile, but the war forced American chemists to produce nitrogen within her own borders. The nitrogen products are the source of fertilizers for agriculture, of explosives for mining, construction work, and war needs. They are necessary in the manufacture of a number of important products used in everyday economic life.

In the manufacture of steel, chemistry has revolutionized the productive process. The open hearth process of steel manufacture has gradually superseded the Bessemer process by virtue of the chemical advantage of different alloys. The open hearth process uses a high grade of

[1] Slosson, "Creative Chemistry," p. 83.

ferromanganese, whereas the Bessemer process uses a low grade manganese alloy.[1] In the manufacture of high speed tools, such as lathes, milling cutters, reamers, hack-saws, etc., tungsten alloys are employed. It was Andrew Carnegie who declared that chemistry "was the agency, above all others, most needful in the manufacture of iron and steel."

The oil industry owes its existence to chemistry. Crude oil is not used much directly, but after a refining process in which chemical science plays a controlling part the crude oil becomes converted into a wide variety of valuable materials. Such materials include local anesthetics, gasoline for internal combustion engines, naphthas, kerosenes for light and for farm fuels, lubricating oils and greases, waxes, and paraffines, surgical dressings, petroleum coke for battery carbons, road oils to lay the dust, asphalts for paving, and fuel oils used to generate manufacturing and transportation power.[2]

Copper has become indispensable since the electrical industry was established. Most of the copper now produced is used in that industry.[3] The electrolytic refining of copper is an electro-chemical process and is responsible for the development of the copper industry, and indirectly, by making possible large supplies of copper wire and other copper electrical equipment, for the momentous development in electrical engineering.

The rubber industry has become an enterprise of the first magnitude and the process of conversion from the raw material to the finished rubber is dependent upon chemical guidance. America's automobile industry is made possible by the chemistry of rubber. The vulcanization process is a tribute to chemical science. Synthetic rubbers are a scientific realization, but as yet are not considered as cheap or as good as natural rubber.

Practically every industry in the country requires the use of sulphur in some form. About two hundred separate

[1] See Ripley, "Trusts, Pools and Corporations," pp. 154-158.

[2] "United States Geological Survey, World Atlas of Commercial Geography," Part I, 1921, p. 17.

[3] "World Atlas of Commercial Geography," Part I, 1921, p. 39.

plants in the United States are engaged in the manufacture of sulphuric acid. "Hundreds of thousands of tons of sulphuric acid is consumed every year in making fertilizers and tens of thousands of tons in refining petroleum, in pickling and galvanizing steel, and in making chemicals and drugs."[1] If there is any one chemical element which holds industry at its mercy more than any other, it is sulphuric acid.

"Dishes and utensils of platinum are absolutely necessary in all chemical laboratories, and upon their laboratories all great industries are dependent for guidance."[2]

It is undesirable to go into exhaustive details on the economic uses of chemistry. The science plays a necessary part in the manufacture of perfumes and flavors; cellulose is a chemical product, valuable in the manufacture of paper goods, laces, cloths, etc. Chemistry distills wood into crude alcohol. It lies behind the production of gums and resins. The enumeration could be extended indefinitely.

One of the most significant contributions of chemical science to production has been in the utilization of by-products and waste materials. The immense importance of by-products in the coal industry has already been mentioned. It has been reported that the utilization of wastes in the meat packing industries is the means by which those industries make substantial profits. Radium has been manufactured out of materials that were formerly considered useless junk. Slosson claims that two-thirds of the cotton crop is cotton seed. Formerly it was thrown away. Chemical discoveries have made possible the utilization of the seed for human and animal foods, for oil and lard compounds, for fertilizers, and for many other purposes.

The scientific technique of production is clearly dependent upon the discoveries of chemistry. There seems little doubt but that chemistry has a yet more important con-

[1] "World Atlas of Commercial Geography," Part I, 1921, p. 57. Also see United States Geological Survey Bulletin, No. 666, p. 19.
[2] Bulletin, No. 666, p. 35.

tribution to make in the future. The possibilities of cheapening the cost of production, of inventing new goods for the satisfaction of human wants, and of increasing and improving the country's output are wrapped up in large measure with the future of chemical science.

Geology

The development of national resources is indebted to the science of geology.[1] Formerly, the location of industries was decided in very large measure by the proximity of raw materials and markets, but in various lines of industry to-day, "a New England workshop may draw its materials from the five continents and ship its products around the world. . . . It is no longer enough for us to make an inventory of the mineral wealth of the United States; we must supplement that inventory by a broad understanding of world demand and supply. . . . Knowledge of what the world contains is plainly the best basis for discussing public policy and planning private business."[2]

Economic geology furnishes surveys of the location of the earth's resources and estimates of their amount and value. By scientific analysis of rock formations and careful calculation of underground resources, geology supplies the business executive with invaluable information in the planning of business undertakings. To know where beds of iron ore of various grades exist and approximately their underground area, to have a map of the resources of different grades of coal, to have world diagrams of the important oil supplies, to have knowledge of the countries containing the future supplies of silver, gold and other precious minerals,—these are a few illustrations of the fundamental value of geological information in economic calculations.

A more specific illustration of the usefulness of geological science in economic planning is contained in the geology of oil. Petroleum has become the "preferred fuel of the twentieth century." Fuel oil and gasoline are now com-

[1] G. O. Smith, "The Strategy of Minerals."

[2] "United States Geological Survey, World Atlas of Commercial Geography," Part 1, 1921, Introduction.

mercial necessities and national leadership on the sea and in the air has come to depend absolutely upon the possession of adequate supplies of these two commodities. Petroleum supplies have been explored and surveyed all over the world. The findings of the geologists indicate that the world's supply of petroleum during the next decade will come mainly from South American countries that border the Caribbean Sea, from Mexico and from Mesopotamia and Persia. International rivalries for control of these sources are conspicuous in political and economic statesmanship among the Great Powers. Knowledge of the probable duration and capacity of the richest oil wells is indispensable in all such deliberations.

Economics is thus obliged to take into its reckoning the findings of geological scientists, and their discoveries are an integral part of the mechanical and scientific technique of modern industry.

Electricity

Many of the contributions of electrical science have already been mentioned in this chapter. Electrical engineering has reshaped many manufacturing processes, and has made possible new production achievements which were considered impossible less than a generation ago.

Electricity has come into almost universal use for lighting purposes. Electric lighting has come to be a science in itself. The flaming arc light, the electric mercury lamp, the incandescent bulb, and the ordinary electric arc are the most important forms. By proper adaptation of these forms to the particular needs of factories, offices, streets and households, the engineers are able to furnish reasonable comfort, safety and efficiency.

The value of electricity for power has in part been referred to previously. Electric cranes for hoisting materials, electric trucks, electric mining machinery, electric ventilators, electric locomotives, electric railways, electric automatic machines,—these are a few of the more important power adaptations. It is estimated that between the years 1914 and 1919 the amount of electrical energy sold

for power consumption in the country nearly trebled. Already there are over one million industrial motors served by central power stations. One of the largest automobile manufacturing plants has found it advisable to install in all new construction an individual motor for each machine. "The increased cost of energy, belting and shafting, the need of better factory lighting, the advantage of having better working conditions and the responsibility imposed on manufacturers by workmen's compensation laws are among the chief reasons which led to the almost universal adoption of individual drive by this company." For both manufacturing and transportation purposes, electric power has rapidly increased in application during the last ten years. Its possibilities for the future are of primary significance.

Electric heating is of increasing use in manufacturing processes. The electric furnace for manufacturing steel, especially the high grade steel products, is a practicable realization. Electric welding has been widely adopted. Electric treatment in the refining process of a number of minerals has proved its value.

Electric contrivances for home convenience and domestic work-saving have been the object of a great deal of inventiveness. Electric cookers, washers, ironers; electric vacuum sweepers and cleaners,—these with a long list of other inventions have stimulated large and growing manufacturing enterprises in the electrical field.

Electric communication is of the utmost utility in the present delicate and intricate economic organization. The ability to flash news from continent to continent determines huge financial investments and the ability of the chief executives of the large scale combinations of plants to keep in touch with the activities of all subsidiary branches and to direct their affairs smoothly and efficiently rests upon the telephone and telegraph. A strike of telegraph and telephone operators would be virtually as serious for the country as a strike of the railroad workers themselves. There are over thirteen million telephone stations in the United States.

Many large corporations have found electricity of such importance that they have established laboratories for electrical research. A conspicuous example is the American Telephone and Telegraph Company whose laboratories engage thirteen hundred scientists and engineers to devote their time exclusively to research and development in the telephone art.

The financial consequences of the rise of electrical industries are considerable. The total output of all electrical materials in 1920 is estimated at about $2,000,000,000. Moreover, it seems a reliable estimate that by 1930 the electrical industries will require upwards of $10,000,000,000 for new capital in the form of new plants and manufacturing facilities. In its various relations, therefore, electricity has come to occupy an indispensable position in the technique of the industrial process.

The Science of Economic Organization

So numberless are the factors in the mechanical technique, so various are they in their bearing upon different parts of the economic process, so indispensable are they to the operation of the system, and so interdependent are all of their functions in the scheme of things, that a science of organization has become imperative. Justice Louis Brandeis of the United States Supreme Court has observed that, "The field of knowledge requisite to the more successful conduct of business has been greatly widened by the application to industry not only of chemical, mechanical, and electrical science, but also the new science of management; by the increasing difficulties involved in adjusting the relations of labor to capital; by the necessary intertwining of social with industrial problems; by the ever-extending scope of state and federal regulation of business. . . . This new development is tending to make business an applied science."[1]

This applied science has a number of important branches. John Dewey states, "The most important occupations of to-day represent and depend upon applied mathe-

[1] "Business a Profession," pp. 2-3.

matics, physics and chemistry." The whole science of organization in the strictest sense involves the correlation and administration of countless mechanical and human factors. The engineer is the typical scientific expert in the field. There are in the United States, it is estimated, upwards of 200,000 engineers of one kind and another associated in engineering societies. Twenty-one major societies are united in The Federated American Engineering Societies, and utilize their central association for the purpose of advancing the sciences of technical engineering. Typical of the branch societies are the mechanical, the electrical, the mining, the chemical and the industrial engineers.

A capital illustration of the possibilities of engineering science is found in the achievements of F. W. Taylor in improving the art of cutting metals. He carried on upwards of 50,000 experiments over a period of twenty-six years. The real problem was "how to remove chips from a casting or a forging, and how to make the piece smooth and true in the shortest time." The experiments developed twelve variables which involved a very intricate mathematical solution. These variables related to (1) the hardness of the metal, (2) the chemical composition, (3) the thickness of the shaving of metal, (4) the shape of the cutting edge, (5) the use of a cooling stream of water on the cutting tool, (6) the depth of the cut, (7) the duration of the cutting process, (8) the lip and clearance angles of the tool, (9) the elasticity of the work and of the tool, (10) the diameter of the material being cut, (11) the pressure of the chip or shaving on the cutting edge, (12) the pulling power and the speed and feed changes of the machine. An expert mathematician might be able to solve a single problem of variables in from two to six hours. This would take too long for practical purposes and, of course, the average worker would be anything but an expert mathematician. A way of simplifying the mathematical calculation was sought, so that the average workman could adjust the speed and feed of his machine quickly and accurately. The whole problem was

from time to time presented by Taylor to one after another of the noted mathematicians of the country. The mathematicians declared the problem hopeless of solution, but finally some experts under Taylor's supervision discovered the principle of the slide rule. "By means of this slide rule, one of these intricate problems can be solved in less than a half minute by any good mechanic, whether he understands anything about mathematics or not, thus making available for everyday, practical use the years of experimenting on the art of cutting metals." Thereafter, "with the aid of a slide rule . . . it was possible for the scientifically equipped man, who had never before seen these particular jobs, and who had never worked on this machine, to do work from two and one-half to nine times as fast as it had been done before by a good mechanic who had spent his whole time for some ten or twelve years in doing this very work upon this particular machine."[1]

Technical engineering is obviously necessary for the effective co-ordination of all the factors of mechanical and applied science. The multitudinous details have to be related, the machines properly arranged, inventions and discoveries adequately sought for, the power facilities efficiently connected, the mechanical equipment suitably installed, and all brought into a single clock-work of efficient functioning.

Another branch of the applied science of management is human engineering. The task of fitting men to machine work, of securing interest in work and developing morale and loyalty, of stimulating motives and making the machine technique develop rather than retard the human personality,—the whole task of handling men in their industrial pursuits has evoked the science of industrial, or human, relations. It is here that the principles of psychology become of primary value, for the problem is essentially one of understanding human behavior, and directing human conduct.

A further branch includes all the other activities of management which fit the technology of the productive

[1] F. W. Taylor, "Principles of Scientific Management," pp. 99-113.

equipment and the behavior of the human equipment into the price system of the economic order. The ownership of the mechanical equipment, the methods of remunerating the human equipment, the structure and operation of the market in all of its ramifications of buying and selling, the maintenance of the credit system of banking and investment, the adjustments of international commerce and finance,—all of these must be statistically measured, charted, judged, forecasted, recorded, and related. The interconnections of all the parts, the indispensable adjustments from the beginning to the end of the whole process, the co-ordination of methods and the formulation of harmonious principles, require the most careful application of scientific methods to the general unifying problem of management. The mechanical and scientific basis of modern production would result in utmost chaos were it not for the steady unifying power of the applied science of management which holds all parts of the technological universe in their proper courses.

Psychology of Engineers and Inventors

The motives of the men who have created the mechanical inventions and made the scientific discoveries which underlie the whole technology of the economic system are for the most part of a distinct type. The paramount motives of inventors and scientists differ in no small degree from the paramount motives of the owners of the economic equipment. In the former, the constructive impulse, the creative bent, the instinct of curiosity are particularly strong. Unflagging scientific curiosity impels men to protracted and exhaustive research until a new scientific law is discovered, or a new chemical element revealed, or a new electrical principle arrived at. The motives underlying discovery and invention are comprehensively stated by a vice president of the American Telephone and Telegraph Company as follows: "Pure scientific research is conducted with a philosophic purpose, for the discovery of truth, and for the advancement of learning. . . . The work of the pure scientists is conducted without any utili-

tarian motive, for as Huxley says, 'that which stirs their pulses is the love of knowledge and the joy of discovery of the causes of things . . . . the supreme delight of extending the realm of law and order ever farther toward the unattainable goals of the infinitely great and the infinitely small, between which our little race of life is run.' The pure scientists are the advance guard of civilization. By their discoveries, they furnish to the engineer and industrial chemist and other applied scientists the raw material to be elaborated into manifold agencies for the amelioration of the condition of mankind. . . . I do not say this because a new incentive is necessary for the pure scientist, for in him there must be something of the divine spark and for him there is no higher motive than the search for the truth itself.''[1] A National Research Council has been formed in the United States for the sake of organizing and promoting research along scientific lines. Through the systematized effort of this scientific body and through the individual investigations scattered over the country, the technology of the productive system is steadily improved and enlarged. The solution of problems of efficiency, safety, health, and wealth rests in fundamental ways upon the progress thus achieved in industrial and scientific research.[2]

A preponderant creative impulse is likewise obvious in the lives of the general run of inventors. In an original study of the psychology of inventors, F. W. Taussig remarks, "One thing stands out conspicuously: the race of contrivers and inventors does obey an inborn and irresistible impulse. Schemes and experiments begin in childhood, and persist so long as life and strength hold. It matters not whether a fortune is made or pecuniary distress is chronic: there is increasing interest in new dodges, unceasing trial of new devices. . . . It would seem that no satisfaction from pecuniary success or worldly recognition equals the absorbed interest of trial, experiment, novel

[1] J. J. Carty, Bulletin No. 8, National Research Council, February 6, 1920, p. 5.
[2] Yerkes, "The New World of Science," pp. xii-xiii.

problems, happy solutions."[1] Inventiveness is not, however, an unmixed motive. It is intertwined with others in a wide variety of combinations, depending upon the individual instinctive equipment and upon the experience of the personality. The desire for public service, for the general welfare, for the national defense, frequently is prominently mixed with inventiveness. The desire for profit from the invention is usually present and often plays a vital part in directing the course of the inventive instincts. It is a common matter for the inventor to give his time and energy to that problem which promises the largest money reward. Patent rights are jealously guarded. Yet the inventor is notoriously lacking in business sagacity, and is the easy victim of unscrupulous contractors. The illustrations are frequent where the inventor is persuaded to sell his invention for a fraction of its real value. Business ventures by professional inventors suffer an abnormally high degree of failures. The hope of pecuniary gain is indispensable to call forth the most effective inventiveness of men in the present economic organization. But underneath, the major, propelling instinctive factor is the pure love of making something new. That class of men who have given society its stock of mechanical inventions and processes, prove the power and vigor of the motive of creativeness.

The motives in those classes of engineers which control and manage and direct the whole mechanical and scientific technique exhibit essentially the same combination of instinctive dispositions. Engineers are not indifferent to high salaries, and generally speaking, seek for the position which offers the highest pecuniary reward. Nor are they indifferent to considerations of the welfare of the country, and the means of promoting it. But the pivotal instinctive energies which have been most conspicuous among the engineers of all classes are those of constructive achievement, productive efficiency, and advance in scientific management. The psychology of this group is reflected in a declaration of principles made by the leading industrial

[1] F. W. Taussig, "Inventors and Money Makers," pp. 21-22, 48-54.

engineers of the United States in 1919. This declaration reads in part as follows: "The prevalent unrest in industry results from a system which permits the acquisition of wealth for which no adequate service has been rendered and tolerates special privilege with the resulting exploitation of men, women and children.

"Great powers have been used arbitrarily and autocratically to exact unmerited profit or compensation by both capital and labor. This policy of exacting profit rather than rendering service has wasted enormous stores of human and natural resources and has put in places of authority those who seek selfish advantage regardless of the interests of the community."[1] The conduct of the engineers as a class demonstrates the practicability in economic affairs of drawing upon the instincts of constructiveness, achievement, public service, and economic usefulness. Wherever pecuniary motives come sharply in conflict with these motives, they have been curbed to a striking degree by the profession of engineering. Wherever pecuniary motives could go hand in hand with these other motives, the combination has been made, with a gain in intensity and in scope of achievement.

The possibility of an overhauling of economic motives is thus seen to be one not altogether theoretical and speculative. At the basis of the economic order rests the mechanical and scientific technique. It has been invented, step by step, and is steadily organized and managed by types of men in whom motives of constructiveness, curiosity, achievement and usefulness are primary. The careful observation of the distinguished English economist, Alfred Marshall, is that "it is true that the best energies of the ablest inventors and organizers of improved methods and appliances are stimulated by a noble emulation more than by any love of wealth for its own sake."[2]

Those people who are accustomed to insist that unrestricted and unlimited profit-making is the alpha and omega of business psychology, and who prophesy with em-

[1] *Industrial Management*, November, 1919, Vol. LVIII, p. 419.
[2] "Principles of Economics," 1916 edition, p. 14.

phatic certainty that any attempt to mold economic institutions and social standards in forms calculated to put motives of constructive achievement to the front is a move toward making business motives anemic and effete, face some basic facts in the psychology of inventors and engineers which do not square with their theories. Engineers, administrators, organizers, inventors are a living demonstration of the virility and vigor of men acting under a high degree of constructive and creative motivation, and there seems no doubt that executives and managers of business establishments are undergoing a gradual evolution of a similar sort in their motivation. The forceful words of C. H. Cooley are directly to the point: "One of the main forces in keeping economic motive on a low moral level has been the doctrine that selfishness is all we need or can hope to have in this phase of life. Economists have too commonly taught that if each man seeks his private interest the good of society will take care of itself, and the somewhat anarchic conditions of the time have discouraged a better theory. In this way we have been confined in a pernicious state of belief and practice, for which discontent, inefficiency, and revolt are the natural penalty. A social system based on this doctrine deserves to fail. . . . It is false even as economics, and we shall never have an efficient system until we have one that appeals to the imagination, the loyalty, and the self-expression of the men who serve it. . . . There is a trend throughout society to substitute higher motives for lower, and this is not only because the former are more agreeable, but because they are more effectual."[1]

Certainly nothing could be of deeper significance for the future of economic welfare than a gradual evolution of general business instincts and motives along the lines prevalent in the men who invent and administer the technical foundations of all economic life,—the engineers, scientists and inventors. Among these men, non-pecuniary motives are for the most part in the ascendency, and bring about the solidly constructive accomplishments of the

[1] "Social Process," pp. 132, 135, 136.

mechanics and science of production. Pecuniary motives are present and mix constantly, but the other motives are also fundamental. Their practicability is thereby demonstrated.

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CHAPTER VI

LABOR: ITS PART IN PRODUCTION

The objective of labor activity in industry is the production of goods or the rendering of services. The goods may be intended either for immediate consumption or for the production of other goods, and the services may vary from those rendered by a domestic servant to those rendered by a factory workman. [1]

The chief factors in production are land, labor, capital and management. The distinguishing function of labor is the operation of machinery, and the handling of material. This function of labor is performed under the direction and guidance of management. The material and machinery are the capital which is ultimately under the control of the owners. Labor's part in production is distinctly confined to the following out of plans, methods, and processes under the guidance of powers higher up. It is not labor's function to decide whether new machinery shall be installed, or who shall own the machinery, or where the material shall come from or to whom the finished product shall be sold. Labor feeds raw material into the machine, lifts the levers and fingers the controls, takes the product away from the machine and either by hand or by the manipulation of further machinery transports the machine-made product to places where it can be used.

This restriction of labor's function was carried to an extreme in what has come to be known as Scientific Management. To quote F. W. Taylor, "In almost all the mechanic

[1] "Labor" has come, by general usage, to mean productive effort which involves a substantial amount of manual and muscular energy. This usage of the term does not imply that the mental energy expended by management is not labor; nor does it imply that laborers are lacking in mental capacity. The generally accepted meaning of the term is the one in use in the analysis of this chapter.

arts, the science which underlies each act of each workman is so great and amounts to so much that the workman who is best suited to actually doing the work is incapable of fully understanding this science without the guidance and help of those who are working with him or over him, either through lack of education or through insufficient mental capacity." In the carrying out of this division of function, the part of management is to plan, to invent, to conceive new ways of doing things, to plot new arrangements of machinery, to devise the science of production from beginning to end. At the same time, the part of labor is unquestioning acceptance of the technology worked out by management. Labor's part is primarily muscular and only secondarily mental. Labor's part is to use the fingers, the hands, the arms, the eyes, the ears, in lifting, watching, pushing, pulling, carrying and handling. In many economic processes, this division of function is carried to such an extreme that the imagination and thought of labor is not only unnecessary but is apt to interfere with the efficient operation of the machine. In other processes, the mental tax upon the laborer is still considerable, but even in these cases, the broader, the more fundamental features of the science of production are designed and laid down for him by engineers and managers.

The mechanical processes which labor carries through involve endless repetition. The operation of the automatic machine requires that the laborer shall touch the same lever in the same way, at the same speed, several thousand times per day. Where the machinery has not become completely automatic, the repetitive motions which the laborer performs are the chief features of his part of the operation. The inevitable consequence of repetition is monotony. The incessant performance of the same motion day in and day out, thousands and tens of thousands of times, leaves scant room for variety, newness, imagination, or originality. The work becomes irksome, fatiguing, uninteresting, monotonous. [1]

[1] See S. H. Slichter, "The Turnover of Factory Labor," pp. 188-191.

This depressing monotony is not, however, the outcome of all automatic inventions. The best cure for monotony and dullness is often not less machinery but more machinery. The processes of production which involve great muscular exertion under high temperature, or in an atmosphere saturated with obnoxious gases, can be reduced to automatic treatment with great advantage to the laborer. A careful investigation of steel manufacturing processes has shown that, formerly, men were on the twelve-hour day, but worked only six or seven hours of that period. During the remainder of the period the workers were waiting for various processes to be finished. Now, with machinery and science in control of the blast furnaces and the conveying operations, the hard, gruelling labor is reduced to a minimum and men are responsible for watching and guiding, by the manipulation of levers and the pushing of electric buttons, vast and important processes in the making of steel. The observations of T. N. Carver led to the conclusion that the automatic machinery for the manufacture of shoes imposes less monotony and drudgery upon the machine operative than was formerly experienced by the old-fashioned cobbler laboriously making a single pair of shoes. With adequate regard for such facts, it remains true, however, that the general consequence of the automatic mechanical principle has been a marked increase in monotony for laborers.

Much of the mechanical process when carried on automatically makes unnecessary a high degree of skill or ingenuity on the part of the operative. The wide studies of R. F. Hoxie disclosed that "the workman no longer knows his trade as he did under the handicraft system. Modern capitalistic and machine industry has progressively specialized him . . . till now the average workman knows only one or a few minute processes connected with any enterprise and has no means of broadening his knowledge." In cases where this tendency reaches its more extreme development, the worker's duty in standing at the machine is so simplified that even the most ignorant workers cannot err. Such machines are termed "fool proof." Recog-

nizing this fact, some scientific managers have claimed that many operations can be performed most efficiently by workers who in their temperament and intelligence most nearly resemble the ox or the guerilla. It has been found that for many processes the mentally dull,—even the mentally deficient—are the best operatives. It has been estimated that perhaps fully one-half of the industrial processes can be carried through effectively by those who have had no vocational training. The human consequences are suggested by C. H. Cooley as follows: "Men, women, children find themselves required to work at tasks, usually uninteresting and often exhausting, amidst dreary surroundings, and under such relations to the work as a whole that their imagination and loyalty are little, if at all, aroused. Such a life either atrophies the larger impulses of human nature or represses them to such a degree that they break out from time to time in gross and degrading forms of expression."

Out of this situation has developed a tendency for American workmen to avoid wherever possible the unskilled, untrained, ignorant functions. These have come more and more to be assumed by immigrant workers. A line of cleavage has grown up, roughly and approximately speaking, between American skilled workmen and immigrant unskilled workmen. A class feeling has grown up between the two groups. The skilled workman looks with a certain amount of condescension upon the lower ranks of common unskilled labor. The skilled worker is proud of the fact that he is not on the low plane which requires no distinct amount of mental capacity. As Hoxie explains, "The skilled workers in general have no love for the unskilled; the successful for the unsuccessful."

The function of labor is for the most part being performed very greatly to the dissatisfaction of the managers of industry. Productive efficiency is frequently only a fraction of its possibilities. The workers lack interest, lack enthusiasm, and in consequence often not only are indifferent to the efficiency of production, but deliberately soldier on the job. One great problem of production at the

present time is to enlist the constructive instincts of laborers in their work. This outstanding problem of production is not the invention of new machines but the invention of new ways and means for drawing out the creative interest of the workers. Without such a creative interest, production is predestined to remain at absurdly low levels.

A wide variety of devices are being resorted to by progressive managers as a means of arousing the instinct of workmanship. Inventors are being called upon to take into account the human factor in the construction of new machinery. Engineers are giving attention to methods of organizing the production processes which will harmonize with the interest of the workers. When laborers are found to "go stale" at certain machines, or to suffer excessive depression or fatigue, they are moved around the plant to machines of different types in order to have variety. Progress charts are posted in order to give the laborers a clear picture of the amount of work which each man is doing in comparison with his fellow laborers, also to give each man a chance to compare his output to-day with that of the year previous. Managers in progressive plants call for suggestions from the workers about economy, better arrangement of machines, new inventions, and desirable working conditions. Joint conferences are held to discuss with the laborers policies for the improvement of workmanship and means for inspiring creative interest in the shop. A pride in work is secured by placing emphasis upon the quality of the output rather than upon the quantity alone. Rivalry between individual workers, between gangs, and between whole departments of the plant is employed to stimulate the imagination and enthusiasm of the workers. All in all, the end and aim is to put into the worker's life a content of thinking, planning, suggesting and understanding.

The last thirty years has witnessed a remarkable development of mechanical invention and of the application of science to economic methods. In the course of this development a point has been reached at which the human nature of the workers finds it difficult to make an efficient adapta-

tion to the economic process. Regardless of what outside inventors and scientists have sometimes considered labor ought to do, his bundle of instinctive tendencies has made him the human being that he is, often unreasonable, often unmechanical and unautomatic, often brilliant, often childish, often uncontrollable. The question, How much will a worker produce? is met by the apt remark, As much as he wants to. Economic science faces the task of leading and inspiring, not driving and threatening labor. There is already sufficient experience to indicate that this problem is not a matter of mawkish sentimentalism or Utopian dreaming but is a practical possibility of human engineering. It means putting man and all of his instinctive tendencies at the beginning and end of thought about the laborer's part in production, and it necessitates readjusting machine and management to fit the human nature of the workman.

The Job

Labor's opportunity to carry out its part in production constitutes the job. The opportunity to work and thereby to earn a living is indispensable to the laborer's life. In its present form the job is an opportunity which may be given to the laborer or taken away by powers utterly beyond his control. The laborer has no right to a job. There is no established legal responsibility on the part of anybody to guarantee the laborer a steady job. The employer may give or withhold as he sees fit. The employer retains the right to hire and fire for reasons good and sufficient in his own eyes. The opportunity to carry out labor's function is therefore a precarious one, and is created or destroyed by powers of management above and beyond his influence or control.

To lose his job is likely to bring distress and fear to the worker and his family. Both he and his dependents face the demands of the landlord, starvation, and the keenest of social dreads and anxieties until a new job can be found. This may take weeks or months. In the meantime the state of mind and body of the worker tends toward de-

moralization. As stated in detail by Lescohier, unsteady employment "undermines his physique; deadens his mind; weakens his ambition; destroys his capacity for continuous, sustained endeavor; induces a liking for idleness and self-indulgence; saps self-respect and the sense of responsibility; impairs technical skill; weakens nerve and will power; creates a tendency to blame others for his failures; saps his courage; prevents thrift and hope of family advancement; destroys a workman's feeling that he is taking good care of his family; sends him to work worried and underfed; plunges him in debt."[1]

The loss of a job may be the fault of the worker himself, or on the other hand, may arise from causes completely beyond his control. In the average industry, approximately one-half of the causes of a change of employment lie within the volition of the worker himself. Among such causes for the laborer's voluntarily leaving his job are fits of temper, mean and disagreeable foremen, unsatisfactory wages, excessive hours, no prospect of advancement, the wanderlust, bad housing accommodations, poor health, and attractive opportunities elsewhere. The other half of the changes of employment are due to the volition of the employer. Of this half the larger proportion of changes are in the form of lay-offs due to industrial depression, seasonal shut-downs, bankruptcy, new mechanical inventions. The smaller proportion is in the form of discharges due to inefficiency, unreliability, insubordination, agitation, union affiliation, etc. The causes for the worker's withdrawing from a job, or for his being dropped from a company payroll are obviously in a very large measure psychological. Dissatisfaction, temperament, instinctive ambitions, and all the moods and impulses of both worker and employer enter into the unsteadiness of work. With surprising frequency, the shift of employment has no traceable connection with careful, deliberate, rational calculation but is due to outbursts of instinctive passions, or to the domination of fixed prejudices. In many cases the worker's quitting of the job is an act without foresight, or re-

[1] "The Labor Market," p. 107.

gard for distressing consequences to follow. There is a large group of workers whose mental equipment does not enable them to protect themselves from the rashness of blind quitting. As pointed out by Dr. H. M. Adler, "There are individuals in a community who for a variety of reasons are not able to regulate their conduct on the basis of experience."

The amount of turnover of labor varies greatly from company to company, but in the aggregate attains alarming proportions. It has been estimated that on an average, in order to maintain 1,000 constantly at work it is customary to employ one thousand new men during the year to replace 1,000 old ones. In other words, the average rate of turnover is about 100 per cent. However there are some plants in which the turnover runs as low as 10 to 20 per cent. and others in which it ranges from 300 to 600 per cent. Taking industry as a whole, government investigations form the basis for the estimate that to keep five million workers fully employed throughout the year 1914, there were about four million accessions and four and a half million separations, or a total of more than eight million workers changing jobs that year.

A true picture of employment, therefore, presents a stream of constant come and go, incessant hiring and firing. This extreme flux and change affects most severely about one-half the workers. The other half endeavors to stick to the job. For the latter employment is something steady and permanent. They stay with the same company for as large a portion of their lifetime as economic conditions will permit. The high rate of turnover occurs because of the extreme fluctuations occurring among the other half of the workers. For them a job is an affair of a few weeks or a few months. Due to their own unfitness they are fired, or due to their discontent at conditions within the plant the job becomes irksome almost as soon as it is taken This half of the laboring population is on the march from plant to plant a large share of the time. For them employment is an unstable, uncertain, fickle, temporary affiliation.

The cost of labor turnover is immense. The cost to the employer in terms of dollars and cents ranges from $25 to $200 or more per employee. For employees the loss of earnings during unemployment, the expense and difficulty of obtaining new jobs, the low wages while learning a new job, the greater exposure to accident in unfamiliar work, the cost of moving the worker's family, the loss of skill by the shift of occupation, and the demoralization and discouragement from idleness are tremendous.

Attempts to reduce labor turnover have been frequent during the last decade. It was formerly supposed that the ready mobility of labor was thoroughly useful because it evened up the supply and demand of workers in various communities and served to adjust the labor market to business requirements the country over. In recent years, however, this mobility of labor has come to be looked upon as an undesirable burden to both the employer and the employee. At first, employers sought to reduce turnover by special devices contrived almost exclusively with eyes centered upon the turnover problem. Gradually this viewpoint has been abandoned and in its place has arisen the belief that turnover is an index of the whole policy of labor management of the corporation. No single trick or device has magic powers to reduce turnover. All phases of the corporation policy need to be placed upon a sound footing, and thereafter turnover will take care of itself. There are certain phases of corporation policy which have more importance in reducing turnover than others. To quote Slichter, "The foremost important features of a job to the average factory workman are:

1. The wages.
2. Its steadiness.
3. Its psychical and nervous demands upon him.
4. The hours.

As these four overshadow all other features of the job in importance to the workman, making the work attractive in these four respects must necessarily form the foundation of attempts to reduce the turnover. . . . *Men will not*

remain at work because of incidental attractions when matters of fundamental importance are unsatisfactory."[1] Under favorable conditions turnover can be reduced, so most authorities agree, to approximately a 20 per cent. basis.[2]

The unsteadiness of the job has the most intimate bearing upon industrial morale and upon the degree of loyalty existing between the employer and the employee. Unsteadiness of employment operates as a direct cause of disloyalty to the company. The worker feels that wages, hours, and working conditions are so unsatisfactory that he is ready at any moment to leave the job. If he does not leave on his own accord a foreman or superintendent may fire him for reasons good or bad. Under these conditions he becomes the victim of a weak, and often vicious industrial morale. It is next to impossible to feel loyal to the company because he receives too many indications that the employer feels no sense of loyalty to him. The employer stands ready to close down his factory when business conditions are poor regardless of the discomfiture among his workers, and with that understanding in the worker's mind, it is but natural for his instinctive tendencies to react in terms of resentment.

Among a very large group of employers, this state of uncertainty and unsteadiness of employment is looked upon as a valuable weapon over the employees. If the worker can be kept in a state of fear and dread of being fired, it is thought that he will be spurred to efficiency and obedience. The right of firing, with loss of pay, is supposed to be essential in order that men may have an incentive to work thoroughly. The knowledge that a line of applicants is standing at the factory gate eagerly asking for jobs is conceived as an intimidating force. The discipline of fear is hung over the workers' heads. The attempt to appeal to the emotions of fear and to establish industrial discipline upon the instinctive tendencies which connect themselves with worry, anxiety, privation and distress is, however,

[1] "The Turnover of Factory Labor," p. 251.
[2] Lescohier, "The Labor Market," p. 116.

definitely repudiated by the more progressive business men. Fear may drive men to work, but work done under such compulsion has neither the spirit nor the efficiency which is possible of realization when other motives are brought out. As Cooley remarks, "Fear is a poor motive, because it does not evoke those energies which are bound up with ambition, sympathy, social imagination and hope." To quote F. J. Miller in a presidential address to the American Society of Mechanical Engineers, "The old driver method of management will no longer do. . . . The workers of every country have acquired a new status. Realizing the great difference between a body of employees all enthusiastically co-operating, and a body of employees rendering only such service as they think necessary to hold their jobs, these men [engineers] are giving this problem their best attention."

The fear discipline holds the mass of workers to a low margin of safety. At any minute they are in danger of losing the opportunity to work, and with that they lose the opportunity to livelihood and safety. This condition maintains what has been called "a pain and deficit economy," that is, an economy in which the worker is always on the verge of unemployment and privation. The never-ending uncertainty under the fear régime brings a heavy human cost. It means that workers have at painfully frequent intervals to "turn to new occupations, form new habits, and think new thoughts." As Cooley finds, "the principle that human character deteriorates under irregular and uncertain employment is an old one and, I believe, undisputed." [1]

In the job is wrapped up all that means most in the life of the working man. It is his opportunity to be a useful member of society. It is his opportunity to carry out the instinctive and mental energies which make him a human being. For him it contains the means to all that life holds worth while. It is, in short, for the worker the very life of life. The fear discipline which is associated with unrestricted right to hire and fire and with irresponsible

[1] Cooley, "Social Process," p. 184.

power to intimidate and coerce men by threats of unemployment strikes at the heart of the worker's life. Progressive employers have discovered that the fear discipline can be moderated with immense human gain to the workers and with a corresponding benefit to the employers in terms of productive efficiency and sound industrial morale.

Hours of Work

The hours of work are affected by two primary economic factors: first, hours should not exceed the maximum consistent with the health and welfare of the workers; second, within this limitation, hours should not fall below the minimum consistent with high production. The first factor is chiefly a question of the length of time a worker can stay at his task without suffering injurious fatigue, and, at the same time, of the length of working day which will allow him enough leisure to take advantage of the enjoyments and recreations and duties of a wholesome life. It is a human factor pure and simple. The second factor is chiefly a question of securing the length of work day which will maintain the worker in sufficient health and morale to make possible a maximum of efficiency in production.

The exact prevalence of the eight hour day is not known, but that it has had a steady and rapid growth during the last five or ten years is beyond question. It seems clear that in spite of the rapid spread of the movement, a majority of American wage earners are still outside the scope of the eight hour limit. From 1915 to 1919, the number of workers newly brought within the scope of the eight hour day was approximately three and one-half millions. During the war and after, the authority of governmental boards and commissions, both state and federal, and the approval of the President of the country was given to the principle of the eight hour day for most industries. This amounts ordinarily to the forty-eight hour week.

The principle is to be conceived as a flexible one. The length of day for each industry is a matter for scientific determination in that industry. A careful scientific study

of fatigue, monotony, productive efficiency and other related factors is necessary to determine in any specific industry the most effective length of working day and week. Even though the normal for most industries has been approved as the forty-eight hour week, nevertheless there are others in which the forty-four hour week has been found better, and still others in which a fifty-four hour week has been found the most advantageous.

The scientific determination of the length of work day for each industry requires also the consideration of overtime. Not infrequently the eight hour base is set as a standard from which to figure wages, whereas the actual length of work day involves overtime at extra pay. Such a situation has prevailed on many railroads, at the wish of the workers themselves, because of the extra earnings made possible for them. In frequent cases the overtime is exacted by the employer against the wishes of the workers, because of his desire thereby to increase output for the time being. The whole problem of overtime is a proper matter for scientific determination within each industry. It is a problem which deserves treatment by other means than guesswork or the whims or prejudices of either employer or employee.

The steel industry has been one of the most offending industries in resisting a reduced working day. However, a number of individual plants have eliminated the 12 or 14 hour day with its frequent shift necessitating 24 hours of continuous labor, and their action has proved the shortening of hours practicable from a production standpoint. Under the new schedule, the three shift system, of eight hours each, has been tried out successfully. The largest steel company, the United States Steel Corporation, announced in 1921 its approval of the reduced hours policy and its determination to put the new policy into effect. For other industries problems of night work, of the seven day week and of the hours of women and children remain to be settled by the same method of scientific analysis.

Long working hours have been objectionable because of

their harmful effects upon the mental and physical health of the worker. Long hours under modern conditions of production generally result in injurious fatigue. "The problem of hours has undergone a fundamental change through the introduction of large scale factory production and the growing concentration of our population in cities. Men and women can work relatively long hours at work which is interesting, which calls upon their various energies, which gives some opportunity for creative self-expression. Work which is repetitive, monotonous and conducted under the confining indoor conditions of even the best industrial plant, especially where the plant is located at a distance from the homes of the workers, makes much more exacting physical and nervous demands."[1] The productive process imposes upon the delicate, nervous and physical mechanism of the human operator a speed of motion, a monotony of operation, a distraction of noise, an imminence of industrial accident, a fear of bosses and a lack of interest, all of which accelerate the accumulation of waste products in the body, the exhaustion of vital energy, the straining of the nervous organism and the tension of the mental powers.

Tests applied to many industries have demonstrated that fatigue is a cause of increased accidents. The dullness of mind, the tiredness of nerve, destroys the alertness and quickness of reaction which is necessary for a "safety first" operation of many types of machines.[2] Moreover fatigue makes the worker excessively liable to nervous breakdown, to morbidity and moodiness, and predisposes his bodily constitution to an easy contraction of serious diseases.

In addition, fatigue brings the worker to such a depressed physical and mental state that it is difficult for him to enjoy the leisure hours at the end of the day's toil. When he is too tired to play, too deadened to read, too fagged out to benefit from recreation, his leisure hours lose a large part of the value which they should contain.

[1] President's Second Industrial Conference Report, 1920.
[2] See Goldmark, "Fatigue and Efficiency."

Fatigue unfits the worker to enjoy leisure and to do justice to his responsibilities of citizenship.

The comment of Dr. F. S. Lee carefully appraises the experience of recent years. He declares, "If a man is worked beyond his physiological limit, he is incapacitated for his duties to his family and to society. The history of labor has demonstrated this abundantly, and the experience of reducing the hours of labor has almost universally been followed by marked moral and social improvement, such as is shown by decrease in intemperance and crime, improvement in living conditions, greater efforts toward education, greater intelligence and greater industrial efficiency—all this in contradiction, not only to the vivid predictions of disaster pronounced by active and unprincipled opponents of the change, but to the fears of those who were well meaning but timid."[1]

The effect of fatigue upon productive efficiency is to diminish it. The British Health of Munition Workers Committee found that for women engaged in certain forms of lathe work a "fifty hour week yields as good an output as a sixty-six hour week and a considerable better one than a seventy-five hour week."[2] Investigations of cotton manufacturing indicate that between fifty and fifty-six hours per week secure the maximum efficiency in that industry. The most productive length of working day is therefore a matter of scientific ascertainment. In some industries the 54-hour week has evoked maximum production; in others, the 44-hour week.[3] The twelve hour day has, practically without exception, been found subversive of maximum production. Insistence must be made that not guesswork, nor sentiment, is adequate to decide for any particular branch of work what is the most effective working period. Scientific measurement is the only adequate means of finding the proper period.

[1] *Science*, 44:733. Also see Goldmark, "Fatigue and Efficiency," pp. 279-283.

[2] "Ministry of Munitions, Health of Munitions Workers Committee, 1918," p. 35.

[3] See Brooks, "Labor and the New Social Order," p. 250. Also Goldmark, "Fatigue and Efficiency," p. 174.

The relation between shortened hours and increased efficiency is summarized by H. B. Drury, after a careful study of the experience of several American steel companies on long and short work periods. His conclusion is, "The mere change from twelve to eight hours in an industry where everything centers around huge machines and furnaces is simply an opening of the door for greater efficiency, not a consummation of it. What is necessary if the industry is really to get what it should out of the shorter day is a thorough-going reorganization. The occupation must be changed, the spirit of the men, the type of foremen. What the introduction of the three shift system does is simply to open up a new country. . . . But to harness this new energy, as to develop a new country, will take time."

The progress of fatigue elimination has come about by a number of different avenues. The pressure of labor unions for the eight-hour day by collective bargaining was the original stimulus behind the movement. State legislation has fixed hour limits for women and children very widely, but only in comparatively few cases for men. The eight-hour day was determined for the railroads by Congressional statute in 1916 and in 1921 more definitely applied by the Federal Railroad Labor Board. The extreme hazards of the mining industries have led most of the states in which mining is an important industry to limit working hours to eight in one day. In a number of cases the voluntary action of the employer has led to the reduced length of working day. Scientific management and personnel administration has given valuable study to the problem and much encouragement to the movement. At the same time, rest periods have been interspersed in the day's work as a means of preventing undue fatigue and maintaining maximum efficiency. The adequate length of meal times, the regulation of night work, the granting of Saturday half-holidays and of legal holidays, the allowance of one day's rest in seven, and the assurance of annual vacations have all come into being in a great many industries under the stimulus of the same agencies as

brought about the reduction of the length of the working day.[1]

Of course, the mere fact that the worker is granted more leisure does not insure that he will make wise use of it. As a matter of fact, an alarming proportion of the people who have received the opportunities that go with more leisure have made abominable use of the opportunities. During leisure hours, the worker is a consumer, and the art of consuming wisely has not been properly developed in economic society. The education of consumers to a wholesome use of leisure time, and to a proper standard of spending income is imperative, if the shortening of the work day is to be a safe social achievement. This matter is treated more in detail in later pages.

The net outcome of the whole movement may be stated in terms of a reduction of the human cost of industry without a reduction in productive efficiency. J. A. Hobson writes, "The first plea for a shorter work day is one which our analysis has made self-evident. It will greatly reduce the human cost of production in most processes. For, as we recognize, the strain of muscular and nervous fatigue, both conscious and unconscious, gathers force and grows with great rapidity during the later hours of the work day." Less fatigue and more leisure means an enhanced amount of human development. It means an opportunity for the enjoyment of a sound family life, and for the development instead of the discouragement of personality. It means a higher capacity for thought, an expansion of curiosity, and a lifting of imagination. To recognize these human values is not to undermine economics with vapid sentimentalism. An economic order exists for the use and service of the members who work in it, great and small, wise and foolish. Unless it serves to bring men nearer to a realization of their best selves, it is dangerously defective. It must be positive and actually have a dynamic urge in the direction of less exhaustion and more

[1] See Commons and Andrews, "Principles of Labor Legislation," 1920, pp. 221-224, and Spaeth, *Industrial Management*, February, 1920, p. 121.

exhilaration; it must not be negative and impose undue hardships which tend to make it difficult to move forward. When this idea has been incorporated in the technological organization of industry it has generally been proved that the human principle is at the same time the true efficiency principle. Human considerations and efficiency considerations are in thorough harmony. A redistribution of leisure, of rest, of health, of imaginative power, of social enjoyment is the outcome and this outcome is sound economics.

Wages

Labor's reward is given in the form of a wage. The wage is simply a money payment in return for the performance of labor's function. The amount of this payment in terms of dollars and cents is the nominal wage; the purchasing power of this payment in terms of food, clothing, housing, etc., is the real wage. Obviously real wages are the important factor from labor's standpoint because a high wage which is more than offset by high prices does not mean a high purchasing power. The real wage arises from the ratio between the price paid for labor and the price which labor in turn is obliged to pay for all the necessities and comforts of life.

In technical calculations and in engineering plans, labor is of necessity measured in abstract units, under such phrases as "per man hour," and "unit labor cost." From other standpoints, labor is not an abstract conception or a theoretical idea, but a group of human beings with human personalities and human necessities. Labor is capable of hope and ambition, pain and distress, feelings and ideas. Moreover, wages themselves in the real sense of the term are not an abstract sum. They represent food for the satisfaction of human hunger, clothes for the comfort and gratification of the human body, a home, children, education. As abstractions, labor and wages tend to lead the mind away from the warm and human realities of labor's part in production and it is necessary to fill the terms with a genuine human content.

Economic speculation about the laws of wages has evolved various theories, each stressing some particular factor in the wide range of forces which influence the final sum going to labor. One notable wage theory is the subsistence theory emphasizing the so-called iron law of wages. The essence of the theory is that wages tend to reach the lowest level upon which it is possible for labor to exist, and that any effort on labor's part to raise wages by artificial means, such as union organization, is balked by an iron law of economics. The theory does not take fully into account the fact that the level of subsistence is capable of being raised if the productive efficiency of labor can be substantially increased. The level of subsistence has doubled or trebled in the most advanced countries during the last two or three generations because machinery and science and capital have multiplied the productive efficiency of the average worker. Productive efficiency has increased more rapidly than has population, with the result that the standard of living and the standard of subsistence have been raised.

Another conspicuous theory is the wages fund theory by which certain economists teach that out of the total fund of production arbitrary and unchangeable economic laws lay aside a certain fund of wages which is the inevitable amount available as labor's share in production. If labor in one section forces wages up, the artificial excess which is thereby squeezed out of the total fund means that labor in another section will have its wages reduced by a corresponding amount. The exact and strict form of statement of the theory is too narrow to find application in actual economic life. The theory does not take into account the possibility of increasing production by the invention of methods of wage payment as incentives to efficiency, nor does it take into account the pressure which can be brought to bear by organized labor or reform legislation. The wages fund has been highly variable, the chief limitation upon it being that beyond a certain point wages will encroach upon the returns to management and ownership

so greatly as to discourage them from undertaking their part in production.

A third theory is the commodity theory of wages. According to its teachings wages are subject to all of the market laws of supply and demand. The price paid to labor is fixed in the same way as the price paid for pig iron or coal. A large supply of labor relative to the demand leads to a low wage and a low supply of labor relative to demand leads to a high wage. Labor is looked upon as a thing to be bought and sold in the same fashion as any other commodity. Labor has long smarted at the humiliating inference of the theory, and organized labor in 1916 secured the passage of a law through Congress declaring that labor should henceforth not be considered a commodity or an article of commerce. Experience since that time has indicated that the passage of a congressional statute does not alter the attitude of employers towards employees, nor prevent them from still hiring labor at as low a figure as the market will bear. A number of features of the commodity theory are important. It considers labor as a collection of individual units, but fails to consider the changed marketing power of labor as an organized group. A million men in the labor market as individuals might find their wages fixed by arbitrary forces of supply and demand, but the same million laborers organized into a powerful labor union might be able, as experience has abundantly shown, to raise the wage level considerably above the old market figure. In practice the effort of employers to consider labor as an article of commerce has amounted to an attempt for the most part to secure the maximum of work for the minimum of wages. Labor has widely matched the attitude of the employers by determination to give the minimum of work for the maximum of wages. The laborer when looked upon as a commodity has come to feel that so far as wages are concerned he "gets what he can," whereas the employer has come to feel that the laborer after all "gets just what he deserves." The commodity theory of labor, therefore, leads to unwholesome and embittered feelings in the in-

dustrial world. It takes little account of the need of the workers to live, and reckons as of little importance the higher elements in the human factor of industry.

A fourth theory is the productivity theory, by which it is held that "competition secures for the laborer just what he produces." If the wage is low, that of itself, so the theory runs, is an indication that the productive efficiency of the worker is low. In criticism of this theory, it may be pointed out that although it is true that wages cannot exceed the productive power of labor, nevertheless it is at the same time true that there is no way of measuring the productive power of labor. All efforts to determine the proportionate parts which the electrician, the telephone girl, the janitor, the machine operator, the industrial engineer, and the salesman contribute to the finished pair of shoes are obviously futile. Moreover, even where rough approximations are estimated of the part played by each member of the productive organization, it remains true that the employer need not pay in full the estimated share of each. As a matter of fact, the general tendency on the part of employers is to make as low an estimate as possible of the share of labor in the productive process and thereafter to pay out in the form of wages a sum as far below this estimate as conditions will permit. A further feature of the productivity theory is important, namely, that if the share which labor receives for its productivity encroaches too much upon the share assigned to management and ownership, these latter factors will withdraw from the productive process. It will not be worth their while to continue. The limit to which each of the factors can go in exacting its share is the point at which any other factor's share becomes so small that that factor is driven out of business organization.

Obviously there are important respects in which each of these theories coincide with the economic facts of the modern day, and other equally important respects in which these theories give a grossly inadequate interpretation of the facts of the case. It is therefore much more serviceable and accurate to conceive of a *pluralistic theory* of

wages and to interpret them as the resultant of a very wide variety of influences. For purposes of clearness and convenience these influences may be grouped under the following headings: standard of living, incentives, bargaining power, habit and custom.

Standard of Living

The standard of living as a basis of wage determination is a comparatively new principle in economic life and is not yet universally accepted. The older conception was that industry made possible the payment of only a limited wage, and it was not the fault of the employer if this amount was so low as to make it scarcely possible for the laborer to live, even in the dirtiest and meanest fashion. The business acknowledged no responsibility for paying a wage which made certain a fixed standard of living among the workers. But during the last half generation, the principle has been winning increasing acceptance that the industry owes the workers a good standard of living. An industry which cannot afford to pay a wage adequate for such a standard is parasitical on society and cannot justify itself. Although the new idea is still short of realization in many lines of industry, nevertheless there is a steady tendency toward its wider acknowledgment.

War time government boards did much to strengthen the movement, acting under the conviction that the standard of living as a wage principle has both an humanitarian and an efficiency justification. Felix Frankfurter, as chairman of the United States War Labor Policies Board, asserted: "The lesson of the war is that the adoption of so-called industrial standards, involving also standards of distribution of the product in the form of wages, results in a higher and more continuous output.

"As to wages, the general level has increased during the war. That is partly the reflex of economic conditions irrelevant to the discussion, but there was also a conscious effort to raise submerged standards of existence for workers." Moreover this standard is not the income for the

individual, but for the faimly, "since the family is the unit of industrial work." [1]

The living wage allows for a wide range of interpretation. The truest conception of the principle is briefly stated by Frank P. Walsh, joint chairman of the National War Labor Board in the following form: "Now that term is one having different meanings to different persons. The living wage suggests, perhaps, that amount of wage which will keep life in the human body. That is, of course, not what we understand by it. It has a definite meaning in the world of industry and in the literature of modern economics. It means the amount of wage upon which a worker and his family may be able to subsist in health and with reasonable comforts." [2] The range of expenditures covered by the living wage comprehends such items as food, housing, clothing, fuel, light, carfare, health, insurance, and sundry minor factors. The minimum which an American worker needs in order to be able to keep himself and his family in a state of reasonable comfort and health is the living wage. To insure vitality, health and vigor is not merely good ethics; it is good business. The American standard of living is higher than that of many other countries, and this fact of itself accounts in considerable measure for the relatively high efficiency of the American worker.

The exact amount of wage which is necessary to meet such a minimum requirement is difficult to state for the simple reason that price levels are constantly fluctuating and with their changes, the purchasing power of wages fluctuates accordingly. The essential question is not: How much is the wage figure but rather how much will the wage buy? Before the war, the consensus of a number of careful wage and cost of living investigations was that for the family of the common laborer, an income of less than $850 does not permit the maintenance of a decent American standard of living. This figure, as in the case of those mentioned later, applies to a family of five members." This is taken in wage studies as "the average family."

[1] *Survey*, Dec. 7, 1918. [2] *Idem.*

Similar studies made during the year 1918 indicated that the minimum of subsistence at that time ranged between $1,400 and $1,500. W. F. Ogburn states, "Such a standard of living corresponds approximately with that of common or unskilled labor, and is what is generally referred to as a living wage." Fluctuations of prices and wages subsequent to 1918 must be taken into account in estimating the present minimum of subsistence wage figure. The most comprehensive and reliable wage and cost of living investigations in this country are those made by the United States Bureau of Labor Statistics, under the direction of Royal Meeker. The method of the Bureau's investigations is stated as follows, "It will become more and more essential as time passes that the decision of all questions involving the economic well-being of the laboring classes should rest, not on guesswork or on ex-parte statements, whether of employers or employees, but on the accurate, reliable and strictly impartial results of investigations such as the industrial survey."[1] In 1919, Mr. Meeker stated the findings arrived at by the government investigations as follows: "American families on the average are not fully nourished until their yearly income reaches $1,800. . . . The average income and the modal income both fall well below $1,600. . . . [These figures] do not mean that our working population is dying of slow starvation; nothing of the sort. But they do indicate that the workers of America are obliged to live on a diet too restricted and monotonous for the maintenance of as high a degree of efficiency and health as ought to be maintained as a reasonable minimum."[2] This finding is substantiated by the bulk of reputable authorities in the field, and may safely be taken as the impartial, scientific facts of the case.[3]

For purposes of full clearness, it is necessary to relate the so-called living wage level to two other levels of

[1] Bulletin 265, United States Bureau of Labor, "Survey of Selected Industries in 1919," p. 24.

[2] *Monthly Labor Review*, Volume IX, pp. 7-13.

[3] See P. Douglas and F. Lamberton, *American Economic Review*, Vol. XI, pp. 409-426.

wage and life,—what may be called the poverty level and what may be called the comfort level. The poverty level is a demoralizing and devitalizing level. "Families living at this level receive charity in the form of gifts or free medical service or in other ways. Or if they do not do this they attempt to live on a level so low as to weaken them eventually to such an extent that disease inevitably overtakes them." Further, Parmelee, after an extended survey of the statistics and records bearing on the problem, concludes, "In view of the above facts, as well as various others that might be cited, it seems reasonable to assume that the number of persons in this country receiving charitable aid ranges from five to ten per cent., varying somewhat according to economic and other social conditions."[1] Within the poverty level should be included those whose incomes are so low that although they do not resort to charity for subsistence, nevertheless exist under conditions which involve degeneration and distress. As Parmelee states, "We have plenty of evidence that the number of those who do not even reach the lower minimum standard of living is very great, probably exceeding ten per cent. of the population."[2]

For a group of several millions of people in the United States poverty of a sort which is devitalizing is a haunting fact. As a statement of plain scientific findings, the following words by Hollander are directly to the point: "There are great bodies of people in country and in city who from birth have less than enough food, clothing, and shelter; who from childhood must toil long and hard to secure even that insufficient amount; who can benefit little from the world's advance in material comfort and in spiritual beauty, because their bodies are undernourished, their minds are overstrained and their souls deadened by bitter struggle and want. These are the real poor of every community—the masses who, not lacking in industry and thrift, are yet never really able to earn enough for decent

[1] "Poverty and Social Progress," p. 103.
[2] *Ibid.*, p. 106.

existence and who toil on in constant fear that bare necessities may fail."[1]

The ordinary working of competitive wage forces has not averted the menace of this poverty line. From a social and economic standpoint, the degeneracy and devitalization which goes on steadily within these classes is a national liability of the severest sort. Economic science can find no sound laws or principles which deserve to stand in the way of eliminating the poverty line. Supply and demand, the wages fund, productivity,—any and all of the wage theories present no reasons why the poverty line is an inevitability. There is nothing unscientific in insisting that economics must concern itself with sentiment as well as with dollars and cents. The poverty depths are a challenge to the industrial order, and economic science must accept the poverty problem as a primary instead of a secondary one.

The dehumanizing consequences of poverty are not a matter of guesswork but of scientific ascertainment. The death rate due to the vicissitudes of poverty is approximately double that prevailing among the classes who have higher incomes. The infant mortality rates among these impoverished groups is more than double that of the normal well-to-do groups in America. Perhaps even worse is the fact that the number of days of sickness in proportion to the number of days of health is between fifty and one hundred per cent. greater among the laboring than among the professional classes. The defective wages mean unfit diet, tenement crowding, scanty clothing, inadequate mental care, frequent disease, an enfeebled physique and a harassed and haunted mind. From a strictly scientific standpoint, economics is compelled to deliver a most scathing denunciation of the toleration of the poverty levels in American society.[2]

A third level has been mentioned: the minimum comfort level. This level necessitates an income from $300 to $400

[1] "The Abolition of Poverty," pp. 4-5.
[2] Hayes, "Introduction to Study of Sociology," pp. 98-99.

above the living wage level. An income within the comfort range would allow for a positive measure of cultural development. It would make possible more reading, a better utilization of leisure hours, better educational opportunities for children, more valuable forms of recreation. All in all it would be a positive instead of negative influence and would tend to elevate the worker and his family morally, mentally and physically instead of handicap him in all these ways. The minimum comfort level rests upon the encouragement of higher standards of living and puts a premium upon the development of personality and the upbuilding of character. It frankly concedes that such a human development is a distinct economic asset and that the distribution of the national product should more and more be controlled and organized toward that end.

No treatment of this subject would be accurate which failed to give full recognition to facts of excessive wages in some occupations and the extravagance and prodigality of numbers of wage earners. Here and there, powerful trade unions have exacted wage scales quite out of proportion to the normal, and certain employers, such for example as Henry Ford, have voluntarily given workers wages and bonuses decidedly above the average. Some of these extraordinarily high earnings are put to good use while others find their way into channels of conspicuous waste and extravagance. Moreover, the average family income does not give a clue to the extent by which certain families exceed the average and others fall short of it. Childless families might obtain from a certain income all the needs and comforts of life while the same income for families with a large number of children would necessitate the strictest economy amounting to privation, but for unmarried individuals without any dependents would allow for real prodigality and extravagance. When the family income is not derived solely from the earnings of the head of the household, but from other sources, such as from roomers or boarders, or from jobs held by sons or daughters or wife, the total family fund is likely to be adequate

and to allow for some flourish and luxury. Well paid individuals who have no one to support but themselves are for the most part the ones who flaunt silks and furs and fineries, and there are just enough of these individuals to make much show and create vivid impressions in the public mind. Methods of wage payment, as thus far contrived, do not give full recognition to these variants, but deal on the basis of averages. The wage groups, when brought side by side, in their general proportions, stand about as follows: a topmost layer of workers enjoy extraordinary incomes which allow for some degree of extravagance; a bottom layer of several millions of people are within the poverty line; the great run of unskilled labor barely comes into the minimum of subsistence level; and the group within the minimum comfort level, although possessed of many examples, nevertheless relatively to the other groups, is decidedly small.[1]

The status of the principle of the standard of living as a wage base is therefore far from satisfactory realization. As will be pointed out more fully in a later chapter, federal and state governmental endorsement of the principle has given it strength, and conspicuous progressive employers have lent the weight of their authority to it. The responsibility of each industry for the payment of a reasonable living wage is safely on its way to general recognition. It sets the base below which the worker's income must not be allowed to fall. Above that base rate is room for the play of other factors of many kinds, a number of which are mentioned in the sections immediately following. The emphasis is unreservedly upon the human necessity of a living wage as a primary force. To quote the report of Ex-President Wilson's Second Industrial Conference in 1920, "Considered from the standpoint of public interest it is fundamental that the basic wages of all employees should be adequate to maintain the employee and his family in reasonable comfort, and with adequate opportunity for the education of his children. When the wages of any group fall below this standard for any length

[1] See A. Epstein, "Facing Old Age," Chapter on "American Wages."

of time, the situation becomes dangerous to the well-being of the state. No country that seeks to protect its citizens from the unnecessary ravages of disease, degeneration and dangerous discontent, can consistently let the unhampered play of opposing forces result in the suppression of wages below a decent subsistence level. Above that point there may well be a fair field for the play of competition in determining the compensation for special ability, for special strength or special risk (where risk is unavoidable), but below that point the matter becomes one of which the state for the sake of its own preservation must take account."

Incentives

The psychology of incentives underlies the invention of a number of widespread wage policies. The possessive instincts of the workers are stimulated by devices for graduating wages in proportion to the effort of the worker. The piece rate method of payment rewards labor in proportion to the number of pieces of product turned out. The bonus method of payment starts with a base rate of pay for a given task, and adds to this base rate an increase in some ratio to the excess of production above the standard task. The setting of the standard task involves time study of the separate stages of the manufacturing process and a careful estimate of the amount of work which a normal laborer ought to turn out in a certain period of time. The bonus constitutes a reward for speeding up and for turning out a product above the normal. The United States Bureau of Labor reported in 1904 that the average increase in production where piece rates are in vogue ranges around twenty-five per cent. Experiments with the bonus system have often increased efficiency from 100 to several hundred per cent. General experience would indicate that when rightly applied these two forms of financial incentive are effective in securing an increased production.

A financial incentive for regularity of attendance and for promptness has been effectively used, taking the form

of premiums in money. An increase in wage or a bonus award for long service with the company serves in many cases as an incentive to loyalty and a better spirit of workmanship. Many concerns have found it useful to introduce financial incentives for quality of workmanship and experience has often shown that where a premium is paid for workmanship which involves a minimum of spoiled product, there results not only a genuine pride of workmanship but an actual increase in the quantity of output as well. Many concerns find it advantageous to pay high wages as a deliberate policy, because the high rates are conducive to labor's loyalty and interest in work. Such concerns find that the greater efficiency of labor under high wages actually reduces the labor cost in production.

The strategy of using financial incentives has frequently taken the form of supplementing the wage income with special money returns. Profit sharing is an attempt to assign the workers a fraction of the net profits of the concern at certain periods. Although in carefully regulated experiments profit sharing has met with favorable results, nevertheless, it has led to an alarming number of failures and especially when it has been looked to as a substitute for a system of wage payment which the laborer could consider sound, it both has failed as a stimulant and has served to excite discontent and a feeling of injustice among the workers. Many concerns encourage their employees to buy shares of common stock, the underlying reason being the desire to stimulate a loyalty to the concern by virtue of the fact that the worker receives dividends from time to time, and any form of labor unrest which might interfere with regular dividends would be repugnant to the worker owning the stock. Of this policy it may briefly be said that the financial incentive often serves a good purpose, but cannot be depended upon to secure the loyalty of the worker unless all of the other essential wage and working conditions are sound and satisfactory. Welfare work has often been inaugurated for genuine philanthropic purposes, and often for purposes

of soothing and pacifying labor with attractive surface comforts without supplying the more fundamental necessities which the laborer requires. Where the welfare work has come from the top down, and has not been devised by the joint wisdom of labor and capital, it has commonly given to labor the impression that it is a paternalistic program. Moreover, labor has figured that it is a paternalism at its own expense. Labor would prefer to have the cost of welfare work given in the form of an increased wage. Another type of supplementary remuneration is found in various thrift and insurance devices, often regulated in amount by the length of time the worker has been with the company, or by some act on the worker's part which is useful to employer and employee. All of these forms of incentives, supplementing the wage payment, therefore, may, when rightly handled, serve a good purpose by increasing the stake of the worker in the company. But most emphatically it must be remembered that they are not a substitute for a sound wage policy and that the prerequisite to all of them is a satisfactory and scientific wage schedule.

Bargaining Power

A third group of wage influences is found in the relative bargaining power of employer and employee. The worker has something to sell,—his labor. The employer is in the market to buy labor. The worker as seller wants as high a price for his labor as possible; the employer wants to buy at a "bargain price." The laborer finds that if he refuses to work at the price offered, another man is standing ready to take the job at the figure set, and glad to get the chance. As an individual, his bargaining power is weaker than that of the employer.

A group of individuals, finding this weakness, determine to band themselves into a labor organization and to sell their labor collectively. Their bargaining power thereupon increases by virtue of the fact that if they threaten to refuse to sell their labor as a group because the wage offered is too low, the employer faces the prospect of being

unable to carry on his business and fulfill his contracts. The theory of collective bargaining power rests upon a basis of historical facts, briefly stated by J. H. Hollander as follows, "This much, however, can safely be set forth: in those trades where an efficiently organized, intelligently directed trade unionism prevails, wages have either risen higher than they otherwise would have or have suffered less reductions than would otherwise have occurred."[1]

However, scarcely one-half of the industrial wage earners of the United States are organized. Hence for the substantial portion of workers, the individual is still at the mercy of his inferior bargaining power. Obviously the forces of supply and demand operate with particular strength where individual bargaining prevails. Under collective bargaining, the workers hold the power to withdraw their labor from the plant en masse and under this threat the employer is pressed into the payment of an increased wage. The effectiveness of the potential threat varies greatly from employer to employer depending upon his temperament, or the state of his business, or the degree of his backing by other employers. If by temperament he is strongly self-assertive and intolerant of interference, he may fight it out with labor, even to the point of a protracted strike or lockout. If the state of the business is poor, if profits are low, and depression or loss stares him in the face, so that wage increases would ruin the business, he may use these facts to dissuade labor from exercising its collective bargaining power unreasonably. If other employers are behind him, through employers' organizations of one sort and another, his relative bargaining power may be so enhanced as to offset labor's collective strength. But after due allowance has been made for these influences, the fact remains that labor's bargaining power tends to become greater when used collectively, and wages tend to be forced to higher levels.

Under collective bargaining, the labor cost to the employer is frequently, though not always, by any means, considerably increased. Labor cost inclines to go up not

[1] Abolition of Poverty," p. 55.

merely because a higher wage sum is paid out, but also because the efficiency of the worker is sometimes severely restricted by the collective bargaining group. For example, in many cases bricklayers' unions have not merely pushed wages up but have laid down a maximum number of bricks which the worker is allowed to lay in one day. This maximum is decidedly low in comparison with the possible efficiency of the bricklayer. Wherever restriction of production is practiced at the same time that collective bargaining is used to push wages up the labor cost becomes abnormally great, and in the long run workers as well as employers are grossly injured. Collective bargaining used in such forms ultimately defeats its own purposes. The use of collective power to restrict production deserves sharp condemnation, for it is a source of loss to the nation and of waste and damage to both employer and employee.

Yet mere condemnation of restriction of production will certainly not eliminate the fault. Restriction of production is the instinctive response of the worker to a number of painful facts in his industrial experience. One cardinal fact of this type is unemployment. The millions of workers who constantly stand in fear of irregular employment, seasonal fluctuations, or periodical depressions are responding in the natural psychological manner when they seek to make the job last as long as possible. The job in hand is an immediate source of income; if it is lost, the hunt may be long and discouraging before a new one is found. It is inevitable that the worker should "make work" out of a present job if he expects to be laid off when it is finished. As long as the fear of unemployment is a dynamic force in the worker's experience, no amount of education, propaganda or condemnation can be expected to abolish his impulse to make his work last as long as possible. Many other facts serve as causes in the "make work" tactics of labor. The unsatisfied instinct of workmanship, the stifled desire for self-assertiveness, the constantly curbed possessive impulses, the thwarted desire to act as a group, the general repressiveness of the economic en-

vironment over the instinctive demands of human nature, —all establish a psychological foundation for restriction of production. Frequently, the concrete forms of restriction are catalogued and written into a collective bargain between a union and an employer. More often, the forms of restriction are unorganized and untabulated; they are simply the spontaneous resistance of human nature to an economic environment which has not been scientifically adapted to human nature. Collective bargaining through unions is not, as a rule, the cause of restriction of production; the basic cause is in the maladaptation between the economic organization and human nature.

Collective bargaining power, when not perverted to harmful ends, is a real safeguard to the laborer. Without it, he is at the mercy of forces which frequently are not considerate enough of his needs and welfare. Without it he has no guarantee that his wages will come up to the sum which his productivity warrants; no guarantee that he can rise above the bare subsistence level, no guarantee that his share of the total fund of production will be equitably ascertained; no guarantee that unlimited supply and demand forces will not drive his wage down to harsh and intolerable levels. His group bargaining is his great safeguard against unfair, inadequate or unscrupulous wage determination. However, the power which, when rightly used, is a safeguard of labor's legitimate interests, is, when used by unscrupulous or extremist leaders, capable of menacing the legitimate interests of the employer. The bargaining power of the employer is his safeguard against the excessive or unreasonable demands of labor, and this power often can be acquired only by the organization of several employers to cope with the organization of laborers. Organized bargaining power on both sides has been resorted to as the only practical safeguard against excesses by either side. This sets up a kind of balance of industrial power, and is not unlike the principle of the balance of power in international relations. It leads to a feverish effort to build greater and greater power on both sides, much as, internationally, the balance of power system leads

to a feverish competition to build armaments on an ever greater scale. Collective bargaining is usually militant and threatening in its attitude, and involves a veiled threat of strike or lockout unless demands are met. It lacks a basis of confidence and co-operation between employer and employee. It is not an ideal form of industrial relationship, and probably not the ultimate form, but it occupies a very prominent place in the present stage of the evolution of industrial relations and plays a large part in determining the wage scales in present-day industry.

Custom and Habit

Habit and custom suggest a fourth group of wage fixing influences. Lines of work which custom accepts as carrying prestige and social esteem often command a relatively low wage. Examples would be found in the "white-collared" clerical workers, or in the teaching profession. Again, the customary standards of one locality often keep wages higher (or lower, as the case may be) than those of a neighboring locality. Variation of wages as between different trades and occupations is in a large number of cases explainable by the custom and tradition of the lines of work involved. A Massachusetts Wage Commission has asserted that "wages among the unorganized and lower grades of labor are mainly the result of tradition and of slight competition."[1] Employers who were habituated to the under payment of sweated trades were sure that wages could not possibly be increased above the customary scale until the minimum wage laws came into play, defying custom, yet not ruining the business. Habit and custom operate in and through all other wage influences. Orthodox ideas of wage figures, "which the business will bear" established notions of what constitutes "a fair day's pay for a full day's work," and current attempts to "adjust wages to pre-war levels" all illustrate the scope and force of custom in the setting up the wage scale.

The groupings of wage influences which have been made

[1] "Report of the Commission of the Minimum Wage Boards," January, 1912, p. 18.

under the headings of standards of living, incentives, bargaining power, and habit and custom are not exhaustive in their scope, nor do they exclude the influences mentioned under the various theories of wages outlined at the beginning of the wages section. The primary gain from these groupings is to indicate that no one fixed, absolute principle is adequate to explain wages, and that the most adequate theory of wage standards is one which makes room for a combination of numerous and variable factors.

To search for any one principle or law which will account in full for the determination of wages is not only futile, but is a tendency to depart from the real facts of the industrial world. A large variety of factors are constantly in play, each exercising widely differing degrees of influence in different trades, occupations, and communities. Wages are the resultant of the multiplicity of forces. In actual bargaining there is a high degree of guesswork in ascertaining the proportionate influence of each factor. Much of the guesswork is capable of elimination by a frank recognition of the facts of the worker's life and an effort at scientific measurement along lines already suggested. A wage theory should be realistic, should fit the facts of economic life. The most realistic method of wage settlement is not a conception of some one wage law into which wage facts of all sorts and varieties must be made to fit, as into a straight jacket. The truly realistic key is a conception of the full list of wage forces, playing widely varying parts from instance to instance, combining in new and original forms, requiring in each individual case an estimate of its peculiar and unique grouping of all the forces in operation, and taking on new and differing degrees of influence in national and international wage levels at various historical stages. At the same time, this *pluralistic* or group theory of wages has the distinct advantage of being genuinely serviceable because it keeps close to the evolutionary and dynamic facts of economic life.

The basis of this theory of wages in actual economic conditions is admirably stated by one of the most influential labor boards in this country, the Railroad Labor Board, in a

decision in 1920 on the wage rates of approximately 2,000,000 railway employees: "The board has been unable to find any formula which applied to the facts would work out just and reasonable wages for the many thousands of positions involved in this dispute. The determination of such wages is necessarily a matter of estimate and judgment in view of all the conditions, a matter on which individuals will differ widely as their information or lack of it, their interest, situation or bias may influence them."[1] The Transportation Act passed by Congress in 1920 laid down as a guide in determining what wages would be "just and reasonable" the following major considerations:

(1) The scale of wages paid for similar kinds of work in other industries;

(2) The relation between wages and the cost of living;

(3) The hazards of the employment;

(4) The training and skill required;

(5) The degree of responsibility;

(6) The character and regularity of the employment; and

(7) Inequalities of increases in wages or of treatment, the result of previous wage orders or adjustments.

Wages and Labor Efficiency

Any considerable increase in the real wages of the masses of people depends upon an increase in the total productivity of the country. Labor may make gains here and there in squeezing out of the present fund of production some of the excessive gains which go to profiteers, but any substantial progress in the form of more of the necessaries, comforts and luxuries of life is conditioned upon an advance in the productive efficiency of the whole people. On this point, the careful statistical studies of W. I. King are authoritative. His conclusions are stated as follows.[2] "Thus it would seem improbable that, with our present national productive power, any feasible system of distribution could increase the average wage earner's income

[1] *Monthly Labor Bulletin*, Volume XI., p. 101.

[2] "Wealth and Income of the People of the United States."

in purchasing power by more than one-fourth and this is an extreme rather than a moderate estimate. While such a change might or might not be desirable, it would, at least, work no startling revolution in the condition of the employees of the United States. The grim fact remains that the quantity of goods turned out absolutely limits the income of labor and that no reform will bring universal prosperity which is not based fundamentally upon increasing the national income." King's findings were based upon pre-war figures. A post-war investigation has been made by David Friday, in which the observation is essentially the same. "The practical conclusion that follows from all this is that the source of real wages must be found in production and not in a redistribution of the product of industry.

"Those who had hoped to augment the laborer's real wages by making short shrift of the whole matter and adding to the laborer's wages what the entrepreneur now receives as profits, will be disappointed by this analysis of the situation. . . .

"That a 20 per cent. increase in productive output is possible was demonstrated during the war. That the co-operation of labor is necessary to any such program is obvious. But the possibility of that co-operation was also demonstrated. Given an aim that appealed to the imagination, that made labor an integral part of the body politic, it demonstrated its willingness to co-operate. But there had to be a worthwhile end, and there had to be recognition of labor as a factor equal to the other partners in the industrial life of the nation." [1]

In other words, even though labor should plunge enthusiastically into the task of increasing production in a measurable degree labor might have no assurance that a

[1] "Profits, Wages and Prices," p. 236. See, however, above, page 131, for an analysis of the basic causes of restriction of production. It is necessary to realize clearly that the rational correctness of this finding cannot be expected to insure a transformation in labor behavior. Labor attitudes toward maximum production are the outcome of every instinctive and impulsive industrial influence as well as of appeals to reason.

due proportionate share of the increase would be forthcoming in the form of wages. Labor has had ample bitter experience in the past to satisfy its mind that there are altogether too many employers who would pounce upon labor's increased productivity, and endeavor to retain the lion's share of the increase. The only safeguard against this encroachment which has thus far proved reliable enough to command the widespread confidence of labor is collective bargaining through a powerful, organized labor group. The indispensable understanding in labor's mind before any material increase of total production may be looked for, must be that labor shall receive a just and proportionate share of the increase. Unless labor can be reasonably assured of this outcome, labor cannot be expected to take part in the ideal of greatly heightened output. Many individual plants have experimented with such assurances, and have increased production in many cases by surprising amounts, but only because the individual employer has been progressive enough to comprehend labor's point of view, and to offer assurances fitting the individual plant, which convinced labor that wages would constitute a fair and proper share of the increased product. The number of employers, however, who are unable because of traditional ways of thinking, to give labor such an assurance is so great that on a national scale, the laborer declines to trust to their beneficence to dole out what labor would consider a fair share of the increased product. For the general run of laborers, dealing with a large proportion of employers, the only satisfactory assurance lies in labor's power to claim a fair share of the increase, through agencies of collective bargaining. Even though this agency may often make exaggerated demands, and appear obstinate and headstrong and unreasonable in its claims, nevertheless the only sure recourse of labor is collective bargaining either in the form of works councils or labor unions, Democratic action in government or industry has grave faults, but the central necessity for the group method exists in industry as well as in politics, and the besetting sins of collective bargaining groups must be alleviated by

a more co-operative attitude on the part of labor, capital and the public.

Fully aware of these phases of labor psychology, Friday further concludes: "We have learned that it is possible to produce enough so that every class may have a decent standard of living. With this result realized, poverty will be abolished. This attainment is one of which nations have dreamed for centuries. No nation has been within striking distance of its realization before. If any national leader or any group can be found with the imagination and the courage to appeal to America on the basis of this motive, and with an adequate program, we shall see the most promising and worthwhile political and industrial experiment which we have tried in our national career."[1]

Power

It is true that labor's part in production is concerned with questions of function, of the job, of wages, of hours. But it is of deeper significance that all of these separate demands and individual movements are bound up with a central, pivotal movement,—one which comprehends the various individual claims, and integrates the thought and action of labor into a concentrated purpose. That concentrated purpose is a new status in industry. The new status occupies the forefront of opinion and feeling among the laborers of the country.

The transition to the modern industrial organization, which began in serious proportions during the middle of the nineteenth century, gave to the worker a status of obvious inferiority. He became a hired hand in the factory and railroad and mine, with no material control over the working conditions which decided the destiny of his life. The régime of machine production denied to the worker a share in the control of the raw product, or of the machinery for production, or of the rewards for work, or of the amount of work to be done per day, or of the conditions under which work had to be done. The labor problem now is at bottom an effort to win a share of control in all these

[1] "Profits, Wages and Prices," p. 251.

matters which directly affect the worker's life. It has been said that "The root evil of the present industrial order is that it affords to the ordinary worker in industry no means of expression and no chance of responsibility or active citizenship." The labor movement is primarily committed to the removal of this root evil, and to the substitution of a status of influence, responsibility, and expression.

The World War served to accelerate the movement. The worker was definitely told that he counted and counted vitally in winning the war. The workshop was painted as the second line of defense, and no less in importance than the front line trench. The worker was told that the war was a struggle to make the "world safe for democracy." In his mind and his experience, the world often nearly coincided with his workshop, and to him, therefore, the slogan meant that the war was to make "industry safe for democracy." Such hopes stimulated the worker's instinctive dispositions of self-assertion and self-expression, and set loose a tide of human energy in the direction of more control over the machine régime. Ex-Secretary of Labor Wilson hinted at the phenomenon in these words: "Both sides must realize that money and hours are but incidents in the fight. . . . The real thing which is being fought over by employers and wage workers is self-respect. The employer feels that he cannot give up for fear of losing his self-respect and prestige; while the wage workers feel that they cannot give up for fear of losing their self-respect. . . . When employers will give as much thought to studying the sentiments which control life as to studying materials, machinery, law, and other factors, then we shall be on the road to industrial peace."

This inner change which is affecting society goes to the heart of the matter. Surface demands for new wages, new hours, new treatment are concrete signs of the fundamental thing itself,—a new assertion of the worker's thought and power. In this respect there has been an institutional and spiritual change going on in social and industrial life. The mechanical facts of the working world

have in great measure outrun the traditional ideas, principles, and organization for their direction and control. The facts of automatic machines, uninteresting toil, fatigue, long hours, bossy foremen, unreliable wages, advertised profits,—these are no longer taken care of by the traditional ideas of individual action, unrestricted managerial power, unbridled freedom of contract, individual bargaining, non-consultation between employer and employee, and "business is business." At least, they are not cared for to the satisfaction of the worker. Out of this maladjustment between the mechanical facts and the traditional principles of industrial government has grown a vivid awakening of instinctive energies. They are energies which crystallize into new principles of industrial control,—of industrial self-control. The outcome of the experience has been the formulation of a new status for the worker. The newly projected ideas call for group action, modified managerial power, collective freedom of contract, organized bargaining, joint conference between employer and employee, and "business is self-expression." Whatever individuals may think of the soundness or viciousness of the new conceptions, they are in our midst at any rate, and are the real influences to be reckoned with in any serious reflection upon labor's part in production.

A great obstacle in the path of these instinctive aspirations for a new labor status is the defects, excesses, and abuses in labor organizations themselves. Their frequent abuses of power; their strikes in defiance of the public need; their walking delegates, union organizers and union leaders often lacking in self-discipline and in a due regard for the legitimate interests of employers and the public; their occasional acts of violence; their reluctance to surrender policies for restricting production; their tendency to harass business with a flood of limitations, regulations and by-laws; their rash demands from time to time in collective bargaining conferences; their occasional repudiation of contracts with employers,—all need to be brought under control before the public or employers will be willing to trust labor with the coveted status of power. All

of the excuses and explanations for such abuses which can be conceived of by the best labor minds are practically futile as a means of convincing the rest of the economic organization that a new status of labor power is safe. The highest ambitions of labor will certainly be opposed and thwarted in countless ways by the public as well as employers, until labor accepts seriously the obligation to eliminate the excesses and abuses, which are now all too prevalent in labor organizations.[1]

Environment

The environment of the laborer comprises all the surrounding influences upon his body and mind. Within the economic environment the worker spends from one-third to one-half of his waking life. The influence of this environment upon his moods, his bodily health, and his human well-being is profound. Good wages without a favorable environment are futile. Reduced hours in unsanitary surroundings are of little avail. More stable employment if the employment conditions are unsafe for life and limb is without real gain.

What is involved in environment? What is at stake? For one thing, the safety of the worker. In a recent address, the President of the American Society of Safety Engineers put the case comprehensively:

"There are killed accidentally in the United States each year about 70,000 people, or nearly 20,000 more than the total battle deaths and subsequent deaths from wounds in our army during the entire European War.

"Of the wage earners in this country, over 700,000 each year lose members of their body or are so seriously injured by accidents as to be incapacitated for an average of four weeks each.

"The total economic waste from casualties in the United States amounts to probably $800,000,000 per year, with untold privation and suffering entailed.

[1] See below, Part III, *Economic Adaptation*, for a detailed consideration of the dangers and benefits of the relative conceptions and of the policies and practices of capital and labor growing out of them.

"About 90 per cent. of this yearly casualty expense, or $720,000,000 is caused by accidents that are preventable by engineering provisions. It is not claimed that even a large portion of the total casualties are preventable by engineering problems—only 7 per cent.; but it is this 7 per cent. which is preventable by engineering revision that causes the $720,000,000 casualty expense."

With the development of high power and high speed machinery, the network of electric currents, complicated chemical processes, the use of compressed air, the presence of dangerous gases, acids and dusts in productive processes, extremes of temperature and humidity, improper ventilation and unsanitary surroundings, night work and inadequate lighting,—with all these accompaniments of the modern economic process, the hazards and risks to the worker have mounted high. The highest death toll is exacted in the mining industry, with railroading, electric light and power industries ranking in close proximity.

For the most part, a remedy for such hazards has come through legislation, state and national. Labor unions have brought pressure to bear, and a Safety First movement voluntarily adopted by employers has accomplished much. However, it remains true that for a considerable portion of industrial establishments, considerations of safety and health have proved to have only a secondary appeal. For that portion, legislative compulsion is the only adequate guarantee of even minimum safety and health conditions.

Many pioneer employers have gone far beyond considerations of mere safety and health and have set about making the working environment positively attractive, comfortable, stimulating. The plants are surrounded with well-kept lawns or beautiful parks. Landscape and building architecture become an economic art. Carefully painted interiors, neatness and cleanliness in the care of buildings and the arrangement and upkeep of machinery, abundant window space, scientific shading and illumination, a medical staff with doctors, dentists and psychiatrists, hospital and dispensary facilities, playgrounds, gardens, rest rooms, libraries, company stores, gymnasiums, night

schools, even universities,—these are a few of the improvements of environment which, all or in part, are taken up already by an imposing list of companies.[1] The plan in such companies is linked with considerations of productive efficiency, workers' comfort, plant morale and loyalty, and a general spirit of happiness, prosperity and contentment in the whole working program. The gap between such best kept plants and the worst kept plants is startling and suggestive.

An important consequence of an environment of this improved type lies in the fact that it offsets in a real measure the monotonous and fatiguing effects of the production process. The handling of repetitive machinery may be made less monotonous by surrounding the operator with pleasant and stimulating factory accommodations. The fatiguing tendencies of the length of the work day are in a measurable way reduced by clean, artistic, healthy workrooms. The spirit of the worker cannot rise above the tone of the plant yards, the lighting system, the mechanical arrangements. But if the laborer has a pleasant place to work in, his spirit, interest, morale and efficiency tend to improve. This outcome is broadly stated by R. A. Spaeth in these words: "When working conditions are standardized and we have the best of light and heat and ventilation; when all workers, men and women, have recess periods and properly adjusted, comfortable chairs; when plants are equipped with cafeteria in which workers buy an occasional plate of soup instead of the more popular pie and ice cream; when the labor unions and managers alike insist upon physical examination of all employees; when job analysis and tests for physical, physiological and psychological fitness once get on speaking terms; when the industrial engineer stops fooling himself by comparing task setting with astro-physics and appreciates that his open sesame is not the stop-watch but the square-deal—then

[1] Corporations which have tried out these constructive devices are such as the National Lamp Works, the National Cash Register Company, the Goodyear Tire and Rubber Company, the Endicott Johnson Company, the Eastman Kodak Company and the Proctor & Gamble Company.

and not till then, will the question of fatigue no longer be of such moment as it is generally considered."[1]

In the broadest sense of the word, the economic environment covers pretty much the entire content of the worker's experience while he is on the job. For this reason, the environment serves as a stimulus to a wide variety of instincts in the worker's makeup. The financial instincts which are encouraged by various devices have already been mentioned under the section on wages and financial incentives. It is necessary now to consider some of the non-financial incentives which enter into the worker's instinctive behavior. The following list of non-financial incentives is by no means complete, but should be suggestive:

1. An incentive to devotion to the laborer's duties is found in giving the laborer information about the productive process. Standing at his one machine, making but one isolated, unrelated part of the finished product, the worker attaches little significance to his operations. What is it all about? He does not know. But along comes an industrial engineer to draw up diagrams and charts which present vividly and clearly to the worker the part which his individual touch plays in the formation of the finished article. Perhaps a moving picture of the whole manufacturing process is made and presented to an audience of workers. Talks by executives are used to explain the scheme of manufacture. The worker is thus able to discover the ultimate meaning and significance of his work. "Interest in a thing may be developed by means of extending information about it. . . . In applying this in industry, one would tell the employees many things about the business, soaking them in facts to the point of saturation. . . . To inculcate a deep affection and loyalty toward the firm, give information about its beginnings and growth."[2]

From a thoroughly practical viewpoint as an industrial engineer, C. E. Knoeppel states, "Wherever farsighted executives have widened the vision of their work-

[1] *Industrial Management*, May, 1920, p. 411.

[2] H. D. Kitson, *Journal of Political Economy*, Volume 28, pp. 332-336.

men by explaining the relation of their work to the whole plant, a better and more nearly normal relationship has followed." [1]

2. Another incentive has been discovered in the practice of frankness with the workers about the hitherto concealed facts of the business. Government representatives enlisted the support of the I. W. W. lumbermen of the Northwest during the War by having the owners open their books and show the costs and profits of the business. A number of concerns voluntarily take leaders of the workers into their confidence on the ups and downs of the business, and this factor of candid consultation, and frank give and take of information about the profit and loss phases of the company policy establishes a mutual confidence and understanding which serves as a powerful incentive to loyalty and interest on the part of the worker.

3. Incentives are possible only when the worker feels that his new interest in the enterprise will not be exploited to the undue selfish advantage of the employer. As is pointed out by Tead and Metcalf, "There is, finally, the fear of exploitation if interest in work is pushed to a point where the employer gets a much larger proportionate return for increased product than the worker. . . . The arousing of interest is not synonymous with efforts to 'speed up' production, to cut wage rates, to increase profits. At that moment when workers feel they are being tricked into interest in work in order that their employer may get added returns, the game will be up with the employer." One of the surest ways in which the impression of trickery can be given is the all too prevalent device of cutting piece rates when an increase of production takes place. If the worker is satisfied that a proper share of the increased output will come his way, there is something to fire his imagination. The integrity and squareness of the employer is of itself a genuine non-financial incentive.

4. Stability of employment is a loyalty incentive when the worker sees that the employer is concerned with his interest to the extent of making every effort to eliminate

[1] *The Nation's Business*, April, 1921, p. 17.

seasonal shut-downs, and to keep going, even if only on part time, when business is slow. The worker has a reason for a reciprocal attitude toward the employer. Loyalty to the worker in the form of maintaining a steady job begets loyalty to the employer in the form of interest in the job. To secure this incentive, management must convince the worker that it is doing its best to give him an uninterrupted chance to earn a living.

5. Rivalry is stimulated by posting the records of production for individuals and for groups. When men can see their efficiency rated side by side with that of their fellow workers, it becomes a matter of pride to come near the head of the list. Moreover records which indicate the quality of the finished product and the amount of spoiled goods tend to foster a real pride of craftsmanship. Another form of record gives the worker his comparative efficiency to-day and a year ago to-day, with the result that he tends to take pride in progress in his skill.

6. Fitting the worker to the job by intelligence tests, ability tests, job specifications studies, and efficiency ratings, makes possible a harmony between the human factor and the machine factor, which tends to heighten interest in the job. In the first flush of enthusiasm for psychological tests, experts overestimated their value considerably. Their usefulness is thus far confined to certain highly specialized tasks, such as clerical work, inspection tasks, salesmanship, and tasks where acuteness of hearing or vision are of vital importance. The tests themselves, such as the Binet, the army, and special industrial forms, are in a far from completed shape for full industrial applications. The correlation between tests and subsequent showings of efficiency indicate that the tests are not a sure indication of trade ability, but at most point to a probable efficiency or inefficiency. Hence they have to be used with wide leeway for judgment and common sense on the part of the employer. Then effective use requires administrators who have had special psychological training.[1] Purely psychological tests need to be supplemented by physical, medical

[1] H. D. Kitson, *School Review*, Volume XXIV, No. 3, March, 1916.

and physiological tests to discover the endurance of the worker under the working conditions of the occupation in which he is to be placed.[1]

7. Transfer and promotion are practicable aids to sound labor incentives. Henry Ford states that the repetitive machinery of automobile manufacturing would drive the workers crazy unless they were given variety at right intervals by transfer from one type of machine to another, or from one department to another. Transfer thus serves to alleviate monotony. Again, if a worker is found inefficient at one type of work, the scientific solution is proving to be to try the man out at other types until he gets the right sort of task for his peculiar nature. If he is at odds with the foreman of one department he may be transferred to another foreman. These policies secure the confidence of the worker and are a substitute for a former policy of discharge the instant the man proved incompetent. At each job held, efficiency reports may be made, based on piece-rate records, quality of work, judgment of foremen and superintendents, character traits, attitude toward work, etc. These ratings can be used from time to time as the basis of promotions.[2] "Many organizations lose a considerable degree of the enthusiasm and zeal they might command by failing to make it apparent that they will recognize merit and advance the ambitious. . . . Any transfer or promotion plan which is to be permanently sound should, therefore, meet this test: Does the plan stimulate and draw out the desire of people to be creative, to be interested in their own activity, to excel, to win approval, to develop in power of self-expression?"[3]

8. A great number of employers have set up organization machinery which invites and encourages the suggestions, viewpoints, and opinions of workers. The devices of labor representation are various in kind, but in all their variety, are based upon the value of evoking the mental activity of the workers. Joint conference, consulta-

[1] R. W. Kelley, "Hiring the Worker," pp. 91-97.

[2] *Ibid.*, Chapter VIII.

[3] Tead and Metcalf, "Personnel Administration," pp. 228-235. See also, R. A. Spaeth, *Industrial Management*, March, 1920, pp. 213-217.

tion, discussion, all serve to clear up misunderstandings, to create a new feeling of dignity and self-respect on the part of the worker, to develop a sense of responsibility and self-control, and most important of all, to build up a feeling that the interests of the worker are one with the interests of the employer.

9. The morale of the workers has been elevated by the improvement of the environment of the workers. Attractive homes, hospital care, recreational facilities, pleasant factory conditions have their psychological reactions upon all the instincts of the worker. By encouraging a psychologically abundant life, the worker develops a higher personality and simultaneously proves a steadier and higher material efficiency.

10. "Men must get the feel that they are working for efficient managers if they are going to be interested in increasing production." [1]

Especially must the workers feel that the management is intelligently and scientifically handling the personnel side of the organization. To quote Meyer Bloomfield, "When everything that present-day science can suggest in the way of improving technical efficiency in systems of cost keeping, equipment, machinery, and material has been adopted, the biggest of all industrial problems remains to be faced.

"As we have seen, this is the problem of handling men. Every awakened employer knows that managing employees, selecting, assigning, directing, supervising and developing them, is the one phase of management which is most difficult and complicated." [2]

To perform this important function, a new profession has come into being within the last few years, that of employment management or personnel administration. The manager of this department of the business conceives of the human factor as a problem calling for scientific analysis of every phase of the employment relationship. The consequent good-will and mutual understanding are the results of the incentives aroused in the laborer's mind.

[1] *Survey*, March 5, 1921, p. 817.
[2] Kelley, "Hiring the Worker," p. 9.

This list does not in any sense exhaust the non-possessive incentives possible in the processes of production. They illustrate a number of the possibilities. There are so many things which count in the worker's life besides the amount of his income that economic principles based upon the assumption that the laborer is a one-motive being,—and that motive purely mercenary,—have gone far astray. The non-possessive instincts, when properly called out, build up a better balanced life for the worker and supply the employer with a producer whose heart is in his work.

The Mind of the Worker

The following description of labor's ideas is only a description, not an argument. The purpose is to picture the ideas as accurately as possible without condemnation or approval. Moreover it would be false to claim that any single set of ideas prevails uniformly throughout the labor group. However, after full allowance has been made for the variations of opinion and extremes of radicalism and conservatism which exist throughout the labor world, there is obvious a strong degree of likemindedness among the workers. This likemindedness is particularly impressive in that section of the labor group which is dynamic,—that section which believes in change for the better and which in one degree and another is constantly bringing pressure to bear in favor of economic change.[1]

First of all, in labor's mind, management is inefficient. The notion that management has any magic capacity for high efficiency is rudely dismissed. In all but exceptional factories the workers see in the course of the everyday tasks constant illustrations of management's blunders. They see no small number of ways in which machinery could be better arranged, delays avoided, waste eliminated, good-will stimulated, and better production secured. In the past, labor's suggestions and ideas on such matters have too often been spurned by management. "An employer will tell you in one breath that he will stand no

[1] See Samuel Gompers's "Labor and the Common Welfare," also "Labor and the Employer."

interference with 'his' business, and in the next that his employees take no interest in that business. Of course they don't. They haven't any interest. They are unconsulted outsiders. . . . What incentive have wage earners to take a personal interest in the problems of industry, when nobody asks their advice, and everybody resents it?" In many of the affairs of labor, the foreman stands in the laborer's eyes for the whole of management. The foreman is management's immediate representative on the ground. "At any rate, the worker is not to be blamed if he considers his driving foreman, or that grouchy gate policeman, or that mean-minded paymaster, or his pompous clerk quite as fully and as properly a representative of the company's real purposes as the solicitous employment manager or the friendly nurse."[1] The workers see no reason why the management should not supply "better jobs and steadier jobs, less tiring jobs, jobs whose human service is better understood, jobs with a better chance to enjoy the satisfactions of their doing, without these being lessened by a grasping foreman representing an unknown employer."[2] The foreman, the boss, the paymaster, all stand for the management in the eyes of the laborer, and their arbitrariness, or unreasonableness, or blindness, or incapacity, or stupidity represent the qualities of the management. Further than this, labor nurses the idea that management is guilty of one great inefficiency which is almost criminal, namely, the inefficiency represented in unstable employment. That management should boast of marvelous skill and efficiency and at the same time be unable to avert shut-downs, seasonal tie-ups, periods of depression, industrial breakdowns following overproduction appears to labor to be proof of inexcusable incompetency. Labor believes that such phenomena appear largely because of management's consideration of "profits first." In this attitude, labor is encouraged by industrial engineers and experts, whose constant complaint is that a large part of production is not more than fifty per cent. efficient.

[1] Whiting Williams, "What's on the Worker's Mind?" p. 290.
[2] *Ibid.*, p. 317.

There is consequently a strong effort on the part of labor to ally itself with the engineers and their philosophy. Thus, growing out of experiences year in and year out, labor has come to feel that management has no monopoly upon the knowledge of productive efficiency and that in many problems of the workshop labor is as wise as management. Reverence and awe for management as a genius of masterful efficiency has been shattered.

Secondly, in labor's mind the owners of property are to a large extent engaged in the game of getting something for nothing. Labor does not entertain the socialist doctrine that ownership is not entitled to an income. Labor's idea is that a large part of the income which ownership actually wins is undeserved, unearned, and excessive. The great prominence given to the facts of profiteering in recent years has accentuated this impression. Moreover, labor believes that this profit motive of property owners, being carried to an extreme, is the cause of a large proportion of industrial woes. As things stand, labor conceives that industrial organization is for profit instead of for use, for dividends instead of for production or service. "There is a general conviction among thoughtful workers that the present world works badly; that unemployment, poverty, ignorance, social injustice are things which intelligent control and ordinary good human intentions could prevent *if only there was a will and the desire that they be prevented.*"[1] The owners are thought to have a primary consideration constantly for profits and only a secondary, a remotely secondary consideration for labor's best interests. The owners are charged with admitting only a minimum obligation or responsibility to labor. In turn, labor feels no strong sense of obligation or responsibility to owners. The weak loyalty of labor toward the owners is more than matched, so labor thinks, by the disloyalty of owners toward labor. It is an apt figure of speech that the corporation has no soul. The legal precept fits the moral fact of the case, in labor's eyes. The assumption which has been traditional since the days of Adam Smith that the

[1] F. Tannenbaum, *New Republic*, Vol. XXIII, p. 172.

incidental by-product of profit seeking is always some good for the community finds no credence. Labor has seen too many examples to the contrary. Moreover, ownership need not boast that profits are a reward for managerial ability. Labor asks, "Do managers receive the profits?" Obviously not. Managers receive a salary. With all these notions, the awe of property dies. Reverence for ownership as something sacred and religious passes out. "Certain ideas one believes to be knit into the fiber of the people. Suddenly they fall away—outworn shells. . . . Reverence for the gentry, for the privileged, for the idle, has withered. With the idea gone, the institutions built upon it go. . . . In my opinion, this change is the most profound in its grip on instinct, the most far-reaching in its consequences of any. All other changes wait on that, and follow from that."[1] The instincts of labor refuse to pay homage to the acquisitiveness of property. The spirit of the workers ceases to be afraid of the inalienable and immutable principles of profit making. "A growing proportion of mankind believes that industry should be managed primarily for those who work, not for those who own."[2] It is natural under the circumstances that labor should get the notion that the owners of the property are unsympathetic. To believe that the business is a partnership between labor and capital is difficult, and the outcome of the whole matter is that "those who work are fighting those who own. The workers no longer think that the shareholders are wiser than they." Labor's ideas are by no means complimentary to capital owners. They are exceedingly harsh and critical, and all the more so, because of the instinctive drive behind them.

In the third place, labor thinks of the market, the whole organization of buying and selling commodities, as something rigged and manipulated by obscure strategists. In selling his labor as an individual to an employer a laborer feels that he is at a disadvantage; and as a consumer in a grocery store or butcher shop, he gathers about the same

[1] Arthur Gleason, "What the Workers Want," p. 251.
[2] See R. H. Tawney, "The Acquisitive Society."

impression. He conceives a long line of superfluous middlemen, an army of price boosters, cliques of hoarders, and parties to price agreements; and matched against the wits of such an array of market manipulators, he feels helpless and inadequate. In his mind the whole process is not maintained primarily for the sake of serving the labor consumer but for the sake of lining the pockets of acquisitive dealers. However unfair such a conception may appear to some outsiders, it is beyond dispute that such a conception is widely held among laborers.

In the fourth place, labor conceives of finance as some secret, far-reaching process of scheming. The institutions of banking, speculation, exchange, credit, and Wall Street appear as a conspiracy of interlocking directorates, secret understandings, and mysterious quiet powers which hold a whiphand over the whole productive organization. The railroad brotherhoods brought charges that a gigantic conspiracy of big banks deliberately fostered the post-war business depression for the sake of drawing the teeth out of labor's war-gained powers. The House of Morgan is a by-word for the subtle and dangerous. Labor believes that it detects financiers as the powers behind the throne in most big labor controversies. Strikes in the steel, coal, and railroad industries have shown up, so labor is convinced, the big bankers interested in those industries as the real antagonists. The craft and strategy which labor attempts to overcome has its source in the shrewdness and sagacity of these silent financial directors of the industrial life of the nation. This is not to deny that the lending of money, and the protection of deposits is an important economic service. Labor simply asserts that the terms upon which the service is rendered bodes labor no good and unduly restricts and shackles productive enterprise.

Fifth, labor believes that the law is not on its side. It believes that the law has all too often been unfair. Injunctions, court decisions, restraints from picketing, and from boycotting, assessment of damages, limitations of rights,—these are but a few of the methods of the law which give labor an unfortunate position. "From time

to time, American workingmen have also raised their voices, but ineffectually, in favor of the simplification of our legal system. They have protested against the legal technicality which American lawyer legislators have delighted in inserting into the statutes and the rules governing court procedure. They have also protested against the emphasis which the legal mind places upon precedent, because precedent is necessarily a handicap upon any class struggling upward toward a plane of equality with other classes."[1] Moreover the favorite doctrines of the law such as the natural and inalienable rights of private property, individual liberty, free contract, and free competition, run at cross-purposes with the instinctive desires of labor. If the labor movement means anything, it means a denial that private property has rights which are superior to personal rights, and that private property is above and beyond restriction and restraint. It means, too, that individual liberty for an employee is a mockery and that unless the doctrines of individual liberty are supplemented by new doctrines of group liberty and unless the individual bills of rights can be supplemented by group bills of rights, the word liberty cannot mean much to labor. In labor's mind freedom of contract means the freedom of the employer to pay as low a wage as possible and exact as high a working output as possible. The law is not concerned with the problem of whether such freedom of contract results in inadequate wages or excessive fatigue. So long as freedom of contract exists the law does not worry greatly about the consequences. Hence, the law in labor's mind has not been brought up to date. The courts stand as a bulwark for the protection of property rights, but in labor's eyes are exasperatingly indifferent to the human rights of labor. The sacred prestige of the law comes into serious question. The necessities of the worker who spends his eight or ten hours at a machine are direct, simple, and clear. The laborer feels them often blindly, instinctively. He knows the consequences of monotony and of fatigue, of wage rates and bad foremanship, of industrial peace and

[1] F. T. Carlton, "Organized Labor in American History," p. 200.

industrial war. They are close realities which fire primitive instincts and set off rugged impulses. Traditional rights, legal conceptions, court doctrines which thwart these direct and simple instinctive necessities crumple in the conflict. The mechanistic facts of the shop brush aside the elaborate legal taboos and roughly tear down the shrines of judicial idols which fitted the facts of life a century ago but which so far as the laborer can see are grossly out of joint with the facts of life to-day.[1]

As a sixth consideration, labor does not feel that the public is an active ally. As an impartial arbiter of clashes of opinion, and of industrial struggles, the public seems primarily interested in getting the trouble settled at any cost. Industrial peace at any price is the foremost consideration and if it is necessary that justice to labor be sacrificed somewhat the public is not greatly alarmed at the sacrifice. Labor conceives that the public is more interested in peace than in a square deal to labor. Moreover, by the very nature of things the labor movement feels on the aggressive, whereas employers are on the defensive. In most cases of antagonism the sympathy of the onlooker instinctively goes out to the defender. In industrial affairs, labor, being on the aggressive, makes the attack, and for obvious psychological reasons, thereby tends to alienate the sympathy of the "long-suffering public." Labor therefore considers itself justified in pushing ahead even though it may necessitate some jostling of the complacent public. Labor's justification for its militancy and aggressiveness is the natural instinctive outcome of its feeling that it is an oppressed class. Labor sees it a duty to shake things loose and win progress in spite of the lethargy and inertia of the public. In this effort labor finds itself at a disadvantage because the information upon which public opinion is based comes from newspapers which to labor's mind do not present labor's side of the case fairly. Labor thinks it has no way of getting its case outlined clearly in the eyes of the public, and consequently the voice of the public

[1] See R. F. Hoxie, "Trade Unionism in the United States," Chap. IX, also T. Veblen, "Theory of Business Enterprise," pp. 328, 342.

is far from the voice of God. This set of ideas is of course not a matter of wilful disrespect, but is an instinctive rationalization with antecedents in the hard-felt interests and impulses of the workers.

What, then, is labor's opinion of itself? For one thing, labor feels that it is doing as well as it should be expected to do under the circumstances. Granting abuses here and there, and bad leaders occasionally, labor nevertheless considers that it is doing as well as any incipient democracy has done in days gone by. But more than this, labor feels that heaven helps those who help themselves. Economic salvation lies in self-assertion. Self-help is to be found in self-determination. It is a duty to be discontented with conditions which are inimical to the highest progress. Complacency and contentment are for the soft and indolent. It is a crime to be a slacker and refuse to face the responsibility of winning a better status for the labor group. In carrying out this militant attitude what does it matter if real pressure comes from among the minority of the labor group? Progress has always come from the work of an active minority. A fearless and determined group must push forward toward a new status for labor. Only by such pressure can labor be lifted out of its present status of material and psychological oppression to a status of responsibility and influence. It would be a misinterpretation of the facts of the case to insinuate that labor, in reasoning along such lines, is wily, vicious, or insincere. Labor is gripped with just as much genuine earnestness and spontaneity as any other economic group. The ideology of labor on all such matters is the natural and honest psychological outcome of the conflict between cold economic facts and instinctive human reactions.

Labor's ideas are, therefore, a great dynamic force in the economic situation. The original instincts of human nature direct the course of labor's mind. Much of the mental framework of the labor group appears oftentimes to be almost a mass of blind instincts which have not yet been carefully thought over. "That complex of impressions, thwartings, and desires, warm and human, is wait-

ing to be sharpened and shaped into orderly thoughts and then into a program of action. . . . The great instinctive movement of the workers is pushing on." The unanalyzed desires are none the less of immeasurable significance. General Smuts has remarked that "old ideals of wealth, of property, of class and social relations, of international relations, of moral and spiritual values, are rapidly changing. The old political formulas sound hollow; the old landmarks by which we used to steer are disappearing beneath a great flood."[1] In the words of R. F. Hoxie, "The unionists do not usually independently understand the theory of their own demands, or their constructive program. They *feel.*" It is, therefore, a great instinctive mass movement which must be seen beneath the ideas of the labor mind. Without a frank conception of this peculiar dynamic condition of the labor mind no one is in a position to comprehend at all accurately the economic causes of labor's attitude toward its part in the whole productive organization.

Immigration

The causes and consequences of immigration are of such a nature that they have a direct bearing upon economic principles.

The motives to immigration are very largely economic motives. The efforts of shipowners, of employers in this country, of agents seeking an opportunity for making a profit upon immigrants, of landowners looking for immigrant buyers, have probably been responsible for fully one-half of the immigration to American shores. At the present time, organized labor is urging that immigration be practically prohibited, whereas simultaneously a large group of organized employers are anxious that such restrictions as are placed upon immigration shall allow considerable leeway for the admission of alien labor for their plants.

Distinct types of immigrants have responded to the conditions. The large majority of immigrants seeking to come are from countries of southeastern Europe. Approxi-

[1] Gleason, "What the Workers Want," p. 270.

mately three-fourths of these classes are unskilled laborers. "There can be no doubt that *the* important cause of the increase of immigration in the last twenty-five years has been the necessity for more crude labor to work in conjunction with our labor-saving machinery and expanding capital in the development and utilization of our national resources."[1] It is rare to find a native-born American employed at unskilled work in a big industrial plant in America.[2] Aside from their lack of skill, these immigrants are, in alarming numbers, incompatible with Americans in intellectual equipment, and in standards of life. E. A. Ross describes the type by stating: "The plain truth is that rarely does an immigrant bring in his intellectual baggage anything of use to us."[3] The type, moreover, is one which does not acquire a liking for life in America. Statistical records indicate that approximately one-half of all immigrants return to their native lands.

The economic effects of this type of immigration are manifold. One of its most important effects is seen in the state of the labor market and the instability of employment. The tendency has been for the supply of labor to be so greatly enhanced by immigration that there has usually been an excess of laborers above the actual demand in American industries. The records indicate that from one million to six million workers are idle in the United States all the time. A flood of unskilled laborers always coming into American industries has severely influenced the relations of supply and demand in affecting the wage rates. Often the fact that a group of alien workers could be promptly secured to displace union members or agitators or strikers has enabled employers to maintain a firm and rigid discipline in their shops. Moreover the tendency of immigration to gather momentum during a period of American prosperity, and for this momentum to continue well into a period of depression, has served to intensify the unemployment disorders during periods of industrial

[1] D. D. Lescohier, "The Labor Market," p. 8.
[2] W. R. Bassett, "When the Workmen Help You Manage," p. 11.
[3] E. A. Ross, "The Old World in the New," pp. 279, 285.

crisis. Again, the possibility of falling back upon a reserve supply of immigrants has made employers feel frequently that the stabilization of employment is unnecessary. "With the possibility of falling back upon immigrants, business does not plan ahead, spread out, and dovetail its work so as to utilize to best advantage the workers already here."[1] The urgency for stabilization of employment is great. At present the tendency is for employment bureaus managed by aliens to serve as the medium between the man out of work and the job looking for a worker. "So far as the immigrant is concerned, the private employment agency of his own racial group is still the chief means by which he secures work."[2] A system of American employment agencies, either public or private, or both, appears to be indispensable if the labor market is ever to be organized to the advantage of both the employer and the immigrant. The inadequate and unscientific distribution of immigrant labor results in harmful congestion of immigrants in city districts and in certain industries. It also leaves room for much exploitation of the immigrants by unscrupulous racial employment bureaus and necessitates much distress and discouragement among the immigrants during the periods of unemployment. The situation also has the effect of disappointing the alien in his anticipations of American life, and is an un-Americanizing influence.

All in all, the American workers have suffered greatly from the competition of crude immigrant labor. The forms of this suffering are briefly stated by J. W. Jenks and J. H. Hammond as follows, "The principal evils which have resulted from the great influx into the United States from southern and western Europe have been:

1. To keep down the wages of native Americans and of the northern and western European immigrants.
2. To retard improvement in the general working conditions of labor, especially in mining and manufactures.
3. To flood the country with laborers, illiterate in English, and, therefore, difficult to develop in efficiency, to

[1] J. R. Commons, "Races and Immigrants in America," p. xxvi.
[2] F. Kellor, "Immigration and the Future," p. 164.

elevate to the American standard of living, and to assimilate into our social and political system."[1]

These effects are brought about in part by the excessive numbers of immigrants, but more fundamentally by their low standards of living and their willingness to work cheap. As observed by H. P. Fairchild, "It is not because he has had to compete with more laborers, so much as with cheaper laborers, that the American workman has failed to secure a higher remuneration for his services."[2]

The economic effects of immigration are particularly conspicuous in certain industries which "are almost wholly dependent upon immigrant labor, as it is impossible to secure for them a native supply at any price."[3] Such industries for instance are iron and coal, lumbering, track and road building, construction, housing, leather manufacturing, meat packing, and clothing manufacturing.

A further consequence of immigration is seen in the under-development of agriculture and the comparative over-development of manufacturing. "The food products of the country do not keep up with population, but the manufactures exceed the growth of population. Recent immigrants from South and East Europe go mainly into manufactures. America is becoming a food importing and a manufacture exporting country. . . . Farmers cannot get laborers on account of the competition of manufacturers."[4]

The immigrant of the pre-war days was criticised for being *too docile;* labor leaders berated him for refusing to join unions or to fight for better industrial conditions; economists and publicists condemned him for accepting wages too low for Americans and for acquiescing in an inferior and degrading standard of living. But the post-war immigrant is criticised for *not being docile enough.* If he comes from northern or western Europe, he is likely to be impregnated with trade union or syndicalist ideas; if he comes from southern or eastern Europe, he is likely to be permeated with socialistic or communistic doctrines. The new immi-

1 "Great American Issues," p. 132.
2 "Immigration," p. 303.
3 F. Kellor, "Immigration and the Future," p. 157.
4 Commons, "Races and Immigrants in America," p. xxvii.

grant, with his new psychological background, is more amenable to unionization, more alert to demand better living standards, quicker to resist the industrial *status quo*.

Three major types of economic policy toward aliens have developed: Americanization, unionization and restriction. During and immediately following the war the immigrant, particularly the group from enemy countries, was looked upon with suspicion and intolerance. The immigrant was considered a dormant Bolshevist; and raids, arrests, deportations, and persecutions were not at all uncommon. The result was a forceful suppression of the more conspicuous trouble makers; but at the same time there was aroused considerable resentment and disappointment in the minds of a great number of ordinary immigrants.

The fundamentals of Americanization lie in the basic working conditions of the immigrants in America. If wages are sound, if the hours of work are right, if the discipline by the boss and the foreman is fair and human, if the working surroundings are wholesome,—then and then only is genuine Americanization a practicability. As J. R. Commons has emphasized,—"More than any other class in the community, it is the employers who determine the progress of the foreigner and his children toward Americanization. They control his waking hours, his conditions of living, and his chances of advancement."

With these fundamentals go certain supplementary Americanizing policies. Many plants have installed English language classes, night schools for study of social and historical subjects, Americanization committees, classes for vocational training, etc. Many have required workmen to have at least their first papers toward naturalization. Others, when the post-war period of depression came, adopted the policy of "Fire the alien first." In some plants, the reduction of illiteracy was attempted. Workers who cannot understand English are under a severe economic handicap from the employer's standpoint. Their efficiency is limited because they confuse instructions and muddle orders. Approximately one-fifth of the total for-

eign-born population in America cannot read or speak English. It was reported that approximately one-fourth of all men in draft ages were unable in war service to interpret orders intelligently. Language education obviously is reflected in economic efficiency.

The immigrant is a remarkable saver. He practices thrift much more rigidly than the native American. But at present, his savings go back to his home country, or are deposited with a racial bank which caters to his particular needs, or go to the brokers in foreign securities. American banks are indifferent to these savings because they come in too small amounts. It scarcely pays to bother with minute deposits. Hence the property stake of the immigrant is in fields which unite his interests with foreign financial facilities. "Nothing less than a system for reaching and safeguarding these savings for investments will bring about assimilation through the pocketbook, and American banks should be prepared to undertake the project."[1] Also, the immigrant from time to time needs credit to buy a home, to set himself up in business, to tide himself over a period of unemployment. At present he turns to a local racial leader, an immigrant bank, his consul, a loan shark or a pawnshop. All such roads lead away from a primary property stake in America. Insurance of immigrants indicates a similar situation. Besides, American stores have not found it attractive to cater to immigrant buyers, the consequence being apparent in the custom of buying at racial stores. The alien can scarcely get the spirit of an American standard of living when the market in which he buys his food and clothes resembles so greatly the shops and stores of the old country. Economic Americanization in all these respects is necessary if the country is to direct and control the primary interests of the immigrant workers.

Americanization policies are deeply influenced by the relations of labor unions with immigrants. "Labor unions which numbered scarcely 1,000,000 members in 1900, increased to nearly 5,000,000 in 1920. A large part of the

[1] F. Kellor, "Immigration and the Future," p. 155.

increase came from recent immigrants. . . . The majority of unionists are immigrants and children of immigrants from countries that know little of unionism. . . . When once moved by the spirit of unionism, the immigrants from low standard countries are the most dangerous and determined of unionists. . . . Their resentment toward employers who have kept them apart, their devotion to their newfound brothers, are terrible and pathetic. With their emotional temperament, unionism becomes not merely a fight for wages but a religious crusade. It is in the nature of retribution that, after bringing to this country all the industrial races of Europe and Asia in the effort to break down labor organizations, these races should so soon have wiped out race antagonism and, joining together in the most powerful of labor unions, have wrenched from their employers the greatest advances in wages."[1] The immigrant unionists tend more strongly, as a general matter, toward radical unionism than native American unionists. Thus, the coal miners, the garment workers, the longshoremen are the basis of three strong labor unions composed preponderantly of immigrants, and their economic demands are in a larger measure socialistic than are those of most unions where native American membership prevails.

The union exercises a powerful influence over the immigrant's conception of America. To quote again from Commons, "The effort of organized labor to organize the unskilled and the immigrant is the largest and most significant fact of the labor movement. . . . For it is not too much to say that the only effective Americanizing force for the southeastern European is the labor union." Employee representation with or without the union has, however, in some cases accomplished much the same purpose, but only in those industries where the employers have an exceptionally enlightened conception of the Americanizing influence which group self-expression by the immigrants exerts. To make this self-expression as safe and sane as possible and to provide a wholesome and American form of ex-

[1] J. R. Commons, "Races and Immigrants in America," pp. xx, 153-154.

pression of the human impulses behind it is a sound psychological attitude. The attempt in not a few quarters to stamp out the impulses and forbid self-expression is a direct and virtually irresistible cause of those mental conflicts and psychological upheavals which underlie industrial disorders. Expression, discipline and sublimation of these strong instincts of the immigrants is the sound psychological and economic procedure; suppression and psychic revolt are fraught with disorder and disaster.

Society as a whole accepts the social and economic responsibility of protecting itself from excessive invasions by undesirable aliens. Laws forbidding the admission of anarchists, diseased, insane, etc., have been an established part of American policy. The literacy test was adopted in 1917, and serves as a roughly approximate quality test. In 1921, a quantity test, limiting the annual immigration by any one race to three per cent. of those in the United States by the census of 1910, became the law of the land. The pressure steadily increases to evolve more accurate quality tests for immigrants. The development of tests for measuring the levels of intelligence in the Army during the World War, and the development of similar tests for industrial needs, and for schools and colleges, holds out the tangible prospect of tests of a like nature for immigrants. Such tests would eliminate those of inferior, abnormal, delinquent, or neurotic mental equipment, and thereby supply the Americanization agencies with a higher grade of human material for their efforts.

Population

The classic principles of Malthus relative to population deserve to be the starting point in considering the population problem. Malthus held that there is a "constant tendency in all animated life to increase beyond the nourishment prepared for it. . . . The ultimate check to population appears then to be a want of food arising necessarily from the different ratios according to which population and food increase." He claimed that if the standard of living were raised, thereupon population would be encour-

aged to increase so much the faster, until the increased means of subsistence would be exhausted, and men would be back again at the minimum levels of existence. He conceived of two great checks upon population, positive and negative. Positive checks were in the form of starvation, pestilence, war, disease; negative checks in the form of wilful limitation of the birth rate. He entertained but small hopes of the negative checks ever becoming influential enough to pull men up to higher standards of life.

In spite of the Malthusian pessimism, the standard of living has been raised. While even the poorest laborers are better off than the lowest ranks were a century ago, the better classes of labor, in comparison with their great grandfathers, are immersed in luxury. The theory did not give full justice to two factors which have subsequently played a large part in the population increase; one, the increased productivity of the modern economic system; the other, the decreased birth rate following upon an improved living standard. The industrial revolution, the machine method of production, the factory system, the increase of capital all served to increase the productive efficiency of the population so materially as to more than offset the increase in human numbers. In regard to the second factor, history has found that the higher the standard of living, the lower the birth rate and the lower the death rate; the lower the standard of living, the higher the birth and death rates.

The former factor has established what S. N. Patten calls "the new basis of civilization." He asserts "the potent basic fact of a civilization whose bounds are indefinitely widened because the unskilled laborer need no longer be held to the plane of sheer animal terror by uncertainty of food and employment. Artificial culture and experimental science have already fundamentally altered the elemental relations existing two hundred years ago between population and environment. . . . Our social inheritances come from two radically different forces that have been acting upon us from the first. One springs from universal deficit—the poverty of the early world; the other emerges from the

later store of goods which build the social surplus. . . . Abolish poverty, transform deficit into surplus, fill depletion with energy, and the ascribed heredity of the poor will vanish with its causes. . . . Disease, oppression, irregular work, premature old age, and race hatreds characterized the vanishing age of deficit; plenty of food, shelter, capital, and mobility of men and goods define the age of surplus in which we act. Where food and capital are, there is work, and where there is steady work, progress comes even while wages remain low. The quantities of food and of capital will increase more rapidly than they have done, while the birth rate touches a lower figure in every census." [1]

With this material advance has come a psychological development especially noticeable in the most favored classes of society. The family instincts may be said to be the positive forces tending toward an increasing birth rate. But as advances in income are made, people see the opportunity of satisfying a wide variety of wants, ambitions, and desires. The family instincts tend to bring parental responsibilities and obligations; the other instincts can be expressed with a minimum of responsibility and obligation, —they lead to simpler, easier life enjoyments. Moreover, the increase in education, social communication, and intelligence brings about a wider and wider dissemination of the means of wilful prevention of birth increase. Also, there is an instinctive social revulsion which leads those in possession of the knowledge of preventive checks to prohibit by law and social taboo any formal spreading of the knowledge among the rank and file. The knowledge of preventive checks comes, therefore, largely for instinctive reasons, to be a kind of monopoly in the hands of the more well-to-do classes. As a consequence, among these classes the birth rate is controlled without any material repression of the sex instincts. Economic advantage and this psychological development have gone hand in hand.

The families of higher education and income are already guilty of race suicide. If the replenishment of population

[1] Patten, "The New Basis of Civilization," pp. 25, 34, 43, 186.

were dependent upon them, it would not be accomplished. In the more highly cultured New England districts, the size of families is so limited that the population either has ceased to increase or is actually on the decline. At the other extreme, the inferior native or foreign stock multiplies rapidly. Writing of Great Britain, William McDougall states, "In our own country one-quarter of the people of each generation become the parents of about one-half of the population of the succeeding generation. There can be no doubt that, among this quarter of the population the parental, and probably also the reproductive, instinct, is on the average stronger than in the remaining three-quarters who produce the other half of the next generation."[1] In other words "the present state of the law, of public opinion, and of our economic system is tending to degrade the quality of the race by making the worst half of the population the parents of more than half of the next generation."[2]

In analyzing the situation, H. G. Wells draws a picture which is comprehensive: "Travel, leisure, freedom, comfort, property and increased ability for business competition are the rewards of abstinence from parentage, and even the disapproval of President Roosevelt and the pride of offspring are insufficient counterweights to these inducements. Large families disappear from the States, and more and more and more, couples are childless. Those who have children restrict their number in order to afford those they have some reasonable advantage in life."[3] In order to remedy the faulty inheritance of the population from these causes, the science of eugenics has come into play. Given its initial impetus by Sir Francis Galton about a generation ago, it has come to exercise a deep influence upon social and economic thinking. The chief objective of the science is to improve the quality of the race by discouraging the birth rate among the unfit groups and encouraging it among the more developed classes.

[1] "Introduction to Social Psychology," p. 279.
[2] Bertrand Russell, "Why Men Fight," p. 213.
[3] "Social Forces in England and America," p. 374.

The goal of a study of population problems from the economic standpoint may be stated in the form of two standards,—the quality standard and quantity standard. The quantity standard refers to the "best proportion between the numbers of inhabitants and the area and resources of a land, judged with reference to the abiding welfare of the great mass of the people of the nation."[1] If the quantity standard be judged from a pecuniary viewpoint it is proper to state that, "It should, therefore, be the aim of every nation to keep its population at that number which is bound to result in the greatest amount of real income to the average citizen."[2] It would appear that for the United States the quantity limit has been approximately reached unless there develops an increase in the per capita productivity of economic goods. For fifteen years before the war the real income of the wage-earning classes had certainly not increased and probably had slightly decreased. The increase in real income achieved during the war was made possible by an increase in national production of approximately 15 per cent. However, the depression following the war has seen production suffer a deep slump, throwing upwards of five millions of workers out of jobs and income, and tending to put the real incomes of large groups of unskilled labor on approximately the pre-war levels.

The quality standard looks to the type of character and the hereditary vigor of the population which exists, and insists that a controlling principle of population shall be the attainment of a superior racial stock. "The wise ambition for a people is to maintain its life at a higher physical and psychic level rather than to increase the number of its members at the expense of degrading its life below an accepted standard. The fact that a people increases but slowly in numbers may be an evidence not of degeneracy but of enlightenment and prudence."[3] John Stuart Mill referred to the phrase "the stationary standard" as a possible ideal. That is to say, it may be desirable for a nation

[1] F. A. Fetter, *American Economic Review*, Vol. III, Sup., p. 6.
[2] W. I. King, "Wealth and Income of the People of the United States," p. 240.
[3] E. C. Hayes, "Introduction to Sociology," p. 44.

to limit its population so that the numbers neither increase nor decrease, because a persistent increase under conditions of limited economic support would inevitably lead to a deterioration in the quality of the population.

The 1920 census for the United States registers a population of approximately one hundred and five million. The increase during the last decade was at the rate of 14.9 per cent., or a rate of increase only two-thirds that of the previous decade and less than one-half that of the last decade before the Civil War. Part of this lowered rate of increase of the last few years is due to the falling off of immigration during the war, and to war mortality. However, looked at over a broad space of time, it indicates something of much greater significance, namely, a tendency of the rate of increase steadily to diminish during the last century. If this tendency is not checked it will be only a comparatively short time before the population will have become stationary or have begun to decline. In other words, America is moving toward a position which France has already reached and which England has approximated.

Of the American population, 51.9 per cent. are living in cities or towns of more than 2500 inhabitants. The American people steadily congest more and more in urban communities partly because of the herd instincts which bring genuine pleasure from close contact with one's fellows and partly because of the economic necessities of the factory régime. This increasing urban life has well known influences in the quality and character of large groups of the population.

Any conception of preventive checks upon the population to keep it within the quality and quantity standards must take into account the fundamental relation of the family to the birth rate. In France it is a matter of family prudence to limit the family to a size making possible full educational and financial advantages to a few children. In England, and to an increasing extent in America, family prudence is working in the same direction. To quote H. Bosanquet, "Finally we come to the most important economic function of the family, perhaps the most important

purely economic function which exists at all, since it controls directly and finally the prosperity and the ruin of nations. In the family, and the family alone, are combined the forces which determine the quantity of population with the forces which determine its quality; and without this combination the decay of the people is inevitable. . . . Where the quality is right no necessary limit is at present within view; where the quality is wrong, each one is too many.''[1]

Any factor which tends to undermine the economic standards of the family immediately menaces the quality of the population. Where an unnecessary accident rate throws the burden of earning the family income upon the mother or the children, or where unemployment requires a partial reliance upon the aid of charity, or where low wages or excessive hours or any other economic force lowers the vitality of any members of the family, the quality of the population suffers. In their more extreme forms, each of these factors leads to positive degeneracy and racial deterioration. The family has in the past been left to cope with these problems upon a *laissez-faire* basis. A large number of children have been commonly looked upon as a drastic financial hardship for the family, yet the community has recognized no responsibility for coming to the financial rescue of overburdened families. The new tendency, although as yet but mildly developed, is in the direction of making the cost of children a partial charge upon the community. The payment of maternity benefits, the provision of health compensation and other forms of insurance under social control, the insistence upon rest periods and vacations for women, the allowance of income tax exemptions in proportion to the number of children, the segregation of hereditary defectives at state expense, are a few of the manifestations of this tendency.

Moreover the economic status of families and children is affected by religious convictions. Catholic families are inclined to be larger than non-Catholic because of the religious tenets against restricting the birth rate. McDou-

[1] "The Family," p. 232.

gall concludes, "That where religious and other sanctions give adequate support to the family instincts, no serious diminution of fertility occurs." Roosevelt made urgent appeals against race suicide by insisting that it must come to be a proud family duty among the well-to-do classes to possess a generous number of children. What Roosevelt tried to make a matter of civic pride, Galton declared could be given the force of a religious idea. Then a family would suffer a loss of prestige in the community unless it was doing its share of the replenishment of the race. It would meet with social condemnation to be responsible as a family for any tendency towards race suicide. Obviously, therefore, the per capita income of the country and the quality and quantity of the population all head up in the family ideals which are generally accepted.

Economic Significance of the National Character

All of the previous considerations in regard to alien stock on American soil and the quality and quantity of the national population have the profoundest bearing upon the economic and social progress, or decline, of the national life. If the preponderance of the population increase comes from the classes with the weakest biological inheritance and with the least favorable family and social environment, the national character is menaced at its vital centers. In the competitive race between nations for social and economic survival, and in the incessant rivalry of nations for positions of influence and prestige, no one can doubt that the ultimate superiority is held only by nations whose blood is the most virile. Where classes of population which rise to positions of economic success shrink from the obligations of parenthood, the inheritance of a nation is jeopardized, and America is in the initial stages of that precarious position at the present day. Certainly the situation is one which offers a challenge to Americans to make new adaptations between their family and social standards and their economic circumstances; and to reconstruct their ideals and traditions for the avowed purpose of preserving the highest quality of the national character.

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CHAPTER VII

CAPITAL: THE RIGHTS AND DUTIES OF OWNERSHIP

The distinguishing features of economic wealth are ownership and utility. Goods or services become economic wealth when they are of use to someone and when someone claims the rights of ownership over them. The user or the owner may be an individual, a social group, or a political body. The title of ownership consists of the power and right of any agent, private or public, to withhold goods or services from use by others. It is the power to withhold land from the person who wants to build a house or factory. It is the power to withhold food or clothing from the prospective consumer. It is the power to withhold water from the city dweller or to withhold the means of transportation from the man who wants to travel. Such goods or services are withheld upon a condition,—that condition being the ability and the willingness of the person who desires the goods or services to give a certain payment. Air, sunlight, dirt, the ocean, or rainfall do not reckon in the category of economic wealth because no one has the power to withhold such objects from the use of anybody else.

They do not come into the classification of wealth because, no matter how useful they may be, nobody can hold ownership over them. Nobody can keep them from common use on condition that the would-be user offers certain terms of payment. Only goods which are limited in quantity, are capable of being owned. An element of scarcity in any good makes that good of the type which can be owned advantageously. Economic wealth arises

whenever any one acquires the power to withhold goods or services from the use of those who need or want them.[1]

The distribution of this power to withhold is the distribution of ownership. A large part of economics is concerned with problems centering around the means by which this power to withhold is acquired, the reasons why some have much of it and others have little, the methods by which the power to withhold is exercised, and the possibility of its control by social agencies. These problems are fundamental in economic studies, and a discussion of their various phases is of the utmost importance.

What are the forms of the goods and services of the economic community? The question makes necessary some classification of goods and services. There is, for example, land, the income from land being known as rent. There are also, material goods, such as machinery and buildings used for production, the income from them being known as interest or profits. There are, thirdly, material goods such as bread and butter or shoes and stockings to be used for consumption, the income from them giving rise to profits. There are finally labor, services, work, the income from them being known as wages, salaries or fees.

In their entirety, these goods and services constitute a stock on hand, a collection and accumulation, and the term wealth is often used by economists as covering this total stock in existence at any one time. There is, however, a second use of the term, in which reference is had to the income accruing to men over a stated period of time. What is an individual's wealth? From the former point of view, it is all the goods and services which remain in his possession as a result of his total accumulations to date. From the latter point of view it is his income, from whatever source, for a day, a month, or a year.

Under the modern economic régime, wealth, in whichever light it may be viewed, is measured by a price. Which

[1] See Alfred Marshall, "Principles of Economics," pp. 54-62; E. Cannan, "Wealth," pp. 1-39; W. I. King, "Wealth and Income of People of United States," pp. 5-15; Carver, "Distribution of Wealth," Chapter III.

is the greater object of wealth, a suit of clothes or an automobile? The price attached to each one is a sign of its relative wealth. So all goods and services come to be spoken of in terms of money. Land, labor, machinery, food, all are tagged with a price. The price system is all inclusive in the economic system, and nothing that counts as wealth escapes the tag of price. A good or service without a price sign is unintelligible to the economic system. The total possessions of an individual, or his income, or his services are translated into a price and are qualified to figure in the economic régime only when they have received that brand.[1] What is a man worth? One hundred thousand dollars, perhaps. That is, the goods and services which he has title to are rated in the price régime at that figure. The extent and degree of a man's power to withhold anything from the use of others is indicated by the amount of the price attached to that power.

As a basis for understanding the significance of some general principles, certain facts of ownership and wealth are necessary at the outset. These facts fall roughly into the following main classes:

1. The total stock of wealth of the nation.
2. The annual income of the nation.
3. The proportion of the annual income consumed to that saved to be used for further production.
4. The proportions of the income of all classes for services rendered and for possession of property.
5. The relative fractions of the national income going to wages, rent, interest and profit.
6. The inequalities of property ownership between individual persons.
7. The inequalities of income between individual persons.

After these facts are in mind, it will be possible to explain some of the forces and influences which make them what they are.

1. The total stock of wealth of the nation in 1904 was approximately $107,000,000,000. Subsequent capital ac-

[1] H. J. Davenport, "Economics of Enterprise," Chapters II-III.

cumulation through the excess of production above consumption had brought the total up to about $187,000,000,000 in 1912. When measurement is made by the changed price levels, following the war, the national wealth would have been in June, 1920, about $400,000,000,000. The decline of price levels since that date would again alter the price index of the national wealth. Obviously, the fluctuations in price levels do not mean that the national wealth is fluctuating in like manner. The money standard of measurement changes, but the wealth does not undergo corresponding ups and downs. The wealth itself, in terms of coal and iron, food and cotton and wool, gold and silver, automobiles and land, factories and machinery, carries a fluctuating money price, but the actual goods do not fluctuate in like proportions. This unstable relationship between prices and the goods themselves makes the method of measuring wealth in money units somewhat unsatisfactory, and yet money is the only common unit of measurement of all forms of economic wealth. Moreover, when the money measure of wealth is understood for the thing it is,—a fluctuating measure,—it allows a fairly accurate impression of the volume of the nation's wealth. The figures which have been given here should be taken as rough approximations. No official estimate of the nation's wealth has been made since 1912 and consequently these figures represent non-official calculations. The purpose is simply to give a mass impression of the nation's total economic wealth.

2. The annual income of the nation. The income of the nation in any single year is a matter different from the total accumulation of wealth at the time. The nation's annual income in 1913 is estimated at about $34,400,000,000. By 1918 the income was estimated at approximately $61,000,000,000. After the proper discount is made for differences in price levels for the two years, the 1918 income represents an increase of physical output, an increase in

[1] See "Wealth, Debt and Taxation," 1913, United States Census; Sir Edgar Crammond, Bankers Institute, London, 1920; Sir Josiah Stamp, *Journal of the Royal Statistical Society*, July, 1919.

volume of production, of from 10 to 15 per cent. over the 1913 level. Moreover, the annual income of the nation prior to 1913 had been steadily mounting. The average income per capita in 1913 was practically double the figure for 1880. The gain in actual volume of production during the war period has not been maintained during the post-war period, due in part to labor inefficiency, to abandonment of war emergency motives and organization, and to business depression. The annual income for 1920 has been estimated, in the price levels of that year, at approximately $65,000,000,000.[1]

When a view is taken of annual income over a period of several decades, it is found that since 1850 the income in terms of actual purchasing power has more than trebled. This enormous increase in annual income is attributable primarily to the advent of the revolutionary improvements in machinery and scientific production. With the utilization of natural power, the application of electrical energy, the countless inventions of mechanical devices, the erection of factory equipment, the development of natural resources and the advances made in a million ways in all the industrial arts and sciences, the productive capacity of the individual worker has grown steadily. No one familiar with the state of the industrial arts and sciences would intimate that this development has reached its limit. On the contrary the future appears to be filled with possibilities of discovery and invention of incalculable importance.

Of course the mere increase in the total volume of annual income is no guaranty that the new total will be well distributed. Unless the greater volume is wisely divided among all groups, so as to make constantly for a higher degree of common welfare, the new volume could scarcely justify itself. But assuming a wise distribution,

[1] For income data, see National Bureau of Economic Research, "Income of the United States," pp. 64-66, 79, Chapters II, IV; King, "Wealth and Income of the United States," p. 129, Chapter VI; Kemmerer, "High Prices and Deflation," Chapter I; W. W. Stewart, *Economic Review*, Vol. XI, pp. 57-82; E. E. Day, *Review of Economic Statistics*, September-December, 1920; D. Friday, *Journal of Political Economy*, Vol. 26, pp. 952-969; Vol. 27, pp. 117-126.

the foundation for a rising standard of living for everybody and a general human and material advance rests in the increased producing capacity of the country due to the development of the mechanical and scientific basis of modern industry.

3. The proportions of the national income saved and consumed. The national income may roughly be divided into a portion calculated for immediate consumption and a portion set aside, and saved as a means to further production. In the one class would belong the food of the family table, the overalls and the evening gowns of the various classes, the shoes and hats, the houses and automobiles,—anything and everything that is used up at the time by the consumers of the country. In the latter class would belong the factory buildings, the research laboratories, the machines and work benches, the trucks and railroad equipment,—the entire outfit of productive capital which is utilized to maintain the production of the country from year to year. In the year 1910, from 6.5 to 10 per cent. of the income was saved, the balance consumed. In the year 1913, about 20 per cent. of the income was saved, and about 80 per cent. consumed. In the abnormal war year, 1918, about 30 per cent. was saved and about 70 per cent. consumed. The normal peace time savings range within the percentages for 1910 and 1913. J. A. Hobson has estimated that in England the average annual savings amount to about three-twentieths of the total annual income. Obviously, the great bulk of the nation's income goes into consumption. But it is out of the saved fraction of the income that the productive equipment of the country is built up and expanded. If the proportion saved becomes too small, the future productive equipment of the country is dwarfed, and the basis for the annual income of the next generation is undermined. Saving is an imperative economic virtue under the present economic régime. A nation which launches into an orgy of expenditure for goods to satisfy the needs of the moment, and forgets thrift and saving, may enjoy itself for the time being, but foresight and precaution call for a high

ratio of saving out of the nation's income. An abundant amount of productive capital in the country is the only means by which the high national income can be maintained year in and year out.[1]

4. The proportions of national income for service and for ownership. From another important standpoint, the national income divides itself into two classes: one, that going as a reward for work performed and services rendered by human activity; the other, that going to the holders of property by virtue of their claim of ownership. "Work and property are the two great categories upon which, in approaching the problem of distribution, we should concentrate our attention."[2] The former category covers wages, salaries, fees, etc., reward for effort expended, mental or manual or both. The latter covers interest, dividends, or rent,—that is, reward because the owner of property has loaned or invested his savings. Generally, the two classes are fairly distinct. The owner of bonds to the amount of $1,000,000 draws an interest of perhaps 5 per cent., the interest being a reward for ownership. The wage worker in the factory where the million dollars is invested draws a wage of perhaps $1200, the wage being a reward for effort of hand and brain. The president of the company draws a salary of perhaps $50,000 as a reward for his services as an executive. He may at the same time own bonds or stock in the company upon which he receives property income in interest or dividends. The president of the concern in that case receives both an effort income and a property income. However the two sources of income distribution remain distinct. They are separate shares of the income of the individual, and in the aggregate stand out as separate shares of the total national income.

The statistics of the case are too incomplete to allow a precise estimate of the ratio between the two shares, but approximations are possible and for all general purposes

[1] See D. Friday, "Profits, Wages and Prices," Chapter V; also in *The New Republic*, Vol. XXIX, pp. 64-67; King, *op. cit.*, 132-137.
[2] H. G. Dalton, "The Inequality of Incomes," p. 175.

these approximations are highly useful. Hugh Dalton has estimated the relative shares received for property and for effort in the following amounts: [1]

	Share of Property per cent	Share of Effort per cent
United Kingdom	32	68
United States	29	71
France	39	61
Italy	26	74

The share of property ranges therefore in the vicinity of 30 per cent. of the total income fund.[2] This ratio however fluctuates a great deal with different years. During the years 1916 and 1917 the share of the annual income which went in the form of wages and salaries was comparatively low. It amounted probably to less than ⅔ of the total. But in the following two years, the share of wages and salaries mounted high, rising to approximately ¾ of the total income. The variations arise from fluctuations in price levels, in the system of taxation, in labor efficiency, and in wage rates.[3] The essential concept is the fairly stable ratio between incomes for doing and incomes for owning. The incomes for doing amount to more than double the incomes for owning.

The justification for this ratio, the good or harm coming from it, and the causes perpetuating it, give rise to intricate and difficult questions. They are best approached by viewing ownership as an institution. An analysis of the institution of ownership and private property will therefore be made in the latter portion of this section.[4]

5. The proportions of income going to wages, interest, rent, profits, etc. The fractions of the total income assignable to each of these factors are of necessity approximations. They can lay no claim to close accuracy, and yet they have a very real value in that they give a rough picture of the stream of income. This picture is essential for

[1] *Op. cit.*, p. 209.

[2] National Bureau of Economic Research, Income of the United States, pp. 97-108, 145.

[3] David Friday, "Profits, Wages and Prices," pp. 124-125, 130.

[4] See below, pp. 193-215.

a genuine conception of the working of the economic system. Rent claims approximately 8 per cent. of the total income. The share of rent has remained fairly constant since 1850. This 8 per cent. represents the income for ownership, which flows to those who have the title of possession to the land of the country. It is primarily an income for owning rather than for doing.

Profits claimed in 1910 about 27.5 per cent. of the total income. Profits in this sense of the term refers partly to income for effort, skill of management, service rendered, etc., but chiefly to income for ownership. Although the major part of profits represents income for ownership, nevertheless the ratio between the two is not a matter of exact statistical record up to the present time. Profits is therefore loosely used in this estimate. In 1918, the individuals and corporations reporting to the Bureau of Internal Revenue indicated that the total of business profits for the year was $14,500,000,000, or about 21 per cent. of the total income for the year. [1]

Interest claims from 5 to 9 per cent. of the product, varying with the year in question. Interest as here used covers the return on bonds and notes, but not the dividends on stocks. Interest, like rent and a part of profits, is a reward for ownership. It is paid to the owner of property or the holder of credit as a property income rather than as an income for effort and workmanship.[2]

There is nothing invidious in pointing out the relation between these factors of income for owning rather than for doing. The function of ownership is indispensable in the economic process under a private property régime, and there is nothing derogatory in income based upon that function. Owning is however a distinctly different function from doing, and the clear separation of the two bases of income is of real importance.

6. Personal inequalities of property ownership. In the United States, 1 per cent. of the population owns approx-

[1] David Friday, *American Economic Review*, Sup., March, 1920, p. 22.

[2] On above data, see King, *op. cit.*, pp. 158-160; Bowley, "Division of the Product of Industry," pp. 42-45.

imately one-half of the total wealth of the country. Ownership is largely concentrated in the hands of a few.[1] In the more advanced industrial countries, a large majority of the population is virtually propertyless. Three-fifths of the population in such countries as the United States, the United Kingdom, France and Prussia are without ownership of any considerable property. It has been estimated that in New York City, as much as two-thirds of the population are without any registered property.[2] In these modern industrial communities, the richest 2 per cent. of the people own considerably more than all the rest of the people taken together. This extreme inequality of ownership indicates in a modern democracy two classes, side by side, the one loaded with enormous possessions, the other destitute of any property save the more immediate necessities of life.[3] In the large industrial centers, probably 90 per cent. of the wage workers are propertyless. Only a negligible few wage earners in New York City own their own homes.[4]

The middle classes, comprising about one-third of the population, own about one-third of the property of the country. Clearly, the extremes of concentration take place in those limited circles occupied by the very well to do. Their stack of property mounts to the sky while the pile of the great mass of wage workers is of pigmy proportions.

It follows, therefore, that the great bulk of the income for owning rather than doing goes to a very small fraction of the population. The giant's share of property income goes to the richest 1 or 2 per cent. of the population. The income of the lower two-thirds of the population is almost exclusively an income for physical and mental effort. They receive virtually no income for owning, for they own virtually nothing. Property income centers in

[1] R. T. Ely, "Property and Contract in their Relations to Wealth," p. 319.
[2] *Ibid.*, pp. 318-319.
[3] W. I. King, "Wealth and Income of People of United States," p. 96.
[4] R. Hunter, "Poverty," pp. 42-43.

the property owners. This contrast is most violently marked when the largest single fortune in the United States is compared with the propertyless condition of the mass of the population. This fortune was estimated in 1915 at about $1,000,000,000, and is equivalent to the wealth of 2,500,000 of those classed as in the lower levels of society.[1]

The causes of these inequalities and their effects upon society require an analysis of private property as an institution. The institution provides an organization of economic forces of which this gross inequality is the natural outcome. Any other outcome would involve an alteration of some characteristics of the institution. This institutional analysis will be undertaken later in this chapter.

7. Personal inequalities of income. In the United Kingdom, pre-war estimates put one-half of the total income of the nation in the hands of about 12 per cent. of the people, and, what is more striking, one-third of the total income in the hands of about 3 per cent. of the population.[2] In the United States, that richest 1 per cent. of the population which owns about one-half the wealth receives approximately 15 per cent. of the income. This brings the facts to the point where it is apparent that the inequalities of income are not so great as the inequalities of ownership. The total income of the masses of workers is not reckoned upon any property basis, but upon a wage or salary basis. "The working man, commonly, receives more income in a year than the total value of his possession while the rich man's income, being composed largely of rent, interest, and dividends, will, ordinarily, constitute but three to ten per cent. of his wealth."[3] But this is not to imply that the inequalities of income are not carried to startling extremes. Indeed, if the greater inequalities of ownership were not already in mind, these inequalities of income would seem staggering enough in themselves. The richest fifth of the families in the United States claims

[1] Federal Commission on Industrial Relations, Vol. I, pp. 32-34.
[2] Sir L. C. Money, "Riches and Poverty," Chapter III.
[3] W. I. King, *op. cit.*, p. 231.

about half the income.[1] To put the facts of income and ownership side by side, it may be stated that one-half of the *income* goes to the richest fifth of the people whereas one-half of the wealth is *owned* by one one-hundredth of the people.[2]

The full effect of the war period upon inequalities of income has not yet been measured. One impressive fact is the number of incomes of $50,000 or over. They were estimated at about 27,000 in 1917 and 21,000 in 1918. In 1917 there were 141 individuals whose annual income was one million dollars or over. In 1918, there were 67 people listed in the same class. At the other end of the scale there were over 85 per cent. of the population gainfully employed whose incomes did not mount high enough to list them in the $2,000 per annum class. The incomes of the largest property owners make up a huge share of the total income of the nation, and the inequalities between these two great groups of the population are enormous.[3]

Any attempt to understand the problem of ownership, wealth and income must begin with a vivid conception of these inequalities. The extremes of income, the violent contrasts between the most well-to-do and the least well-to-do are the center of the picture of income distribution.

In the higher income classes, the ratio between income for owning and income for doing is also significant. Approximately one-half of the incomes between $3000 and $4000 arises from personal services, the other half from ownership. When incomes reach the $10,000 figure, the share due to personal service is reduced to one-fourth, whereas the share due to owning rises to about three-fourths. When incomes reach the figure which ranks the individuals as millionaires, the share due to personal services falls to about 14 per cent. When incomes pass the $1,000,000 mark annually, the share for personal services declines to a trifle over 4 per cent. Obviously, the

[1] King, *op. cit.*, p. 235.

[2] On above data, see National Bureau of Economic Research, *op. cit.*, pp. 108-143, 147.

[3] See Statistics of Income, 1918, United States Bureau of Internal Revenue.

higher the income, the lower the proportion due to personal services, and the greater the proportion due to ownership.[1]

The statistics of wealth, income and ownership are of importance because they give a quantitative conception of the actual facts. By setting the various phases of the institution of wealth and ownership in their right proportions, the statistics supply the economic observer with fairly accurate mental pictures of the relative size and strength of the several factors entering into thought on the broad problems of wealth.

Interpretation of the Facts

An interpretation of these facts may well begin with the first two groups in the classification, namely, the total stock of wealth and the total income of the nation. The significance of wealth and income for a nation is conditioned by a number of fundamental factors. Wealth and income are greatest for a nation which is abundantly endowed with natural resources. A nation which is deficient in such basic natural resources as coal and iron is severely restricted in its volume of wealth. Wealth and income tend to be greatest where the agricultural soil is fertile and large in area; where mineral supplies are of high quality, easy of access, and vast in quantity; where rivers, lakes and sea coast are favorable for commerce, and where the topography of the country is favorable to elaborate transportation systems. These qualifications do not insure a high national income; they merely offer a possible foundation for national prosperity. The qualities of the national population determine the extent to which material resources will be converted into national prosperity. That people which contains men of strong initiative, leaders who are willing to take great risks in the development of the country's supplies of materials, organizers who have an instinctive drive toward organizing all of the factors of production and distribution, and individuals who have the ability and genius to become great captains of industry—will con-

[1] D. Friday, *Journal of Political Economy*, Vol. 26, p. 962.

vert most completely the raw resources of a country into national prosperity. Moreover the character of the laboring population will condition the use made of a foundation of rich resources. A labor population which is of relatively high intelligence, which has physical stamina and vigorous instincts, which has aptitudes for craftsmanship or adaptability to the discipline of mechanical industrial processes,—is favorable to a successful utilization of the raw resources of the country. In a broader way, the whole social system of a country conditions the relations between national resources and national prosperity. The extent to which class lines are drawn in the social structure, the moral and social standards of the upper and lower levels of population, the effect of customs of consumption upon the character and ideals of a people, the personality of the average citizen in his social surroundings,—all these influence the volume of income and of wealth, and determine what their component elements shall be. The broad truth of the matter is that the entire economic structure of each generation, its technological development, its manner of industrial organization, and its social institutions generally, shape the economic energies of the nation, and determine what kind of product shall be prized in the nation, how much of it shall be desired, and how much of it can be actually produced.

The wealth of the country has been spoken of thus far mainly as an accumulation of goods and commodities. This conception of wealth is true to the facts of the case, but it needs a further interpretation in order to make clear its primary meaning from the human standpoint. The goods in and of themselves would be worthless unless they contributed to the satisfaction of the needs and wants of men. Hence, the stream of commodities belonging to a people constitutes also a stream of satisfactions of human wants. This latter stream is properly conceived as a stream of welfare. When wealth is viewed as a stream of welfare, it should be viewed from the standpoint of producers as well as consumers. For instance, clothing of excellent quality may bring real welfare to the consumer who wears

it; but if the producer of the clothing worked in a sweat-shop at inadequate wages and under conditions which harmed him, body and soul, then the clothing is a form of wealth which represents welfare to consumers only, and not to producers. Therefore a huge national income which entailed human damage to those engaged in producing it would represent a very low stream of producer's welfare. It would not merely bring producer's degradation instead of producer's welfare, but it would so affect the producer that when he assumed his rôle as a consumer, he would be disqualified mentally and physically from that standard of enjoyment and satisfaction which brings consumer's welfare. Hence wealth may be viewed as welfare to the extent that it constitutes a stream of welfare to men in their dual rôle of producers and consumers. Wealth which represents welfare to those who make it and welfare to those who consume it, is the only form of wealth which nations can afford to be proud of.[1] A view of wealth as both producer's and consumer's welfare is therefore necessary.

In interpreting the third classification, the proportions of income consumed and saved, the virtue of thrift comes into prominence. The material progress of a nation is accomplished because there is an excess of production above consumption, and the excess takes the form of new mechanical equipment, improved transportation facilities, and economic capital of all sorts suited for carrying on future productive activity. A nation which consumes immediately all or nearly all that it produces, is rushing toward the day when its machinery will be worn out, its railroads depreciated, its buildings crumbling, with little or no new equipment to replace the old. The technical equipment of a modern economic society increases in proportion to the extent to which people save part of their income and invest it in some form of capital that will aid in carrying on production. National power and prestige

[1] For an excellent and elaborate discussion of consumer's welfare, see A. C. Pigou, "Wealth and Welfare," and of producer's welfare, see J. A. Hobson, "Work and Wealth, A Human Valuation."

in the present world situation depends in fundamental respects upon the willingness of the nation to set aside part of its earnings for the uses of the future. The nations which can, by wise saving, increase the amount of efficient machinery per capita, and the amount of horsepower, derived from steam, electric, water or other power sources, that is at the aid of each worker, and the supply of other necessary capital, has laid the foundations for an increase of production for the nation and an increase of income for the average individual. Increase of capital equipment multiplies the productive efficiency of the individual worker and of the nation, and the rate of increase is measured by the rate of national saving, i.e., the annual excess of production over consumption.

Two sources of savings command prior attention: the incomes of individuals, and the incomes of corporations. Individual thrift is a virtue for rich and poor alike. Of course, it is a virtue which is the easier practiced the greater the individual's income. A person with large income may make large savings with comparative ease, while a person with a living wage senses a real sacrifice for each dollar saved. For the latter person as for the former, the savings represent a source of personal gain and personal security. The savings of the wage earner may draw interest in a savings bank or elsewhere, and are available for some possible future emergency when the worker has lost his job, or has to meet a doctor's bill, or has to cope with some other urgent need. The savings of the person of large income contribute to the accumulation of a personal fortune, with all that a fortune means in the form of power, prestige and economic freedom and security. At the same time that saving results in personal gain, it also results in national gain, for it swells the amount of the total fund of savings and thereby increases the productive equipment and economic efficiency of the country as a whole. Thrift, therefore, benefits both the individual and the nation.

Although thrift is, by every rule of logic, a real public and private virtue, nevertheless it is a virtue which the

individual finds it exceedingly difficult to practice. The difficulty arises from the psychology of the situation. Income spent immediately buys immediate welfare, immediate enjoyment, immediate satisfaction, whereas income saved represents postponed welfare, and postponed enjoyment. The temptations to satisfy the individual's immediate cravings are so universal, and so alluring that it is vastly easier to spend income and satisfy the cravings than to deny the immediate temptations to enjoyment and comfort and to dwell with sweet satisfaction upon the logical virtues of frugality. Frugality itself must be made to satisfy such primary instincts as the motive to care for one's family in the future, or the motive to win prestige and power through large economic possessions, or the motive to imitate others in following a social custom which makes economy more a source of social distinction, and extravagance less so, than at present. But the organization of motives of frugality moves slowly, and against heavy psychological obstacles; and in spite of much preaching and propaganda in favor of thrift, the amount of saving among the bulk of the population, particularly the laboring classes, remains discouragingly small. The psychology of the situation will be clarified somewhat by a comparison with the psychology of persuading labor union members to pay their dues. Labor unions widely insist in their collective bargaining agreements, upon what is known as the "check-off" system. That is, unions demand that union dues be deducted from wages before the wages are paid. They desire the employer to "check-off" from the payroll the amount of the union assessment, because if the union has to collect from each individual member, the task is fraught with enormous difficulties. The union members spend their money for purposes which bring immediate enjoyment, and faithful, painful saving to meet union dues is a most strenuous virtue. Saving is hard, spending is easy. This brief summary of the psychology of the matter applies in real measure to incomes which are large enough to meet generously the individual's needs and extravagances; it applies with great force to incomes which are

so small as to meet only scantily the individual's major wants. In fact, for the lower income groups, it might well be said that saving is extremely hard while spending is virtually imperative. Cost of living studies on a large scale have demonstrated that most working-class families spend practically all their income.[1]

As a result of these various factors, the great bulk of individual saving is done by the so-called middle classes, by the salaried classes and by the property-owning classes. Until recently, it was assumed that the savings made by individuals of these classes varied in proportion to the interest rate, but recent studies and observations point to the opinion that interest rates have a minor influence upon the volume of individual savings.[2] Saving which involves real abstinence and sacrifice is not due to acquisitive motives to secure high interest, but rather to motives to secure family protection, economic security, social prestige, or business power. This is not to deny some influence to interest rates, and it certainly deserves to be pointed out that without interest rates the fund of individual savings would be inadequate to meet the nation's needs for capital. It is, however, a false theory of interest rates to contend that the individual saver is motivated primarily by acquisitive instincts. The motives to saving in the average individual are many and complicated, and the possessive motive, stimulated by interest rates, does not hold a dominant position in his group of motives.

The other source of savings is corporation income. Business men discovered that individual savings would not be adequate to finance economic activity and expansion, and cast their glance around for a source of savings which would supplement individual thrift. They discovered a source of savings in corporation income. The net income of a corporation is rarely paid out in full in the form of profits or dividends. A substantial portion of the earnings available for dividends are not paid out, but are retained in the corporation. These retained earnings are then used to invest

[1] Royal Meeker, *Monthly Labor Review*, Vol. IX, pp. 1-5.
[2] For detailed observation see below, p. 447.

in new buildings, new equipment, new capital of any sort. Or they may remain as a surplus fund and be invested in bonds or stocks of other corporations. In either case, they are savings out of the corporate income, devoted to the maintenance and increase of productive capital. Suppose the funds which are saved in this way were either paid out in dividends, or were reduced by charging consumers lower prices for goods. The result would be that the recipients of the dividends and the consumers who benefited by lowered prices, would spend a good share of their gains for direct consumption; they would save only a fraction of the gains. On this understanding of the situation, corporations have seen fit to adopt very widely the practice of tapping income at the source and of "checking-off" savings before dividends are paid.[1]

An interpretation of the fourth classification, the proportions of income for effort and for ownership, necessitates a broad analysis of the general institution of ownership and property out of which come naturally, steadily, and persistently such results. Merely to look about over the maze of facts gives no clue to the natural causes of those facts. The imperative key to the situation lies in some discovery of why these facts of wealth and property have come to be what they are, why they tend to maintain themselves to-day, and whether by the nature of the case they should always retain their present origins and consequences. The only key which appears to give this clue is a conception of ownership of property as a social institution. As C. H. Cooley has insisted, ownership and distribution are "essentially a historical and institutional phenomenon, economic technique being for the most part only a mechanism through which social organization expresses itself," and "pecuniary valuation is a social institution no less than the state or the church."[2]

An institution is a group of human tendencies and habits working out through an organized structure.[3] It is the

[1] For further details, see below, pp. 449-450.
[2] "Social Process," pp. 302, 308.
[3] W. G. Sumner, "Folkways," p. 53.

product of history. It has antecedents reaching back through generations, and is always in a state of flux and change. It is what it is to-day because it was something else yesterday, something less satisfying yesterday. It will be something different in days ahead because it is not fully satisfying to-day. An institution is on the march from yesterday forward to to-morrrow. It is dynamic. It grows, develops, moves. This is not to deny that there are always forces at work trying to keep the institution static, trying to preserve the *status quo*, trying to hold things as they are. But this is only the conservative side of growth. It combines with another side,—restless, forward-looking, dynamic. The two at their best balance in wholesome, gradual, safe advance; at their worst they fight it out.

If we view the church as an institution, at its beginning, then during the Middle Ages, through the Reformation, through the refuge of persecuted groups in the early American colonies, on through the last century of development in America, and finally in its present form, we have a fairly clear picture of the dynamic character of the church as an institution. Creeds, dogmas, rituals, teachings, theologies, interpretations, beliefs, constantly moving forward, appear simultaneously with organization, denominational structure, practice, custom, tradition and innovation.[1] It is so with the institution of property. Every little while a student of economic life throws out the declaration that "We are living in a new economic world."[2] In other words, the institution is growing.

Obviously then, the institution of property as it exists to-day is not fixed and static in all its detail and method. Institutions have much the same restless qualities as life. In fact, property is nothing unless a way of life. To view property as a static order is to miss the true dynamic nature of property. This emphasis is carefully stated by de Tocqueville in these words, "I am tempted to believe that what we call necessary institutions are often no more than

[1] Ross, "Principles of Sociology," p. 489.
[2] R. T. Ely, "Property and Contract," p. 34.

institutions to which we have grown accustomed, and that in matters of social constitution the field of possibilities is much more extensive than men living in their various societies are ready to imagine."[1]

The study of ownership and property as a great social institution will be considered under the following divisions:

1. The instinctive basis of the institution.
2. Property a group of rights.
3. Ownership as a corporate phenomenon.

The instinctive basis of the institution of property. The whole institution of property would not exercise so dominant an influence upon the wealth activities of men if it were not grounded in powerful traits of human nature. Property stimulates and satisfies some of the deepest instinctive energies of men.

Of high rank among these instinctive energies is the acquisitive bent of human nature. The impulse to possession is a dynamic human fact behind property. The capable organizer, the brilliant manager, the business man of whatever sort, is expected to understand as a matter of course that the stimulus which will call forth his best effort is the unlimited acquisition of wealth. Indeed the profit motive is often advertised as in the nature of things the only motive which can inspire the truly great captains of industry to direct the affairs of wealth. Obviously, the profit motive has the advantage that it works. Even though it may stress the self-interest of the individual to an extreme, even though it seems often to subordinate broader social considerations, it certainly works. That is, it calls forth strenuous effort, it sets men on fire with energy, it commands the keenest brains. It works in the direction in which it is intended to work,—the amassing of profit and property.

There is another direction in which it works only indifferently. The incidental by-product is looked upon as socially good. At any rate, when men set out to acquire large property, the pathway to acquisition is supposed to be

[1] "Recollections of de Toequeville," p. 101.

paved with economic welfare for the country. Adam Smith taught that while seeking his own self-interest, the property-holder would be led as by an invisible hand to serve the common good. The theory in this respect has not always worked out well. The prevailing opinion among engineers seems to be that profit seeking hinders production and subordinates the real usefulness of the economic order. For instance, H. L. Gantt writes, "The aim of our efficiency has not been to produce goods, but to harvest dollars. If we could harvest more dollars by producing fewer goods, we produced the fewer goods. If it happened that we could harvest more dollars by producing more goods, we made an attempt to produce more goods: but the production of goods was always secondary to the securing of dollars."[1] When men become part of an institution which impresses upon people that what matters most to a man is the amount of property he owns, he is bound to make other things secondary. Even though the acquisitive motive builds railroads, extends banks, develops mines, and organizes factories, and by and through them millions of people get their living, nevertheless the sore spots of the social world and the bad fortune of human groups is also an output of the acquisitive motive. Without losing its drive, the profit motive can combine more and more with motives of achievement or of public spiritedness.

Another motive is important, the "will to power." In the modern institution of wealth, the surest road to power is the gaining of property. Property is power. Large property gives prestige and influence with other property-holders; it causes one's counsel to be listened to; and it gives the ability to use financial force to put through new business engagements. The instinct of domination ranks side by side with the instinct of acquisition. "In the modern world, power is realized more and more through property." Hence this driving trait of human nature reinforces the profit motive, and both combine in stimulating economic activity which drastically stresses self-interest and individualistic gain.

[1] H. L. Gantt, "Organizing for Work," p. 24.

Moreover, property means economic freedom. "For man, at all events, his property is above all something that he can rely upon as a permanent home, permanent means of subsistence or enjoyment. Property is thus an integral element in an ordered life of purposeful activity. It is, at bottom for the same reason, an integral element in a free life. . . . Some measure of property appears in short to be the essential basis of liberty."[1] One who lacks property is always on the verge of trouble and distress. He has nothing to fall back upon in case of illness or accident. He cannot travel, he cannot enjoy the best amusements, he cannot have the best education for his family. He cannot take part in the game of business. He is severely limited in his life activities. "Without a certain amount of accumulated wealth, a man is largely a slave to his immediate environment." The facts of wealth which have already been given show that for the majority of men this enslavement to immediate environment is a painful fact. They lack the accumulated property which gives independence from the misfortunes and vicissitudes of life among the non-propertied levels of society. To win property is to win economic freedom. The most nagging worries of life drop out. Security is attained. The instinctive revolt against restraint and confinement is successful; and the love of freedom, the love of fuller psychological existence is satisfied. As William Graham Sumner remarked, "Wealth, therefore, in a highly organized civilized society, gives an emancipation from the ills of earthly life which is enormous."

One of the most insistent movements of the present time is for a revaluation of the motives governing property accumulation. "The community needs service first, regardless of who gets the profits, because its life depends upon the service it gets."[2] Before the service motive, property is on the defensive. Property is face to face with the necessity for co-ordinating the profit motive with new motives. At least, it is challenged with the task of controlling the profit

[1] Ely, "Property and Contract," pp. 308-309.
[2] H. L. Gantt, "Organizing for Work," p. 5.

motive with social thoughtfulness. At first, the reaction to such a challenge is that a service motive or constructive motive, or public achievement motive will not work, that a creative motive is inadequate. These substitutes are not, so it is said, rugged, and virile, and tremendous. However, it is conspicuous that motives of creative achievement and public well-being have played a primary part in the motivation of such indispensable economic groups as the inventors and engineers. Among the professional classes, the profit motive is placed under subjection. Surely, then, the proposed substitutes are not as weak and flabby as they might at first have seemed. One of the vital contributions of psychology to economics is the scientific assurance that the substitute motives have true dynamic quality, and do not menace the business game with a milksop mental outlook.[1]

Such a revaluation of motives throws light on the claim that property as now constituted is a great developer of personality. The race for property accumulation develops foresight, self-reliance, initiative, self-respect, and a long list of other virtues of personality. But unquestionably it at the same time encourages certain vices of personality,—such as excessive self-interest, misconception of the primary importance of the public need, and false valuation of all the qualities of life in terms of self-gain. But what of the propertyless man? Surely property is not a developer of personality for him. As a keen observer has remarked, "Thus it has come about that the Society which boasts of its reliance on the freedom of individual self-development nevertheless allows only a limited proportion of its individual members to possess the freedom. It appeals to the moralizing influence of ownership; and then denies the possibilities of any real ownership to the main mass of its members."[2] The forces of the times demand that property must be less an individualistic influence on personality and more a social influence. Personality is a social product, and a wider distribution of property, combined with a re-

[1] A. E. Zimmern, "Nationality and Government," pp. 259-260.
[2] See Hobhouse, "Property, Its Duties and Rights," p. 184.

adaptation of more social motives in its accumulation, is the general urging of the forces now at work.

If these considerations are sound, it is proper to define economics as the science of making material wealth contribute most to human welfare. The function of the institution of property is then to serve human life. If this involves a gradual transformation of motives and ideas behind property, then the transformation should be made in the smooth process of economic growth.[1] If the self-regarding instincts have to give way to creative and service instincts somewhat, the adjustment is a part of the evolution of an institution. We may as well face squarely the fact that the present instinctive basis of property is not all that it should be. That does not mean a drastic, quick, shocking change. Property is an institution. Men have in the past been able fairly well to reshape institutions to the facts of human nature when the times have gotten out of joint, and should be able to do so again.[2]

Property a Group of Rights

Property has been defined as "a bundle of rights." There is no more conspicuous feature of the institution of property than this overwhelming emphasis upon the rights of property.[3] When the American Constitution was established, and the foundations of the American system of government and property laid, the period was one which teemed with the philosophy of natural rights. European countries, France particularly, were just experiencing the sensation of having thrown off old authorities, traditions and customs. The new freedom was akin to the freedom of the American Revolutionary group, and it furnished a soil in which there flourished an extreme doctrine of the individualistic rights of all men to life, liberty and the pursuit of happiness. Accordingly property became a set of exclusive rights. The property owner had inalienable rights to do with his property as he pleased, subject only

[1] A. E. Zimmern, "Nationality and Government," p. 174.
[2] D. G. Ritchie, "Natural Rights," p. 277.
[3] R. T. Ely, "Property and Contract," p. 60.

to a minimum of restraint from excessively anti-social practices. Property was something to be let alone by society. It had inalienable rights to be let alone. Property rights were individual rights, and this conception colors deeply the whole institution of property down to the present day.

One weakness in this theory of property rights has become very prominent, namely, the implication that "the foundation of society is found, not in functions, but in rights; that rights are not deducible from the discharge of functions, so that the acquisition of wealth and the enjoyment of property are contingent upon the performances of services, but that the individual enters the world equipped with rights to the free disposal of his property and the pursuit of his economic self-interest, and that these rights are anterior to, and independent of, any service which he may render."[1] Rights come first and responsibilities second. Property is thought of primarily as a bundle of rights, but not emphatically as a bundle of duties. And the rights acquire a certain sacredness and awfulness. They command a sort of religious reverence which will not bear analysis. Such rights it seems sacrilege to question. In this atmosphere, it is hard to make a clean-cut mental approach to the problem of property and find just what it is all about. As a matter of fact, the so-called rights are simply rules of the institution; and if the rules are capable of improvement, then a blind awe of ancient rights should not stand in the way. The rules of the game are being tried out. There is nothing absolute and unapproachable about them. They deserve to be freed from superstition and treated with the same common sense which men use in coping with everyday problems of life. A proper infusion of duties, obligations, and responsibilities is indispensable, and an unquestioning reverence for rights as rights must give way to a proper spirit of accommodation of the property institution to the needs of the present period.

One phase of these rights is the right to *acquire* property.

[1] R. H. Tawney, "The Acquisitive Society," p. 20.

Men have the right to engage in business, make profits, save their income, invest, and accumulate. This right has encouraged the boundless initiative and energy of the business community. It gives a powerful impetus to primary instincts and arouses the ablest men to the most strenuous business endeavors. It has a similar effect upon middle-class shop-keepers and to a large extent upon farm groups. It has however a scant effect upon a substantial proportion of the wage groups for the simple reason that the size of the wage does not permit the accumulation of any great amount of property. The average wage earner does not hold a faith that some day he will be rich; he expects to remain a wage earner the rest of his days. Workers here and there with extraordinary instinctive and mental endowment, force their way from the bottom to the top, and acquire a large amount of property in the course of a life time. The rank and file of laborers, however, have given up any such aspiration. It will be noticed also that among the business groups, this right to acquire wealth enjoys a high degree of freedom from public interference. A man has the right to acquire wealth by manufacturing luxury automobiles when city populations are in dire need of housing. Men are very commonly engaged in manufacturing commodities which are the least needed by the great bulk of the population, because it pays better to produce those goods, and they have the right to produce whatever yields for them individually the highest net income. The Government organization in war time temporarily annulled this right and demanded that non-essentials should not be made when essentials were needed to win the war. Industries which insisted on producing non-essentials found their coal supply cut off by the government, or requests for credit refused. And most business men were willing to give up for the time being the right to produce goods which would not help win the war. But during peace times, there is no slogan equivalent to "Win the War." To produce essentials first, and on a quantity basis at minimum prices to the mass of consumers would obviously be the paramount desideratum from a so-

cial viewpoint. But at the end of the war business men gave a sigh of great relief when the war-time government boards were abolished, and everybody was free again to acquire wealth as he pleased, on the old *laissez-faire* basis, in whatever line brought individually the highest net income. The social forces at work to-day are not pressing for an abolition of the right to acquire property, but they are decidedly at work to make peace-time production amenable to some kind of social control more or less equivalent to the war-time control contained in the slogan "Win the War." There is a social principle superior to the mechanical play of individualistic rights in the seeking of property. Private parties assume that it is sound policy to produce whatever pays best, whereas from a public viewpoint it is sound policy to produce whatever is needed most. As a matter of fact, it often occurs that what pays best is not what is needed most,—hence a shortage in housing or in railroad equipment. The right to acquire property requires, therefore, a degree of social control.

The right to unlimited income.—A very pertinent question would be, "How much wealth can a man accumulate?" In the popular phrase, the answer might well be, "The sky is the limit." After taxes have been paid and costs have been met, his income belongs to him alone, whether it be $3,000,000 a year or $3,000. The property right to income means in terms of everyday action that a man is entitled to all he can get. This unlimited right supplies a perpetual stimulus to the instincts underlying property: they are never satisfied and never reach a limit. No matter how much the individual may acquire, he always has the right to acquire more. At the same time that this right calls forth strenuous business endeavor, it also causes those excessive returns claimed by profiteers, usurers and over-avaricious landlords. The right to income is a right to good and bad income alike. Even during war time the right to income was not seriously invaded. Government reports disclosed gross profiteering throughout the war in many business circles, and after the armistice, profit figures of 50 per cent., 100 per cent.

and even thousands of per cent., were frequently reported by government authorities.[1] Unless this positive right is balanced by a commensurate sense of social responsibility, it inevitably leads to dangerous excesses.[2] "The heresy which condemns our economic life is this, that business is primarily a means of making wealth for individuals. It involves us in industrial bitterness. The truth which alone can bring decency and happiness is this: that business primarily is an essential social service to the community."[3] The right as now exercised has deepened in the minds of groups of people, especially of wage groups, the conviction that employers and property owners are steadily using strong efforts to exact unreasonable returns for individual gain. Unrest and bitterness are greatly stimulated, and laborers tend to reason that hard work on their part does not insure a commensurate return to them, but leads all too often to the property owner reserving for his own fortune the lion's share of the increase. The economic community has drifted to a point where the emphatic demand is that wealth-seeking must be tempered more genuinely with a social purpose.

The right to security of property and income.—Property ownership is deeply entrenched behind the accepted social philosophy and the law of the land. What men have the right to acquire, they also have the right to hold. The Federal Constitution provided at the outset that there should be no taking of private property without due process of law. It also provided that no State could pass a law impairing the obligation and freedom of contracts. By the decision of the Supreme Court, headed by John Marshall, in the Dartmouth College case of 1819, a corporation which had received a charter from the State could hold the charter indefinitely, and the charter was not subject to repeal by the State. Once a privilege was granted, it was granted in perpetuity. Fol-

[1] J. G. Brooks, "Labor's Challenge to the Social Order," pp. 75-85.

[2] R. T. Ely, "Property and Contract," pp. 369-371.

[3] General Sir Arthur Currie, before Canadian Pulp and Paper Assoc'n, 1920.

lowing the Civil War, the Fourteenth Amendment to the Constitution was passed guaranteeing to all persons equally the protection of the laws, and when in 1882 the Supreme Court declared a corporation to be a person, the corporate personality was firmly protected in its property holdings by the power of the Federal Government. The net outcome is summed up by a conservative American authority, A. T. Hadley, as follows, "The general status of the property owner under the law cannot be changed by the action of the legislature or the executive, or the people of a State voting at the polls, or all three put together. It cannot be changed without either a consensus of opinion among the judges, which would lead them to retrace their old views, or an amendment of the Constitution of the United States by the slow and cumbersome machinery provided for that purpose. The voter was omnipotent —within a limited area. He could make what laws he pleased, as long as those laws did not entrench upon property rights. He could elect what officers he pleased, as long as those officers did not try to do certain duties confided by the Constitution to the property holders."[1]

Property becomes under these conditions a vested interest.—"An interest is vested when it must receive indemnification, if it is impaired by public action, directly or indirectly. . . . Vested interests are largely property interests."[2] The rights of vested interests have not always been strictly upheld. The abolition of slavery was a denial of the vested interests of the slaveholder inasmuch as no indemnification was given. The parcels post encroached upon the vested interests of the American express companies, and the postal savings banks upon the vested interests of private banking institutions. The prohibition amendment to the Constitution was a sweeping blow at the vested interests in the liquor business. Social necessity in each case took priority over the vested interests. But these are exceptions. The Courts interpret the Constitution

[1] *The Independent*, April 16, 1908. See also S. P. Orth, "Relation of Government to Property," pp. 7-84.

[2] R. T. Ely, "Property and Contract," pp. 755-756.

in terms which safeguard property against confiscation. Any other attitude by the courts would shatter economic confidence and would discourage men from hard business endeavor. In war time, conscription of income was held to be an unwise interference with vested interests. Social progress which impairs the value of property has to reimburse the property holder. Hence the courts insure a reasonable degree of security to the owners of wealth.[1]

In another form, the right to security amounts to the right of an uninterrupted income. A business cannot continue unless it steadily meets rent, interest and profits charges. "Capital is based upon security of expectations. The investor has confidence that his investment will be returned to him, that promises will be kept. That is the great producing factor in modern industry."[2] If property is entitled to an assured income, then why should not labor have the same assurance? As Commons declares, "Now capitalism is to blame because it has not offered, as yet, to labor that security of the job which it has offered to the investors in the security of their investments. Capitalism is threatened because it has not furnished the working people a similar security to that which it has furnished the investors."[3] Steady employment, industrial insurance and a living wage are indispensable to the security of the wage worker. "This need for security is fundamental, and almost the gravest indictment of our civilization is that the mass of mankind is without it."[4] The property right to security must be matched by a human right to security, for otherwise the one-sided insistence upon property rights leads the community into deeper and deeper social troubles.

The right of property to industrial control.—Property carries with it the right of self-management. The owners of capital by tradition and custom have the right to control and direct the business. Labor carries no such inherent right. The labor movement is thus in a large degree a

[1] R. T. Ely, "Property and Contract," pp. 755-790.
[2] J. R. Commons, "Trade Unionism and Labor Problems," p. 8.
[3] *Ibid.*, p. 8.
[4] R. H. Tawney, "The Acquisitive Society," pp. 72-73.

determination to give labor the same right as that now claimed by property. A large number of employers have already voluntarily undertaken experiments with various forms of employee representation in an endeavor to work out safe and sane principles and plans for labor's participation in certain problems of management. The labor movement is a flat denial of the exclusive right of property to hold the power to run the business. The laborer invests his life in the business and feels that this is as good a claim to a voice in the control of the business as the possession of a certain number of shares of stock. The whole force of the labor movement is a demand that the right of industrial control must be shared.

The right of freedom of contract.—American courts have usually interpreted contract rights as property rights, because private property is commonly acquired through contract.[1] The common view is that freedom of contract is a province wherein the individual is to be let alone. "His right to contract freely is to yield only to the safety, health, or moral welfare of the public."[2] But in the eyes of property-owners, the fewer such restraints the better. The maximum of individual freedom of contract and the minimum of social restraint are taken as the accepted ideal. This right of freedom of contract is so firmly entrenched in judicial tradition and in legal statute that virtually all social legislation has to run a gauntlet of the courts before it can win a status of legality. Such social legislation is frequently held up for from 10 to 20 years because at first shock it limits freedom of contract. At the present time a State is unable to pass a law protecting a workman, who desires to join a union, from discrimination at the hands of his employer. The law is declared by the court to impair the freedom of contract of the employer. This guarantee of freedom of contract is also a guarantee of inequalities

[1] R. T. Ely, "Property and Contract," pp. 53-54.

[2] See Roscoe Pound, "Liberty of Contract," *Yale Law Journal*, Vol. XVIII, 454-87. Also see F. J. Goodnow, "Social Reform and the Constitution," Vol. XXXIII, and T. R. Powell, "Collective Bargaining before the Supreme Court," *Political Science Quarterly*, pp. 396-429.

of fortune. The United States Supreme Court asserts, "Wherever the right of private property exists, there must and will be inequalities of fortune." It is "impossible to uphold freedom of contract and the right of private property without at the same time recognizing as legitimate those inequalities of fortune that are the necessary result of the exercise of those rights." In other words the inequalities of wealth are woven into the institution of property, and are inseparable from it.

The equal right to freedom of contract means the equal right to be let alone by public authority. The insistence upon the individualistic exercise of the right has led to a serious complication since the development of great organizations of labor and capital. A contract between an individual immigrant worker and the United States Steel Corporation with its scores of subsidiary companies and a property value of upwards of $2,000,000,000, was not foreseen by the framers of the constitutional guarantees of freedom of contract. Such a contract can scarcely be conceived as one entered into between equals. Before the law, the corporation is an individual person, but in social and industrial fact, it is a colossal aggregation with many times the bargaining power of any individual laborer. The significance of the labor demand for collective bargaining is that the labor group desires to wipe out this actual inequality of bargaining power, and make possible a labor contract between equal groups. Group freedom of contract is quite different in principle and effect from individualistic freedom of contract and the form in which society will accept group freedom of contract remains to be determined. Group freedom of contract is not guaranteed by the law of the land as at present interpreted by the courts. This matter is the center of a huge amount of bitter dispute between employers and employees, and is one of the most dynamic spots in the whole institution of property rights. [1]

[1] R. T. Ely, "Property and Contract," pp. 561-732. See also Sections I, II, III and VI of Orth's "Relation of Government to Property."

The bundle of rights, therefore, which enters into the property institution, is faced to-day with a number of severe challenges. The paramount traits of the social forces in regard to property may be summed up under two headings: first, that property rights must be balanced by property duties and responsibilities; and second, that group rights and social needs shall take precedence over purely individualistic rights wherever the two conflict. At these two points the institution of property is in process of a great institutional evolution, and the transformation involved has social and economic consequences of the greatest magnitude.

The foregoing discussion has been directed to the psychological and legal aspects of the institution of property ownership. The following discussion is directed to the structural phase, and concerns itself with the corporate form of ownership, since the corporate form of ownership is the main one in the present economic system.

Ownership as a Corporate Phenomenon

Ownership through bonds and stocks has largely displaced the old personal direct ownership of property and has become the typical form of ownership in modern organized industry. This evolution in ownership was indispensable to the development of modern production, commerce and finance. Without the corporate form of ownership it is inconceivable that the modern economic system could have been constructed. "Although merely an immaterial form, it has nevertheless wielded an economic and social influence greater than any other purely conceptual entity of the last century. The contribution of the corporation to the evolution of the form of modern industry has been no less potent than that of machinery to its technique."[1]

Corporation methods allow for a scattering of ownership with a concentration of control. The scattering of ownership is carried to remarkable lengths. In a typical large scale enterprise, the owners of securities are scattered

[1] A. Dewing, "The Financial Policy of Corporations," pp. x-xi.

throughout most of the States of the Union, and through a number of foreign countries. People in Brazil, Japan, California and New York are owners of the securities of the typical large corporation of Pennsylvania or Ohio. Men and women, wage workers and farmers, savings banks and insurance companies, multi-millionaire estates and corporation executives, lawyers and doctors, all and severally own a few or a great many shares of securities, and this grand miscellany in its totality is the ownership of the corporate property and undertaking. At the same time, the executive control and direction of the corporate property is highly concentrated. A controlling amount is owned by specially interested parties and the votes of the remaining security holders are merely nominal votes. These major interests manage to secure a satisfactory Board of Directors, this Board in turn giving over the administrative tasks of the business to appointed executives. This highly concentrated control enables men of high initiative and powerful instincts of acquisitiveness, achievement, domination or rivalry to have at their disposal the accumulated savings of masses of people.

In 1917, there were 345,047 corporations listed on the records of the Bureau of Internal Revenue, representing a total capitalization of about one hundred billion dollars, approximately one-third bonds and two-thirds stocks. Bonds appear in a variety of forms, but have one basic principle in common, namely, they are secured by a mortgage on definite property or have prior claims on the general assets and credit of the corporation. Backed by such a security, the bond is the corporation's promise to pay the investor interest on a certain sum of money for a stated period of time, at the end of which time the corporation promises to pay back the sum originally borrowed. The stockholders have a right to the income or property of the corporation only after the claims of bondholders are satisfied. As a rule the security behind stocks is secondary and inferior, but the rate of income is commonly higher. People who invest in bonds are usually more interested in the safety of their money than in high income; whereas

people who invest in stocks are willing to sacrifice something of safety for the sake of securing large income.

The corporate form of ownership facilitates the exercise of the basic property rights.—The right to acquire property is made easy of exercise for anybody who is able and willing to save money. Bonds run in denominations from $50 to $1000 and stocks from $5 to $100 par value. Partial payment plans enable the investor to buy stock, if he chooses, in essentially the same way that he may buy furniture,—on the installment plan. Savings banks, investment banks, bond houses, stock exchanges, underwriting syndicates, all provide a ready opportunity for investment for both large and small sums. The wool grower in Australia can acquire the property of the Pennsylvania Railroad and the wage worker of Pittsburgh can acquire the property of English iron works. The farmer in Kansas can acquire the property of Pennsylvania coal mines, and the bank president of New York City can acquire the property of Brazilian coffee companies. If the would-be investor has the money wherewith to buy, he can have bonds or stocks, and no questions asked. The investment market is organized to attract investors, and corporations vie with each other to draw the funds of investors toward their securities.

The right to income is likewise facilitated by the corporate form of ownership. The bondholder is entitled to his interest and the stockholder to his dividends. The assurance of income stands as one of the primary inducements to investment. Over 160,000 individual stockholders draw income annually from the United States Steel Corporation, and about 140,000 draw income from the Pennsylvania Railroad. Income on bonds in the form of interest must be paid at all costs; dividends on preferred stock must be paid unless the financial status of the company makes payment unwise; dividends on common stock are paid only in case there is enough left over to make the reward possible. The right to income is not absolute, except in regard to bonds. Dividends involve more or less of the risks attached to profits. But without the assurance

of immediate or ultimate dividends money will neither be put in nor kept in stocks. Common stocks carry the possibility of unlimited income, and many of the great fortunes owe their success in large measure to skill and luck in managing the risks of the common stock adventures. To a considerable extent, moreover, these investments are not so much an investment in property as in earning power. Good will, intangible assets, earning capacity, etc., are common factors in stock issues, and mean simply that the man who buys them buys the right to an income in the future. If the buyer went to the establishment of the corporation and asked to see his property, no one could show it to him. He would not own machines, or buildings, or raw or finished material. He would own earning capacity, an intangible concept, but nevertheless a reality on dividend day. But as a matter of fact the average owner of stock would never think of going to the corporation's plant and asking to see his property. He bought the right to an income and cares little or nothing where it comes from. He bought dividends, not tangible property. So long as dividends are forthcoming, his purchase of the earning power justifies itself. The stock purchaser may anticipate, at the same time, that a rise will occur in the market value of his stock. If he can, by holding it, sell for more than he paid, the difference represents gain.

The right to security is safeguarded by the courts in applying the State and Federal Law to corporate property. A corporation is a legal person, and no person shall be deprived of property without due process of law. Banks, Bond Houses, and the Stock Exchanges set out to take reasonable precautions against wild-cat speculations, and endeavor to protect their customers from fraudulent stock flotations. The bonded property of the country is powerfully entrenched behind legal barriers, and property once acquired by the corporation, whether by fair means or unfair, is entitled to full protection by the law. The right to security has a deep psychological basis. Temperaments among buyers of securities vary immensely. Some buyers want their principal to be absolutely safe, and for buyers

of their moods, bonds of one sort and another are available. Others are not extreme sticklers for safety, but with a moderate anxiety for safety, they combine an instinctive fascination for higher income. For these groups, preferred stocks are the main forms of securities. Others of a speculative bent are willing to take a fairly large risk on common stock in the hope that the dividend returns will be extraordinary. The range from safety to risk covers all degrees and variations and offers stocks and bonds to satisfy the temperaments, moods or whims of all comers. In these forms, corporate securities enjoy the protection of limited liability [1]—that is, in case of the financial failure of the corporation, each shareholder is liable only to the amount of his shares. Moreover, the entire status of the stockholder is described in a charter of incorporation granted by the State, and the position of the stockholder is thereby definitely recorded in a legal document.[2] The net outcome of the corporate system is to give the holder of stocks and bonds a fairly high degree of safety for his principal and a maximum assurance of uninterrupted interest or dividends.

The right of self-management is obtained in the corporate system in a way which makes for high concentration of control. Corporation management is founded upon the inertia of the average stockholder. Theoretically, each shareholder has the right to vote for the directors, but in actual practice, the shareholders are a scattered, disunited mass, and the majority of them leave the effort of choosing directors and running the business to someone else. "It is a well-known fact of American finance that, if the majority shares are scattered, a rather small minority of the stock held by an individual shareholder, or a little group of shareholders working together, can control the corporation almost as surely as if they held an absolute majority of all the stock outstanding. . . . The more shareholders there are in a particular corporation the

[1] Lyon, "Capitalization," pp. 9-12.
[2] L. H. Haney, "Business Organization and Combination," p. 109, Chapters VI-VII.

fewer shares can control. . . . From a quarter to a third of the shares of an American corporation will usually assure control."[1] The right of owners to self-management of property amounts then in actual practice to throwing the management of the corporation into the hands of active minority interests. By the proper organization of holding companies, interlocking directorates, and other devices, the owners of a few million dollars' worth of stock can control and direct hundreds of millions of dollars of other peoples' stock. This situation is enhanced by virtue of the fact that the bondholder forfeits any active voice in the management of the business. He becomes a creditor of the corporation and his money is treated as a loan. He has no vote for the directors of the business, and can assert his voice only in case the insolvency of the corporation is threatened or actually reached. In the railroads, bonds amount to considerably more than half of the total capitalization, and hence it follows that the majority holders of the property of railroad corporations have no active voice in railroad management.[2] In addition to these arrangements, modern corporation policy tends to give to the common stock owners the exclusive right to vote for directors. The preferred shareholders thereby surrender the right of franchise and occupy essentially the position of the bondholders so far as voting is concerned; and the entire direction of the corporation is given over to the common stock interests. When it is remembered that the common stock represents, primarily, intangible assets, good will, earning capacity, but not tangible property, it is obvious that this arrangement serves to place the real power of management of the whole corporate property in the hands of those who own good will. This arrangement has become so widespread that a recent author declares, "Practically without exception, the common stockholders manage the business and receive the largest share in the profits."[3]

Consequently the right of self-management exists for

[1] Lyon, "Capitalization," pp. 9-15.
[2] Dewing, "The Financial Policy of Corporations," pp. 34-134.
[3] Jordan, "Investments," p. 14.

the great mass of corporate owners only on paper; in reality it is a dead letter. The scattered security owners are absentee owners, and know nothing and are expected to know nothing of the actual working of the corporation. They own a paper certificate, and receive dividend or interest checks, and care not a whit whether they ever see the corporation so long as the income is forthcoming. Then, too, the owner may not hold the security for any considerable period of time. In a single year the common stock of the United States Steel Corporation changed hands so rapidly that nearly 32,000,000 shares were bought and sold. Some buyers hold their securities for years, others for weeks or days or minutes. It is all the same to the corporation, for its policies go on without regard to how fast the mass of scattered shares change hands. The instincts of ownership in this arrangement are quite different from the instincts prevailing in the farmer who may both own and till his land, or the small shopkeeper who is both owner and manager of his establishment. Corporate organization has divorced management from the bulk of ownership.

Ownership becomes under these conditions an extremely impersonal affair. It becomes mainly the right to tuck savings away where they will be fairly safe, where some scantily known interests may manage them, and where they will draw out of the business certain pay checks every three to six months. The duties of ownership are faint. The security holder acknowledges no responsibility for profiteering, monopoly discriminations, unfair competition, long hours, low wages, bad labor conditions, or unsocial business policies. If by any chance he does become interested in these phases of corporation activity, he may wash his hands by selling out, and allowing some other party to draw what seemed to him the tainted dividends, or he may vote for a new President or Governor who promises new laws regulating bad business practices out of corporations. But he would practically never undertake to whip up an interest in the issue among the scattered horde of shareholders. To the security owner, most of the people in-

volved in the actual business are unknown quantities. The managers of the various phases of the business, the laborers in the factory or the mine, the salesmen, the engineers, the accountants, the vice-presidents,—all of these are strangers to the shareholders. There is no personal touch between workers and owners, no common understanding, no mutual contact.[1] It is an impersonal relationship, and necessarily so, because of the motives which lead men to put their money in corporate securities and because of their inertia in leaving to minority interests the management of the property.[2]

The entire corporate system is the primary structural part of the modern institution of property. Its results are both good and bad. The unsocial policies of many corporations, the frequent exaltation of profits above considerations of use and service, the manipulations by inside interests, and the apathy of the real owners are the natural outcome of the present form of the corporate organization. The institution works out to such ends. On the other hand the corporate type has accomplished the efficiency of the present industrial system. It has stimulated initiative, ambition, and aggressiveness; and has made it possible for leaders of great ability to work in industry with the savings of millions of people. It has applied science and invention to the services of production, and has made the economic order what it is to-day. These items of description of the methods and processes of the corporate institution present a picture of the corporation in action. This picture will serve as the basis for a discussion of fundamental business problems in later chapters.

The fifth classification, namely, the distribution of the national income between wages, rent, interest and profit, is explained through the principles of minimum and surplus. This explanation views the national income as a national stream, a fractional part of which is diverted into each of the channels known as wages, rent, interest and profit. The broad principles of minimum and surplus give a rea-

[1] See Hobhouse, "Property," pp. 22-23.
[2] On this general subject, see also pp. 244-253.

sonably serviceable explanation of the size of the fraction which goes for each of these purposes.

The Principle of Minimum

For the maintenance of the national economic organization, it is necessary that labor, land and capital be combined in right proportions. A co-ordination of these elements is necessary in order to secure a balanced industrial system. An excess of land in proportion to labor employed would bring inefficiency and waste; a shortage of capital in proportion to labor would diminish productive efficiency; a shortage of any element or an excess of any one element brings waste and loss. The industrial system works well just to the extent that the primary economic elements are brought together in the most advantageous relative amounts. The income assigned to each element must, at the very least, be enough to draw out enough of that element to suffice for the balancing of the industrial system. The minimum share of the total national dividend given to labor must be enough to draw an adequate supply of efficient labor into productive employment. The minimum share given to owners of land must be enough to draw an adequate supply of productive agricultural soil and of improved land sites for all economic purposes. The minimum share given to capital owners must be enough to draw an adequate supply of capital in the form of mechanical equipment, buildings, transportation machinery and the like. The minimum share given to each element must be enough to bring an adequate supply of that element into active economic use. An adequate supply is a supply that balances the economic system in terms of efficiency, productivity and greatest returns.

But the minimum return is not uniform for all laborers, all land owners, all capital owners. The minimum wage return varies with different grades and classes of labor, depending upon gradations in standards of living, in efficiency of workers, in training and intelligence, and in attractiveness of work, severity of work, and type of work.

In each grade of workers, if a cut in wages is made below the minimum level for that grade, some workers will quit the industry, whereas others will stay on reluctantly at the low figure. The quitting of a number of the workers will deplete the labor force in that industry, and the shortage of labor will unbalance the industrial organization. In other words, a cut of wages below the minimum level for each grade and type of work will not cause all workers to drop out of the industry in unison,—unless of course they deal with the wage issue as a union and quit by striking,—but will drive out first a few of the workers who are unable to support their families at the new figure, or who can find better wages at other lines of work, or who for any reason are too dissatisfied with the work to remain in that employment. There is a point beyond which wages cannot fall without reducing the supply of labor so greatly as to destroy the balance of the industrial organization.

The principle of minimum applies in a similar way to land and capital. A reduction of the share of national income apportioned to land owners below a certain minimum point will cause land owners to withdraw their land from use and to abstain from making improvements. The first degree of reduction below the minimum will not persuade all land owners to follow this course of action at one and the same time, but it will persuade first a group of land owners whose land is so poor in quality or so unfavorable in location or so high in cost of operation that they can no longer afford to put their land in use. The supply of land will become inadequate and the balance of the industrial system will be destroyed. Likewise, a cut in interest or dividends below a certain minimum will persuade a number of property owners to withdraw from industrial activity. Their withdrawal will cause a famine of capital and the industrial system will be thrown out of joint. In brief, there are certain minimum terms of reward which are imperative if enough labor, land and capital are to be brought into economic use. Any drop of income below the minimum will drive out the workers, land owners, and capital owners who are most easily persuaded to

go, and will thereby cause a dearth in the supply of that particular element.

This principle of the minimum applies equally to each separate line of industry and commerce within the nation, and to the economic organization of the whole nation as a unit. If wages of labor in steel mills are reduced below a certain point, a defection of workers will begin in the steel mills, and the men who have quit the steel industry will endeavor to enter other lines of industry where wages are above the minimum acceptable level. If the return on land used in house construction is below a requisite minimum, land owners will refuse to build, or will persuade factories to use the land instead of house contractors. If interest and profit in the railroad industry fall below a minimum, people with money to lend or invest will seek to place it in another line of industry where the return is acceptable. Hence the principle of the minimum tends to compel a constant adjustment of the return for land, labor and capital in each branch of industry on the basis of the minimum of return necessary to retain in that branch of industry an adequate and balancing supply of each element.

But suppose all branches of industry reduced the income of labor, land owners or capital owners at one and the same time. In that case, the disgruntled laborer, of course, could not turn from a low wage industry to a high wage industry, because there would have been a simultaneous, corresponding reduction in all industrial fields. Or suppose interest, rent or profits fell below the commonly set minimum for all fields of economic activity. The result would be first of all to drive labor or capital out of the country. Emigration of labor would occur and capital would seek investment in foreign countries. Land could not be exported, but the upkeep of land would not pay, and it would rapidly develop a run-down condition. In short, a certain minimum level of return for each element of the economic organization is imperative if it is to maintain a proper co-ordination and balance.

It is well to point out that although land and capital

differ in the respect that land is given by nature and capital is produced by the economic handiwork of man, nevertheless the two are identical in fundamental respects. Practically all land in use at present has had improvements made upon it so that its original qualities and values as given by nature have been augmented and improved upon by the economic handiwork of man. It is estimated that fully 40 per cent. of land values are due to improvements on real estate. Because of this fact, the principles of minimum and surplus apply in substantially identical ways to both land and capital.

The principle of surplus rests upon the gradations in the expenses of laborers, of land owners, and of capitalists. Millions of laborers live at the poverty line, millions of others at the minimum standard of living line, another group at the minimum of comfort line, and another group above the extravagance line. In each successive group are laborers whose income, in reference to the preceding group, gives them a surplus above the income of the preceding group. Hence laborers receiving a surplus above the living wage level enter the group living on the comfort level; and a surplus above the comfort level puts laborers onto the extravagance or prosperity level. Because an individual's expenses are low, or his bargaining power through a labor union is great, or for other reasons, his wage renders him over and above necessary living expense, a surplus. It is the same with land owners. Some land entails an extraordinary high cost of tillage and upkeep so that rent is barely enough to meet the cost of maintaining the land for productive uses; for such land, there is no surplus income. It is on the margin where costs equal income. But above the base line of this margin exist better grades of land, soil that is more fertile, building sites more favorably situated; real estate whose cost of operation and use is low in proportion to income. For such land, rent supplies over and above the minimum income needed to meet costs, a surplus, an excess gain to the owners. In a similar manner, the cost of operation of different units of capital varies widely. Some shops, factories, railroads and stores

can scarcely make ends meet; they are at the margin where costs just about eat up income. But above these base line business concerns are all sorts of gradations of businesses which enjoy advantages, economies and efficiencies such that their costs by no means equal their income. Such businesses have a surplus over and above all expenses, and over and above the minimum income necessary to meet the costs of those low grade businesses at the margin whose costs are so great as to consume income entirely. In each of the elements of economic organization there is a minimum payment requisite as an incentive to secure an adequate amount of that element. But when this minimum is paid, there are great numbers of workers, of land owners and of capital owners, who, because of superior advantages, low costs, unusual economies and efficiencies, realize a surplus of great or small size.

The group of economic concepts involved in the minimum and surplus are fundamental to any comprehensive interpretation of income distribution. Nothing is more essential than to get away from the assumption that a fixed uniformity rigidly prevails in all units of labor, land and capital. The economic facts of the case shatter completely any such assumption. The actual economic conditions consist of gradations and levels of laborers, landlords and capitalists, some at the margin of existence, and above them many grades and levels of laborers, landlords and capitalists realizing all degrees of surplus.

The consuming ambition of all groups is to win as large a surplus as possible. The surplus is the source of economic fortune, fame and power. In it is wrapped up the source of satisfaction for great instincts seeking expression in economic achievement. Everywhere men match their wits in a stupendous scramble to exact the lion's share of the surplus for themselves. In every branch of manufacture, transport, agriculture, finance, mining and commerce, all parties, laborers, land owners, and capital owners are endeavoring to raise their bargaining power to the maximum in order to capture the greatest possible amount of the surplus. Different parties organize, combine, and plan for

the purpose of attaining the strategy and power necessary to extract the greatest amount of the surplus.

The consequence is that the actual shares of the different parties bear no fixed ratio in all industries, or in all years alike. On the contrary the ratio of the shares of income going to laborers, landlords and capital owners the country over varies from year to year and from industry to industry. To illustrate, some variations in the distribution of shares of income in the national industries of mining, manufacturing, railroad and public utility corporations for the years between 1913 and 1919 may be taken. The share of wages was 63.9 per cent. in 1913, but shrank to 54.3 per cent. in 1917 and rose to 70.2 per cent. in 1919. Moreover, in 1919, "interest and dividends together absorbed hardly more than half of the share of the product that they had in 1913 and 1914." These figures show variations in the division of the total national income for the major industrial departments of the economic organization.[1]

The variations in the ratio of division as between different lines of industrial pursuits also deserve illustration. In 1916, only 40.6 per cent. of gross railroad revenues went to labor in the form of wages; in 1918, 54.06 per cent. went to labor and in 1919 and 1920 the percentage was still greater. From income statistics for 1917, it is found that for railroads the great mass of profit is less than 10 per cent. on invested capital; that for banks, the great mass of income falls between 10 and 15 per cent. on invested capital; that for manufacturing, mining and mercantiling, the main portion of profit ranges from 30 to 50 per cent. on invested capital; while for water transportation, the bulk of profits was from 75 to 100 per cent. of invested capital. The variations between different establishments in a single branch of economic life are well illustrated in banking. Out of ten large New York City banks in 1919, one earned 35.8 per cent. on capital and surplus, two others earned above 24 per cent., five earned between 18 and 13 per cent. and two earned less than 13 per cent. Such variations would not only be found among banks in general but also

[1] See David Friday's "Profits, Wages and Prices," pp. 124-132.

among the establishments within any other line of economic activity. The conclusion is obvious that variation rather than uniformity is to be looked for in the division of shares of income, whether for all economic activity over a period of years, or for groups of industries in any one year, or for individual establishments within a single line of industry in any one year.[1]

Personal inequalities of income and ownership were comprised in the sixth and seventh classifications of wealth statistics. Certain obvious causes of the inequalities of fortune have already been pointed out. The whole conception of individualistic property rights has been woven into the institution of property in ways which make inequalities the natural outcome and the corporate structure of ownership provides a ready mechanism for the accumulation of wealth and income. But there are other factors which enter directly into the inequalities, and the whole set of causes may be considered now in two fundamental groups,—first, inequalities due to unequal abilities; second, inequalities due to unequal privileges.

Men are born into the world with unequal instinctive and mental equipment. Some are dull, unambitious, and slow; others are shrewd, aggressive and quick. Success in acquiring large income and much property goes to those of superior ability, and the successful classes are usually thought of as the well-to-do classes. It takes brains to earn a million dollars. The wage-earner at the other end of the scale has limited imagination, ability, initiative, and sagacity. He is poorly educated, and in the day's work has ambition ground out of him. Only in exceptional instances do there appear the men of indomitable instinctive energy who by their own merit force their way from nothing to riches. But it is this exceptional man whose ability is urgently needed for the smooth working of the economic organization and whose genius should be encouraged and evoked by the property institution. It is natural that when

[1] On this whole matter see David Friday's "Prices, Wages and Profits," Chapter III, and Hugh Dalton's "The Inequality of Incomes," Chapter X.

men of strikingly unequal native ability struggle for the same prize, the man of superior ability should win out. The freedom and rights of property encourage many men of superior gifts to exert their strength to the utmost. The rewards are high and success is a sure claim to social distinction.

A feature of this situation which is not often contemplated is the universally accepted conviction that the ability of a wage worker can never be great enough to deserve more than three or four thousand dollars a year. Superior endowment as a machinist, splendid gifts as a worker, the finest eye and most skilled hand all reach their limit of deserved reward, usually before a $2500 wage is reached, certainly before a $5000 figure is reached. No matter how great his ability as a laborer, he cannot actually earn beyond certain very narrow limits. It is only ability as a manager or director or property owner which earns unlimited returns. This social maxim has become so axiomatic that it is as natural as the air we breathe. We think nothing of it. The financial reward of a million dollar investment is not infrequently greater than the financial reward of a score of the most competent skilled laborers. The property investment of that amount is entitled to earn anywhere from 4 per cent. to 4000 per cent., but the finest ability of a score of laborers commands no such unlimited right of return. This idea is simply a matter of fact principle which everyone takes for granted, and it obviously plays a part in the inequalities of wealth which prevail everywhere. Even a second rate managerial ability is usually conceived as deserving a higher reward than the best type of manual dexterity or workmanship.

Unskilled Ability Earns Less Income than Skilled

The ability of women workers earns less than that of men. "It is an economic advantage to be born a boy rather than a girl."[1] Ability exercised in certain occupations brings higher returns than ability exercised in others. There are immense variations and many excep-

[1] Cannan, "Wealth," p. 202.

tions, but with the general run of incomes, high ability influences income upwards, whereas low ability influences income downwards.

These principles apply of course primarily to income from work rather than to income from owning. Income from investment need not be accompanied by any substantial exercise of ability or effort on the part of the owner. Inequalities of ability are of importance chiefly in their effects upon incomes for work and effort. Clever management of property will make it accumulate more rapidly. But such managers can be hired at a salary, and their salaries are a truer measure of ability than is the property income which goes to the owner.

It should be noted too that these inequalities of ability tend to perpetuate themselves. The children of the unskilled laborer inherit a family and social environment which tends to hold them to that level. "There are no absolutely insurmountable barriers preventing those who are born into poor surroundings from forcing their way into the best paid professions if they have exceptional ability and grit, and there is nothing to prevent exceptionally incapable persons born in good surroundings from falling into the lowest class of workers. But all the same, it is, as every one knows, a great advantage to the ordinary person in the matter of earning his living, to be the child of fairly well-to-do parents, and an enormous disadvantage to be the child of parents belonging to the poorest class." [1]

There is a great reserve fund of ability in the lower-paid classes which is never developed. Lack of encouragement, of education, of opportunity, leaves enormous resources of ability untapped. The inertia of class habits, the barriers of tradition and custom, the difficulties of the struggle upward,—all such factors prevent great dormant capacities from ever being kindled into irresistible ambi-

[1] Space does not permit a fuller analysis of this very important factor in income inequalities. Special references of much value will be found in Cannan's "Wealth," particularly Chapter XII, and Dalton's "The Inequalities of Income," pp. 239-270; Taussig's "Principles of Economics," Chapter 54, Pigou's "Wealth and Welfare," and "Watkin's "Growth of Large Fortunes."

tions to win the highest rewards of economic activity. The degree of success achieved by the present economic system is largely due to the fact that in spite of all such barriers and obstructions the business world does arouse the energies and ambitions of enough men of great ability to win their way from the bottom to the top so that it constantly recruits a reasonable amount of able leadership.

Inequalities Due to Unequal Privileges

The chief inequalities of privileges are those arising from inheritance, monopoly powers, and unforeseen chance.

Inheritance is a primary cause of the more extreme inequalities of income and ownership. Some people at birth are heirs to fortunes; others are heirs to nothing at all. Enormous estates are handed down from generation to generation and perpetuate the chasm between the extremes of possessors and non-possessors.[1] It has been estimated that "four-fifths of the one hundred and fifty or more fortunes in the United States having incomes of over $1,000,000 a year have been accumulating for two generations or more."[2] In England, where the influence of inheritance has had a longer time to work itself out, "the number of wealthy men at the top is two and a quarter times as great, in proportion to population, . . . as in the United States."

At the other end of the scale stands the common worker, with practically no belongings except a few articles of furniture and some items of clothing. Probably three out of five of the children of the country are born into propertyless families. Children of these classes inherit only bodies and brains to work with capital owned by others. Nothing is handed down to them in the form of a competence to begin life on. They have no assured means of livelihood. Their inheritance points to dependence upon the real property owners of the community.[3]

This contrast of inheritance has come to have some very

[1] See Cannan's "Wealth," pp. 812-184 and Taussig's "Economics," pp. 248-250.

[2] Irving Fisher, *American Economic Review*, March, 1919, p. 12.

[3] Hobhouse, "Property, Its Rights and Duties," p. 21.

serious results. The man who inherits property inherits not merely an assured income; he receives the power of control over the lives of a group of workers. The mind of the worker has come to feel a stinging sense of discouragement and injustice in the arrangement. He sees many people living on inherited fortunes without doing any genuinely useful work and he sees his own group working hard for a living which in comparison is rude and insecure. From the viewpoint of an outsider, the sense of injustice appears well founded. This outside viewpoint is admirably stated by Bishop Charles Gore of Oxford, as follows:

"The success of civilization for us must be measured not by the amount and character of its products or material wealth, nor by the degree of well-being which it renders possible for a privileged class, but by the degree in which it enables all its members to feel that they have the chance of making the best of themselves, to feel that an adequate measure of free self-realization is granted them. On this ground then our civilization is open to the most serious indictment. . . . In our own civilization we find vast masses of men and women who cannot be reasonably described as having any adequate measure of property for use. They cannot go into life with the security of free men. They cannot, within reasonable limits, control their own destiny. They cannot realize themselves."

Out of this situation arises in large measure the discontent of the common man. Gross inequalities of fortune are behind unrest. And the labor movement, the reform movement, the progressive movement, the movement of all social forces is in the nature of an attack upon the extreme inequalities which are perpetuated by the established system of inheritance. Persons who acquire fortunes by inheritance cannot offer the claim that their fortunes are due to their own superb abilities. These fortunes were earned by the abilities of a generation now dead. The democratic challenge in industry directly relates to these unearned and undemocratic inequalities of property. Inheritance as a part of the institution of property is on the defensive and

has to seek grounds to justify itself. The principles of inheritance are in a stage of drastic transformation because of the social forces of the times.

This transformation is the more possible because inheritance is not established as an inherent and inalienable right of property. The preponderant judicial opinion makes inheritance a custom or tradition of economic society which can be modified and altered whenever social needs make new customs and traditions desirable.[1]

The war made so many new large property owners that the importance of the situation is greatly enhanced. It is estimated from income tax returns that the war lifted from twelve to fifteen thousand new members to the millionaire class. Some of these accessions to the millionaire group were due to the rise of price levels which automatically enhanced the price measure of property without actually changing the amount of the property itself. The large fortunes moreover do not stand still. Through dividends, interest and rent they are steadily on the increase. The largest amount of saving is done by the largest property holders, and these savings mean more investments and more income. Their savings are large, not because their consumption is small, but because their income is extraordinary. The inequality thereby mounts higher and higher.

Whatever may be thought of the ability of the recipients of the largest fortunes, at least that ability is great enough to retain the fortunes. A recent estimate places the number of fortunes between $5,000,000 and $10,000,000, handed down during the present generation, at five hundred.[2] In the original building of the great fortune, a high degree of genius and unswerving energy is ordinarily the telling factor. Only the man of force of character and considerable shrewdness can start with little or no means and pull himself up to a wealthy position. But once the fortune is amassed, and handed down to a succeeding generation, it requires only an indifferent ability to hang onto it. As G. P. Watkins remarks, "Keeping riches once gained is

[1] Fisher, *American Economic Review*, March, 1919, p. 12.
[2] H. H. Klein, "Dynastic America and Those Who Own It."

easier than ever before. . . . The rich by inheritance have a position which they can lose only by a destructive tendency amounting almost to madness.''[1] The inheritor of a fortune who lacks the ability to manage the fortune, or who desires not to be bothered with the responsibility, can hire a trust company to give expert management of the property. So inequality begets greater inequality, and inheritance without severe restriction lies prominently at the bottom of the situation.[2]

All of this is not to deny that a substantial amount of inheritance is desirable. It is beneficial to the recipient because it gives him a superior opportunity at the start of life. It makes for the security of himself and his family. It is good for society that inheritance within limits should be preserved. The entire difficulty springs from immoderate bequests and the consequent excessive and dangerous inequalities. The social attack upon inheritance is not upon inheritance itself, but upon the undue concentration of it. The social movement seeks a wider distribution of inheritance,—more inheritance by the mass of people and less inheritance by the concentrated handful. As Taussig is careful to remind his readers, ''Inheritance, in sum, is an indispensable part of the institution of property.''[3]

The principles determining the condition by which inheritance shall be placed under social control are chiefly psychological. First of all, the limitations on inheritance must be high enough to affect favorably the motives of the various parties concerned. The inheritance tax must be rigid enough so that the people receiving a bequest are not thrown on easy street nor given the feeling that they are freed from the necessity for making good in individual economic service. As Ross warns, ''Not that a son may not inherit enough of his father's wealth to live on, but that no one may inherit a fortune so large as to kill in him all incentive to work and to tempt him into an extrava-

[1] "Growth of Large Fortunes," p. 159.
[2] Dalton, "The Inequality of Incomes," p. 329.
[3] Taussig, "Economics," p. 251. See also Ely, "Property and Contract," pp. 425-426.

gance of expenditure and conduct which discourages or corrupts the useful members of society."[1] The inheritance taxation must then be severe enough to reduce those glaring inequalities which give the ordinary man a sinking of the heart and a bitter sense of the hopelessness of trying to get ahead. This psychological necessity is clearly stated in one of Theodore Roosevelt's messages to Congress. Roosevelt declared that the reduction of the gross contrasts of inherited wealth would "help to promote a measurable equality of opportunity for the people of the generations growing to manhood."[2] Inheritance taxation should also be measured by its effects on the men who have the ability to earn great fortunes by strenuous business endeavor. The man who makes a large fortune has the opportunity to use it in the form of public gifts and benefactions which reflect large personal esteem and prestige upon the donor. If the rich man realizes that unless he does make large public benefactions, his property will in large measure be taken by the State at his death, he is likely to prefer to make the benefactions. With the anticipation that the State will take a large share of the property which he does not give away before his death, the ordinary man of wealth would be induced to take to heart the claim of Andrew Carnegie that it is a crime for a man to die rich, and that the only human and decent procedure is to bestow the fortune for useful social purposes during the owner's life. Millionaires might thus be inspired to give parks to cities, build art galleries or libraries, endow universities, establish foundations for scientific and medical research, provide hospitals, subsidize deserving philanthropic causes, etc.[3] Inheritance taxation should be so regulated as to stimulate favorably the motives of fortune owners to give wisely and generously for social purposes; to stimulate the recipients of inherited fortunes to work for their own salvation; and to keep alive the hope of economic success among the masses.

[1] "Principles of Sociology," p. 385.
[2] Sixtieth Congress, Vol. 42, Part 1, pp. 71-72.
[3] See Carnegie's, "The Gospel of Wealth."

Secondly, the converse of this proposition is that the taxation should not be so great as to cause evil psychological effects. If too much of a fortune is taken by the State, men will be discouraged from wanting to make money. A certain amount of inheritance is useful as an inducement or reward for men to throw themselves strenuously into business endeavor. The prospect of handing property down to their children stimulates men to create a competence for themselves and their families. But beyond a certain point the family motive is displaced by other motives. Irving Fisher found that the business man's accumulating motives beyond a certain point "were rather those of power, of self-expression, of hunting big game." Inheritance taxation which would stifle the basic impulses of men of great ability in business would defeat its own purposes.

The exact tax rates which strike this psychological balance are still a matter of political experiment. In 43 States, inheritance taxes of some sort existed in 1917, with rates ranging for direct heirs from one to fifteen per cent. and for collateral heirs from three to thirty per cent. The Federal Government in 1919 had an inheritance tax on beneficiaries running from one to twenty-five per cent. Most European countries have established substantial inheritance tax rates. The principle is accepted by most advanced nations, and may be looked upon as established in its fundamental implications.

Monopoly Privileges a Cause of Inequalities

Special privileges and monopoly advantages are abundant in the economic system. Illustrations would include avenues for inside information in stock speculation, secret knowledge of the sections of future city development as a clue to real estate investment, patent rights, franchises to railways and other public utilities, power to fix monopoly prices, favoritism in the granting of contracts, devices of unfair competition, superior possession or monopoly of raw materials and other resources, superior bargaining power with lesser companies or with labor, tax exemptions,

trade-union influences, etc.[1] Monopoly privileges may exist among labor groups as well as among property groups, and often it occurs that a labor monopoly is matched in an economic struggle, quietly or openly, with property monopolies. In the general run of cases, these monopoly advantages tend to further the inequalities of ownership and income.

This analysis does not imply that monopoly advantages are indefensible. Most monopoly advantages contain elements of real service to society. In many cases, they are the creation of men of great genius and ability. A patent monopoly, for instance, often arises in this way. A monopoly advantage is not a sign that a man has fallen without effort into easy street. The men of towering ability create special privileges for their business undertakings where such privileges are necessary. There are good and bad monopoly advantages, and those which are the result of ability and those which are not. The bad privileges are almost invariably strong causes of inequalities of fortune, and the good privileges in no small measure work to the same end, although in the latter cases the inequalities are apt to be a reflection of ability that brought substantial public good.

John R. Commons gives evidence to indicate that about four-fifths of the millionaire fortunes have been derived from permanent monopoly privileges. The largest of these fortunes are thought to have benefited most thoroughly by special privileges, for it is estimated that "perhaps ninety-five per cent. of the total values represented by these millionaire fortunes is due to those investments classed as land values and natural monopolies and to competitive industries aided by such monopolies."[2] In the building of these fortunes, personal ability counted primarily, but personal ability consisted of the power to create and the genius to use monopoly advantages. It is in this way that monopoly advantages foster inequalities of possessions.

A careful and scientific authority, J. W. Jenks, con-

[1] See G. Myers's "History of the Great American Fortunes."
[2] "The Distribution of Wealth," p. 252.

cludes a study of the winning of great fortunes by a summary which is substantially in line with these opinions. He says, "Let me emphasize again what I said before, that it is probably in and through the exercise of the principle of plunder or the undue exercise of advantage, of gambling or of its allied principle of monopoly, or of special privilege or favor of some kind that many, very many, if not most of the greatest fortunes have been won."[1]

Unforeseen Chance as a Cause of Inequalities

Luck, circumstance, an unexpected turn of events, accident, and fortuitous change all play an important part in the winning of large fortunes. "Two men earn equal amounts because they are of about equal ability and industry and work at the same trade; they save equal amounts, and invest with what good authorities would consider equal judgment, but the investment of the one turns out fortunate and that of the other unfortunate. The one becomes rich and the other remains poor."[2] Likewise, the variations in the price level affect deeply the value of investments and the purchasing power of fixed incomes. A dollar of permanent investment before the war would in post-war prices have a purchasing power of about fifty cents. With a shrinkage of the dollar in a period of inflation there goes a violent fluctuation in the value of all forms of property. A new railroad built through one section of a city increases the real estate values of the neighborhood, a new law passed by the legislature curbs or releases profit-making power, a costly strike or a poor wheat crop swings fortunes up or down as the case may be. Perhaps the greatest factor of chance is the profit system itself. Profit is paid as a reward for risk. The business man takes his chances and in recompense receives a profit. The more risky the business presumably the higher the profit deserves to be. The element of chance is in this way definitely incorporated in the property institution as an indispensable element, and one deserving of large rewards.

[1] "Great Fortunes, The Winning and Using," p. 41.
[2] Cannan's "Wealth," p. 187.

The greater the risk, the greater the rightful profit, and in consequence, the greater the inequality of wealth. Obviously if the risks and chances in business could be reasonably and substantially reduced, the inequalities of wealth might be reduced accordingly. It has been proposed that in important business undertakings the Government might underwrite the venture, and by a form of public insurance, reduce the unnecessary risks and chances. The Government in certain ways has already taken steps in this direction. The Federal Reserve System has in a very far reaching way reduced risks in the field of banking and credit. The Interstate Commerce Commission and Federal legislation guaranteeing minimum returns to railroads have fundamentally modified the nature of risks in that branch of economic enterprise. Outside of government support, the principle of insurance has been extended over one risk after another in business undertakings. Fire, accident, health, and executive or managerial insurance,—these represent a steady expansion of the insurance principle. "Cannot a similar principle be applied to the risk of industrial loss? If it were possible to guarantee every *entrepreneur* at least his operating expenses, including depreciation, the loss would be minimized."[1] The proposal is in only a beginning stage, but its fundamental principle appears to be essentially sound from an economic point of view. If it is worked out practically in the course of time, the effect upon the inequalities of wealth would be of importance.

The three main groups of causes of inequalities of privilege, namely, inheritance, monopoly, chance, are not static, fixed causes. They are elements in the whole institution of property and under the pressure of the dynamic social and economic movement of the times, they are open to constructive modification. The inequalities of privilege and the inequalities of ability stand side by side as the great factors in maintaining the inequalities of income and ownership. Both unequal ability and unequal privilege stand as inseparable parts of the institution of property.

[1] David Friday, "Profits, Wages and Prices," Chapter XIV.

There is no widespread desire to eliminate them. But a modification of their essentials so as to secure in the natural course of events a wider diffusion of property, and better distribution of opportunity for ability to show itself is the social demand upon the economic system.

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DICKINSON, G. LOWES: Justice and Liberty
CARVER, T. N.: Essays on Social Justice

CHAPTER VIII

MANAGEMENT: ITS TECHNIQUE AND RESPONSIBILITIES

The economics of a previous period classified the factors of production under three headings,—land, labor, and capital. The economic developments of recent years have brought to the front a fourth fundamental factor, management. Management exists primarily for the purpose of bringing into balance all of the multitudinous forces which play a part in the success or failure of the modern business concern. Management is responsible for bringing efficiency out of a chaos of scattered elements. Management functions by unifying, correlating, organizing and administering the sum total of economic factors which comprise a modern business establishment. Land, labor, and capital are, none of them, taken singly, capable of complete self-management, but they rely upon a body of administrators and governors who are especially qualified and competent for the managerial supervision of all the activities of the business concern. The significance of the modern function of management is comprehensively appraised in the following statement by Louis Brandeis: "The coming of the *science of management,* in this century, marks an advance comparable only to that made by the coming of the *machine* in the last." [1]

Management has been compelled to develop a technology of its own in order to cope with the almost infinite interrelations of the present industrial régime. No single human mind could master and interpret the great variety of technical problems which underlie modern production. The efficient handling of labor on a large scale, the appropriation of the most recent discoveries in all the physical sci-

[1] "Business a Profession," xlviii, pp. 2-3.

ences, the utilization of fundamental engineering knowledge, the co-ordination of all departments of a business, the adoption of scientific marketing, the maintenance of adequate finances, the adherence to proper legal and social requirements, the infusion of morale into the working and directing force,—these problems in their entirety would baffle the most prodigious and ingenious mind. There is one way, and only one way, by which the vast aggregations of facts, details and problems which enter into a modern business concern can be brought into harmony, and that one way is by an application of the methods of science.

In some cases, large property owners have proved competent to direct and manage their own properties; in most cases, groups of property owners have hired salaried managers, whose gifts of character especially fitted them to perform the functions of management. During the last ten years there has developed a marked tendency to turn the problems of management over to specially trained engineers. It is not enough, in more and more instances in modern industry, that a manager should have been born with great ability as an organizer, or with a genius for directing large affairs. It is necessary that a manager should be acquainted as an engineer with the technology of management, with the body of scientific principles and practices which most men of ability can acquire best through a special course of technical training. An observer of the broad industrial situation states the tendency in these words, "It is becoming each year increasingly evident that a large part of the industrial leadership of the country must come from such engineer-managers, who have succeeded the old owner-managers. . . . Engineer-managers who have combined with their knowledge of the material sciences a scientific study of human relations are usually superior to other industrial managers in their approach."[1]

The problems of management are in great measure a reflection of the size of modern business establishments. Everybody knows that business combinations and large establishments are widespread in the present economic

[1] S. A. Lewisohn, *Atlantic Monthly*, Vol. 126, pp. 414-418.

system. This popular impression overlooks, however, the important fact that small business establishments are not by any means a thing of the past. Statistics for 1914 show that in the United States there were in that year no less than 140,971 manufacturing establishments which employed less than six wage earners each. A manufacturing establishment employing not to exceed 100 wage earners would not appeal to the average imagination as a large enterprise; but it needs to be remembered that in 1914 there were 262,217 establishments no larger than that. The small establishment is not dead and gone. These smaller establishments comprise 95 per cent. of all manufacturing concerns in America. On the other hand, the relatively few large establishments represent such vast aggregations of manufacturing enterprise that they employ the great bulk of the wage earners of the country. The remaining 5 per cent. of establishments employ fully 65 per cent. of the wage earners. Another comparison of figures indicates more strikingly the scope of the large business units. The 1 per cent. of the establishments of the country which are the largest employ about the same number of wage earners as the 95 per cent. of smallest establishments. Moreover, over four-fifths of the annual product comes from plants which individually turn out each year goods valued at more than $100,000. Nearly one-half of the annual product comes from plants whose individual turn-out each year exceeds a value of $1,000,000. Hence, the great bulk of wage earners are employed in establishments which hire hundreds or thousands of workers, and the main portion of the national product is made in establishments whose annual output has to be figured in hundreds of thousands or millions of dollars. The little establishments flourish, and in total numbers of individual plants show impressive figures; but when they are measured by the work which they do, by the workers they employ, by the value of their output, they recede to a minor part in the productive equipment of the nation. The major industrial activity of the country is the activity of big business, and for a clear conception of the true state of the economic organization, it is

imperative that the facts about the relative size of business establishments should be kept well in mind.[1]

The main trends toward business concentration have been comparatively recent. Industry during the Civil War period was characterized by small establishments for the most part. Since that time, in thirteen leading lines of industry, the number of wage earners in each plant has increased seven times over, the value of the output of each plant nineteen times, and the amount of capital thirty-nine times. This industrial evolution in the direction of concentration began to be conspicuous during the eighties of the last century. The trust movement came into notoriety during the next decade, and as the trust fell under the ban of the law, the late nineties and the first years of the new century witnessed the development of holding companies and consolidations of one sort and another. Combinations came swiftly during periods of prosperity, but during years of panic or depression they were rarely formed. The great era of consolidation in this country was the fifteen years preceding the depression of 1903. That depression slowed up the combination movement, and from 1903 down to the opening of the European War, the business consolidations were less sensational and less extensive. The war period gave new impetus to combination in many lines. It is essential to remember that the business combinations of the present day are the creation of the last thirty years of economic history, and that most of the fundamental consolidations were pretty definitely determined during the first half of that thirty-year period.[2]

Classification of Types of Management

There is no one uniform type of management for all establishments. The various sizes and conditions of busi-

[1] See Statistical Abstract of the United States, 1919, pp. 190-195.

[2] See A. Dewing's "Financial Policy of Corporations," IV, 33-41; Ripley's "Trusts, Pools and Corporations," Introduction; I. Lippincott's "Economic Development of the United States," Chapter XXI; C. E. Van Hise's "Concentration and Control," pp. 35-59; J. W. Jenks, "The Trust Problem," Chapter I.

ness concerns have brought into operation widely varying types of management. On broad lines of classification, the three outstanding types are the individual, the partnership, and the corporation.

In the individual type, the owner and the manager are usually one and the same person. The individual carries on the business with his own brains, largely with his own money, and upon his own responsibility. For the most part, this type of management is suited to relatively small enterprises. Agriculture is largely under the individual type of management, and a substantial portion of retail trade is conducted by individual merchants. But in manufacturing, less than 8 per cent. of the total national product is made under the individual type of management. The individual managers usually have small plants, and the lines of manufacture where the small individual management survives in largest numbers are such as baking, clothing, printing, dairy products, blacksmithing, and the like. Individual management normally has the advantage of the direct, personal, immediate attention of the man whose whole fortune is at stake. It rests upon highly commendable qualities of character such as thrift, initiative, honesty, responsibility, and by providing an opportunity for men to make good in business in a small way, it often brings men of ability to the attention of larger establishments. Small business is in many ways a training ground and a stepping stone toward promotions into the more difficult managerial positions of larger business units. From an economic point of view, it is of the utmost importance that the big business concern should not develop in such a fashion as to block the way for men who desire to set up businesses of their own. The hundreds of thousands of small individual managers deserve as much freedom of opportunity to make good as can possibly be given them, and the practices of big concerns cannot be allowed to choke out reasonable opportunities for small ones to get ahead by efficiency, foresight, and good judgment.[1] The small business man in his individual plant has a part to play in economic life which,

[1] See Woodrow Wilson, "The New Freedom,"

in its own way, is just as important as the part played by larger types of management.

In the partnership type, two or more individuals unite their capital or their ability, or both, and overcome some of the fundamental limitations of individual management. As business becomes complicated, the single individual is apt to find the problems too great to be solved effectively by one mind, and management may often be made more effective by combining the ability and judgment of different men. At the same time, the single individual is likely to reach a point where his individual capital is inadequate to finance the business, and the associated capital of partners aids in solving the problem. The ordinary partnership stands in the eyes of the common law as a financial unit. A contract by one of the partners binds all, and in case of insolvency each partner is liable, not merely to the amount which he invested in the business, but to the full amount of his total property. Partnerships appear to be diminishing in importance relative to other types of management. Their chief field is moderate sized mercantile and manufacturing enterprises, and the legal and other professions. In 1900, partnerships produced 19 per cent. of the total value of all products, but in 1914 the share of the total produced by partnerships had shrunk to 8.8 per cent. As in the case of individual management, so in the case of partnerships, their function is important even though overshadowed by other types of management, and a fair and open field for the partnership, wherever it manifests the qualities of economic efficiency, is thoroughly desirable.

The paramount type of economic management is the corporation. By the statistics of 1914, corporations produce 83.2 per cent. of the total national product. A corporation comes into being by a special charter granted by a state. Some of the chief characteristics of the corporation are as follows: (1) the joint stock principle of ownership, under which a scattered number of individuals may invest their money in a unit business undertaking; (2) centralized management of the capital owned by the scattered in-

vestors, under conditions which tend to bring about reasonable efficiency and proper security; (3) continuity of existence, since if one corporation official resigns or dies, a successor is promptly chosen, while the life of the corporation goes on unbroken; (4) limited liability of the owners of the corporation capital, in that each investor is liable, in case of insolvency of the corporation, only to the amount of his individual investment; (5) a distinctly corporate identity, in that the corporation acts as a legal person, as a business unit, as an entity separate from its constituent investors and directors.

The corporate type of management is the effort of business judgment to cope with the problems of direction and control of an economic system constructed upon a foundation of machinery, natural power, and applied science. Individuals found the task of owning the large blocks of mechanical equipment necessary in a modern factory, and the task of supplying adequate financial resources, too great for the shoulders of single business men. It became necessary to assemble the savings of many individuals, to bring their money together for a concentrated investment. The savings of armies of small investors could be heaped together, and used to supply the capital for large business undertakings. The corporation supplied a large scale system of management simultaneously with the large scale production of wealth under the régime of machinery and science.

As business combinations became greater and greater, several adaptations of the corporation principle seemed necessary to business men. One of the earliest of these was the pooling agreement. Pools are agreements between business concerns, whether corporations or otherwise, to follow some concerted policy of price fixation, or of limitation of output, or of consolidation and pro rata sharing of profits, or of division of territory between companies. The agreements could not be enforced by law, and hence were very unstable since any member of the pool could withdraw whenever he considered it for his best interests to do so. Pools were of questionable legality, and usually had to be

operated secretly. During the eighties, corporations took up with the principle of the trust as a more stable and solid means of combination. Under the trust, the stockholders of each company turned their stock over to a small board of trustees, who were empowered to direct the affairs of the group of companies. Stockholders received in exchange for their shares of stock, trustees' certificates, on which they drew dividends virtually equivalent to the dividends on the former shares of stock. This centralized the management of the constituent corporations effectively, but when the trust method came up for the consideration of the courts, it was declared illegal, and gradually had to be abandoned by the bulk of corporations.

Business men then looked around for some method of combination among corporations which would stand the analysis of the courts and be within the law, but which would secure the advantages of combination of management. In some cases, communities of interest were formed, under which business men bought up controlling interests in the corporations which they desired to direct, and without any formal organization worked in unison in the management of the various companies. This form of centralization was at best somewhat loose and intangible, and many corporations found it more desirable to combine by creating holding companies. A holding company was a new and distinct corporation, whose purpose was to own at least a majority interest in a group of corporations which it desired to control. The holding company, by its controlling stock ownership, could elect the Boards of Directors of the constituent companies, and definitely, tangibly and decisively contralize the management of the entire organization. Each member corporation could retain its subsidiary existence, and have its separate Board of Directors, and its own executive staff, but they in turn would be elected, and governed in their general policies, by the official powers of the central holding corporation. The United States Steel Company is the largest example in American industry of the holding company, and by the decision of the United States Supreme Court on March 1st, 1920, this company

was declared legal, on the ground that "the law does not make mere size an offense." If a holding company used its size and power to restrain trade unreasonably or to exert undue monopoly influences, it would then become illegal. Some business men have preferred, in place of such a form of combination, a form by which outright amalgamation could take place. By amalgamation, a new corporation is formed to buy openly and fully a group of companies. The old corporations lose their former identity, and are completely consolidated, in ownership and management, in the new corporation. Closely similar to the amalgamation is the merger. Under the merger, one corporation already in existence buys up one or more other corporations and assimilates the outsiders into its own organization. The corporation which undertakes the merger simply stows away inside itself some separate corporations, and all are merged into a consolidated ownership and management.

The cardinal economic significance of the variety of forms of corporate combination is that the modern production process has set up forces which demand a high degree of concentration in the control of economic activity. The men of business genius who built the great corporations found themselves face to face with the need for an adaptation of the corporation principle on a yet larger scale to the demands of modern industry. They experimented with various devices of combination, and by methods of trial and error, adjusting themselves to business legislation and court decisions, they endeavored to solve the economic problems which confronted them. The forces of economic evolution moved in the direction of concentration of ownership and management, and all of the types of corporate combination were illustrations of the efforts of the creative imagination of business leaders to cope with the economic conditions of their generation.

The Mechanism of Corporation Management

The corporation has developed a mechanism of management which in its fundamentals is fairly uniform through-

out corporate industry. In its simplest elements, this mechanism involves a mass of stock owners, who elect a board of directors, who in turn give some attention to the broad policies of the corporation, particularly the financial policies, and who delegate the active management of the corporation to a group of appointed executive officials. These executive officials, in their turn, choose departmental and bureau chiefs, superintendents, bosses, foremen, and laborers, and have charge of the operation of the business. This general set of relations undergoes drastic modifications in the actual conduct of corporate affairs, and it is necessary to study the strategies and peculiarities which have penetrated the institution of corporate management in actual practice in order to have a realistic understanding of the situation.

The body of stockholders exert very little authority in choosing the Board of Directors. They have the right to vote, but as the day for voting approaches, the stockholders receive a legal form to be signed and returned to some one actively interested in guiding the election. This legal form is a proxy, giving to the actively interested party the right to cast the votes belonging to the individual shareholder in any way that may be desired. The full bearing of this practice is well indicated in an examination made by the Federal Commission on Industrial Relations of a corporation lawyer of wide experience, Samuel Untermeyer. Mr. Untermeyer stated, "Stockholders do not get a 'look in'—the scattered stockholders—as a result of the system. What is the system? The management send out proxies every year, and the proxy is a power of attorney to some one they name. If you are a stockholder, you do not know to whom you are giving your proxy. It does not usually run to the man in control, but to some one nominated by him. You do not know for whom he is going to vote as a director. You send a power of attorney for him to vote for whoever he pleases." Question: "Is it not a fact that the proxy system has become so universal that every country bank or every country corporation almost, large and small, when giving a notice of stock-

holders' meeting, sends attached, and usually a part of the sheet as a notice of that meeting, a proxy?"

Mr. Untermeyer: "That is the custom now with notices of meeting, the proxy generally goes out."[1]

This system of proxies gives the real authority in management to inside parties who desire to maintain control of the policies of the corporation. If the inside parties are men of fine integrity and a high sense of responsibility, all goes well, but if they are not, the corporation is open to speculative interests, and all kinds of abusive policies. This situation is due originally to the natural inertia of the mass of stockholders. As was explained by a prominent banker and director of a number of large corporations, Mr. Jacob H. Schiff, "I believe that the weakness of the whole system is the human weakness, that stockholders, as long as things go right, do not pay any attention to the management of their property, and that only when things go wrong they come to realize that they are stockholders, and that they should not have permitted their property to be controlled by those who have wrongly or badly managed it."

It is because of this inertia of the stockholders that it is possible for small minority holdings of stock to dominate the policy of the whole corporation. This fact is expressed by Justice of the Supreme Court, Louis Brandeis, as follows: "As a matter of fact, most stockholders do have very little to do with the management, and in these great corporations they have practically nothing to do. . . . I think it is true not only of these very large corporations, but of very much smaller corporations in which the stock is listed and widely distributed, that not only a small percentage of the stock may give control, but that for a long series of years control is held sometimes without the ownership of any stock whatsoever, or of practically no more stock than is necessary to qualify directors. Such a wide distribution of the stock dissipates altogether the responsibility of stockholders, particularly of those with 5 shares, 10 shares, 15 shares, or 50 shares. They recognize that they

[1] "Report of Federal Commission on Industrial Relations," 1915, Vol. 8, pp. 7438, 7466.

have no influence in a corporation of hundreds of millions of dollars capital. By the distribution of nominal control among ten thousand or a thousand or a hundred thousand stockholders, there is developed a sense of absolute irresponsibility on the part of the person who holds that stock."[1] And Mr. Untermeyer, on the same subject, states, "Nearly every railroad corporation in this country is controlled with less than 10 per cent. of the stock in the hands of all the officers and the board of directors put together."[2]

What, then, is the background, experience, and outlook of men who commonly hold positions on the boards of directors of large corporations? Broadly speaking, they are men who are intensively acquainted with questions of finance, of investment, of credit, of banking and the like, but not men who are familiar with the technology of production, or with the deep problems of labor administration. The board of directors meets as a whole only a few times during the year, but it appoints an executive committee to meet oftener, and to decide questions which do not demand the attention of the whole board. This executive committee is apt to be primarily a finance committee. As stated by John D. Rockefeller, Jr., "The directors attend principally to the financial affairs of the corporation, leaving the actual conduct of operations to the officers. . . . It is not customary to submit labor policies to a board of directors for action. Conference regarding them is often had with the directors or executive committee at the instance of the officers, and suggestions are made to the latter by both these bodies."[3] Roger W. Babson explains, in lengthy testimony, that "the financial interests have nothing against labor. . . . But it is indifference with them. Their job is to get dividends . . . when they have earned dividends, they consider their work is done."[4] Mr. August Belmont, from active experience on many boards of directors, declares, "A director rarely has to do with labor matters in a corporation unless by chance they are brought to his at-

[1] "Federal Commission on Industrial Relations," Vol. 8, pp. 7660-7661.
[2] *Ibid.*, p. 7438. [3] *Ibid.*, p. 7764. [4] *Ibid.*, p. 7455.

tention for the purpose of a decision as to the merits of something that may bring about a strike or something as serious as that." And in regard to making inquiries in a given corporation about wages, hours, unions, and working conditions, he explains, "As chairman of the board, that is not part of my duty."[1]

Likewise, matters of technology of production, transportation, or processes of manufacture are foreign to the attention of the average director. This separation of functions is candidly stated by Daniel Guggenheim, a corporation figure acquainted with the practices of typical corporations from experience and first-hand observation: "Our business as regards directors, is somewhat different from almost all other industrial corporations in this regard: Of the many directors—we have over 20—with the exception of two or three they are all men familiar with the business, having been brought up in the business, and are technical and practical smelting men."[2] This distribution of duties and functions is fundamental in an understanding of corporation management. It was the testimony of experienced directors of corporations before the Industrial Commission that most directors confine their attention to questions of dividends, credit, and finance, and this can be done from offices in the big financial centers of the country. It is for this reason that they are so often termed "absentee directors."[3] This division of functions has the advantage of keeping production and labor matters in the hands of the officers on the ground, but this very factor may, and often does prove a disadvantage, when the officers in charge at any plant, hold reactionary views about labor, and are stolidly ultra-conservative in treating fundamental production problems.[4]

The real center of control is often hard to find. It is not located in the hands of the scattered majority of stockholders; it is not evenly distributed among the several

[1] "Federal Commission on Industrial Relations," Vol. 8, pp. 7547-7551.

[2] *Ibid.*, p. 7561.

[3] See testimony of Jacob Schiff, *ibid.*, Vol. 8, p. 7523.

[4] On this whole subject see also pages 208-215 of this volume.

directors. Usually there is some dominating interest which openly or quietly exerts the overshadowing influence in the affairs of the corporation. But in not a few cases, a search to locate the real power in the affairs of the corporation would lead the inquirer to conclude that the real governors of the corporation are undiscoverable. Some of the difficulties of finding the real center of power will become apparent from a review of certain basic factors connected with the organization of corporation finance. The bondholders of the corporation have no right to vote for directors. They are looked upon as having made a loan to the corporation, and in their status as creditors, they have no right to a voice in managing its affairs. With railroads, and some of the more conservative industrial corporations, bond issues may make up a large part, in many cases, the greater part of the total financial resources. During recent years, corporations have frequently denied voting powers to the preferred stockholders, thus putting them on essentially the same footing as the bond creditors. Voting power is reserved for the holders of common stock, and when it is remembered that this represents usually good will, patents, and intangible assets generally, it will be obvious that the power centers in the holders of a controlling fraction of the common stock. The owners of the factory, of the machinery, of the equipment, of the raw material, and of tangible property generally are the bondholders and the preferred shareholders, but these owners of the real property of the corporation, in an increasing number of cases, have no voting powers. Voting powers are reserved for those who own that part of the capital securities which represent the estimated value of trade marks, of patents, of monopoly advantages, and of good will generally. To see the full effect of this device, it is necessary to observe that at the time of the promotion and formation of the corporation, it is usual for the banker and promoter to award themselves a substantial block of common stock as a bonus or remuneration for their services in setting up the corporation as a going concern. By retaining this common stock, and confining the voting power to the common stock only, they

can readily retain control of the business indefinitely. In many instances, the voting power is given to both the preferred and common share holders, but the amount of common stock issued by the corporation is so large in proportion to the preferred issue that the common retains control of the business.[1]

Another factor in the control of corporate policy is found in the system of reorganizing companies which go through receivership and insolvency. It is estimated that more than one-half of the railroads of this country have at one time and another passed through the hands of receivers, and a remarkably large number of industrial corporations have travelled the same course. Under a receivership, a bank is called in to rehabilitate the finances of the corporation, and commonly a voting trust is established. Under the voting trust, the stockholders of the insolvent corporation assign to a committee of trustees the power to direct the affairs of the corporation, at least until such time as it shall again be on an efficient basis. This committee of trustees is under the control of the bankers who are reconstructing the finances of the corporation. When the voting trust expires, it is natural for the bankers to desire to perpetuate the solvency of the corporation and to make certain that its affairs are not conducted again in such a way as to repeat the bankruptcy. The only way of accomplishing this is to hold an influence over the board of directors of the revived corporation. It will be clear, therefore, that both as a result of the influence of bankers in starting a corporation when it is first promoted, and as a result of their interest in perpetuating their influence following receivership and reorganization, the bankers tend to acquire a large control in the affairs of the average corporation.[2]

More than this, corporations deliberately seek for prominent bankers to appoint to their boards of directors. The board needs the prestige which the names of the distin-

[1] See A. Dewing's "Financial Policy of Corporations," Volume II, p. 47.

[2] On this matter, see the testimony of Samuel Untermyer and of Jacob H. Schiff, "Federal Commission on Industrial Relations," Volume 8.

guished bankers can quickly give, and many of the directorate positions of bankers exist primarily for the publicity value which they carry. Again, it is important that a corporation should be in a position to secure at all times adequate credit to carry on its business, and banks which have representation on the board of directors are supposedly more ready to extend credit to the corporation. Moreover, in the very nature of corporation finance, the stocks or bonds of the corporation are frequently needed as a collateral security for loans made from the banks. The stocks lose their value for security purposes unless dividends are kept up. The stock market insists that dividends be forthcoming, and the bankers who are in charge of finances are responsible for the maintenance of dividends. For all these reasons, bankers attain to a pre-eminent position of control or influence in great numbers of corporations.

The board of directors is likely, therefore, to contain people who are there simply for good looks' sake as well as those who are there to assert power. Boards of directors contain figureheads, dummies, puppets, and fashion plates, and they know their bosses, their inside interests, their lines of pull. Here and there is a dominating personality. The government of a corporation is not essentially different from the government of a political state. There is what Elihu Root has called "the invisible government" in politics, and the same thing exists in business. What part of the government of the corporation is visible and what part invisible will vary from company to company, and the invisible government may be just as efficient, and as honorable as the visible. It is true as a general rule, however, that human nature runs to questionable policies more easily under conditions of secrecy than under conditions of publicity, and this human tendency underlies much of the speculative abuses, and corporation wrongs which have been the theme of muckraking. All of these considerations serve to explain why so many corporations achieve a high reputation for safety of invested capital and for financial efficiency, and why certain other corporations find it possible to abuse their opportunities.

The mechanism of management below the board of directors presents new aspects. The board appoints a president and certain major executive officials, who in turn choose the requisite subordinates and assistants. The president is the great co-ordinator of factors in the business organization, and the main point of contact between the business plant and the board of directors. There are certain basic managerial functions which have to be systematized and organized in any business, but the methods of organization are by no means uniform. The basic functions of any active business center around production, finance, accounting and sales, and these functions require on the executive staff a production manager, a treasurer, a comptroller, and a sales-manager.

The methods of delegating responsibility, of dividing and subdividing functions, and of fixing authority embody many variations and adaptations. Until recently, the prevailing method was the "line" or "military" system of organization. Under this system, business was organized on the basis characteristic of former armies. Each official was in charge of every detail within a certain jurisdiction, and he was obliged to be familiar with all details, and to settle all problems. The foremen and the managers had to be all-around men, and when business grew, and the technology of production, sales, finance and accounting become so immense and so intricate, no one man was capable of mastering all of the details and settling all the problems in his branch of the plant. Feeling a need for expert aid, managers developed a line and staff organization, under which the superintendents and foremen drew advice and guidance from special staffs of engineers, chemists, accountants, and experts of every description. Authority, responsibility and function were still, however, generalized and broad. A further development has been the departmental type of organization, under which specialized functions are grouped and separate foremen are placed in charge of each type of function. This is a step in the direction of outright functional management under which specialization is carried to an extreme. For example, a

repair boss has charge of all repair work, a route clerk has charge of all planning, a speed boss is responsible for getting the work completed on schedule time, and so on. Most modern businesses conducted on a large scale combine features of different types of organization in an attempt to adapt the desirable qualities of each to their peculiar and particular problems. Large scale production, with its increase of technical complications and intricacies, has led to greater specialization of workmen, foremen and higher officials, and this intensive specialization of functions is one of the most important developments in the methods of the internal organization and administration of modern business.

Technique of Executive Direction

The chief executives of corporation management would obviously have found the direction of large corporations a mental and physical impossibility unless they could have developed in the meantime a technique for collecting facts, interpreting them, formulating policies and executing them. Of course, the methods of internal organization which have just been described were a part of this new technique. But the individual executive had to have at his disposal a technique which would enable him to bring the immense detail of the gigantic business within the scope of his mind, in such a shape that he could think intelligently about the problems to be solved.

An important part of this technique lies in the science of accountancy. Accountancy transforms all economic factors into the common measuring rod of money, and by means of this common and universal yardstick, develops systematized records which serve as the basis for nearly all important business judgments. Accountancy translates all of the assets, multitudinous in their variety, into a grand total of dollars and cents; and all of the liabilities likewise into a grand total of dollars and cents. This gives a photograph of the net worth of the corporation, and is an essential feature of virtually all negotiations for investment or commercial credit from banks. Accountancy also

translates all elements of the conduct of the business into terms of money expense and money income for a week, a month or a year, and supplies thereby a profit and loss record which enables executives to determine readily whether the corporation is making profits or running behind. These records form the basis for the corporation policy in declaring dividends, surplus profits, and the disposition of the corporation's net income. The accountancy of costs furnishes the executive with the pecuniary facts bearing on the cost of each unit of production; it apportions the relative fractions of cost due to labor, to rent, to raw material, to depreciation of machinery and equipment, and to every factor which enters into the business process. Cost figures are indispensable in the estimation of selling prices, for otherwise the corporation may find to its sorrow that its prices are below expenses of doing business. The extreme importance of cost accounts has led the trade associations which now exist in the great majority of business lines, to encourage uniform systems of cost accounting among their members. Uniform cost accounting tends to stabilize prices, and to alleviate the evils of cut-throat competition. Exact cost accounts make possible intelligent comparisons between different parts of a single corporation's operations, and between the operations of different corporations. They form a basis for discovery of the efficient and inefficient parts of a business, and a necessary guide in formulating policies for the cheapening of the costs of doing business.[1] The data of accounting are primary necessities in the directive thinking of executives.

A facility for collecting the proper facts and for digesting the records presented by accountants characterizes great executive ability in the modern large corporation. With the facts in mind, the executive devotes the major part of his mental effort to the formulation of the broad problems of business policy. He is successful to the extent that he can place minor problems on the backs of minor

[1] See A. Marshall's "Industry and Trade," pp. 366-371, also Gerstenberg's "Principles of Business," Chapters XXIX, XXX, and XXXI.

officials, keep routine duties in the hands of assistants, maintain adequate sources of information, and free himself for concentration upon the essential, fundamental issues of the business. Co-ordinate with this executive trait is the ability to preserve throughout the channels of subordinate administration a fluency and openness such that his decisions, his personality, the force of his mind and character shall penetrate to the very perimeter of the business. The whole structure of management must serve as a conductor for both the technical decision and the human spirit of the man at the top. Studies that have been made of the dominant powers, traits and habits of the greatest modern business executives indicate that the executive ability to direct the largest corporate activities involves great physical vitality, unflagging mental activity, superior judgment in the selection and placing of men, the inspiring personality of marked leadership, fearlessness in the face of huge risks, accuracy in forecasting the business conditions of the future, and a genuine statesmanship in making all things fall into their proper places, and all parts of the business fit into the economic and social structure harmoniously. After all is said and done, the technique of administration, and the science of facts and policies, is just about what the psychology of the chief executive makes of it all. His dominating motives, his paramount instincts, his emotional peculiarities, his level and type of intelligence, and the whole human force of his original nature will adapt managerial technique in countless ways.[1]

Such a description presents management in its most laudatory phases. It is true to the facts of the case in a great number of instances, but it is not the whole of the picture. For with all of the developments in the technique of administration, with the aid of modern accountancy and the use of modern statistics, with the experience of successful executives to draw upon and with the principles of efficient business government carefully worked out, it nevertheless remains a startling fact that most production en-

[1] See, for instance, B. C. Forbes's "Men Who Are Making America," and J. G. Frederick, "Business Research and Statistics."

gineers, consulting engineers, experts in the science of management, and trained scientific managers agree that the bulk of business to-day is grossly inefficient. This conviction appears to be held by the conservative, sober minded, reliable engineers of the country. In their judgment, the average business would be able to increase its efficiency by from 25 to 50 per cent. by the application of known and tried principles and practices of management. Industry abounds with immense wastes and losses and unrealized efficiency because of the unwillingness of managers to abandon traditional methods of management, and because of their frequent inability to adapt their own psychology to the necessities of modern managerial technique.[1]

The most authoritative single statement of the facts about the inefficiencies of many parts of business management is contained in a report presented in 1921 by a Committee on the Elimination of Waste representing the Federated American Engineering Societies. The committee was appointed under the direction of Herbert Hoover, and its investigations were conducted by the aid of a staff of fifty engineers. Their investigations covered directly 1125 separate plants, divided between the building industry, men's ready made clothing manufacturing, boot and shoe manufacturing, printing, the metal trades, and textile manufacturing. Four basic causes of waste and inefficiency were found:

"1. Low production caused by faulty management of materials, plant, equipment and men;

"2. Interrupted production caused by idle men, idle materials, idle plants, idle equipment;

"3. Restricted production caused by management or labor;

"4. Lost production caused by ill health, physical defects and industrial accidents."

In the judgment of the committee, the waste and inefficiency is due overwhelmingly to the shortcomings of

[1]See B. C. Thompson, "Scientific Management;" H. L. Gantt, "Organizing for Work;" Emerson, "Principles of Efficiency;" F. W. Taylor, "Principles of Scientific Management."

management. These shortcomings mainly take the form of a failure to utilize and apply tried and proven principles of administration and technique of management already in existence. The conservatism and inertia of management are primary causes. The body of scientific principles already successfully applied in pioneer and progressive plants are available but unused. Some indication of the extent of loss and waste from managerial inefficiency is given by the following detailed findings of the committee: Faulty planning of material caused labor engaged in shoe production to be idle more than 35 per cent. of the time. Faulty planning of work by management caused a loss of one-third during the normal operation of clothing factories. Proper organization of the men's ready-made clothing industry should bring "an increase of 40 per cent. in effectiveness." In the printing plants of New York City, less than one-fifth of the plants had any system of cost accounting; the other four-fifths lost money during 1919. The metal trades were operating at about 60 per cent. of normal output, and the value of their increased possible production in normal times would, according to the estimate, exceed half a billion dollars. Labor turnover was found to be needlessly high, and few factories were taking advantage of any personnel system to reduce the consequent loss. The manufacturing equipment in clothing, printing, and shoe manufacturing is about double the real needs of the country in those lines of production. Seasonal employment means that in clothing manufacturing, the worker is idle about 31 per cent. of the year, in shoe making, 35 per cent., in building trades 37 per cent. The above are only a few typical illustrations, but they serve to indicate the enormous waste in economic organization due mainly to the failure of a large proportion of management to accept and apply the developments in modern technology of production and in the science of human administration.

Management is, therefore, neither always efficient nor always wasteful. The progressive, scientific management at its best is a marvel of economy, harmony, and efficiency;

but the traditional unscientific management which still has a strong grip on wide stretches of industry is far from efficient. The directions of evolution are decidedly toward the adoption of the improved and modern methods of production efficiency. At times the progress made by the bulk of managers is tediously gradual, but the important feature of the situation is the fact that a body of scientific principles of efficiency is already in existence, that the conditions of inefficiency are known and revealed, and that organized effort is being made to bring all management up to the better standards.

Business Combination and Concentration of Management

The proportions of the task of modern management are augmented by the very fact of the concentration of business through corporations, holding companies, trusts, mergers, and amalgamations. The extent of the combination movement was explained in some detail at the beginning of this chapter. The present analysis has to do with the reasons for the combination movement, the results of it, and its fundamental implications for the economic and social system.

Reasons for the Combination Movement

The paramount force in breaking the bonds of inertia, and driving business organization out upon the untried and adventuresome paths of combination was the menace of cutthroat competition. Toward the latter part of the nineteenth century, the adage that competition is the life of trade lost its meaning in a great many branches of business, and it was discovered that competition carried to an extreme was the death of trade. Corporations engaged in desperate price wars in the determination to take trade away from each other, with the result that an appalling number of failures occurred. In the sugar industry, out of a total of 40 large competing refineries, 18 went into bankruptcy in the three-year period from 1885 to 1887. The investigation of the general movement toward combination in

American industry by a Federal Industrial Commission in 1900 led to the conclusion that "among the causes which have led to the formation of industrial combinations, . . . competition, so common, so vigorous, that nearly all competing establishments were destroyed, was to be given first place." Even where competition did not have so destructive a consequence, it usually forced drastic reductions in profits, and raised the hazards of business to the maximum. The compelling, dynamic force behind the combination movement was the menace of a competition which threatened ruin to hundreds of business corporations. Combination was a life-saving endeavor. It was not entered into to satisfy the ambitions of idle dreamers, nor would it have been undertaken on so vast a scale merely in the hope of realizing superior gains. The "driving forces" which budged things, and put the original vitality into the combination movement were the dangers of destructive, cutthroat competition. Combination was the only available means of self-preservation on a safe and profitable footing.[1]

When the minds of the leading business organizers began to take account of the details of the situation, it appeared to them that combination would not merely perform the life-saving function, but would in addition give to the business organizations distinct advantages in production and trade which would be measured by an imposing increase in profits and dividends. The suppression of damaging competition, and the creation of the economies and advantages of large scale management were the two prime influences behind the combination movement. Combination was looked upon as a course of action which would not only save the lives of competitors, but also would bring in rich profits for the combiners.

The anticipated economies and advantages were various. The number of salesmen could be substantially cut down, because under the combination one salesman could represent the big business unit, approaching prospective buyers

[1] L. H. Haney, "Business Organization and Combination," pp. 134-136.

with samples and selling talk, whereas formerly each separate small company sent out its own salesmen. With many companies anxious to secure the same order, there was much duplication, and endless overlapping of effort. Advertising expenses could be reduced, because a host of small competing corporations devoted large sums to taking trade away from each other by lavish use of advertising space. Labor unions could be held under restraint more effectually because individual corporations stood almost helpless before the concerted strength of a national union threatening a strike to enforce labor demands. Large producers could afford full time use of very expensive machinery, the most efficient labor-saving devices, and forms of equipment which it would not pay to use in small plants.

The large business organization could place itself in a fairly secure and stable position by vertical integration. For example, the International Harvester Company could have not merely plants for the manufacture of farm implements, but also its own coal mines, its own iron and steel plants, and even in some districts, its own railroad equipment; or, the United States Steel Corporation could own mines, mills, railroads, and ships. Saving in freight would be effected, because the combination would have plants located at various points the country over, and could ship to the buyer always from the nearest factory, thereby eliminating the "cross-freights" which prevailed when the scattered plants were under sharp competition. The combination could bring greater pressure to bear in the collection of debts, and would not be obliged to make risky extensions of credit as under the days of severe competition when it was necessary to make shaky credit concessions to buyers in order to curry trade. The concentrated plant could carry a larger variety of lines and grades of goods to satisfy the whims and desires of all classes of customers, and could carry a stock large enough so that orders could be filled immediately, thus avoiding delays provoking to customers.

Large producers could make full utilization of by-products, and in many lines of production, the value of the by-products makes the difference between profit and loss.

Large industrial concerns would be able to maintain laboratories and departments for commercial research to advance the technology of production, and would be able to adopt promptly improvements and discoveries in the processes of manufacture. The big concern could buy in large quantities and secure inside prices and special discounts. It could secure better credit accommodations from the banks, and could afford to employ a superior grade of managers, engineers, efficiency experts, superintendents and the like. Output could be better regulated to avoid over-production in dull times, and under-production in boom times. Combination would give to all the member companies the advantages of the patents, secret processes, trade marks, and brands which formerly had been jealously guarded by each individual company from its rivals. Large business organization would be able to bring to bear at least a partial monopoly advantage in price determination, and would therefore be able to reap profits in excess of any that could be obtained by independent corporations. Net earnings would be materially enhanced by the economies in production and distribution on the one hand and the influence over prices on the other.

These advantages of combination would probably never have made the strong appeal to the minds of business men which was necessary to launch the great combination movement had it not been for the fact that certain interested parties, promoters, took it upon themselves to "sell" the combination idea to the bankers, the investing public, the boards of directors, the owners, and all parties concerned. It has been repeatedly stated by economic students that all business combinations owe their existence to the constructive imagination and irresistible initiative of some one man, or some very small group of men. Business combinations do not come into being without creative effort on the part of somebody, and in the business world there are certain individuals who specialize in the promotion of corporate combinations. Often they are professional promoters whose special life work is conceiving and executing first one business adventure and then another.

The promoter may be a man of successful manufacturing experience, or an engineer, or a railroad executive. He may be actively engaged in a part of the business which he hopes to make a part of the eventual combination, or he may be a total outsider. Whatever his origin, he performs certain vital and indispensable functions. His mind originates and grasps the idea of the possibilities of the new business organization. The promoter is an inventor of a new business plan, of a new corporation project. The promoter has the distinctive psychological makeup which asserts itself in the instinct of constructiveness, and the love of creative, original achievement. He has unbounded originality, a power of vision, a prophetic judgment of the future, and a delight in setting out upon new and momentous adventures. Were it not for this type of personality, many of the most significant combinations would never be born.

But this is only the first stage of the promoter's task. He must acquire a mass of statistical data, of financial evidence, of technical facts about production and marketing, and must fully acquaint himself with the basic policies of the branch of industry in which the combination is anticipated. From these facts, the promoter is able to explain convincingly the economies and advantages that will accrue from the new combination. It is necessary, also, to interest bankers in the project, and to evolve a financial plan for the capitalization of the company, and for the sale of security issues. The bankers undertake the execution of the financial part of the venture usually through the formation of a syndicate of bankers to underwrite the stock issues of the new corporation. The syndicate of bankers thus accepts the responsibility of marketing the securities of the undertaking. The promoter has to persuade the owners and controlling powers in the separate companies to sell their properties, and this step is attempted through the securing of options giving the promoting interests the right to buy the properties at stated prices within stated periods of time. The promoter must have available satisfactory estimates of the probable

earnings of the new company, and must be able to point out how and why these will almost surely exceed the collective earnings of the separate independent companies. To the owners of companies which have been suffering already from the thrusts of cut-throat competition, the opportunity to sell and to save their fortunes is most welcome. In other cases, intensive urging and much persuasive power has been necessary, and even coercion must at times be resorted to.

In order to carry through these difficult achievements, the promoter must be a party who commands the confidence of the people whom he is trying to combine. The promoter's task is "one that requires the very highest intelligence, and, as a rule, neutral parties—parties not interested, men of the intelligence and reputations to inspire unlimited confidence on the part of manufacturers, are needed to bring manufacturers together."[1] The promoter performs a specialized function of the utmost importance, because any number of the most effective business combinations could not come about merely as a result of the natural forces of economic life, or of the menace of sharp competition. Someone has to take the initiative in overcoming the jealousies of men who have been desperate rivals for years; someone has to allay the skepticism which springs up at the suggestion of a new adventure, and to lift men out of the inertia and lethargy which exists everywhere. For this service to the economic community, the promoter exacts a profit, commonly in the form of a bonus of the common stock. His work is extremely precarious, and he is as likely to fail as to succeed. In the successful promotions, the promoter usually charges all that the traffic will bear, and secures an appropriation of common stock which is generous to say the least.[2]

Successes and Failures in Combination

It is difficult to measure with exactness the extent to which the combinations formed under these conditions

[1] Meade, "Corporation Finance, Testimony of Mr. Flint," p. 39.

[2] *Ibid.*, pp. 21, 38, 39. See, also, Dewing's "Corporate Promotions and Reorganizations," Chapter XX.

have realized the economies and advantages which were claimed for them. In so far as they aimed at the suppression of competition, they of course put an end to competition between the companies which came into the consolidations. However, they found themselves face to face with a new competition in which the competing units were bigger. Even at the time of formation, it appears that the majority of the combinations controlled less than 50 per cent. of the production in their respective lines of industry. It was comparatively rare for a combination to control more than 75 per cent. of the product. The hopes of optimistic promoters and the dreams of corporation executives for a domination of the market and a control of a given branch of industry were scarcely ever fully realized. Many of the combinations which started out with the highest percentage of control have experienced a marked shrinkage of their percentage in recent years. For instance, during its first years, the American Sugar Refining Company refined from 80 to 90 per cent. of the sugar refined in the United States, but by 1921, its percentage of the total output had fallen to about 24 per cent. And the United States Steel Corporation, from making 50.1 per cent. of the nation's iron and steel output in 1901 declined to 45.7 per cent. in 1911. And yet, although competition was not suppressed by the large combinations, the more dangerous and destructive phases of competition were brought under restraint and control considerably; and in the new era, large combinations were decidedly better able to protect themselves from the worst features of cut-throat competition. The inefficiencies of many over-sized consolidations, the anti-trust decisions of state and federal courts, and the governmental prohibitions of unfair competitive methods, have been causes behind the failure of so many combinations to realize in full their original hopes for the suppression of competition.

The degree of success in so far as the expectation of increased net earnings was concerned met with similar limitations. Individual combinations here and there did earn impressive dividends. The oil, sugar, tobacco and

steel consolidations were famous for their large earnings. The sensational earnings of certain combinations received much publicity, and so gave rise to the popular belief that practically all combinations were gaining luxurious profits. The true facts of the case are carefully summarized by H. R. Seager: "Of the 183 industrial combinations investigated by the Census Bureau in 1900, but 121 had paid dividends. . . . One-third of the total number paid no dividends at all and another one-third paid no dividends to common stock holders. Nor has this showing been greatly improved in the years that have elapsed since 1900. An intensive study of the thirty largest trusts which were organized prior to January 1, 1904, shows that, while eight have been phenomenally successful, and seven moderately successful, ten have proved unsuccessful and five have been disastrous failures."[1] The combination movement fell far short of its hopes and promises. The anticipated economies too often proved to be illusions, and the advantages of large scale production which had loomed so attractively in the arguments of promoters proved to be offset time and again by even greater handicaps and disadvantages arising from unwieldiness and overgrowth. The history of the combination movement, in all its ups and downs, teaches pre-eminently one economic lesson of the greatest significance, namely, that the economies and advantages of large scale business tend to disappear after the business unit gets beyond a certain size. A point is reached beyond which the economies and advantages are displaced by wastes, inefficiencies and disadvantages of the severest sort. The size of maximum advantage and economy varies from industry to industry and from decade to decade, owing to changes in the state of the industrial arts and sciences.

In a broad way, those industries will bear the largest size of business unit which can most thoroughly substitute mechanical processes for the workmanship of human beings. Industries whose processes can be standardized, in which

[1] "Principles of Economics," 1917, pp. 455-456. See, also, A. S. Dewing, *Quarterly Journal of Economics*, Vol. 36, pp. 84-102.

automatic and semi-automatic machinery can be utilized, in which mechanical conveying and transporting and hoisting can be taken advantage of, and in which the human element can be reduced to a subordinate importance, realize the economies of large scale production. As the mechanical technology advances in a branch of industry, and methods of standardization are improved, the way is paved for large units of business organization. To the extent that labor is involved in such highly developed mechanical processes, its efficiency is substantially regulated by the necessity for keeping up with the machine. In the meat packing plants, for example, the animal is conveyed by machinery past the worker, and it is necessary for him to perform some narrow, specialized act, completely, while the animal is traveling in front of him. The speed of the carrying machinery thus regulates the speed of the worker. The same is true of the processes of standardized automobile manufacture, and in any number of other industrial branches. In lines of production where definite regulation of the worker's speed by the mechanical processes is not so fully possible, it is important to note that even if the worker is inefficient, his labor is a minor part of production cost.

However, the possibility of large scale economies is sharply reduced where skill, workmanship, personal interest, and individual devotion to duty are a major part of the business process. The large company loses the human touch with the workers. Workers come to think of the executive officials often as remote and mysterious powers, interested solely in grinding out maximum profits, and the psychological reaction is sulkiness, indifference to work, disloyalty to the company, and personal inefficiency. Combinations of industry have found it exceedingly difficult to avoid diminishing labor efficiency under increasing industrial size. The human factor has stubbornly resisted efforts at standardization, and the failure of the original promoters of the great combinations to take into account this basic psychological element explains in large measure the repeated disappointments in the efficiency of the com-

binations. Primarily for the reasons that human factors play a dominant part in their processes of production, the cotton manufacturing industry and the men's and women's clothing manufacturing industry have not been brought under the régime of concentrated production.

It is also true that in those branches of industry where standardized mechanical processes can be drawn upon, the independent corporation may secure substantially as great efficiency as the enormous combination. In such industries there is no insurmountable difficulty to the attainment of efficiency under the large organization, but, on the other hand, the gigantic organization is not necessary for the attainment of maximum efficiency. Reasonably strong independent companies can install the mechanical equipment as well as the huge companies, and can realize in good measure similar economies. Gigantic combination in such lines of industry is not an essential condition of the greatest efficiency.

The greatest single snag in the way of large scale enterprise is a psychological one. For one thing, it is next to impossible to find leaders with the instinctive and mental equipment adequate to direct the large undertakings. The captains of industry of one generation must be superseded by new captains in the succeeding generation, and business organizations suffer from a dearth of the very best managerial ability. The salaries offered range from $15,000 to more than $100,000 a year, and the positions carry such power and prestige that they are coveted intensely by the leading men of the country. But there is a limit to the tasks which even the best brains can master, and there is a very narrow limit, very commonly lamented by boards of directors in search of executives, to the supply of the best brains.[1] A billion dollar corporation entails problems of administration and control which only the rarest executives can solve effectively.

The large combinations embody a dozen, or a score, or a

[1] See A. Marshall's "Industry and Trade," pp. 360-364; Stevens's "Industrial Combinations and Trusts," pp. 574-575; Brown's "Selection and Training of Executives," pp. 1-46 and Introduction.

hundred or more separate plants, scattered across the country. Each subsidiary plant must have executive officials of high ability, and it is no small task to inspire a small army of subordinate officials, with whom the president over all is seldom in personal contact. The various subordinates have to be infused with the spirit of the head of the combination, have to understand the application of the broad policies and basic ideas which he desires to have worked out in the several plants, have to be made to feel a keen sense of responsibility and loyalty to the combination. When the managers of the various plants do not have their own money tied up in the property, there is a double difficulty in leading them to devote their best energy and ability to their position. They do not plunge into the task with all their strength as they might if the business were their own. Especially are they apt to assign the burdensome, tedious, aggravating parts of the position to others, and to neglect the drudgeries which might not seem so onerous if the plant actually belonged to the manager, and all the pride of personal fortune were at stake. In cases of independent corporations, of the small or moderate sized variety, no amount of plugging, no amount of indefatigable, painstaking effort is too great for the taste of the men whose all is at stake in success or failure. The modern president must be able to create morale among his subordinate executives, and in the largest business organizations, this possibility is strained to the breaking point. Big business is a question of the best motives of the biggest men in the country. And the problem of bringing forth the best psychological powers of executives, yet not overstraining the human equipment; of securing maximum efficiency from the best minds, yet not subjecting them to a business unit so great in its scope as to baffle thei. judgment and thwart their personality, is one which largely determines the size to which modern business enterprises can successfully grow.

The psychological difficulty extends down the line from the topmost executive to the common laborer. Foremen are men subject to strong bonds of habit, and tradition,

and all attempts made by superiors to better their touch with laborers come up against the recalcitrance and fixity of the foreman's psychology. In the mind and experience of the laborer, the foreman represents the company, and is the symbol of what the company stands for. In most companies, workers are at the mercy of foremen, bossed by them, paid by them, chosen by them, fired by them, promoted by them, and in the eyes of workers, modern industrial autocracy very widely means simply the petty tyranny and capricious domination of foremen.[1] The personal touch between the owner and worker in the small plant is gone, and the large corporation is a great impersonality, interpreted to the workers through the medium of petty bosses and foremen.

The imperfect human relations of large corporations have been prominent forces in the disappointments and failures of large businesses in the past. It is most significant, however that in recent years, and particularly as an outgrowth of the World War, pioneer leaders of great corporations have demonstrated the practicability of a new science of human relations. Many leading corporations have created Departments of Industrial Relations, the basic purpose of which is to organize the human factor in industry. Practical experience has already worked out a body of scientific principles of labor relations and control for the effective treatment of the human industrial problem. This body of principles includes such matters as the inauguration of employees' representation in the form of works councils or shop committees, the adjustment of questions of hours and wages in frank consultation with workers, the systematic stimulation of right incentives and motives in work, the better care of employees through improved light, heat, ventilation, and safety facilities, the development of a spontaneous confidence in company policy by suggestion systems, collective bargaining, medical care, vacations, and insurance aid. This new science of human administration goes far toward overcoming the original handicaps of large

[1] S. Webb, "The Works Manager Today," p. 27. See, also, Whiting Williams, "What's On the Worker's Mind?" Chapters 11-14.

business organizations in dealing with the labor factor. Once the psychology of labor has been brought under adequate control, the economies of large scale production need not be confined primarily to industries operating under mechanical and standardized processes, but will be possible in an enlarging degree for industries in which human skill and personal interest are major factors. The very recent developments in the science of industrial relations have a direct bearing, therefore, upon the most efficient size of business units, and upon the possible economies of large consolidations.

The trials and difficulties of large business lead, moreover, to an analysis of some of their fundamental relations to bankers and financial interests. The intimate relations established between new corporation promotions and the investment bankers and syndicate of underwriters which float the corporation securities; the banking connections of boards of directors which are of aid in the maintenance of adequate credit for working capital purposes; the ties formed between railroads and other corporations and their bankers during periods of receivership and reorganization; and the confinement of the attention of boards of directors very largely to questions of finance, all serve to subordinate nearly all other corporation problems to the uppermost problem of corporation finance. The history of the financial relations of the great American trusts certainly bears out the broad conclusion made by a careful English economist, Alfred Marshall, that "a great part of the railways and the chief manufacturing and mining businesses of America are largely under the control, for good and evil, of a comparatively small number of powerful financiers."[1]

A widely adopted form of this financial influence is found in interlocking directorates. Each one of the members of a bank's board of directors, and its major executive officials may be members of the boards of anywhere from half a dozen to half a hundred corporations. The Clayton Act of 1914 prohibits interlocking directors between corpora-

[1] "Industry and Trade," p. 540.

tions which, by the nature of their business, are actual or potential competitors, where interlocking directorates might tend to restrain competition unduly. The act is not a sweeping prohibition of all interlocking directorates, but rather a prohibition aimed to thwart interlocking which would have as its effect the building of monopoly advantages or the unreasonable restraint of competition. Interlocking directorates are still permissible where they do not encroach upon this prohibition, and hence they exist at present on a broad scale, and are important financial connecting links between corporations and financial houses. There is nothing in this relationship which indicates a "money trust," or a conspiracy of bankers to dominate the business of the country, a charge which is often loosely made. The true significance of the relationship is simply that "the structure of modern capitalism tends to throw an ever-increasing power into the hands of the men who operate the monetary machinery of industrial communities, the financial class."[1]

The financial needs of the large consolidation for working capital, raw materials in process of manufacture, pay envelope funds, etc., are largely accommodated by commercial borrowing from banks; and the greatest vigilance is necessary on the part of the corporation's overseers to have ample funds available to pay off such loans at the proper periods, or to have the state of the business strong enough to make bankers feel safe in extending loans instead of exacting prompt payment. In times of business depression or crisis, with the assets of a corporation depreciating in value, and a general psychological anxiety throughout the banking community, the corporation must be able to meet promptly its commercial credit obligations in case the banks feel it necessary to liquidate the obligations. Failure to meet the obligations when demanded means a state of insolvency. The constructive aid of affiliated financiers is of life-saving value at such critical periods, and in numberless instances, a lenient and co-operative attitude on the part of the financial institutions is the

[1] J. A. Hobson, "The Evolution of Modern Capitalism," pp. 235-257.

only factor which makes it possible for the large corporation to "round the corner" of the critical period. Moreover, the borrowings of the corporation for purposes of fixed capital, such as buildings, or machinery, entail certain interest charges which have to be met regularly. Failure to meet the interest charges means a state of insolvency. The ultimate source of payments of all credit obligations is the earnings of the corporation. If these earnings are not large enough to meet the payments when due, no matter whose the fault, the corporation is ready for bankruptcy. But it happens with any number of corporations and their financial backers that during a period of prosperity, with profits running high and business booming, the optimism of the times grips the imagination of the corporate overseers, and impels them to over-expansion, over-capitalization, over-borrowing. Time and again, bankers and corporation directors prove victims of their own psychology, and in the great tide of money making and expanding and building of a period of prosperity, they forget the law of business cycles, forget that a little later on will come the return swing of the pendulum, with depression, low earnings or actual losses, hard times, tight money, and general liquidation. When the turn does come, the financial overseers of the corporation try often to keep up appearances by paying dividends whether they have been earned or not, and this effort is the paramount immediate cause of the bulk of industrial bankruptcies.[1]

The financial interests unfailingly endeavor to keep the price of securities on the investment market at desired levels, and of course face the problem of maintaining ample value in the stocks and bonds serving as collateral security for much of the corporation's commercial credit. Even at best, with all financial interests unselfish, and devoting intelligent attention to the welfare of the consolidation, the financial status of the corporation requires the most painstaking vigilance. Under less favorable motives, with occasional recklessness or selfishness on the part

[1] A. Dewing, "Corporate Promotions and Reorganizations," pp. 546-557.

of dominant financial interests, or with excessive greed for immediate power or profit, the financial status of the business combination has in numerous instances been deplorable. In certain cases, large scale fraud in the manipulation of securities and speculation where conservatism was sorely needed have ruined corporations, and brought untold loss to innocent and helpless investors. New England people will not soon forget the manipulations, which the Interstate Commerce Commission so vigorously condemned, in the affairs of the New York, New Haven and Hartford Railroad.[1]

All of these financial complications continually present grave problems for the large combinations to solve. Their relations with the financial institutions must in the very nature of the case be fairly intimate. The large consolidations in almost every line of industry are constantly drawn into close contact with the investment and commercial bankers. The influence of the financiers upon the directorates of modern large corporations is a natural outcome of the structure of corporate institutions.[2]

From all the foregoing facts and considerations, it is obvious that many of the large consolidations have by no means had easy sledding. Disappointments from unrealized efficiencies and economies have been frequent, and illusions about rich earnings have been repeatedly exploded. The consolidation movement had its greatest innings at a period when the American people were whisked off their feet by a temporary awe of and credulous trust in bigness. The grandeur of size caught the imagination of bankers, of business men, and of the people. It was accepted without proof that if a business could but become big enough, its economies would be almost unlimited and its earnings would be wellnigh fabulous. The psychological bubble was pricked by the hardships of costly experience and the disappointments of corporation history. Through all the period of consolidation and con-

[1] See, also, W. Z. Ripley's "Trust Pools and Corporations," pp. 23-30.

[2] H. G. Moulton, "Money and Banking," Chapter XI.

centration, those trusts which had to rely for their success mainly upon the economies and efficiencies of large scale operation have either met with indifferent success or have failed outright. The trusts with glowing records of high dividends and huge profits are usually those which attained a substantial power of monopoly over prices, and which held a position from which they could take unfair advantage of the surviving small competitors. Either this, or they had for a time the leadership of an executive of the rarest ability, one of the towering captains of industry of the last generation in America who had the genius to make a go during their lifetimes of an otherwise scarcely profitable consolidation.[1]

The part which management plays in the whole economic organization is obviously a leading one. Management is to-day divorced from ownership. Owners are holders of corporate securities, and need have no direct interest in the properties nor give any personal attention to their care and government. Managers work for a salary primarily, although in places they also are interested as part owners in the business. Directors of banks and corporations concern themselves mainly with financial matters, leaving questions of labor, production and technique to the presidents, vice-presidents and engineers of the plants. Profits go, not to the men who manage the business, but mainly to those who own the business. The psychology of management shows that bankers and corporation executives are men usually of rare and great mental and instinctive equipment, but that a large proportion of them, or all of them, will be found subject to the sway of customs, traditions, and habits. Optimism gets the better of them during periods of prosperity, and miscalculation leads their businesses into precarious positions repeatedly. Inertia and prejudice keep thousands of them from taking up with the latest improvements in machinery and technology of production, and inability or unwillingness to handle the

[1] See A. Dewing's "Corporate Promotions and Reorganizations," pp. 563-568. Also W. S. Stevens's "Industrial Combinations and Trusts," pp. 574-580.

technique of the modern science of management causes appalling wastes throughout the economic system. On the other hand, modern corporate management has increased the productivity of the individual worker by making possible the large scale use of machinery. Modern management directs the economic energies of society with a degree of efficiency which surpasses any other form of economic government that men have yet contrived.

The shortcomings of management indicate primarily the lines of evolution for the future. The recent determination of management to organize human relations in industry is an admirable example of the ability of management to adapt itself to the challenging difficulties of a particular period. The extremes and excesses of managerial policy appear to be coming under control. The tests of business success are now more than ever before seen in the increasing attitude that exploitation of labor as a means of reaping profits must be a thing of the past; that abuse of investors' money deserves criminal prosecution; and that moderation in the use of monopoly advantages and stability rather than exorbitance of prices is desirable.

In days gone by, capital was a term which covered both management and ownership. Recent economic evolution has brought out the manager as a distinct and separate factor. The overmastering characteristic of successful management is a threefold responsibility: to the public, courteous service, standard quality of goods, reasonable prices; to the owners, safe-keeping of investments, and moderate profits; to the laborers, living wages, democratic treatment, healthful working conditions, a creative interest in work. The day when the responsibility of business was selfishly looked upon as almost an exclusive responsibility to owners,—a responsibility to harvest the maximum profits, without fear or favor,—is beginning to pass. The modern manager of the best type recognizes a threefold responsibility for the positive benefit of laborers, owners, and consumers. The test of successful management is the performance of this balanced threefold responsibility.

The characteristics of the present economic period re-

flect again and again the problem of the size of the business organization. The question of big business or little business is one calling for incessant attention. It may safely be declared that the question has not yet been fully decided. And yet, out of the tendencies and developments of the last decade, certain fundamental lessons can clearly be read. The large business unit has come to stay. A return to the old days of *laissez-faire* competition between little business establishments is unthinkable. A new competition has come into activity,—a competition between bigger parties. In the branches of industry where consolidation has gone far, the biggest combinations operate in the same field with a dozen, or a score, or a hundred independents. But the independents themselves are larger, and the competition which now exists is none the less competition because it prevails between larger business units.

For a time, the public and the courts seemed inclined to destroy big business merely because of its size. That inclination is on the wane, and in its place has come the more matured inclination to outline the new rules of the game in such a fashion as to give businesses both large and small a chance for a trial of strength on issues of efficiency and economy. The Supreme Court has declared emphatically that under the Sherman Anti-Trust Law of 1890, it will not condemn business merely because it has grown large. If it is not guilty of unfair and destructive competition, if it is not holding its position because of unreasonable restraint of trade or undue monopoly power, if it can remain large or grow larger while still playing the game under the new rules; if it can carry on its large scale enterprise with efficiency under those rules, it may continue in existence, no matter what its size. The size of maximum efficiency will vary with each branch of economic activity, and trial and experiment alone will decide in each case where the point will lie. Where modern business management is recalcitrant, and dodges persistently the rules of fair dealing with competitors, with labor, with owners, with the public, the instruments of public control are not wanting. Regulating commissions, price fixing com-

missions, public service commissions, publicity and investigating commissions, are available already, and others can be easily created by a public acquainted with the means of control set up to meet the needs of the country during the period of the World War. The blind fear of monopoly and the blind trust in competition are both giving way to a discovery that there is something useful to the economic community in that degree of monopoly which accompanies large scale business or which takes the form of open co-operation between concerns in a given line of trade; and that there is something dangerous in the form of unbridled competition which is ruinous and deadly for the competitors.

More and more, the modern type of business government makes room for co-operation in economic activity. Business can still compete, yet in many policies serve the community and itself better by taking counsel and by co-operation which will bear the light of publicity. Destructive competition gives way to constructive competition; and monopoly in restraint of trade gives way to co-operation in the aid of trade. The new standards of competition and the new standards of co-operation are still in the process of development and evolution, but their features are now distinct enough to make clear that a reconstruction of the size and character of business management has been taking place in recent years. The reconstruction of business management along the lines of responsibility to consumers, owners and workers is a cardinal feature of the economic developments of the last generation.

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CHAPTER IX

MARKETS—THEIR PRINCIPLES AND STRATEGY

The market is the buying and selling institution of the economic system. Goods and services are not exchanged directly, as a rule, but indirectly by the use of a medium of exchange, i.e., money. In everyday life, the value of goods and services is thought of in terms of money and of price. The amount of money which we exact before parting with goods or services, or the amount of money with which we are willing to part in order to obtain the goods or services of some one else is a pecuniary measure of value. In the market, goods or services are worth to us individually the amount of money which we are willing to surrender in order to secure them. Most of the feeling and thinking which goes on in the markets of modern society clusters about prices. Instead of stating that a suit of clothes is worth twenty bushels of wheat, we state that a suit of clothes is worth forty dollars, and that with wheat at two dollars a bushel, twenty bushels of wheat are worth as much as a suit of clothes. All commodities that are bought and sold,—pig iron, bread, diamonds, coal,—pass through the market at a money price. By putting prices on different grades and types of labor, on books, poetry, music or pictures, on educational services, on executive ability, or on shoes, corn, furniture and an innumerable mass of things, it is possible to arrive at value comparisons.

There are two important aspects of the concept of value. On the one hand there is a positive quantity of desirability or appeal in any specific commodity or service taken by itself; on the other hand, there is a comparative element in the degree of desirability found in various commodities or services. The former aspect has often been termed "value in use," and the latter aspect, "value in exchange."

Economic terminology, in describing the former aspect of value, has employed a wide variety of words. Goods have "utility," which is the "power to satisfy human wants." Each good or service arouses a certain "quantity of desire," an "intensity of desire." Each offers a certain amount of "gratification," or of "satisfaction." In explaining the comparative aspect of value, economic terminology has included such statements as that "value is the power of a good to command other goods in exchange," or that "value is the rate at which a commodity exchanges for others."

The positive and the relative aspects of value are two different phases of the same thing. Value is not exclusively a relative nor exclusively an absolute concept,—it is both. Marketing institutions are organized around the values of commodities. The market provides a structure of buying and selling, through which values are compared, estimated, created, diminished. The money unit of measurement translates values into a common language of prices, and thereby makes possible on a gigantic scale the trading between buyers and sellers for the satisfaction of human wants and desires.

The marketing branch of economic activity has expanded immensely in modern times. The income of the laborer, the business manager, the investor or the professional man is a money income. These people receive payment for their efforts, not in tangible commodities, but in a sum of money with which commodities can be purchased. Even in the agricultural industries, a major part of productive effort is devoted to preparing commodities for sale in the market, and only a small fraction of the farmer's crop is devoted to his personal consumption. He sells it for a sum of money, and, with the money purchases other commodities to satisfy his wants as a consumer.

The business of buying and selling has come to occupy more and more of the time and energy of employers and employees; and distribution has come to be a most important factor in the economic system. The impressive fact of the case to-day is that it costs more to market the

average article than to produce it. "It costs more to sell the world's goods than to make them."[1] This increasing importance of marketing has been strongly noticeable during recent years. One authority estimates that the number of people required to distribute one thousand dollars' worth of goods, has increased over 50 per cent. in the last twenty years.[2] Buying and selling are, therefore, of basic importance in the range of economic activities, and the laws determining values and prices in the course of the marketing process deserve careful study.

Values and prices are not set in a purely arbitrary way by inexorable, fixed economic laws. There is a surprising amount of flexibility, and elasticity in the influences bearing upon prices. There is room for an immense amount of human strategy in manipulating the factors which influence prices. But there are certain broad and fundamental principles which underlie prices and values. These are often termed laws of economics, and the term is correct if it does not mislead one into supposing that the so-called laws are absolute, unwavering, unswerving, leaving little or no room for human cunning, manipulation, and strategy.

The Cost of Production Theory of Prices

One economic theory is that prices tend to approximate the cost of production of goods. If prices soar far above the cost of production the profits will be so high that business men will flock to that branch of activity and by their increased production and increased competition will tend to force prices down to normal levels, i.e., levels approximating the cost of production. If prices fall below the cost of production, men will be losing money and will retire from that branch of business in such numbers that the supply will fall off and under the scarcity of supply, prices will rise to the normal level, i.e., the level approximating the

[1] C. W. Gerstenberg, "Principles of Business," p. 404. See, also, G. B. Diblee, "Laws of Supply and Demand," Chapter VI. Especially p. 62.

[2] J. G. Frederick, "Business Research and Statistics," pp. 102-105. See, also, Nystrom, "Economics of Retailing," p. 14.

cost of production. Selling prices cannot long stay below cost of production without ruining the branch of industry concerned. Selling prices below the cost of production indicate selling at a loss, and loss, unless checked, leads rapidly to bankruptcy. Hence the cost of production sets a minimum level below which prices must not fall for any considerable length of time.

Above this base line there is room for the play of competition among dealers, for monopoly price maintenance, for varied strategy and ingenuity. Profiteers may reap rich harvests from forcing prices for a time well above the base line of cost of production and speculators may take advantage of the play of price movements to effect their speculative gains.

The cost of production which sets the base line of prices varies greatly between producers. Some producers put their goods out with a low cost, others with a high cost. The difference between the most costly production and the least, is often very marked. A concern which is unfavorably located, which has to buy raw materials in small quantities, which has inefficient management, which has constant labor troubles and a wide variety of other difficulties, suffers from a high cost of production. Another concern in the same branch of production which is free from such difficulties enjoys low cost of production. This gives rise to an important economic question: which cost of production, the high or the low, establishes the standard for prices? Do the expensive plants, the poorly located and poorly managed plants, set the price standards? Or are the standards set by the efficient, booming, brilliantly handled and fortunately located plants? For certain reasons which can be very briefly explained, it is the high cost plants which tend to set the level below which prices must not fall. The plants with highest cost would have to go out of business if prices fell below their cost of production. They would lose money from prices inadequate to cover their costs and would of necessity close down. But society would then find its supply of goods in that branch of production insufficient. The plants of low pro-

duction cost cannot supply the entire need and demand of society. The plants of high production cost must be continued in operation if the total supply is to be adequate. The high costs of the latter group of concerns are known as marginal costs. Marginal costs are the costs of those concerns which are just on the margin between life and death. Their costs are so high that they can barely keep going at the prices prevailing. They are the producers who are just able to make both ends meet and no more. They are the ones who can scarcely keep their heads above water. But because what they do produce is indispensable, because society cannot do without it, these marginal producers have to be paid prices high enough to meet their high costs. Hence it comes about that this high level becomes the general level for the market. Marginal cost, i.e., the cost for the man who can barely make prices cover his expenses, sets the minimum below which prices must not fall for everybody. Meantime the other producers, with lower costs, find themselves making royal profits, through no fault of their own, but through the necessity on the part of society of keeping the costly producers alive in order to make production adequate to meet society's needs.

The operation of this principle is well illustrated in the production of coal. Some mines are able to produce coal very cheaply. By virtue of the use of modern mining machinery, of efficient administration of labor, of the nearness of the coal bed to the surface of the ground, of easy transportation, and of many other favorable factors, these mines enjoy a very low cost of production. At the other extreme is a group of coal mines whose cost of production is excessively high. They are too small to employ the best machinery, they are bothered with flooding by water, they suffer from restriction of production by labor, their management is inefficient, their transportation facilities are poor,—for a wide variety of reasons it costs this group of mines much more to produce a ton of coal than it costs the highly favored mines. But the coal supply of the country will be inadequate unless these low grade mines are continued in operation. The price of coal must be high

enough to cover their abnormally great cost of production. A price at such a height, however, is much above the costs of the high grade mines. This excess represents for the high grade mines so much profit. The country has to pay a price for coal which will keep the low grade mines running, or suffer a coal famine. On such a price the high grade mines reap a rich margin of profit. In between these extremes of high grade mines and low grades are numerous intermediary grades, all of which secure the price set by the cost of production of the low grade mines. The cost of production in the low grade mines is the marginal cost for the coal industry and sets the price of coal for all.

Price fixing during the war was generally based upon this principle of marginal cost of production. The cost of production of the various grades of producers was arrived at from figures supplied by the Federal Trade Commission. F. W. Taussig, from experience as Chairman of the Price Fixing Commission of the War Industries Board, directing price fixing in such commodities as iron, steel, copper, lumber, wool, hides, cotton fabrics, sulphuric acid, nickel aluminum, brick, cement, etc., stated the principle of price fixing as follows: "It was cost of production at the hands of the marginal or bulkline person that usually formed the basis of the prices fixed."[1] Producers with low costs would reap large harvests, but they were caught by the excess profits tax.

Statistical studies of costs and prices indicate that the principle applies about the same in normal times as in war times under price fixing. In fact, the methods used in price fixing were simply the carrying over of normal price principles into the war conditions. A careful study of Federal Trade Commission statistics, made by Kemper Simpson covering book-paper, newsprint, salmon, sugar beets, and coffee, led to the finding that "price approximates bulkline or marginal cost under normal conditions of competition."[2] Statistical studies, therefore, from the facts available, tend to bear out the general theory of

[1] *Quarterly Journal of Economics*, Feb., 1918, p. 240.
[2] *Ibid.*, Vol. XXXV, p. 287.

marginal cost as the standard which establishes price levels where a fair degree of competition prevails. But it would be misleading to infer that marginal costs are the only factors influencing prices. They are simply one of the factors and their full bearing can be understood only as they are compared with the other price determining factors which are working simultaneously.

Supply and Demand

The price theory of supply and demand is undoubtedly the explanation which most widely appeals to the popular mind. It is very common, indeed, for lawyers, business men, and even economists to attempt an explanation of almost every baffling price problem by a vague and general reference to supply and demand. The phrase serves as a kind of blanket explanation to cover every confusing, perplexing price question, whereas in reality what is needed is a clarifying analysis of the principles of supply and demand to determine how they work out, and to what extent they work out, in actual practice.

The broad principle of supply and demand is that price is determined by the relative strength of supply of and demand for any commodity or service. If supply increases in proportion to demand, price falls; if supply decreases in proportion to demand, price rises. Likewise if demand increases or decreases in proportion to supply, price registers the fluctuation. It follows, too, that if a large supply is thrown upon the market, and prices fall, more goods will be consumed because more can be bought at the lower price level. If sellers have on hand a large store of goods which they are determined to get rid of, they may sell the goods by offering them at a lower price. If the owners wish to hold their goods, they may offer them at prices high enough to discourage buyers from taking the goods in any considerable quantities. On the other hand, if buyers need goods and their demand is urgent, they will pay high prices rather than go without the goods. If consumers want more goods, they must pay higher prices. The value of goods and the prices which serve as an index of value fluctuate in pro-

portion to the fluctuations of demand and supply. The general theory states that the more goods available the less you will pay and the less goods available the more you will pay. When the price of a certain commodity rises it is an invitation to new producers to enter the field, and as they gradually increase the supply of the commodity, the price is gradually forced down again. When prices fall, they discourage many producers from the field, and as their retirement gradually reduces supply, prices are driven up again. Hence a continuous relationship between prices and supply and demand prevails throughout the process of buying and selling. A change in any one of the factors affects the others; they are interdependent; they constantly influence each other. By their adjustments and alterations they tend to maintain a proper balance and equilibrium in the great institution of the modern market.

However, just as in the cost of production theory, there were found to be wide differences between the costs of various producers so in the supply and demand theory, there are wide differences between the demands of various buyers. The demand for a new pair of shoes by a man who already has a half dozen pairs and by a man whose one and only pair is worn out, is a differing demand. The millionaire and the day laborer have differing degrees of demand for food, clothing and everything else. There are buyers for whom every purchase means close pinching, stinting, and painful stretching of every penny to the limit of purchasing power; and there are other buyers for whom purchases of the same goods are easy, involve little or no stinting, and are simply offhand buyings with a real lack of interest in the amount of the price. The same price may be offered by two buyers, one of whom has a most urgent demand for the goods, the other of whom could get along without the goods as well as not. The differing degrees of demand exist everywhere, in all lines of articles and services on the market. Demand is not a uniform, unvarying thing,—the same for everybody, everywhere. So the question arises, which kind of demand is the paramount force in settling prices? Is it the demand

of the buyer who can barely afford to buy the article or the demand of the buyer who can buy with an easy indifference to the price?

Just as in the production cost theory of prices it was the marginal producer, the man who could just barely make prices cover expenses who tended to establish price levels, so in the supply and demand theory of prices, it is the marginal buyer, the man who can just barely afford to buy the article, who tends to establish the price levels. Marginal demand is the real demand force in determining prices. The best point of view from which to grasp the significance of marginal demand is that of the seller himself as he maps out a selling plan. His mind works through some such process as this: "I want to place 100,000 pieces of this commodity on the market. Suppose I put the price at one dollar per piece. I am afraid that some people would find that price too high. I probably wouldn't sell more than 50,000 pieces. There must be 50,000 more people who would like to buy this thing, but who will say to themselves, "Well, we can't afford to pay a dollar for that article. We should like to buy it but at that price we can't quite afford it. Of course it's all right for those who have the money and who want to pay the price, but not for us." Then the seller who is mapping out his selling campaign would reflect further: "I will offer the article at ninety cents. Will that draw another 50,000 buyers? I am afraid not. It will draw perhaps 30,000 buyers additional, but it will not sell the full 100,000 pieces. I must catch the eye of that lower 20,000 in order to sell all that I want to sell. That group at the bottom of the ladder is the hard group to persuade to buy; and they seem still to think they can't afford to buy, even at 90 cents. Suppose I reduce the price to 80 cents, I believe that price will tempt them to part with their money. I will offer the full hundred thousand at 80 cents per piece."

From many standpoints it seems unfair to the seller to force him to put his price down to the point where he can induce the most unwilling buyers to purchase goods. Thousands of buyers would pay more, probably without com-

plaint, but other thousands would not buy at all if the price were any higher. So the most reluctant buyer, the most unwilling consumer, the man of marginal demand, sets the price level for the goods. He is the man at the end of the line, the man who can hardly persuade himself to buy even at the price calculated to catch him. He is the man for whom the question—to buy or not to buy—is a poser, who is tottering on the margin of doubt and skepticism. The price for all has to be set at a level which will catch this marginal group. Of course, if the imaginary seller above wanted to sell 150,000 pieces of the commodity, he would fix his price still lower to catch a still lower marginal buyer

The marginal buyers as we have seen are the men who at the price prevailing, can just barely be persuaded to buy. Each price level, therefore, has its own grade of marginal buyers, each price level has its own fringe of buyers whose demand is a marginal demand. Above this marginal fringe of buyers, there are other buyers who could well afford to pay more. But they do not have to pay more because if prices were raised the marginal fringe of buyers at the lower level would drop out of the market entirely and the sellers would be able to market only a fraction of their goods at the higher prices. The marginal fringe of buyers occupies the strategic position in the demand force and bends prices to their state of mind. Prices must bow to the whims and wishes of the most reluctant buyers. It must not be understood that the marginal fringe of buyers, or any of the buyers above the margin for that matter, are acting usually from careful rational analysis of all factors in the case. They are in large measure the victims of custom, habit, imitation, suggestion, and tradition. Their minds are influenced by social convention, ingenious advertisement, clever salesmanship; and their decisions are probably more often non-rational than rational. But, by whatever psychological process, good or bad, they reach a decision to buy or not to buy, that decision is the determining force in the price scale. To go behind the mere fact of demand; to go beneath the fact that the decision to buy

has been made and to inquire into the reasons why demand is thus and so; to examine the psychology of the decision to buy, leads to an analysis of social and individual psychology and of the market as a social institution. An analysis of this phase of the market problem will be made later in this section.[1]

There are then two conceptions of the origin of prices,—the cost of supply theory and the marginal demand theory. The two theories are not incompatible or contradictory, but are supplementary. The cost of supply theory accounts mainly for the minimum below which prices cannot for any length of time be allowed to fall; and the marginal demand theory accounts for the maximum above which prices cannot for any length of time be allowed to rise. The two theories account for the upper and lower limits of price levels. If prices fall below the lower limits set by the marginal costs of supply, they cause losses to the marginal producers and drive them out of business. If prices rise above the upper limits set by the marginal group of buyers, the marginal buyers cannot afford to buy and producers cannot dispose of their goods. Marginal cost of supply determines the rock bottom below which prices cannot drop; marginal demand determines the peak above which prices cannot soar.

But this relation of the two fundamental price theories should not induce anyone to suppose that either marginal cost or marginal demand are absolute and fixed points. Marginal producers and marginal buyers are marginal only in reference to a given price level. A higher price level brings in a new group of marginal producers even worse in the scale of inefficiency and heavy costs. Likewise a lower price level brings in a group of marginal buyers yet worse off in the scale of ability and willingness to buy. Lower price levels eliminate the old marginal producers and buyers, and bring in new ones at the new levels. Marginal cost under any price level covers the fringe of marginal producers who can just survive under that level. It is their minimum of subsistence price. And marginal de-

[1] See pp. 346-364.

mand under any price level covers the fringe of marginal buyers who can just afford to buy at that level. It is their "last straw" price, the utmost they can afford to pay,—any more and they would be out of the market. So changes in price levels bring corresponding changes in the grades of marginal producers and of marginal buyers. And the grades of marginal producers and marginal buyers at each level tend to keep the range of prices of that level within the upper and lower limits which enable the marginal groups to keep going. The marginal groups, on both sides, tend to set the minimum and maximum limits of prices.

It very frequently happens that the cost of supply rises to such a point that it threatens to exceed the upper limit set by demand. At such a time, producers who are familiar with the market realize that sooner or later the excessive costs will run prices up so high that marginal buyers will be driven from the market, demand will fall off, and it will be impossible to dispose of the supply at a price adequate to meet the cost of production. In that event, the producer faces the obligation of cheapening production. As a matter of fact, this necessity of cheapening the costs of supply is what compels producers and sellers to exhaust their ingenuity and inventiveness. Costs must be cut. It is an imperative necessity,—that or failure. Goods cannot be sold in adequate quantities above certain prices, and costs must be pared down to make those prices possible. Under this compulsion a wide range of economic movements has arisen and has played a most important rôle in economic activity. The chief reason for the movement toward combination in industry was the necessity for eliminating the excessive costs of cutthroat competition. For the purpose of lowering costs leading producers maintain staffs of scientists, inventors and research experts, whose time and effort are devoted to the discovery of ways of eliminating waste, reducing expense, introducing economies, improving efficiency. New inventions, automatic machinery, standardized production, scientific management, personnel administration, efficiency systems,—all these and other similar efforts are encouraged for the sake of keeping

costs low. Producers are between the upper and lower millstones of costs and prices and are squeezed to death unless they keep costs at safe levels. Marginal producers are those who find it impossible to benefit from improved and cheapened methods of production as greatly as do their fellow producers. Those who can reduce costs successfully make profits; those who cannot, live on the margin and barely make ends meet.

The devices for holding down the cost of supply are of many kinds. Not a few producers do it by making goods of an inferior quality. From the consumer's viewpoint, this practice is vicious. Producers enter into the practice widely nevertheless in the determination, at all hazards, to cheapen production costs. A very large item in cost of supply is the cost of capital tied up in merchandise. "Small capital, with rapid turnover of goods, is the best means of securing merchandising success," declares an authority on marketing.[1] Chain stores are a recent innovation in marketing and are designed to take particular advantage of quick turnover of capital. It is estimated, for example, that chain drug stores turn their stock over three times as rapidly as independent drug stores, and that chain tobacco stores or grocery stores have fully as high a ratio over independent stores in those fields. By rapid turnover of goods, chain stores make one dollar of capital do the work formerly requiring three dollars, and thereby reduce the costs of marketing materially.[2] Approximately 25,000 stores are already organized in chain systems.[3]

The reduction of costs to proper levels is in large measure a problem in cost accounting. No storekeeper, wholesaler or manufacturer is in a position to reduce costs until he knows what his costs are. He must know not merely what his general total costs amount to; he most know the unit cost of each process of his business, of each part and each stage. Cost accounting has, until very recent years, been neglected by both manufacturers and distributors.

[1] C. S. Duncan, "Marketing," p. 464.
[2] P. W. Ivey, "Principles of Marketing," pp. 79-80, 236-240.
[3] Nystrom, "Economics of Retailing," pp. 216-217.

Investigations by the Federal Trade Commission and by the Harvard Bureau of Business Research before the war disclosed the fact that neither manufacturers nor retailers, on the average, had other than the most primitive conception of the cost of doing business. Under the stimulus of these and other agencies, much has been done to bring about uniform cost accounting methods. Cost accounting shows which phases of the business result in loss and which phases result in profit. It shows the general state of prosperity of the business. Bankers demand to know in terms of accounting statistics the general state of the business before loans will be extended. The whole price policy of a corporation rests upon proper accounting. In actual business practice, price is not set by considering cost first, but by estimating the demand possible at the price calculated. Then costs must be cut to make the price feasible.[1]

By whatever device costs are cheapened, the strategy of cost control is of primary concern. The entire group of manufacturers, food growers, railroad operators, wholesalers, jobbers, retailers and others who figure in the cost of supply of commodities play a part in the strategy of manipulating costs of selling in such a way as to make a profit. All groups engaged in production and distribution are looking for profits; and profits are measured by the margin or spread between costs and selling prices. The wider the spread between costs and selling prices at each stage of the process, the larger the profit. The safest and most serviceable way of making the spread wide and the profit great is to reduce costs of making and selling goods to the lowest point possible. Into this strategy every manufacturer and every merchantman is pressed to throw his best energy if he is to be thoroughly successful. The tactics of reducing the cost of supply are thus of the utmost self-interest to business men who are anxious for profits and at the same time of the utmost service to consumers who are in need of goods of moderate price.

To make the significance of a control of cost fully clear, it is necessary to give further illustration of the methods

[1] See A. W. Shaw, "Approach to Business Problems," p. 252.

involved. The devices for the restriction of costs are of too many varieties to receive detailed description here, but a few prominent examples may be taken up to advantage. The costs of making and marketing a very large number of articles are lowered by undertaking the processes on a large scale. Quantity production commonly means cheapened production. If a large enough demand can be found or created to absorb the full product of a large, efficient factory, utilizing automatic machinery and standardized production methods, and operating near maximum capacity the year around, the cost of making each unit of product is substantially lessened. Production policies and market policies are in this respect, as in many others, very closely correlated.

Another conspicuous development of recent years in the direction of controlling the costs of making and marketing goods has been the tendency to eliminate the middleman in many branches of distribution. Integration in business organization has been one phase of this tendency. The United States Steel Corporation, as an illustration, mines coal and iron for the uses of the company mills, owns ships and railroads, and in addition to directing the manufacture of steel products, regulates in considerable measure the machinery of distribution of steel products to steel users. Another phase of the elimination of middlemen has been the policy of direct selling by the producer to the consumer. In limited forms, co-operative agencies of distribution have sprung up to eliminate the middleman, and on a surprisingly large scale the mail order business has worked in the same direction. In some lines of commodities the effort has been to drive out the wholesaler, and to enable the manufacturer or producer to deal directly with the retailer. In other commodities, the effort has been to drive out the retailer as well. This whole tendency to attack the middleman has arisen partly from the impression among consumers that many middlemen are gougers and profiteers and partly from the desire of producers to meet the needs of the market for reduced costs of distribution. Those who have been engaged in the elimination

of the middleman have, however, very commonly made the discovery that the functions which the old middleman performed were indispensable functions, and that once the old middleman is eliminated, new marketing machinery has to be created to perform those functions. The result is that whereas there has been a movement in many lines to drive out the middleman, the substitutes newly created to perform the same functions have themselves been so expensive that marketing, on the whole, has not become less expensive.

A more significant tendency in the direction of controlling costs has been the effort of middlemen to perform the essential functions of marketing more efficiently, intelligently and economically. The keeping of standardized cost accounts has worked in the direction of better planning and more efficient organization of distributive channels. Plans for reducing the cost of delivery from retailer to consumer, for safer and cheaper storage of goods, for proper insurance, for careful control of rent and interest charges in the business, for scientific advertising, for scientific sales management,—plans along these and many other lines seek to perform the same indispensable functions of marketing in a more scientific and efficient manner. They are sounder economic developments than the illusion about eliminating the middleman outright.

It is well at this point to emphasize the fact that the attempts of producers and distributors to hold costs down are not usually guided by pure reason, unfettered by bias, prejudice or inertia. On the contrary, the producers and distributors all along the line are hampered by countless traditions, customs, and habits. Manufacturers, wholesalers and retailers are alike reluctant to break away from the business methods of their fathers, and habit, instinct, and unconscious social conservatism play just about the same dominating rôle here as in any other social structure. Any number of manufacturers in the garment trades were unwilling to introduce new machinery which would greatly cheapen the cost of manufacturing clothing until minimum wage laws forced them to do so in order to reduce

costs to a point which would make profits possible at the new wage levels. They were content to go along under sweatshop conditions until they were virtually compelled to adopt improved methods. The coal industry exemplifies in numerous ways the damaging force of tradition and inertia as deterrents to the adoption of advanced and scientific methods of coal production and distribution. Engineers are practically agreed that more than 100,000 workers are employed annually in coal mining that would be unnecessary under a proper management of the industry. Engineers also point out that although American mines use machinery to a much larger extent than most foreign mines, nevertheless about one-half the annual coal production of American mines is still dug out without the aid of modern mining machinery. Moreover, in typical mines, fully 85 per cent. of the labor cost of getting out a ton of coal is devoted to the cost of shovelling coal by hand. Modern machinery could do the same shovelling at about one-fifth of the present cost, but mine operators fail to take advantage of it.[1] These illustrations suggest the force of tradition, conservatism and habit in the determination of production costs. The marketing institutions of the country are held back by these unconscious factors in shaping the policies of business men. The general run of business men are often slow to admit the advantages of advances in efficient means of making and marketing goods, because of the binding force of the time-honored practices of the past. Hence the spread of new inventions is often slow, and the adoption of improved methods of management comes only as a very gradual breaking away from hard and fixed habits.

To summarize the theory of prices from the supply side, the cost of production in all its stages from the raw products of the earth to the finished goods of the consumer contributes toward establishing that minimum below which prices cannot for any length of time be allowed to fall. A fall below the cost minimum would drive out of business

[1] A. J. Mason, *American Economic Review Sup.*, March, 1921, pp. 107-109.

the producers whose costs are highest, the producers at the margin, and would therefore reduce the supply accordingly. But when costs for everybody can be considerably reduced, then it is possible for prices to be lowered accordingly, without killing marginal producers. At lower costs and lower prices a greater supply is likely to be thrown on the market, more people can afford to enjoy the consumption of the goods affected, and a new relationship between marginal cost and marginal demand is set up.

The Analysis and Creation of Demand

The purposes of an analysis of demand are not merely to understand the facts of demand as they exist at any one point of time, but also to understand the means by which changes in demand take place. It is necessary to know what present demand is in order that business men and consumers may adapt themselves to it and comply with its conditions. But the demand of the present is the product of history, it is the result of innumerable changes in human institutions and social psychology in the past, and it is steadily in a process of evolution and transformation. By devices of one sort and another, demand can be deliberately created in one direction and destroyed in another. Demand is not a fixed and inexorable state of mind, but for each commodity on the market, demand has a history and a future, and is always a changing, moving force.

The complete analysis of demand would be a comprehensive task, and the chief factors in it cannot here be treated at any length. However, the central feature of such an analysis may be given in a condensed form. Some goods,—such necessities as food and clothing,—have a universal demand among all classes of people, but different classes of people will desire different grades and brands of food and different qualities and styles of clothes. Other commodities, particularly luxuries and comforts, cater to particular groups and classes of consumers. M. T. Copeland describes the task of demand analysis among social classes as follows, "Some of the considerations to be

taken into account in this analysis are whether the product is for individual or family use, the age and sex of the users, rural or urban demand, the occupation of the users, racial influences, living conditions such as home ownership, the influence of climatic conditions, provincialisms in demand such as the demand for left-hand plows in some districts, or the 'yokel' trade in clothing, and the influence of custom.''[1] Demand analysis is considered as of the utmost importance by the successful merchants and dealers whose special economic function is buying and selling. The force of custom in the buying habits of each class or group of prospective customers, and the prevailing peculiarities, notions and eccentricities will need attention. The geographical location of classes and the distribution of population, the history of the demand for each individual commodity, the purchasing power and the amount of income of prospective buyers, the standards of living, the buying motives,—all of these factors along with many others require careful analysis from anyone who plans to put goods on the market intelligently and profitably.[2] Once the cold facts of demand are understood, the merchant is in a position to adapt his buying and selling to its terms. He is equipped with information which should enable him to modify his business policies in ways which insure that they will fit the needs of the case.

But the modern producer of goods to sell, and the modern wholesaler or retailer, makes a further use of demand analysis. He views demand as something which can be altered by deliberate manipulation. If there are goods which he wants to sell, and he finds no interest among the people, no demand from the public, he sets out to create a demand. Demand is not something to be accepted as in all respects inevitable, but as something to be shaped, guided, and controlled. Some of the main policies for demand control will be treated under the following heads: (1) plant policy, (2) style of product, (3) service features, (4) advertising, (5) sales management.

[1] "Marketing Problems," pp. 3-5.
[2] Duncan, "Marketing," Chapter XIV.

Plant Policy

The policy of locating the plant near the chief market centers for any particular commodity as a means of holding a conspicuous place in the eyes of buyers is frequent. The decision to locate a store on Fifth Avenue or on a back street is important. Whether to keep the sales department and the production plant in the same locality, or to separate them for purposes of sales strategy is often a vital issue. The type of plant to erect for purposes of showing off to visitors is a matter of concern. The use of the most modern machinery may, when it becomes widespread knowledge, stimulate demand. In brief, the location of the plant, and its whole process of production, has definite relations to the strategy of creating demand.

Style of Product

The manufacturer, and often the retailer, have to decide whether to offer a certain commodity in bulk or in packages. The fineness of quality must be decided upon. The color and shape and style of the commodity will all influence demand. Whether to emphasize beauty of construction or durability will be a problem. Size of commodity units, methods of wrapping, standardization of quality and appearance, form of brand or trade mark,—these are but a few of the considerations which enter into demand creation for the product. The satisfaction which consumers find in the use of an article, and the appeal which it makes to their minds or to their whims, determine whether they will want to buy again and whether they will advise their friends and neighbors to buy. A distinct tendency in recent years has been to prepare articles in attractive packages, cans, containers or wrappings. Even though some addition is made to the price, the public appears willing to pay the extra amount for the satisfaction of having goods in sanitary condition, or of standardized quality, or of attractive appearance.

Service Features

"The service which properly should accompany a sale is frequently of larger psychological importance to a cus-

tomer than the merchandise itself."[1] A popular feature of department stores is the service accommodations in the form of rest rooms, writing facilities, musical entertainment, and restaurant accommodations. When a person buys an electric washing machine, or an automobile, or a gas range, it is of the utmost importance that the buyer shall not merely receive the article, but that he shall be shown how to operate it, that services shall always be readily available for repairs, that if at any time the buyer experiences trouble in using the article, the services of the seller or manufacturer shall be available to aid him in correcting the difficulty. The courtesy of the company in rendering such services, and its ability to make the customer feel that he has been excellently and helpfully treated throughout the transaction have results measured in the good will of the customers and an increased demand for the article.

Advertising

What a buyer wants is largely a matter of his psychology, and advertising is a policy of creating wants and desires by the application of psychological principles to the ways of the market. "Psychology, the modern world has learnt, is the chief factor in salesmanship. . . . How to create a market . . . how to emphasize points of difference or superiority between one's own goods and those of competitors, how to create new vogues—those are the difficulties that need the greatest ingenuity to overcome."[2] The annual expenditure of the United States for advertising is put at about $1,300,000,000. This gigantic expense is held by business men to be worth while because it creates demand and sells goods which could not otherwise be disposed of at so profitable a selling price. The strategy of creating demand has developed a technique of its own, also a body of economic and psychological principles. And so great have become the intricacies of the technique and

[1] J. G. Frederick, "The Great Game of Business," p. 78.
[2] C. F. Higham, "Scientific Distribution," pp. 42-105.

the principles, that advertising, at its best, requires specialists and experts in that field. Large corporations usually maintain advertising departments, and the economic community is flooded with special companies which devote their energies exclusively to the handling of advertising for business concerns who have something to sell.

Advertising psychology involves an appeal to the dominant human instincts. As explained by H. L. Hollingworth, "From the point of view of the advertiser, the important thing is if an appeal can but touch off one of these instinct mechanisms it is sure of at once possessing attention, power, interest, imagery, association and memory value, and is extremely likely to set up strong response. And the more universal the instinct, the greater the likelihood of its effectiveness. . . . Twenty years ago advertisements failed to recognize the specific character of instincts; appeals tended to be of a vague, generalized sort which in our day would pass unobserved by a busy public. But the present practice is more and more to recognize the specific instinct as a basis of appeal, and to concentrate the appeal strongly on a single instinct rather than to distribute it among many."[1] Advertising attempts to guide the instinct wants of men along desired channels by observing the psychological laws of catching and holding attention, of the association of ideas, of attracting and sustaining interest, of imagery and sense stimulus, of habit, imitation, sympathy and suggestion. The greater part of advertising does not present a chain of reasoning, a mass of logic, or a fund of evidence and proof. It works upon the instinctive and emotional nature of people by the process of suggestion. This view of human nature is a primary faith in the mind of the advertising expert. "While tradition regarded man as wholly logical, the modern conception, as already intimated, makes him largely a creature of suggestion. Man has been called the reasoning animal, but he could with greater truthfulness be called the creature of suggestion. He is reasonable, but he is to a greater ex-

[1] H. L. Hollingworth, "Advertising and Selling," pp. 239-240. See, also, pp. 284-285.

tent suggestible."[1] By properly putting certain pictures and statements about a commodity before the eyes of the public, and by repeating the picture, or a catch phrase or a selling point hundreds and thousands of times, the advertiser is able to crystallize in the mind of the buying public a spontaneous desire to buy. The new want has the force of demand in the market, and is a genuine influence in determining price factors and the relationships of supply and demand.

The media for creating this new demand are various. Newspapers, magazines, house organs, company bulletins, circular letters, electric signs, billboards, posters, street-car cards, window displays, catalogs, souvenirs,—such are some of the main channels for circulating the advertising appeal. Each medium has special advantages for certain forms of advertising and certain forms of goods. The relative advantage of each form and the relative effectiveness of different kinds of advertising copy are not left to mere guesswork, but in the larger advertising adventures they are determined by carefully arranged experiments, psychological tests, and devices for measurement of the amount of buying power created. Quantity measurement of psychological results is relied upon.

The broad social effects of advertising are two-sided. Many of the wants created by advertisers divert purchasing power toward goods which are of high use and service to consumers. But it is equally true that not infrequently advertising is used to catch the desire of the masses of people, and to lead them to pour their purchasing power into showy packages, gilded baubles, and inferior commodities. Under the spell of advertising new wants spring up without the consumer's realizing whence they came or why. The housewife who, because of advertising, has been won over to the practice of buying household supplies in packages, usually secures a better quality of goods than when she bought in bulk. But "if she buys standardized goods

[1] Walter D. Scott, "The Theory and Practice of Advertising," Chapters IV and XIV.
See, also, Scott, "Influencing Men in Business."

in standardized packages, she will usually pay from 50 to 100 per cent. more than she would if she bought in bulk and did her own inspecting and selecting."[1] It is true, too, that although here and there advertising has caused lavish and wasteful expenditure, nevertheless "advertisements have made household words of the names and trade marks of all the best commodities." And it is noteworthy that "the theme upon which all advertising harps is excellence in some shape or form, serviceableness, or good design, or comfort, or utility or beauty."[2] The policy of advertising has raised the general standards of consumption in terms of cleanliness, quality, sanitary features, and artistic appearance. Hence, although there is both wholesome advertising and vulgar advertising, the preponderant effect of a decade of intensive advertising is in the direction of higher standards of demand and a more versatile, though often extravagant, consumption. The most hopeful means of eliminating vulgar and unsocial demand is not to eliminate advertising, but to raise the standards of advertising, morally, socially and artistically. Fortunately, the most powerful advertising concerns in the country are exerting their influence steadily toward that goal.

Sales Management

The conditions of the market require that a corporation carefully organize the selling end of its activities with a view to bringing together all of the factors which affect sales and demand into a single, smoothly working unit. The typical modern corporation maintains a sales department, which helps to correlate production with sales, and integrates all of the separate parts of sales strategy into a scientific selling organization. A major function of any sales department is to make people want to buy goods. To this end, the sales manager and all those under him take the aggressive in a campaign to create an adequate demand. The measure of success for sales management is the volume of sales. Sales come about, not by waiting for

[1] T. N. Carver, "Principles of Political Economy," p. 205.
[2] C. F. Higham, "Scientific Distribution," pp. 54-61.

consumers to hunt out the stores and factories and to go in search for goods, but by going out into the market and hunting out consumers, and persuading them to buy the goods. No sales manager would in normal times think that he had begun to perform his duty if he pursued a policy of watchful waiting for customers to come to him to buy. It is his duty to put the suggestion into the minds of possible buyers, to bring to bear on them the full force of the personality of trained salesmen, in short, to create sales.

There are salesmen of raw material to manufacturers; of manufactured material to dealers, jobbers, wholesalers; of machinery to producers; of finished goods to retailers; and of retailers' stocks to final consumers. More and more, good salesmanship all along the line is being considered an indispensable economic factor. More care is being paid to the selection of salesmen, and scientific tests and intelligence tests are being extended as a means of selecting men who have the most native ability in persuading people. Psychological qualities of persistence, force of personality, initiative, alertness, sociability, and aggressiveness are at a premium in salesmanship. Native aptitude for selling is not however all that the salesman needs. He must receive also a training in the technique of selling. Large corporations maintain training schools in which they drill and educate their salesmen in the science of general selling principles and in the art of selling the particular commodity or service of that corporation. From time to time, salesmen are brought together in conventions, and are inspired and instructed by lectures, charts, pictures and conferences. In addition to training salesmen, modern corporations surround them with incentives to maximum selling effort by the use of prizes, bonuses, quotas, and contests. Instincts of rivalry, display, or pugnacity are strongly aroused; financial incentives are vigorously encouraged; the desire for power and successful achievement is sustained by the ever-present expectancy that when a salesman makes good consistently, he will receive promotions and salary increases. In most lines of salesmanship,

the financial rewards of hard and successful work are commonly higher and quicker than are the rewards for work requiring a similar length of apprenticeship in other branches of business.

The crucial test of salesmanship is the interview with a prospective buyer. The salesman's task is to create demand in the potential buyer, and to convert that demand into an actual sale. "The creative type of salesman . . . is often told that the customer is not interested and does not see the need for the goods. The creative salesman then helps to educate the prospect to appreciate how he can profit by accepting the offering made."[1] He attempts to approach his prospect often by indirect conversation, about sports if the buyer is a lover of sports, or about a hobby perhaps which he knows of in the buyer's make-up. He endeavors to observe the favorite convictions of the buyer and to utilize them in talking up the goods which he has to sell. The habits, notions, whims, prejudices and eccentricities of the prospect are sought for by the tactful salesman, and played upon in the interest of making the sale. A leading authority on salesmanship advises, "*The principal qualification of salesmanship is ability to close.* . . . Watch for the point when the resistance of your prospect ceases. This is commonly called the 'psychological moment'." Also the instructions read in such phrases as: "Subtly make the prospect feel," "Become politely impatient," throw out "a delicate question," and take the order for granted.[2] The sales department has justified itself if, by all the arts of salesmanship, it can sell the goods to buyers. That means arousing demand where none existed before, or redirecting demand into new channels, or adapting new goods to old demands. Good salesmanship sells more goods than would be absorbed without aggressive creation of demand in these ways, and affects in the most profound manner the meaning of demand in the supply and demand equation. Demand is not something which comes to him who waits; demand must be coaxed and sug-

[1] J. G. Frederick, "Modern Sales Management," pp. 262-268.
[2] *Ibid.*, pp. 262-268.

gested and argued and cajoled into being. It must be manufactured by the wit and genius of men born with the gift of persuasion. Only by that road is high business success nowadays attained.[1]

Guidance of the Ratio Between Supply and Demand

It has already been emphasized that neither supply nor demand is an absolutely fixed and unalterable factor, but that each is subject to manipulation, strategy, habit, custom, prejudice, and scientific guidance. It follows that the relationships between supply and demand are similarly subject to the tactics of ingenious guidance, and to the ties of blind tradition. From the beginning of production to the end of consumption, this process of adjustment is under way. As the English economist, Alfred Marshall, remarks, "Production and marketing are parts of the single process of adjustment of supply to demand."[2]

This adjustment requires that producers and distributors should forecast intelligently the possible demand. The bulk of goods are produced before the producers know for a certainty what consumers will pay for them. In other words, the bulk of production is based upon a scientific estimate as to what the demand is most likely to be. As Marshall says, "The constructive trader . . . aims high, and sees far; he is constantly forecasting future developments of demand."[3] Smaller concerns are more apt to have their eyes glued to immediate contracts of sale, and to produce without a long-range view of the market. Such a branch of production as agriculture has a large element of climate and weather in the factors which determine its volume of production. But in such a branch of production, the middlemen, who buy the grain from the farmers, the speculators and the trade boards, calculate ahead and adjust the price in a way which relates the present or expected crop supply to an estimated demand long in the future.

[1] See H. D. Kitson, "The Mind of the Buyer."
[2] "Industry and Trade," p. 181.
[3] *Ibid.*, p. 47.

The control of supply may take place, and very frequently does, through the common opinion of separate business men in any line of industry who have access to a common stock of market information. The community of interest which prevails among producers and distributors of shoes or clothing or wheat and the influence of fairly uniform market news upon their individual judgment, commonly leads to an unconscious uniformity, or near uniformity, of opinion as to what the future demand will be and what the supply should be to meet that demand. Uniformity of business policy in gauging the amount that should be produced may thus be arrived at without monopolistic action or collusion among the major concerns in a given line of industry. As one authority explains, "It must be made clear that control of supply is and remains a very different thing from monopoly, which is only an extreme form of it. Some measure of control is necessary in every form of production; but control of supply to this degree is not always a conscious effort, it is more often an automatic and unconscious effort amongst a whole group, the stimulus to which is received by each individual of the group separately and distinctly from the fluctuations of price in his own particular section of the market."[1]

The great stabilizer of adjustments between production and marketing, between supply and demand, is adequate market news. Crop reports, production statistics, international trade and production figures,—these are some of the more immediate kinds of market news. But in the larger sense of the word, all news is market news. Every political event, every religious event, every educational event sets in motion waves of demand, be they large or small, which affect market relations. Every item of news in a newspaper from the first page to the last is market news, and significant for all those whose livelihood and fortune depends upon successful adjustments between supply and demand. A number of Government Bureaus are engaged constantly in supplying proper market news. The Bureau

[1] Diblee, "The Laws of Supply and Demand," p. 144.

of Crop Estimates gathers statistics on the staple crops, corn, cotton, wheat and oats. The Bureau of Markets develops reports on other food products. The Bureau of Foreign and Domestic Commerce gives statistics bearing on international markets. The United States Geological Survey presents data having to do with mineral supplies. An International Agricultural Institute, with headquarters in Italy, gathers facts on world agricultural production.[1] Private agencies collect statistics on all phases of the market, and sell the facts or give them to the market community. All of these facilities for trade information are helpful in giving all parties in the market the same knowledge of facts. The Federal Reserve Board publishes regular bulletins dealing with finance, production and trade. The Federal Government announces in 1921 that a greater unification of government news agencies is under way, and the projected centralization of market news facilities will undoubtedly work in the direction of greater harmony in adjusting supply to demand.

But all such news would be of little avail were it not for the facilities of modern communication. Market news travels around the world by wireless or cable, and permeates every nook and cranny of a modern country by virtue of the telephone and telegraph, and of the mail system. "Adequate overseas communication is as important as ships and foreign banks to successful trade."[2] Nothing would reduce the whole market institution to collapse or chaos quicker than a destruction of modern electric communication. Napoleon's military dictum that "Time is everything" applies with equal force to market news. Telephone, telegraph, wireless, cable, and post office are the controlling factors in the dissemination of market intelligence. Traders and producers buy and sell in the produce exchanges and the speculative centers with startling rapidity because of the flashes of news with which electricity supplies them. This quick and univer-

[1] *See, also, Annals of the American Academy of Political and Social Science*, Vol. 94, pp. 100-160.

[2] Duncan, "Marketing," p. 215.

sal access to important market news enables all business men to base their business policies upon common knowledge. Hence market news tends to organize and stabilize the market along uniform and common channels.

In the guidance of the relations between demand and supply, modern speculation plays a highly important part. The speculators are large scale buyers of products, who make their purchases because they have estimated that demand some time in the future will enable them to sell at a profit. The speculative community feeds out the total supply gradually and by small degrees, for if the whole supply of a commodity, wheat for instance, were thrust upon the market instantaneously, consumers could not take up the supply. Gambling, whether on the market or elsewhere, is not to be defended.[1] But speculation, which "tends to increase the supply of things where and when they are likely to be most wanted, and to check the supply of things where and when they are likely to be in less urgent demand," is of the utmost service in keeping the adjustments of supply and demand gradual and smooth.[2] Speculation which interprets market news as only shrewd and brilliant experts can interpret it, and buys and sells the country's or the world's supply of a commodity at times and prices which maintain a steady flow of goods toward the consumers who want and need them, is a force for equilibrium and poise in the market. Speculation connotes in the popular mind hazard and risk on a gigantic scale. It is true that speculation entails enormous risks, but the risks are not created by speculation. The risks exist already. The risks of adjusting local, national and world supply in any commodity to local, national, and world demand, exist from the very nature of the circumstances.[3] Speculation concentrates the risks of that adjust-

[1] In August, 1921, Congress passed a law regulating speculation and the exchanges. The law restricts gambling features of dealing in futures, restricts false market information, and aims to prevent market manipulation.

[2] A. Marshall, "Industry and Trade," p. 253.

[3] H. C. Emery, "Speculation in the United States," p. 141. "Speculation consists in assuming the inevitable economic risks of changes in value."

ment, but it does not create them. Take away speculation, and the risks would still exist. But they would be scattered, broadcasted among hundreds of thousands and millions of people who have not the genius to shoulder the risks effectively. The speculator concentrates on his shoulders the natural risks of production and marketing, and is able to handle the risks efficiently because of his superlative genius for absorbing and interpreting market news, and of making forecasts, with scientific accuracy and on a gigantic scale, of the future market needs of the consumers of the world. The less difficult adjustments can be made by the interpretation of market news which the ordinary man in the market is able to make, and remarkable uniformity of action and judgment is arrived at in this commonplace way. But the greater and more intricate adjustments between supply and demand can be made smoothly only by men who are able to assimilate the vast amount of data on world markets and who are willing to shoulder the concentrated risks of speculation in the hope of making large profits.

Guidance of the ratio between supply and demand would be impossible under the highly specialized system of modern production except for the storage facilities which have developed in recent years. Goods cannot be used as fast as they are produced. Huge quantities are produced long distances from the final consumers, and facilities must be available to store the goods until gradually they can be shipped out to buyers scattered everywhere. Food supplies, such as meats, fruits or vegetables, would perish before they could be consumed were it not for modern refrigeration and cold storage. Grain elevators are indispensable for storing the grain crop of the country until it is ready for the mills. Chicago alone has grain elevators with a capacity of about 45,000,000 bushels. Seasonal industries require warehouse and storage facilities to carry their goods over from periods of surplus production to periods of consumption. The coal industry has a long period of unemployment each year primarily because storage facilities are inadequate, and if consumers fail to buy

their winter supply during the summer months, the mines must close down during the period of slack buying. There are no facilities as yet for adequate storage of surplus production until the winter demand gains headway. Warehouses for general merchandise, cotton warehouses, wool warehouses, tobacco warehouses, cold storage, and stock rooms are all of indispensable service in the adjustment of supply gradually and smoothly to demand. Storage facilities enable the men in the market to level out the supply over a period long enough to make possible a proper adaptation to demand. Storage is as fundamental in modern market organization as transportation or communication. It performs a necessary function in the great institution of buying and selling, and is indissolubly related with the other parts of the market mechanism.

The various agencies in guiding the ratio between supply and demand do not always act under free and easy competition between man and man. In fact, perfect freedom of competition is the exceptional rather than the typical fact in the market organization. In almost every branch of buying and selling, large or small elements of monopolistic control creep in. Superior access to choice bits of market information may give insiders an advantage. Occupation of strategic centers in an industry, such as refrigeration in perishable products, may give the occupant disproportionate influence over market conditions. In each branch of industry, there is usually a single trader or producer, or small group of them, who, by dint of the struggles of the past, and their historic position in the industry, or for other reasons, loom up as major factors in that industry. "As their position is so responsible, their control of supply is less automatic than with small traders, and becomes a conscious estimating of market tendencies. They become the brains of the trade and to a large extent they fix the initial prices in any market, thereby exercising considerable influence."[1] The trade associations in many branches of industry furnish an opportunity for collusion among certain parties, who can then exert an undue in-

[1] Diblee, "Laws of Supply and Demand," pp. 145-146.

fluence upon price adjustments in that trade. Then, of course, there exists here and there, a fairly full-fledged monopoly, under which men hoard foodstuffs in order to curtail supply and force prices up, or corner a commodity, or restrict output, or discriminate unfairly against outsiders. In many forms and degrees, monopolistic control tends to find some place in the market organization. Hence it is illusory to base a study of the market upon the fundamental assumption of free competition. Imperfect competition is the rule, and freedom from any sign or degree of monopolistic interest is the exception.

Variations from the General Principles of the Market

The principles of market organization which have been outlined are not invariable quantities. They do not explain all market phenomena, and not infrequently market tendencies appear which seem to indicate directly the opposite of the general ruling principles. Generally, a rising price will induce fewer purchases, but when the rumor is extant that the early increases in price are a sign that prices may rise still higher and probably remain there for some time thereafter, the effect of the rising price is likely to be an increased demand and larger immediate purchases. Buyers calculate that they would do better to buy quickly, even though the price has ascended, than wait in vain until prices have gone still higher. To take another type of case, retailers often find that buyers refuse to buy goods which are priced low, because they have the fear that low price means poor quality. Low price does not tend to increase demand when buyers acquire the notion that the low price is the sign of an article which is not worth buying at any price. In accord with the same market psychology, a sharp slump in prices is apt to bring what is known as a glut in the market. Stocks of goods cannot then be sold at any price. Virtually no buying takes place, and the market is dead. This glut occurs in spite of lowered prices. Commodities may waste and decay, crops may rot on the ground, for no price, however small it may be, will arouse effective demand among potential buyers. Another type

of exception to the general working of market principles is the well-known fact that many articles, especially new ones, must be put on the market at a fairly high price or there will be practically no demand at all. Certain brands of tea and tobacco, for example, are reported to have been tried out in the market at moderate prices and to have met with a negligible demand. Thereafter the same grade of commodity, when given a fancy name and a trade brand, and advertised as an aristocratic commodity, and when tagged with a high price, has aroused a large demand and brought a large volume of sales.

Still another type of exception, and one which has the greatest social importance, is found in the fact that increased demand for a commodity may temporarily increase price, but in the long run, decrease price. This takes place when increased demand evokes large scale production, and large scale production cheapens production costs. American industry has been particularly ingenious in developing quantity production at low unit cost. The chains of five and ten cent stores over the country give numerous examples of articles which formerly sold at fifty cents or more, but which are now sold within the ten cent maximum because the stores can order them in such vast quantities that they can be produced cheaply by means of automatic machinery.[1] But none of these types of exceptions occurs on so vast a scale as the exceptions found in the state of consumers' demand during the various stages of business cycles. During a period of prosperity, with prices rising, people engage in what seems at times an orgy of extravagant buying. A kind of social craze gets possession of men's minds, and there is a sort of herd mania to buy, buy, buy. People who can least afford expensive goods often become the extremists in the movement, and common laborers become notorious for lavish expenditure for silks and satins, fancy food and fancy clothes. Rising prices are no deterrent. The gregarious mood buys anyhow. After such a storm of buying has spent itself, there is wont to occur what is termed often a "consumers' strike." Prices fall,

[1] A. Marshall, "Industry and Trade," pp. 185-186.

but people refuse to buy. The mass movement swings from one extreme to another. Demand shrinks in spite of falling prices. It is in the air. A herd impulse toward economy, stinting, thrift holds sway. Neither the era of extravagance nor the era of stinting is a rational phenomenon. The only clue to it is the gregarious instinct and the social psychology which received treatment in the first section of this volume.

The exceptions to the principles normally dominant in market processes are, primarily, temporary exceptions. They are occasional diversions, for the time being, from the worn and beaten paths of market laws. The fundamental principles of market organization are long run principles and pivotal principles. This explanation is necessary in order that students may have clearly in mind the proportions and relations between the fundamental market principles and the seeming exceptions to them.

The Mechanism of the Market

The market is an institution which involves not merely an underlying social psychology and a set of operating principles, but also a mechanism of purchase and sale.

Some features of this mechanism have already been described and interpreted. Transportation, communication, storage, credit and banking,—each of these is an indispensable part of the grand clockwork of the market mechanism. Take any one of these integral parts of the market mechanism away, and the whole construction would lie motionless and helpless. These particular parts of the market mechanism are explained elsewhere in this volume and there is no need to enter into further detailed description of these parts of the mechanism at this point.

Market Mechanism Geographically Considered

Other parts of the market mechanism need, however, to be considered, and first of all, the mechanism may be looked at from a geographical viewpoint. From one geographical standpoint, it is useful to realize that there are local markets, primary markets, and terminal markets. Local markets

are illustrated by the local buying agencies for farm products. Local stores buy part of the local product and sell it for local consumption. Local commission merchants or representatives of large dealers from central markets, buy the bulk of the produce and transport it where desired. The price paid the producer will be gauged ordinarily by the dealer's calculations based upon the price procurable in a primary market, with proper allowances for shipping cost and dealer's profit. The large meat packers estimate the price at which meat can be sold to dealers and consumers, and then figure the price which they can afford to offer stock raisers in each local market for their meat animals.[1] Local cotton prices paid to growers are largely calculated from prevailing prices on the Liverpool cotton market. In such commodities, the producer must look out for his costs as best he can. Price determination starts from a calculation of what the goods can be sold for in the big markets, and local prices in such lines "are often determined by deductions from the central market price."[2] Local prices of other commodities, of coal for example, are primarily determined by starting with the cost of production, and adding a certain profit. Small and independent producers are apt to be in a position where they have to accept whatever price is set by large dealers. Their local prices are largely determined for them by outsiders over whom they have scant control and whose reasons for price offerings they cannot hope to understand.

Primary markets are the concentration points for buyers and sellers in each particular line of goods. Chicago is a center of food products. Wool markets head up in New York, Boston, Philadelphia, Portland and San Francisco, but not in Chicago. Iron and steel concentrate in such cities as Pittsburgh and Birmingham. Each branch of goods has its unique central markets where large dealers, wholesalers, jobbers, speculators come together and buy and sell in large lots. Each branch of goods has a history

[1] G. E. Putnam, *Journal of Political Economy*, Vol. XXIX, pp. 297, 663-675.

[2] Duncan, "Marketing," p. 230.

of its own in developing its individual market centers, and a set of traditions, customs, habits, and folkways clusters around the processes of each center.

The terminal markets likewise vary for each separate type of goods, but ordinarily are located near the seaboard or national border. They are the great buying centers for international traders. They have developed in certain great trading centers through a considerable period of history, and can be understood in each case only in light of this historical background.

The economics of market geography should also be looked at from the viewpoint of retailers, and thought of in terms of city, suburban and country districts. The great department stores, chain stores, and individual stores concentrate in the larger cities of the country. The great centers where the consumers' purchasing power is spent lie in the shopping districts of such cities as Boston, New York, Philadelphia, or Chicago. Fancy styles and wide varieties for selection are prominent features of the shopping sections of the city centers. In the suburban districts and the rural districts, more relative prominence goes to consideration of serviceability of goods and stability of styles. Different occupational conditions in the various sections affect the kinds and quantities of goods demanded. Age and sex of population in various trade regions affect the standards of consumption.

Market Mechanism Functionally Considered

The market mechanism should also be considered from a functional standpoint.[1] Varying types of market organization have come into being to perform certain needed functions. Wholesalers, jobbers, commission men, brokers, retailers perform functions of indispensable value, and play necessary parts in the whole market mechanism. Marketing functions are likewise performed by bankers, transportation companies, storage companies or insurance concerns, but we are here concerned particularly with interpreting

[1] See A. W. Shaw, "Some Problems in Market Distribution."

the mechanism of those groups popularly known as "the middlemen."

Middlemen are those people who perform buying and selling functions in the process of getting goods from producers to consumers. They are specialists in purchasing goods from producers or owners, and in distributing them toward the consumer. The bridge between producers and consumers is often a long one, and the risks of crossing it are many. Middlemen take the risks and control goods in the journey from maker to user, for the purpose of making a profit. A wholesaler buys large lots of commodities, usually from a variety of producers. He collects goods from scattered sources, and in turn sells them to other middlemen nearer to consumers. A producer of grocery products may have no facilities for getting his products into the hands of hundreds of thousands of retailers the country over. The wholesaler, however, has built up an organization for that specific purpose, and so when he buys the grocery products from the producer and distributes them to the multitudinous retail stores of the country through a trained sales force, he helps the producer to land his goods in the final market, and he helps the consumer to procure the goods produced by the remote and unknown manufacturer. Because of his middle position, the wholesaler is in a position to analyze carefully the output and capacity of producers, and the wants and demands of consumers. He is in control of the mechanism which harmonizes makers and users of goods. A typical retail grocery store, carrying in the neighborhood of 1000 brands of goods, stands in need of a wholesale dealer who carries, through a single office, orders for practically any of the thousand different brands. The wholesaler buys these many brands from scores and hundreds of producers, assembles them, develops suitable storage facilities, sorts, grades or packs them, and provides a suitable selling machinery for placing them in the hands of the retailers of the country.

Although this in general states the ordinary mechanism of getting goods from producers to consumers, there are

several important variations. Many manufacturers prefer to ignore outside middlemen entirely and to dispose of their goods direct to the retailers. Some manufacturers establish their own retail stores, and dispose of part or all of their products through these company-controlled stores. A few manufacturers attempt to eliminate both wholesaler and retailer and sell direct to the consumer. Some retailers, such as department stores, prefer commonly to buy direct from the manufacturer in large lots. The mechanism varies widely with each separate line of goods. For instance, it is estimated that about 75 per cent. of all furniture is sold by the manufacturer direct to the retailer, whereas about 90 per cent. of groceries go through the wholesalers' channels.[1] Each branch of industry has a distributive mechanism with many individual peculiarities which have grown up over a considerable period of history, and these peculiarities of each branch are just as important to note as the fundamental common characteristics of the market mechanism in general.

Within recent years, new mechanisms for retailing have grown into prominence. Department stores, chain stores, and mail order stores are the chief types of these new retailers. The economies of buying goods in large lots direct from manufacturers give these new type retailers something of an advantage in competition with ordinary retailers. The use of extensive advertising, of standardized goods, of rapid turnover, and of scientific principles of management has enabled these new types of retail mechanism to win a secure footing in the competitive field.

In the gap between producers and consumers, the mechanism of organized exchanges has come to be of vital importance. Produce exchanges provide open trading places for perishable provisions such as vegetables, fruits, butter, eggs or poultry. Grain exchanges provide similar trading opportunities for corn, oats, wheat, rye, hay and the like. Special exchanges are maintained for cotton and for coffee and for sugar. To these exchanges come special buyers and

[1] See, for further illustration, Nystrom, "Economics of Retailing," pp. 36-40.

traders who are experts in market information, and who buy and sell largely on the basis of their scientific or personal guesses as to what the future prices will be. The conditions of the exchange are regulated and supervised, and buyers and sellers of large quantities of products can come together to match their best judgments on the question of the future course of prices. Because the dealers on the exchanges are specialists and experts, they bring to bear in the most intelligent way the forces of supply and demand, and the prices prevailing on the exchanges are ordinarily the best indicators of the shrewdest judgment of competent minds on the future relations between supply and demand. The risk that the judgment of traders will turn out to be wrong introduces a strong speculative element into their activities, but this very speculative element tends to steady prices by concentrating the risks of the market in the hands of those most able to interpret them and to bear their responsibilities and dangers.[1]

Price Movements in Various Stages of the Market Process

The prices of the market are unstable matters, and their fluctuations occur in different degrees and at different speeds in the various parts of the market mechanism. Retail prices fluctuate more slowly and less violently than wholesale prices. During a period of prosperity, wholesale prices rise earlier and faster and higher than retail prices; and during a period of depression and falling prices, wholesale prices fall earlier, and faster, and lower than retail prices. Moreover, prices of raw materials and of producers' goods in the wholesale market tend to fluctuate more sharply than do the prices of consumers' goods. In general, the reason for these broad differences in price movements is found in the fact that producers and wholesalers are more sensitive to changing conditions of supply and demand, are more immediately in touch with market information, and are quick to act in line with that information; whereas consumers are slow to realize changed conditions of supply and

[1] See S. S. Huebner, "Annals," XXXVIII, No. 2, pp. 321-341.

demand, and are influenced in the prices which they are willing to pay more by custom, habit, and inertia. A further explanation is found in the fact that a retailer's stock of goods, if bought just before a fall in prices on the wholesale market, must be sold at a price which will allow him a profit. The retailer must figure on the basis, not of what he could buy the goods for now at the fallen wholesale prices, but on the basis of what he paid for them at the high level previously prevailing. This one-stage remove from the wholesaler makes it natural that the retailer's prices should follow rather than lead those of the wholesaler.[1] This tendency of retail prices to lag behind wholesale prices has been clearly illustrated in the price fall of 1920-1921. Official reports of the Federal Government have made it evident that in any number of lines of commodities, retail prices were still high, weeks and months after wholesale prices had suffered a sharp decline. Such lagging movements of retail prices usually furnish the occasion for accusations that retailers are deliberately taking advantage of consumers, and sustaining prices at unreasonable levels for purposes of profit-making.

Price Policies

The entire discussion of the institution of market values and prices up to this point carries firmly the inference that all of the factors in that institution are capable of a highly significant degree of guidance and control. However fundamental the principles of supply and demand may be, nevertheless there is large room within them for ingenuity, strategy and manipulation between buyers and sellers. Hence a realistic study of market prices must give careful attention to price policies. Price policies represent the sagacity and shrewdness of the men in the market in their attempts to make profitable adjustments of prices within the limits set by the broad principles of price and value.

Prices are often thought of as amounts set by laws of supply and demand. While it is true that within limits, prices are set by supply and demand, it is equally true that

[1] W. C. Mitchell, "Business Cycles," pp. 93-134.

within limits price policies can bring about new quantities of supply or of demand. Price policies originated by a shrewd man of the market are capable of changing profoundly the amount of goods which people will demand. It is imperative therefore, for a balanced view of marketing institutions, to observe some of the ways in which deliberately created price policies can and do transform fundamental supply and demand relationships. Supply and demand determine prices, and, conversely, price policies determine supply and demand.

Price policies may be classified on the basis of their relation to that price level in any branch of goods which is termed the market level. The market level is what the name implies, the prevailing price average in any branch of goods, the general price which obtains throughout the greater part of the market. To the extent that some degree of real competition still operates in a particular kind of goods, the general market price for those goods will tend to keep close to their marginal cost of production. It will be remembered that marginal cost of production is the cost which prevails among that fringe of producers of any line of goods whose costs are highest. To the extent that genuine competition asserts itself, it tends to force prices down constantly to a level just about even with the costs of those producers for whom production is so expensive that they can scarcely make ends meet and can scarcely afford to operate their plants. Any further reduction of prices would force them to produce at a loss, and so drive them out of business, and reduce the supply of goods to that amount. But in the modern business organization, perfect competition throughout the market is a rare phenomenon. To the extent that privilege, monopoly advantage, unfair or imperfect competition, characterize a branch of business, the prevailing market price will fail to be driven down to the marginal cost of production. The "normal price" of orthodox economic theory is the price even with the marginal cost of production, and hence "normal price" assumes a fairly full degree of free competition. Inasmuch as the day of full and free competition is practically

past, and the new order obtains in which each branch of the market is governed by partial competition and partial monopoly advantages, it is clear that so-called "normal price" has become virtually a myth of free competition theorists. The ordinary market price of the present order is under the influence of association, combination, agreement, monopoly, privilege, and co-operation, and so varies somewhat from "normal price," and tends commonly to be somewhat above it.

A business man in the market looks around him and observes that the going price, the prevailing price for his line of goods, is at a certain level. He can formulate his own price policy along either of three different pathways. First, he can try to put his goods on the market at a price somewhat below the market level; second, he can offer them at the market level; third, he can attempt to dispose of them at a price somewhat above the market level. The deliberate adoption of either of these price policies will have marked consequences upon the basic conditions of supply and demand.

Below the Market Level

A new manufacturer entering a branch of business in which the market is already well occupied will find difficulty as a new-comer in disposing of the full product of his plant. As a means of persuading buyers to break old habits and sever old connections, he may offer to sell at a lower price. His great selling argument will be that his product is just as good as that which sells for more, but the price is cheaper. He appeals to the business judgment of buyers to buy high grade goods at a reduced price. This argument is an effort to undermine the confidence of buyers in a standard brand of product with which they have been made familiar in the past through advertising, salesmanship, or experience. The new article must break down the old wall of buying habits by its appeal of lower price. It is frequent for manufacturers who desire to invade established lines of specialties which are well known in the market by trade marks and brands, to put their new goods, similar in use

and purpose, up against the established lines at low prices. The handicap which the new goods have because they lack the reputation of the trade-marked brands is overcome by underselling the regular lines of goods. Many middlemen nowadays buy goods in bulk from producers, and put special brands of their own on the goods, and then sell the goods at shaded prices. They are able in this way to build up a good will for the new articles, through the use of dealers' trade marks, at the same time that they initiate the goods into the regular market by offering them at lowered prices.

Other manufacturers invade an established market by offering a grade of goods which is cheaper to make because it leaves off all frills and fancy work, and which appeals to a class of customers who care more for utility than for looks. The plainly made goods can be sold at lower prices than old lines in the market, and hence can draw into the market new groups of consumers who will buy goods of plain style provided only the goods will give them the service which they desire. Illustrations would be found in the marketing of cheaper grades of furniture, and of low priced automobiles. The policy of many retail stores, particularly department stores, of dealing in "seconds," is an application of the same general policy. Silk shirts or silk stockings with slight imperfections are offered as just as good to wear as perfect articles, and a great deal cheaper.

It happens from time to time that manufacturers of long experience decide to expand their sales by adopting a new policy of a price scale below the general market level. The business man who assumes this change of policy has to calculate as carefully as possible the elasticity of the demand for his particular kind of product. For some commodities, such for example as staple foods, lowered prices may increase demand somewhat, but there is a close limit to the amount of food which people can eat, and demand might not extend greatly in response to lowered prices. For other commodities, lowered prices might extend demand enormously. However, even in these branches of goods, a point would be reached at which demand elasticity would

come to a halt. Below that point lowered prices would not call forth a commensurate amount of demand. It is a difficult problem to ascertain for each different commodity where this point lies. Demand elasticity is a fundamental consideration with producers who lower prices for the sake of evoking an increased volume of sales.

Another variation of the lowered price policy, and a highly significant one, appears in the price policies of many sections of the retail market. Each retailer in any given community is anxious to draw as much trade to himself as possible, and often the most fruitful means of attracting trade is some form of "cut price" policy. Chain stores and department stores are often able to sell some standard article, or a substitute article, at a cut price, and where the policy can be carried out, it is held to be good publicity. Bargain sales, bankruptcy sales, fire sales, etc., offer frequent supplies of goods at sharply reduced prices. Many retailers make it a practice to single out some two or three commodities to be advertised for sale at bargain prices. These "leaders" attract the consumer to the stores, and while the consumer is in the presence of a wide variety of other goods, he is tempted to buy things which he had not contemplated buying when he came to the store. As a rule, of course, what the retailer loses by the cut price on the "leaders," he has to make up at some other point in his business. Hence the seeming immediate advantage which the buyer of the cut price article has, does not reflect a general social gain to all consumers. The cut price policies in the hands of large retail stores, department stores, or chain stores are capable of being used, and not infrequently are used, to drive small competitors out of business.

As a means of combating the vicious effects of cut price retailing when misused, producers of standardized, trade marked goods have widely attempted what is known as "the price maintenance" policy. Under this policy, retailers are required to sell goods at standard prices. If a retailer obstinately cuts prices, the producer can thereafter refuse to sell the retailer a further supply of the brand of

goods. This tacit ultimatum which the producer holds out to the retailer has for the most part proved adequate to coerce retailers into offering the goods to consumers at the standard prices. Although the policy in some respects subjects the retailers to an arbitrary control at the hands of producers, yet at the same time, the retailers are usually assured of a standard price which is high enough to allow for a reasonable rate of profit, and they are relieved of the fear that some powerful retailer in the community may at any moment destroy the trade of the mass of retailers by drawing all purchases of a particular brand of article unto himself, through a vigorously advertised cut price policy. The cut price policy when applied to standardized goods, is capable of serving as a ruthless measure of cutthroat competition, and the recent development of price maintenance is a move in the direction of regularizing and stabilizing the retail market.[1] Price cutting results in temporary leaps of demand here and there, but price maintenance acts in the direction of an even, organized, steady demand.[2]

A further policy of selling at prices below the general market level appears in the custom of buying at inside prices. This policy occurs most conspicuously in the purchases made by retailers from dealers and producers. Retailers who can buy in large quantities often demand that the producers shall quote them a special price below the general level. Some manufacturers and dealers graduate their selling prices according to the quantities bought; others give special inside prices to large quantity buyers adapted to the advantages of each particular case. Salesmen often find it necessary to split their commissions with buyers in order to effect sales. Some buyers are quoted

1 See Nystrom, "Economics of Retailing," Chapter XV.

2 The United States Supreme Court, in the case of Colgate and Company, decided that it was legal to refuse to sell goods to retailers who would not resell at standard prices. In January, 1922, the Court decided the price maintenance policy of the Beech Nut Packing Company unfair and illegal because it aimed to spy upon cut-rate dealers, to coerce jobbers as well as retailers, and to make a list of "undesirables" to be denied future supplies of goods. The decision was by a five-to-four vote, and the lines of difference between fair and unfair price maintenance are indistinct.

the regular price, but are given a bonus of extra goods, a form of concession which is the equivalent of an outright price reduction. Concessions in the form of liberal discount terms are used to discriminate in favor of certain buyers. All such price discrimination tends to handicap the small, independent retailer, and to give the edge of advantage to the retailers who can buy on a large scale. It is a potential weapon for unfair competition, and because of the possible secrecy in dealing at inside prices, it is a difficult weapon to subject to adequate public control. The forms of public control are as yet indistinct, but the market conditions created by inside price policies are such as to make it important that ways and means be devised for a proper safeguard against their misuse in unfair competition. A careful authority has stated: "As matters now stand, the inside-price problem is the most disturbing element in business. More of the evils of unfair trade can be traced to this as a cause than to any other single item."[1]

At the Market Level

The very fact that there is a general market level presupposes that a substantial body of buying and selling is done at that level. Business men who sell at the market level cannot attract trade by arguing that their goods are cheaper than the goods of their competitors. The incentive of cheapness cannot be appealed to. Hence it becomes necessary to build up a large demand by appealing a great deal to non-financial incentives. Just as it has been found that wage workers yield to other incentives than purely financial ones, so it is apparent that consumers are stimulated to buy through other incentives than cheapness. The superior quality of the goods, the artistic appearance of packages, the suggestive force of good advertising, the personal selling power of trained salesmanship,—all of these factors aid in building up trade for dealers who are selling at the market level. Good will is capable of de-

[1] Nystrom, "Economics of Retailing," p. 299.

velopment by many other means than cheap prices. Service, courtesy, efficiency, promptness are non-financial pathways of creating market reputation, and increasing sales for specially adept dealers. Competitors who wish to increase their sales, but who sell at the market level, rely therefore upon a demand induced by non-financial services and strategies.

Above the Market Level

It is a frequent policy nowadays to offer goods at prices which are conspicuously high. When this policy is adopted, the reliance upon a demand created by non-financial tactics is carried to an extreme. Goods priced above the market level ordinarily require heavy advertising, careful salesmanship, and the use of brands and trademarks. People who can be induced to buy expensive brands are wont to pride themselves often on the fact that they secure peculiar excellence and extraordinary service. They enjoy conspicuous extravagance, and often secure satisfaction from wearing expensive clothes or consuming expensive food simply because their friends and rivals will know that the things are expensive. Superior price is a suggestion that the goods are bought by superior people, and the instincts of display, rivalry and self-assertion are particularly vulnerable to appeals of that sort. Consumers' demand is created for the benefit of dealers who carry luxuriant goods at luxuriant prices, and who boast of the reputation of selling only at top-notch prices. Of course, different classes of people are limited by their various incomes in the extent to which they can succumb to the incentives to conspicuous extravagance. However, of late, particularly favored members of the groups dependent upon wage incomes have taken to imitating the more well-to-do classes, and many of them have become notorious for their lavish expenditure on high priced brands of clothes, furniture, foods and the like. The type of appeal which brings about this situation rests substantially upon the use of trade brands. There is no other means by which to single out a particular dealer's goods from the general run of goods,

and attract unusual, permanent attention to them. The tactics of creating demand for high priced goods by the use of advertised brands is mainly a matter of understanding social psychology. Dealers who can cultivate shrewdly the instinctive demands of people who are heavily susceptible to psychological traits of display, prestige, imitation, rivalry, pride, vanity, ostentation, and suggestion hold a clue to the building of a market for their wares at prices well above the general market level.

Business Combinations and High Price Policies

The extremes of the form of price policy just enumerated usually appear among the specialties, and only the milder forms usually among the staple necessaries of life. But among both classes of commodities, and, in fact, throughout the market organization from end to end, there is a tendency to the development of forms of trade combination and association which are frequently connected with high price policies. Monopolies are supposedly the most guilty perpetrators of price exactions above a reasonable market level. An examination of some of the price aspects of business combinations, trade associations, and monopolies is closely concerned therefore with the whole problem of price strategy and marketing institutions.

The concentration of industrial and trade control in recent years is explained more fully in the chapter on Management. It is important at this point to consider the movement toward business combination primarily from the standpoint of its influences on price policies and marketing functions. The modern market is neither freely competitive nor completely monopolistic. Whichever of the hundreds of separate branches of industry and trade may be chosen for investigation, it is quickly found that there is both an element of competition and an element of monopoly. Partial competition and partial monopoly characterize virtually all fields of trade. Monopoly, therefore, is always a question of degree. The extent to which competition remains and the forms which it takes vary strikingly from industry to industry. One hundred per cent. monopoly

and one hundred per cent. competition are equally hard to find. It is always a question of more or less, and the proportions vary from month to month and year to year in each field of trade. The nearest approach to full monopoly occurs in such fields of natural monopoly as railroads, patented articles, and municipal water, gas or electricity supply. But even in these branches of natural monopoly, there are limits to monopolistic power, and if these limits do not always appear in terms of potential competition, they then present themselves in terms of public regulation.[1] After a detailed examination of many forms of business, C. R. VanHise draws the broad conclusion: "The foregoing description of the situation cannot but convince any man who will look the facts in the face that the blind faith that prices are adequately controlled by competition in the United States is no longer justified, if indeed it ever was justified. Unrestrained competition does not as a matter of fact exist for many articles, except to a very limited degree at the present time. Everywhere there is restraint of trade by agreement or combination, either lawful or unlawful." A comprehensive view of the new economic situation is given by Woodrow Wilson as follows: "There is one great basic fact which underlies all the questions that are discussed on the political platform at the present moment. That singular fact is that nothing is done in this country as it was done twenty years ago. We are in the presence of a new organization of society. We have changed our economic conditions absolutely from top to bottom."

Monopoly in all forms and degrees is typically characterized by a control over prices, and this price control is made possible by control of supply. "A partial monopoly exists," says Carver, "whenever an organization exercises sufficient control over the supply of anything to enable it to fix its prices, even with a narrow zone, independently of competition."[2] Concentrated business estimates the price

[1] A. Marshall, "Industry and Trade," pp. 394-402.

[2] Carver, "Principles of Political Economy," p. 291. See, also, Ely, "Outlines of Economics," pp. 200-201; Haney, "Business Organization and Combination," p. 141.

at which a certain quantity of goods can be sold to yield the highest net profit, and proceeds to produce or contract for only that limited supply Large businesses, like small businesses, aim ordinarily to charge "all that the traffic will bear." But large businesses are in a position usually to heighten the figure which "the traffic will bear" by refusing to sell the supply which it controls except at its fixed price. If the monopoly uses discretion in setting its price, and avoids overdoing the price-raising policy, it will ordinarily be successful in selling its goods at the increased figure. In weak monopoly organizations the limits within which monopoly price can be held up are especially narrow. In some of the stronger monopolies, price exactions for short periods of time can often be pushed up surprisingly high. The degree of price control will vary widely from industry to industry, and the variation is in fairly close proportion to the degree of control over supply.

Theoretically, monopoly, complete or partial, should be able to elevate prices, and in the popular mind, monopoly suggests profiteering prices more vividly than anything else. It is a moot question therefore: Has monopoly, as a matter of historical fact, actually raised prices? The answer has to be two-sided: some monopolies have taken full advantage of their price fixing powers and have reaped exorbitant harvests; some have effected large savings and economies in production, and have thereby made possible reductions in consumers' prices without themselves suffering inroads upon profits. Some concrete evidence on the issue is available in the studies of J. W. Jenks, based largely upon the findings of the United States Industrial Commission,[1] and of subsequent government records on industry. His reports show the margin between costs and selling prices both before and after monopoly powers existed. This spread indicates whether the public was given full advantage of economies of business combination, and whether prices were maintained for any length of time at

[1] "The Trust Problem," Chapter VII. Published, 1900; Revised, 1912.

monopoly levels. The following extracts and digests from his conclusions are highly valuable:

1. Sugar Monopoly.—"The sugar combination has beyond question had the power of determining for itself, within considerable limits, what the price of sugar should be, low or high, with or without competitors. . . . On the whole, the chart seems to make it perfectly evident that the sugar combination has raised the price of refined sugar beyond the rates in vogue during the period of active competition before the formation of the Sugar Trust, and the two competitive periods during its existence."

"From the time of the organization of the Trust in 1887, for twelve or thirteen years the Trust kept the margin high for more than three-quarters of the time. Since that period, the margin, it will be noted has steadily remained considerably higher than during the period of most vigorous competition in the few years preceding the organization of the Trust, and during the two periods of vigorous competition since that time. . . . Although they have made excellent profits during the last few years, the margin certainly during the last three or four years can hardly be said to be abnormal." However, in relation to the general price level of all commodities, sugar prices are not higher. Prices of other commodities from 1900 to 1914 show a greater increase than do sugar prices. "The total result seems to indicate that if the sugar combination in the United States has had any direct influence upon the price of sugar, it has been rather to reduce that price than to increase it."

2. Petroleum.—"The Standard Oil Trust was formed in 1882. From that time on for a period of eight or nine years, there was only a slight decrease in the margin." From 1892 to 1894, the margin fell considerably lower, and up to 1916, the prevailing margin was not up to the low point of 1894. "Taking the period as a whole, . . . from 1900 to date (1916) it will be seen that this great combination, as practically all of the others, seems not to have raised the price of its chief product to an amount that corresponds to the rise in the price of general commodities."

These facts of themselves do not adequately tell the story of monopoly in petroleum. The dividends paid on the outstanding capital stock were in the neighborhood of 30 to 48 per cent. annually, and the charges brought against the Standard Oil Company which resulted in its dissolution by a decision of the Supreme Court in 1911 mentioned "enormous and unreasonable profits." The Bureau of Corporations in an investigation in 1904 and 1905 found that "The Standard discriminates greatly in fixing prices in different sections and in different towns, charging extortionate prices where there is no competition and cutting prices sharply where competition is active. . . . The profits of the Standard Oil Company, particularly on its domestic business, are altogether excessive, and they have been higher during recent years than formerly. The real source of the Standard's power is not found in the rendering of superior service to the public, but in the long continued use of unfair methods of competition." After the dissolution, Standard Oil oil stock quickly rose more than three hundred points, indicating the faith that the dissolution would not impair the industry's power to earn large profits. Federal Trade Commission reports indicate that oil profits during and after the war were highly liberal.

3. Steel.—The United States Steel Corporation was formed in 1901. According to Jenks, "After the formation of the United States Steel Corporation . . . a new policy seems to have been adopted—that of seeking good profits, but not extraordinary ones. . . . The effect of the United States Steel Corporation seems to have been primarily to steady prices and to maintain more nearly a rate of prices of the finished product dependent upon the costs of the leading raw materials so far as that can be readily determined." Steel prices have not moreover risen as much in the period 1900-1914 as the prices of commodities in general. In spite of these facts, a study of earnings and prices of the Steel Corporation seems to warrant the brief conclusion stated by Van Hise, "Excessive prices; these have resulted in enormous earnings."[1] The war years brought

[1] "Concentration and Control," p. 140.

generous profits to the steel combination. The Federal Trade Commission found that the profits of the United States Steel Corporation rose from about $77,000,000 in 1912 to over $478,000,000 in 1917.

These brief comments indicate a wide variety of effects of business combinations on prices and profits. In many cases, the lines of industry in which a high degree of combination has prevailed, have maintained prices lower relatively than the average prices of all commodities. Nevertheless, the predominant fact has been liberal profits, often excessive profits, made possible in large degree by the ability of leading corporations to influence prices. Jenks concludes that "The result has been to establish fairly generally the business policy of not attempting to secure anything like a complete monopoly of the market, but rather for the combination to fix its prices at such a rate that it may secure under normal conditions substantial profits while its competitors are still able to live and prosper."[1] Court decisions have generally confirmed the charges of unwarranted price policies and industrial investigating commissions have reported to the same effect. Economists for the most part take a stand essentially similar to that of J. A. Hobson when he declares, "But a trust is always able to charge prices in excess of competitive prices, and it is generally its interest to do so,"[2] and that of R. T. Ely, when he writes, "The conclusion which we reach then is that monopoly prices are generally higher than competitive prices. . . . The higher the average of well-being, and the more readily they spend money, the higher will be that price which will yield the largest net returns. We have these conditions meeting in the United States. We have a high average of well-being, and a great readiness in the expenditure of money, and consequently we have a high monopoly price."[3] Large combinations of capital

[1] "The Trust Problem," p. 178.

[2] "Evolution of Modern Capitalism," p. 160.

[3] Ely, "Monopolies and Trusts," 136-137. See, also, Taussig, "Principles of Economics," Vol. II, pp. 112-113; J. B. Clark and J. M. Clark, "Control of Trusts," 12-13; Van Hise, "Concentration and Control," p. 84; Jenks and Hammond, "Great American Issues,"

have been exceedingly reluctant to pass on to consumers the full benefit of economies and efficiencies of production. Experience has taught monopolies, partial or otherwise, the expediency of exercising monopoly influences over prices within much narrower limits than were attempted during the period of first formation of great business combinations.

Business combinations have developed, moreover, a practical method of adapting price policies to all classes, grades and varieties of consumers. Each grade of consumer is offered a grade of commodity particularly calculated to stimulate demand in that level of consumers. In almost all kinds of commodities, some people want the very best, some want the best, some want a good grade, some want "seconds." Some want fancy style, some want utility, some want certain combinations of the two. The price which each grade of consumer can be persuaded to pay for the most attractive grade of goods is a matter for painstaking calculation. Instead of using the advantage of its great influence in determining a single price, the partial monopoly frequently gives its attention to working out a set of prices to cover the demands of varieties of consumers. Instead of a uniform monopoly price, a scale of monopoly prices takes the field, each catering to a special class of buyers, and figured on the basis of "all the traffic will bear" for that class. Often the so-called superior grade of goods is only something of about the same quality, dressed up in a finer appearing package, and bearing an aristocratic brand. The superfine article must radiate a certain atmosphere of exclusiveness in order to appeal to exclusive people, and must exhibit an elite style in order to arouse buyers of fastidious tastes. With the quality and style of the various grades of goods nicely calculated, prices are attached which should attract enough buyers to absorb the quantity offered by the business combination. Moreover, corporations have sometimes attempted to formulate

p. 167; Haney, "Business Organization," p. 137; Macrosty, "Trust Movement in British Industry," pp. 335-337; E. Jones, "Trust Problem in the United States," Chapter XI.

price policies which would take advantage of the fact that some buyers can afford to pay more for the same article than others can. This principle found its greatest acceptance probably in the rebates of railroads. The railroads, before drastic regulation took effect, made it a common practice to charge different shippers different freight rates for the same railroad service.[1] The price policy may thus easily become what each individual will bear, or what a group of individuals of a certain grade will bear, instead of what the general traffic will bear. This gradation of prices to suit gradations of buyers is an innovation accompanying large scale business, and is primarily attributable to the discovery by the monopolist or semi-monopolist that only by such a device can he reap the largest net gains.

Monopoly Price and What the Traffic Will Bear

The monopoly price for each grade of goods, or the monopoly price for all the articles in an ungraded industry, is the outcome of an elaborate mathematical calculation. A large quantity of goods selling at a moderate price may yield more net profit than a small quantity of goods selling at a high price. Monopoly price is not the highest price at which some goods can be sold, but is the price which will sell that quantity of goods yielding the largest net profit. Assume a commodity which costs one dollar to produce. If the selling price is made $1.50, the total sales may be 1000 articles. The net gain would therefore be $500. But assume the price is put at $1.40, and that at this lower price the volume of sales is 1500. Obviously the net gain at the lower monopoly price is $600. This illustration will suggest the fact that a multitude of combinations can be figured out, and that some one combination of selling price and volume of sales will yield the maximum net revenue. Generally speaking, large business combinations prefer to lean toward as small a volume of sales as possible at as large a price as possible, in so far as that is not inconsistent with the maximum net gain for the industry. Enormous pro-

[1] Refer to A. Marshall, "Industry and Trade," pp. 415-417, for further explanation. See, also, Ely, "Monopolies and Trusts," pp. 108-118.

duction at the lowest possible prices is not sought after so much as limited production at prices high enough to yield liberal net profits. This fact has been the basis for the repeated accusation brought by production engineers that "if we could harvest more dollars by producing fewer goods, we produced the fewer goods."[1] To the extent that this policy is in vogue, it brings a private net gain at the expense of a net social loss. It is scientific restriction of production which yields maximum business profits but which furnishes society with too few goods at too high prices. Hence, to charge what the traffic will bear is a policy which is capable of bringing either social good or harm, according as it is applied.

Monopolies and the Steadying of Prices

A frequent price achievement under large scale business is the steadying of prices. For example, from 1901 to 1916, the United States Steel Corporation maintained the price of steel rails steadily at $28 a ton. Other large corporations make it a policy to raise prices somewhat more slowly than the general market rise during a period of increasing prices, and to lower prices less swiftly and less sharply in a period of falling prices. Industrial combinations which own and control their own sources of raw materials, such as coal or iron mines, are particularly able to steady their selling prices because they are in a position to regulate their costs of production more evenly. Some semi-monopolistic corporations, however, have an unsteadying effect on prices. For instance, from time to time a newly formed combination seeks to establish itself in the good graces of buyers by starting out with a price below the market level. After a certain amount of good will is built up, the combination stealthily elevates its prices to all that the traffic will bear. In the course of the transition, the other producers and dealers in the field are face to face with anything but a steadying influence. Another class of big combinations has been found to fix their prices so extremely high that the

[1] H. L. Gantt, "Organizing for Work," p. 24. See, also, Van Hise, "Concentration and Control," p. 85, and Jenks, "The Trust Problem," p. 63.

exorbitant profits have invited competitors to enter the field. Then has ensued a price war and cutthroat competition, all of which has caused prices to go down from the former great heights to a point equal to the cost of production, and even for a time below the cost of production. It is safe to state, however, that this condition of violent price fluctuations occurred principally in the early years of experience of business combinations, and that the experience thus dearly bought has persuaded many business leaders to avoid extremes of monopoly price likely to invite new competitors to engage in bitter price wars. On the whole, therefore, the later periods of large scale business have been marked by an endeavor to exert a steadying influence on price levels, and to avert violent fluctuations.

Price Discrimination

The price policies of monopolies and of partial monopolies have often been gauged with a view to destroying competitors. One of the most notorious and destructive forms of price discrimination has been local price cutting. Using this device, a large business combination seeks to drive out of business its competitors in a given locality by putting the local selling price extremely low, even below the cost of production. The combination makes up for its loss in the competitive locality by charging a higher price for its commodities throughout the rest of the country. After the local competitor has been driven out of business by the ruinously low local prices, the monopoly comes into control of the local market, and can then boost the local prices to all that the traffic will bear, without fear of opposition. The history of the American Tobacco Company and of the Standard Oil Company is replete with illustrations of these death-dealing price attacks on local competitors. A careful survey of the policies of the country's greatest monopolies led Louis Brandeis, now a Justice of the Supreme Court, to declare in 1913, "Americans should be under no illusions as to the value or effect of price cutting. It has been the most potent weapon of monopoly—a means of killing the small rival to which the great trusts have resorted most

frequently." Price cutting is now declared illegal when the purpose of it, whether avowed or concealed, is to substantially lessen competition or tend to create a monopoly.

There are other devices that have been widely practiced which have the common purpose of crushing small competitors. The operation of bogus "independent" concerns, in reality branches of a concentrated corporation, enables the large concern to camouflage its real purpose of killing competitors. The cutting of prices below costs on certain "leaders" or "fighting brands" often is an effective way of driving rivals out of business, particularly when the rival is largely dependent upon that particular brand of commodity for his profits and when it is only an incidental brand in the traffic of the big combination. Other large concerns have found it exceedingly destructive of competition to insist that dealers who wish to buy certain articles will not be allowed to buy the desired articles unless they also buy certain other articles for which the large producers wish to force a market. Some producers will not sell to dealers unless they agree to sell only that line of article, and no other. Rebates from regular prices are sometimes offered to dealers for pushing with special vigor the brands of one producer to the exclusion of those of his rivals. The attitude of the law and the courts toward these and other similar practices of price discrimination has generally been to consider them devices of unfair competition. The Clayton Anti-Trust Act of 1914, legislating with regard to the most menacing of these forms of price discrimination, laid down a broad test for determining what is fair and what unfair. It condemned price discriminations "where the effect of such discrimination may be to substantially lessen competition, or tend to create a monopoly in any line of commerce."[1]

Mechanism for Exertion of Monopoly Influences on Price Policies

The business mechanism for exerting monopoly price influences varies widely. In some lines of commerce, definite

[1] See Section 2 of the Act. Also W. H. S. Stevens, "Unfair Competition," *Political Science Quarterly*, pp. 282, 460.

centralization of management occurs, and trusts, corporations, holding companies, mergers, and amalgamations take the place of former separated establishments. The common principle in such business concentration is a definite centralization of management. Plants and companies which formerly were independent and sovereign become branches of a centralized management. Price policies in such companies are formed by the central management, and the constituent companies and plants direct their price policies in compliance with the uniform policies laid down by the central management. There is another great class of price agreements in the nature of understandings entered into between independent companies. Each branch of industry, each line of commerce, each field of production, almost without exception, has a business association of some sort. These associations serve a great many purposes, some of them constructive and some tending toward the fixing of excessive prices and the undue restraint of trade. The history of price agreements shows many forms of understanding or bargaining entered into for the purpose of putting prices up to all that the traffic would bear. The "Gary dinners" which maintained tacit understanding among steel producers as to what prices would be charged; "any number of dinner and luncheon clubs and reunions and general understandings, winks, and telephone messages,"[1] mutual understandings between anthracite coal operators or big meat packers as to the distribution of business and price quotations, joint action among dealers in building supplies to charge contractors exorbitant prices for cement or brick, common price terms among wholesale grocers or among druggists,—in these and other ways, price agreements have been maintained at different times and in differing degrees in most lines of economic activity. Agreements in the form of pools were at one time widespread. Pools involved definite agreements either to divide the product into quotas for each producer who belonged to the pool,

[1] Samuel Untermyer, "Hearings Before Senate Interstate Commerce Committee," V, p. 214.

or to divide the quantity each producer was to sell or the territory in which he was to sell, or to put all profits of all companies into a common fund to be shared ultimately by the several companies on an agreed pro rata plan, or any combination of these policies. These agreements of one sort and another have run a harsh gauntlet of laws and court decisions, and have been generally condemned in so far as they result in undue restraint of trade, or unfair and unreasonable prices.

Trade associations have, however, found it possible to render most important services without as a usual thing indulging in illegal price practices. They provide for an exchange of information about the basic facts of production costs, market conditions, trade statistics, credit ratings, standardization of qualities and grades, freight and traffic matters, labor policies, trade legislation, insurance rates. Trade associations were encouraged during the War as a medium by which government agencies could direct industry effectively toward meeting war time conditions. They furnished a definite organization through which the War Administration could communicate its wishes to the hundreds of thousands of individual companies the country over. The advantages of co-operation became so apparent that trade associations did not wane after the War, but grew in strength and membership. The cooperative efforts of trade associations to supply information on production costs have led to greater uniformity in prices in many cases. The trade information is often kept strictly in the hands of members, with the result that although there may not be collusion or definite agreement on price policies, there is created a fairly uniform price control. Each man acts upon the same exclusive information as the other members of his trade association, and the uniform price action resulting has substantially the same effect in many cases as though it were the outcome of collusion among traders. The legal status of such trade association policies is not yet clearly determined. It would appear reasonable and possible to retain the constructive services and co-operative features of

trade associations and to discard whatever undue monopoly influences attempt to assert themselves.[1]

Limits to Monopoly Influence on Prices

Efforts to maintain monopoly prices are subject to certain limits and restrictions of a very important nature. Economic and political forces combine to put checks upon monopoly ambitions after they have passed certain limits.

1. Limit in demand. A monopoly in a necessity of life may at times drive prices to extraordinary heights because people cannot do without, no matter what the price. The era of specialized manufacture has brought into the market so many articles which were at one time luxuries or comforts, but have become by custom and habit virtual necessities that monopoly in these lines can count upon a fairly stubborn and insistent demand.

2. Limit in potential competition. If a monopoly pushes the prices of goods so high that profits are great, competitors will probably be drawn into the field. The new competitors will then engage in a price war with the old business combination, and after a time, the combination may buy out, or crush the competitor, or the competitor may survive, and continually harass the original combination with its competitive prices. Although potential competition is existent and may possibly enter the actual field at any time, nevertheless prospective competitors are likely to think twice before sinking their time and money in many lines of business, realizing full well the ruthless attitude of many big companies toward venturesome competitors. Inertia, too, works against a ready entrance of competitors

[1] See special reports of "Federal Trade Commission in 1921 on Trade Associations and Open Price Associations." Also J. E. Davies, Commissioner of Corporations, 1915, "Trust Laws and Unfair Competition," Chapter XI. The legal status of the open competition and open price policies of trade associations is still indistinct. In December, 1921, the Supreme Court decided the American Hardware Manufacturers' Association contrary to the Sherman Act, because by the exchange of information on prices, production volume and costs, sales, etc., the Association served to restrict competition and to raise prices by concerted action. This was a five-to-four decision, and leaves some doubt as to what such associations may and may not do.

into lines of business where prices and profits are high. Hence, although potential competition serves to keep monopoly efforts within certain limits, those limits are highly variable and indefinite.

3. Limit in possible substitution. If the price of beef runs too high, people can eat mutton or pork. If gas rates are put too high, electricity is likely to come in. If the price of one form of article becomes exorbitant, buyers can pass it by and purchase substitutes. Monopolists who experiment with prices face the imminent danger of losing trade altogether by driving buyers to use articles which will give practically an equivalent of satisfaction and utility.[1]

4. Limit in public control. When trusts and all forms of big business first made their appearance, the country was naturally bewildered to know how to handle the new phenomena. While legislatures were experimenting with various types of laws, and courts were maturing judicial viewpoints, it was possible for monopolies to take advantage of the situation, and indulge in practices of unfair competition, price discrimination, and price boosting which have later come under the ban of the law. The Sherman Anti-trust Act of 1890 has been interpreted as disapproving any conspiracy or monopoly in undue and unreasonable restraint of trade. After the law had been on the statute books for twenty years, the Supreme Court read into the act "the rule of reason," by which it interpreted the Act to prohibit, not all restraint of trade, nor all monopoly, but only those interferences with trade and prices which were *undue* and *unreasonable*. There have been people who have continually charged that virtually all big business is bad business and dangerous business, and ought to be dissolved; and simultaneously there have been people who have steadfastly maintained that big business is the natural institutional evolution of this day and age, and that its economies and advantages can be retained while

[1] See J. A. Hobson, "Evolution of Modern Capitalism," pp. 230-235; J. B. Clark and J. M. Clark, "The Control of Trusts," pp. 28, 123-127.

its evils and dangers can be regulated out of existence. The general philosophy of both groups has been in evidence in recent judicial decisions and government legislation. The most notable pieces of concrete legislation by the Federal Government have been the Federal Trade Commission Act and the Clayton Anti-trust Act, both passed in 1914. The Federal Trade Commission investigates trade practices, orders offenders to refrain from methods of unfair competition, publishes facts as to costs, prices and profits for various lines of industry and trade, enforces the provisions of the Clayton Act, keeps informed as to the extent to which companies carry out the decrees of courts under the Sherman Act, and investigates combinations for foreign trade. Chiefly, the weapon which the Federal Trade Commission wields is investigation and publicity of the facts of business, and co-operation with business men in the direction of compliance with federal law without expensive litigation in the courts.

The Clayton Act forbids monopolistic price discriminations, new holding company formations, and interlocking directorates. The last two provisions are especially aimed at big business as such, and rest on the assumption that size itself is a menace. For the most part, outside of these two provisions, both the Clayton Act and the Federal Trade Commission Act aim not to destroy big business, but to make sure that the practices and price policies of business, whether large or small, shall be fair, and reasonable, and socially beneficial. They aim to make destructive competition impossible, to put under the ban of the law the modes of warfare between business units of all sizes, which are predatory and vicious. And simultaneously they tend to preserve a large field for concentration of business, for moderate monopoly influences and advantages, for constructive co-operation and for competition which leads to the survival of the most efficient. The possibility of public control serves therefore as a limit to monopoly excesses and to unfair price policies.[1]

[1] See E. Jones, "Trust Problem in the United States," Chapters 14-15.

Natural monopolies, such as railroads, waterpower resources, gas and electric service, are so thoroughly associated with the public need that they have generally come within the scope of a more rigid form of public control. The Interstate Commerce Commission very closely supervises the pecuniary policies of railroads. There has been powerful agitation of late to declare the coal industries and the meat industries public utilities and to subject them to a public control somewhat similar to that already exercised over the railroads.[1] Public Service Commissions are common devices for the regulation of lighting, heating, and municipal transportation services, and assert authority in varying degrees over rates or prices in the industries under their jurisdiction. Industrial concentration in the basic industries is already leading many careful students to raise the question whether concentration is socially safe except as it is subjected to a substantial measure of public regulation and control. The maturing of opinion upon this issue will undoubtedly hinge largely upon the manner in which concentrated business orders its policies, with regard to prices and all matters tinged with a public import, during the next few years. Unless the device of publicity and prohibition of unfair competition as now administered by the Federal Trade Commission serves to maintain a policy of price moderation and to eliminate the grosser cases of profiteering, the next degree of public control will be demanded by the public, namely outright government regulation similar to that exercised through the Interstate Commerce Commission or the Public Service Commissions.

The record of profiteering, as reported by various government authorities, especially during the first years of the War and during the months closely following the armistice, has left grave doubts in the public mind as to the willingness of big business concerns to moderate their price and profit policies within satisfactory bounds. Moreover, the

[1]The Packers' Control Bill, passed by Congress in August, 1921, established regulation of the meat packers to be administered under the Secretary of Agriculture. The law provides for uniform accounting by the packers, for publicity of the packers' affairs, and for definite powers of the Federal Trade Commission to investigate the industry.

experience of the government with price fixing during the war had a sufficient degree of success to make it fairly clear that at any time when the step seems desirable, the government can effectively create the governmental machinery suited to price fixing in times of peace. The War demonstrated that price fixing is not an economic impossibility. Once price fixing has been proved possible of achievement, it is always ready at hand as a device to be called into being to correct price abuses which creep into private business combinations. Comparisons made by the War Industries Board indicated that the average prices for controlled articles increased during 1917-1918 much less than did the prices of uncontrolled articles.[1] Although the methods of price fixing were not uniform between all bureaus and departments, nevertheless in the main they adhered with reasonable closeness to the objective laid down by President Wilson on July 12, 1917, namely, that the fixed price should be sufficient to "sustain the industries concerned in a high state of efficiency, provide a living for those who conduct them, enable them to pay good wages and make possible expansions of their enterprises." Price fixing in time of peace would be handicapped by lacking the equivalent of the high spirit of patriotic co-operation from business men which prevailed during the war emergency, and hence is not likely to be resorted to during peace times except as the need is urgent. The possibility of price fixing hangs as a kind of tacit ultimatum to monopolists who might like to boost prices unduly, and hence serves as an important limit to monopoly price policies.[2]

Relation Between Price Policies and Supply and Demand

It is obvious at this stage of the analysis that supply and demand allow considerable leeway for human ingenuity and strategy. Over broad periods of time, and in the long run,

1 "War Industries Board, Fluctuations of Controlled and Uncontrolled Prices," p. 8.

2 See "Carnegie Studies: Prices and Price Control During the World War," and *American Economic Review Sup.*, March, 1919, pp. 233-276; F. W. Taussig, *Quarterly Journal of Economics*, Feb., 1919, p. 238.

supply and demand operate as general tendencies and fundamental forces. But they are not hard and fast, nor absolutely binding laws which determine prices to a nicety. Within the limits of their fundamental tendencies there lies ample room for policies of manipulation and control. Demand can be expanded or contracted by deliberate action on the part of business men and supply can be curtailed, hoarded, or multiplied as business judgment dictates. Price policies at, or above, or below the market level, can be applied in ways which alter both supply and demand. From practical observation of business practices the country over, the Comptroller of the Currency, D. R. Crissinger, declared in April, 1921: "Manufacturers, jobbers, wholesalers, retailers, laborers—are all in some sort of combination to frustrate this fundamental law of economics (*i.e.*, supply and demand). Each is out to "get his" first. . . . These combinations—gentlemen's agreements, or what not—have gotten prices of things to the point where there is no relation between cost of raw materials and cost of production; no relation between cost of production and cost to the consumer; in short, where there is no relation between value and selling price." Due allowance must of course be made for the sweeping character of so emphatic a declaration. A conservative judgment on the same general subject may well be quoted, from the pen of a highly respected American economist, F. W. Taussig: "The response of demand to new conditions of supply and price is very uncertain. The penumbra is wide. Within it there is much room for fluctuation of opinions and therefore of price, for the influence of an aggressive operator or a commanding firm and for indeterminate phenomena. . . . There is no telling what immediate response there will be to an offer of larger supply or to a decline in the day's or week's quotation. A heavy sale by a big operator and a lower price accepted by him may easily mean not that more will be bought by others, but that buyers will be scared off and that price will fall still further.

"The market may react in all sorts of ways to changes in offers and bids and going prices. The outcome depends

on men's hopes and fears and guesses, and momentary states of mind. The nervy man may make money by coolly watching his more sensitive fellows and playing on their frailties.

"Often lower price does *not* lead to an increase in the quantity that can be disposed of in a market. Neither does it necessarily lessen the quantity that will be offered there. On the contrary, it will repeatedly happen that as price falls, less is demanded, not more; and that not less is offered for sale, but actually more. A decline in price, so far from tending always to bring its own remedy through tempting people to buy more, sometimes intensifies itself through inducing people to sell still more." A further indication of the flexibility which the general market principles must contain is seen in the following words by H. C. Emery, made as a result of extended investigations by the United States Tariff Commission: "The price paid by the consumer and the price received by the producer seem to have very little direct relation."[1]

The Science of Spending Money

Economics has often been defined as the science which deals with the wealth-getting and wealth-using activities of human beings, but the emphasis of economic analysis has been overwhelmingly on the wealth-getting activities, and very slightly on the wealth-using activities. The War attracted the attention of students to the problem of wealth using, especially by its urgent requirements for thrift and saving, for elimination of waste and extravagance, for distinguishing between essential and non-essential wants, for patriotic guidance in numberless ways of consumers' choices. It was made unmistakably clear that in time of war consumers' choices were not their individual business merely, but were vitally the business of the nation. National efficiency depended upon wise consumption; and at great cost the government set out to educate people on matters of good consumption and bad consumption from the standpoint of helping to win the war. Hence the war

[1] *Quarterly Journal of Economics*, May, 1921, pp. 396-410.

necessities broke the time-worn tradition of economics that what a person wants to spend his money for is his own affair, and established the principle that it is the nation's affair. Unwise spending during war time would rapidly weaken the military efficiency of the nation. Indeed, to some who have considered the problem in its broadest aspects, it appears that unwise spending has definite cause and effect connections with national progress or decay. This is the view of T. N. Carver: "The importance of the consumption of wealth is further emphasized by the consideration that as many and as dire calamities have overtaken nations and peoples because of their irrational habits of consumption as because of inefficient systems of production, exchange or distribution. . . . A few are already beginning to discover that consumption is more important than production, exchange or distribution,—possibly more important than all three combined."[1]

The ultimate destination of economic activity is the spending of income for purposes which satisfy the spender. Goods are produced as a means toward the end of consumption, and the test of the worthwhileness of any kind of production is to a large extent the effect which the consumption of the goods must have upon individual health, character, and personality, and upon national strength, efficiency and prosperity. The economic foundations of a country are laid in the ways in which consumers decide to spend their income. "We need to turn consumption," remarks Alfred Marshall, "into paths that strengthen the consumer and call forth the best qualities of those who provide for consumption." Economics can scarcely dare, in the face of such a challenge, to take the position that if individuals choose to spend their earnings foolishly, wastefully, or viciously, the effects are their own lookout and concern no one but themselves. Economics is obliged to address its study, therefore, to such questions as: What are the causes for the various types of demand? Why do wants change? What are the effects of different ways of spending income? Why are the urgent wants of some denied the means of

[1] "Principles of Political Economy," pp. 11, 455.

satisfaction while the trivial wants of others are satisfied in full? What are the forces which shape the standards of consumption?[1]

Probably the most useful viewpoint from which to study consumer's wants is the psychological viewpoint. Demand in its multitudinous shapes and forms is fundamentally a psychological fact. Wants, choices, satisfactions, gratifications, desires all spring from human nature, and all are matters of individual and social psychology.[2]

Each consumer differs in his human equipment from all other consumers. His original instinctive mechanism is distinct, his experiences in developing his original nature are unique, and in his beliefs, wishes, convictions and whims, there is no one else quite like him. He has eccentricities, peculiarities, and idiosyncracies. He has an element of originality and individuality in his likes and dislikes. His preferences bear the stamp of his personality. He has an individual psychology.

However, the surprising feature of the consumer's psychology is the extent to which it owes its origin and direction to his social relations. The gradual building of the individual's wants and beliefs by the processes of social psychology is the paramount characteristic of consumers' demand. This process in its broadest aspects is splendidly stated by John Dewey as follows: "Mother and nurse, father and older children, determine what experiences the child shall have; they constantly instruct him as to the meaning of what he does and undergoes. The conceptions that are socially current and important become the child's principles of interpretation and estimation long before he attains to personal and deliberate control of conduct. Things come to him clothed in language, not in physical nakedness, and this garb of communication makes him a sharer in the beliefs of those about him. These beliefs coming to him as so many facts form his mind; they furnish the centers about

[1] See J. M. Clark, "Economics and Modern Psychology," *Journal of Political Economy*, Volume 26, pp. 1, 136; C. H. Cooley, "Social Process," p. 298; J. Dewey, "Creative Intelligence," pp. 312-313, 350-352.

[2] B. M. Anderson, Jr., "Value of Money," p. 570.

which his own personal experiences and perceptions are ordered."[1] The consumer does not form his individual canons of taste and style with a free and independent mind, nor by his purely original and detached judgment. The social heritage of tastes, styles, wants and demands form his mind, and unless the individual over-asserts his individuality to the extent of becoming a freak or fanatic, he thinks and plans and acts in spending his income in fairly close conformity with the established standards of his day and age. This social heritage of standards and canons is carefully analyzed by William Graham Sumner in his profound study of the folkways and the mores of society. The mores are defined as "the ways of doing things which are current in a society to satisfy human needs and desires, together with the faiths, notions, codes, and standards of well living which inhere in those ways." And Sumner strongly asserts: "The most important fact about the mores is their dominion over the individual. Arising, he knows not whence or how, they meet his opening mind in earliest childhood, give him his outfit of ideas, faiths, and tastes, and lead him into prescribed mental processes. They bring to him codes of action, standards, and rules of ethics. They have a model of the man-as-he-should-be to which they mold him, in spite of himself and without his knowledge."[2]

It is very easy to exaggerate the element of social psychology and to underrate the element of individual psychology in the shaping of consumers' tastes. As a safeguard against inferring an untrue balance between the two, it is important to give careful consideration to the following statement by C. H. Cooley: "The ordinary man is a conformer; he lives in the institution and accepts its established valuations, though not without impressing some degree of individuality upon them. In this way we get our ideas and practices regarding religion, marriage, dress and so on. So in pecuniary matters one accepts in a general way the current values, but has a certain individuality in his choices which makes him to some extent a special

[1] "Reconstruction of Philosophy," p. 93.
[2] "Folkways," pp. 59, 173-174.

factor in the market. There is no absolute conformity; we do everything a little differently from anyone else; but this does not prevent our being controlled, in a broad way, by the prevailing institutions. This is what the usual economic analysis ignores, or perhaps omits as beyond its proper range.

"Along with this we have the phenomenon of non-conformity. Individuals of special natural endowment, or unusual situation, or both, depart widely from the type, and initiate new tendencies. . . . "[1]

These cardinal principles of modern social psychology reveal the fallacy of considering the average consumer primarily as an independent individual, actuated by one motive only,—the money motive. Economics has too often over-simplified the consumer's psychology. Consumer's demand is fashioned by a host of influences other than the highness or lowness of price. It is not enough, in explaining demand, to state that if price is increased, demand will diminish, and if price is decreased, demand will enlarge. A varying price scale, it is true, does have its effects on demand, but demand is a creature of all the forces and influences which bear upon social and individual psychology. The whole instinctive nature of man figures in his wants and demands, and the reasons for spending his money as he does are as broad as human nature. Consumers' motives are not dollar motives alone, but all the motives of life. The science of spending money is then the science of the motives which direct the spending of money, and inasmuch as virtually all activities and enjoyments in modern society require the payment of a money price, the science of spending money becomes in the deepest sense an economic study of the values and standards of the civilization of a certain day and age.

The motives of consumers in spending their income are directed and organized by the institutions in which consumers live and work, and institutions are historical products. Marketing institutions have developed from rude beginnings into the complicated affairs of to-day, and vary

[1] "Social Process," p. 300.

from country to country in important ways because of the varying historical backgrounds of modern countries. Unthinkingly we absorb the spirit and ideas and customs of our own generation, as these are filtered into our characters through the several stages of life by our contact with institutions, religious, educational, family, political, artistic, pecuniary, or otherwise. No matter what past stage in the development of any of these institutions we might pick out for observation, we would find, along with its admirable characteristics, a countless horde of institutional standards and values which now seem ridiculous, wasteful, humorous, evil, or absurd. At some time past, however, these institutional values and canons of taste set the mold for social motives in spending money, and directed the channels of disbursement for the people who were born and brought up under those institutional conditions. This institutional influence on the social psychology of spending money is recognized by A. T. Hadley in the assertion that "With most men custom regulates their economic action more potently than any calculation of utility which they are able to make." And he adds, "It is not merely that people want things which hurt them or which fail to do them the maximum good . . . but that they buy things without knowing whether they want them or not."

Now, a very large part of the customs and traditions built up through the processes of history are serviceable, efficient, and sound; but not all of them. Institutions are replete with influences of decay, dissipation and destruction. And the social psychology which is interwoven with social institutions is replete with wants and desires which, if gratified, lead to mental, moral and physical weakness. In marketing institutions, the exercise of critical judgment, of shrewd reasoning, of mental strategy takes place principally on the part of sellers, and to a much less degree, on the part of buyers. The managers of distribution, the wholesalers and retailers and speculators, usually devote a high degree of intelligence to the art of selling goods at a profit; but the buyers, the consumers of the goods, are more distinctly the victims of the customs, habits, and traditions

which have surrounded them from youth up. Consequently, the spending of money is a department of economic interest which is peculiarly subject to instinctive nature, and which is influenced greatly by the unconscious social forces coming from institutions. For these reasons, the spending of money has been referred to as one of "the backward arts." Money is spent for objects as a matter of course, because fashion, reputability, prestige, or the moral code calls for that sort of expenditure, and consumers are as a rule reluctant to submit many of their items of disbursement to critical judgment, or to decide freely and independently whether the fashion, the code, the canon of taste and the standard of reputability are good or bad.

These abstract generalizations will be made clearer if some concrete illustrations are presented. When slavery was the established institution, supported by church and state, consumers, as a matter of course, spent part of their income in the purchase of slaves to perform household service. At the time, the social mind of slave owners considered the spending of income on slave servants the right and respectable thing to do. Later judgment has decreed that spending money for such a purpose was subversive of the nation's vitality and character. Again, a short time ago, it was the right of any man or woman to spend as much of his or her income as might be desired in the consumption of alcoholic beverages, and the individual consumer might consume alcohol in any form which he pleased, and as much of it as he pleased. As a result of much agitation, propaganda, and education, the preponderant opinion of the nation declared for a prohibition of that form of spending income, and by a constitutional amendment, made it illegal to traffic in that kind of goods, on the ground that the consumption of alcohol was bad for the nation's morals, was harmful to the health of the people, and was a social menace. By this change of institutional arrangement, consumers have been forced to divert something like $2,000,000,000 of purchasing power into new channels. To take another illustration, those responsible for the Americanization movement in this country are

anxious to educate foreigners in our midst to spend their money in maintaining an American standard of living. Americans learn, therefore, with a feeling of alarm that one-half of all immigrants who come to this country later return to their home countries, and take with them on an average $2000 of spending power. Immigrants cannot be Americanized if they will not spend their money for education for themselves and their children, if they will not spend their money for the American standard of food, or clothing, or sanitation, or housing. Americanization has as one of its objects the inculcation of American spending habits into foreigners. It is a matter of concern that immigrants refuse to spend for things which Americans consider essentials of life, and that they insist to so large a degree, upon saving their spending power for the days of return to their home country. Yet the social psychology of immigrants is intimately wrapped up with our economic, religious, political and educational treatment of them, and their spending standards are a direct outgrowth of the traditions and the institutions of their home countries.

A notable institutional transformation of the last decade has been the widespread adoption of the eight hour day. This transformation involved the addition of from two to four hours of leisure time in the daily life of the working man. This has created a grave problem in consumption. The new leisure period, used wisely, is capable of developing a healthier, better educated, more versatile, more artistic citizenship. But it gives at the same time an opportunity for the expenditure of income in riotous living, in showy extravagance, in vicious pleasures, and in unedifying idleness. Some pioneer business concerns have undertaken various expedients for guiding the leisure enjoyments of their employees along wholesome channels. Night schools, library facilities, community enterprises, athletic programs, moving pictures, are a few of the devices devoted to the guidance of spending power during leisure time into constructive channels. By a vicious use of leisure time, the economic efficiency of the worker is undermined and it is of real concern to employers and to society at large that

consumption during leisure time shall result in betterment, not degradation. A great many employers have found that the temptations to their workers to spend money for luncheons of pie and candy and unsubstantial foods are too great, and accordingly have installed company restaurants to provide wholesome food at reasonable prices. These illustrations are only suggestive of a general conviction among employers that it is not the consumer's own business alone, whether he shall spend his income wisely or foolishly. Workers need to be educated and inspired if they are to devote the proper amount of spending power to insurance, to the savings bank fund, to investment in stocks or bonds. Consumption is not a place for unrestricted individualism, and although the traditions of *laissez faire* have been stronger in consumption than in any other branch of economic interest, even there they are crumbling. When, during a period of high prosperity, a craze develops for spending money, much of it borrowed money, for high priced automobiles, it becomes the duty of the credit institutions of the country to curtail borrowed spending power for such a purpose. The right to spend one's income as one pleases is no longer an unlimited right, but is amenable to institutional control and guidance.

Some questions of spending income have come to hold an international importance. Notable in this connection is the cost of naval and military armament. It is everybody's business how much each nation spends for armament, yet no one nation dares to stop the consumption of battleships and munitions unless all stop. The American people have been shocked to learn at the end of the World War that about ninety per cent. of their enormous national tax burden goes to the payment of war obligations. Yet as a nation, they cannot safely refrain from armament consumption, except as there is a change in international political institutions. Expenditure of income is guided by institutional arrangements.

Pecuniary expenditure needs also to be studied against the background of national history. Whether a people shall, in their food consumption, be heavy eaters of meat,

or of rice, or of the grains; whether the preferred bread shall be of wheat, corn or rye; whether patented forms of breakfast cereals shall be in vogue; whether the prevailing national drink shall be tea, coffee, or beer; these and many similar questions vary immensely from country to country, and from generation to generation, and the variations are beset with countless customs, traditions and folkways. No one could hope to comprehend the standards of fashion among American women without tracing the traditional American esteem for Parisian styles. The models of American furniture, and the art of spending money for the proper styles of furniture, cannot be understood apart from the periods of English history, Queen Anne, Queen Mary, etc. The extent to which inadequate expenditure for school facilities forces children to attend on part-time programs, and the degree to which a country begrudges its scientists and educators an adequate income, is plainly a matter of social psychology and of institutional development. The economic waste of spending huge sums to maintain in each community an excessive number of overlapping denominational churches, and of maintaining so many idle buildings for so large a part of each week, cannot be understood apart from the denominational history of churches and the psychology of religious beliefs, for these forbid the immense economies possible through proper church federation. The difficulties of the Interchurch World Movement, one of the greatest efforts in modern times to guide the spending power of the nation into humanitarian channels, are in no small measure traceable to the tenacious denominationalism of churches. All of these matters present problems in the "wealth-using activities" of men; all are problems in the art of spending incomes; all lead back to social psychology and social history.

The primary social unit for spending money is the family, and the spending of the bulk of the family income, *i.e.*, for family food and clothing, is undertaken by the housewife. It has been estimated that about 75 per cent. of the household purchases are made by women. The spending of the family income involves the selection of the most wholesome

and health-giving foods for children and for adults; the choice of shoes, hats, and clothing with a proper regard to the most wear for the money spent and to the proper styles and fashions; the decision between varieties of knick-knacks, of playthings, of patent medicines, of care of children, of mechanical appliances for the home, of endless goods and services. About each of these fields for decision in spending the family income, there exists a heritage of rule-of-thumb notions handed down by grandparents as to what cuts of meat a person ought to buy, and the kinds of work the housewife ought never to hire done. There is constantly buzzing in the housewife's ears the catch phrases of clever advertisers who are anxious to lead the family income toward the purchase of soap because "It Floats," or of pickles or beans because there are "57 Varieties," or of patent medicine because of its color. To go near a modern store is to be led into a series of temptations to buy this, that and the other thing, and to be forgetful at the moment that a little later, looking backward, the buyer is likely to feel remorseful for yielding to the temptations.

The whole buying process is likely to be still further confused by virtue of the fact that the spender of the family income has no family budget by which to apportion scientifically the items of expenditure. The disbursement is therefore in danger of rivalling in recklessness the expenditure of a political legislature, with appropriation often added to appropriation by guesswork, haphazard, moodiness, personal eccentricity, community fad, and emergency desire. Unlike the business man, the woman, who is the business manager of the family establishment, is not accustomed to the methods of cost accounting, which are indispensable to the intelligent direction of any modern business, large or small. The average woman, therefore, has to learn the art of spending the family income by the expensive method of trial and error. Probably upwards of $30,000,000,000 of family expenditure is thus carried on annually by the method of "fumbling through." All of this state of affairs is not due to any incompetency on the part

of the family business managers, but rather is due to the traditions, customs, and modes of living which appear in the present day family institution. Any marked reconstruction in the family economy must necessarily wait upon the evolutionary changes in the household folkways. The efforts at such a reconstruction are just now in that stage where women's curiosity is aroused over such sciences as dietetics, hygiene, child psychology, household economy, and domestic science; but as yet a hearty acceptance of these sciences which throw light on higher standards of family consumption is checked by an intuitive feeling that such studies are merely the hobbies of impractical theorists.

A forward-looking appreciation of the situation is made in a most sympathetic spirit by C. H. Cooley in these words: "It is plain also that in any plan of reform of values through demand, the mind of women must have a great part. In so far as this mind seems at present to fluctuate between conventionalism and anarchy, the cause, perhaps, is that it lacks the guidance and discipline that might come from the better organization of women as a social group. . . . The critical question here is, will women, under conditions of freedom, develop a group consciousness of their own, with high ideals of each function, and power to discipline the less responsible of their sex? It is hard to see how modern civilization can dispense with something of this kind." The gradual development in neighborhood psychology of certain standards of household economy, and the institutional development of new methods of spending efficiently, do not seem at all impracticable, and it is not unlikely that a gradual evolution of a kind of professional pride in the management of family income will be realized. An indication of the profound economic and social significance of such a development is clear in the following words of Royal Meeker, whose direction of the cost of living studies among thousands of families for the United States Department of Labor has given him an unusual knowledge of the facts: "The workers of America are obliged to live on a diet too restricted and monotonous for the maintenance of as high a degree of efficiency and

health as ought to be maintained as a reasonable minimum. I am of the opinion that the most efficacious remedy is not higher wages, but rather improved systems for distributing and marketing foodstuffs, and the education of housekeepers in the art of keeping house, with emphasis on diets. Housekeeping is not exactly a lost art. It is one of the arts that has not yet been completely found."[1]

The economics of consumption leads also to an analysis of the stratification of society into classes. Every one is aware of the existence of certain clearly defined levels of income and spending power in modern society, and these have been statistically outlined in the chapter on Ownership. The sharpest contrast between classes is obvious when the extremely rich and the extremely poor are put side by side. In between these extremes are all gradations,—unskilled workers, skilled workers, teachers, lawyers, doctors, engineers, executives, financiers, and a fairly wealthy leisure class. "Our standard of decency in expenditure . . . is set by the usage of those next above us in reputability; until, in this way, especially in any community where class distinctions are somewhat vague, all canons of reputability and decency, and all standards of consumption are traced back by insensible gradations to the usages and habits of thought of the highest social and pecuniary class—the wealthy leisure class."[2] The classes with the lesser incomes make up the mass of the population, but their standards of taste, style, and pleasure are derived, directly or indirectly, from the classes with the greater incomes. The population at the base of the pyramid draws its customs and ideals of spending money from the group at the apex of the pyramid. Hence, the people of large incomes as a class exercise an influence upon styles and standards of living altogether out of proportion to their numerical importance. They are the models among consumers, envied by the other social classes, and to as large an extent as possible, imitated by other social classes. What they buy, everybody wants to buy;

[1] "What is the American Standard of Living?" *Monthly Labor Review*, Vol. IX, p. 5. See, also, on this whole problem, "The Backward Art of Spending Money," by W. C. Mitchell.

[2] T. Veblen, "Theory of the Leisure Class," p. 104.

what they consider taboo, everybody inclines to consider taboo.

The pathways of entrance to this class are open to all comers. The inheritance of fortune places not a few people there, but there are constant accessions of successful business and professional men and women who have worked their way from the bottom to the top, from speculators whom luck has favored, from small tradespeople who have, by a lifetime of work and saving, made the necessary property accumulation. Thousands of accessions have occurred among those who are rather loosely and often inaccurately called the "war-made millionaires." But it takes a generation or so for newcomers to become assimilated into all the manners and conventions of the most influential class. There is usually a difference, obvious enough and many times humorous, between the *nouveau riche* and those "born to the purple." The latter class inherit not merely the income proper to the class, but also the bringing up in a home and community environment which assures that from youth up, their breeding will make it natural and easy for them to embody the virtues, traditions, forms, canons and standards of the class. A historical examination of the origins of a goodly portion of these class standards of consumption would lead back to the institutions of Europe,—the Europe of courts, estates, barons, counts, and kings. It is not easy for interlopers to orient themselves overnight in this historical background, and to behave gracefully in the midst of the new class psychology. The parvenu is notoriously clumsy and absurd in his attempts to adapt himself to the ways of the class, and not infrequently makes a ludicrous botch of the attempt. It is necessary then to conceive of this class which more than any other sets the canons of consumption as an institution in itself, with class traditions and class psychology, with a continuity unbroken from generation to generation, with a class self-consciousness and a distinctive group self-assertiveness.

The motives in the consumption of all goods, whether by the most well-to-do or the less well-to-do, are guided by two

aspects of the goods. On the one hand, there must be a certain base line of plain food value to satisfy primitive hunger; a certain minimum of warmth-giving quality or body-covering quality in all forms of clothing; a certain indispensable protection from the elements in all forms of housing; a certain serviceability in all forms of furniture; a certain minimum of plain, simply utility to sustain life and satisfy the imperative human wants. But on the other hand, all consumption except the rarest and crudest, requires in the food, clothing, housing, furniture and the like, a substantial element of style, fashion, culture and taste. This element in all consumption is in part of course a concession to the artistic cravings of the human spirit, but in ordinary life it is probably much more an expression of the profound human bent to ape the standards of consumption which command prestige and admiration. Goods are bought, then, partly for the service which they will give to the user, but also for the extent to which they will give the satisfaction that comes from being in style. As incomes increase, the search for elements of style and prestige becomes greater and greater, until the upper limits of lavish display of wealth are reached. When the charge is made that what troubles people is not so much the high cost of living as the cost of high living, what is really implied is that people are spending their incomes for the style, showiness, display of goods more than for their direct serviceability.

Style and display follow standards which hold sway among the most well-to-do. And among the most well-to-do, those who constitute the so-called leisure class really set the pace for consumption standards. To a very large degree, the standards which prevail there refer to extraordinary luxury, to impressive expensiveness, to costly leisure, to a rapid fluctuation of vogues, modes and styles. The extravagance of the poor, the race to "keep up" with one's set, the desperate determination to buy those things which are expected of one in one's position, the prudence of an ever-growing proportion of the higher income classes in refraining from having children lest the extra expense

might require the giving up of the most flattering standard of living,—all this has to be studied as a part of the institution of social classes. The instincts expressed in display, prestige, social approval, distinction, and reputation, are the driving human forces behind all such spending standards; and the tendencies toward imitation, habit formation, suggestibility, and crowd-mindedness are the directing influences in these phases of consumers' behavior.[1]

In the face of these psychological forces, the frugal virtues make discouraging headway. As Thorndike remarks, "There are working against thrift, the very strong original tendencies toward gratifying the gross sensory appetites, and toward display, mastery and approval." Thrift cannot be made to appeal to the imagination of the masses forcibly except as they are tempted to imitate thrift on the part of the classes which command prestige. Precisely because "the habit of aping the expenditure of those better off than ourselves is pathetically general,"[2] it is true that the formation of new habits of aping the economy and thrift of those better off than ourselves is the only broad road to successful thrift. Hence, the admonition of Thorndike is thoroughly constructive: "Thrift should then be begun with the rich, important, able, and popular. So long as it is advocated as the virtue of the poor and lowly, the young and struggling, the propaganda will be largely self-destructive. . . . If the world as a whole is to be efficient, its mighty ones must distinguish sharply between expense for efficiency and expense for display, and leave the latter to peacocks, monkeys, the feeble-minded and women who have to make themselves salable."[3] The institution of social classes, therefore, controls frugality as well as extragavance. Genuine thrift among the masses must wait until conspicuous thrift and saving are as prominent among the classes of greatest income as conspicuous luxury and waste often are at the present day.

[1] See Cooley, "Social Process," pp. 303-334; Carver, "Principles of Political Economy," pp. 48-49; Sumner, "Folkways," pp. 45-47.

[2] Hartley Withers, *Annals of the American Academy*, Vol. 87, p. 231.

[3] E. L. Thorndike, "Psychological Notes on the Motives for Thrift," *Annals of the American Academy*, Vol. 87, pp. 213-218.

Technology for Guidance of Consumption

There are three main methods in vogue for the control and shaping of consumers' demands and expenditures,—private business agencies, consumers' co-operative agencies, and political agencies.

The first of these, private business agencies, has already been discussed at length in the section on demand creation, advertising, and salesmanship. Business men do not trust to consumers to buy what they please, but at no small expense they carry on advertising and selling campaigns to control the channels in which consumers shall spend their incomes.

The second agency, consumers' co-operative adventures, are the outcome of the feeling of the individual consumer that he is utterly helpless. He buys what he finds in the stores, pays the price which he has to, and comes away with the feeling that he is at the mercy of some market juggernaut. Consumers' leagues and co-operative stores have been undertaken, but as yet have not been applied on nearly so wide a scale as they have in a number of European countries. Consumers' co-operative efforts have demonstrated their efficacy and are strongly significant as an indication of the feeling of protest in the minds of large numbers of consumers, and of the desire to assert their individual wants by a collective agency.

The third agency, political and legislative control, is highly important. A recent writer on political science has observed, "Politics is becoming the chief method by which the consumer enforces his interests upon the industrial system. . . . Business, then, must look forward to increasing control in the interests of those who buy. Processes will be inspected, and regulated by law, some industries will be operated directly by the government."[1] One of the foremost political interferences with consumers' expenditure is the method of taxation. Inheritance taxes, income taxes, excess profits taxes tend to divert a considerable share of large incomes into public uses, and consumption

[1] W. Lippman, "Drift and Mastery," pp. 71, 75.

taxes, indirect taxes, tariffs and imposts tend to appropriate relatively larger shares of the incomes of the mass of people to public uses. A great number of bureaus, maintained by federal, state, and municipal authorities, are devoted to education of people to wise use of income. Public Health Bureaus, Cost of Living Commissions, Children's Departments, Welfare Committees, Marketing Bureaus, and other like bodies, are engaged in publicity, propaganda, and organizing activity for the purpose of improving consumers' demand. Municipal parks, playgrounds, beaches and libraries are created to make it easy for people to spend their income for leisure enjoyments in as wholesome a manner as possible. Legislation is common to prevent people who by nature are easily gullible, from falling the victims of wild-cat adventures in stock speculation and of swindlers of every sort. Laws are on the statute books against the spending of money in gambling, lotteries, and games of chance. In various forms there has come into being a body of political agencies to encourage the intelligent and beneficial spending of money, and to discourage or to forbid foolish and harmful spending.

Consumers' demand, when viewed from all these points of view, is not a settled and finished fact, immune from criticism, and entitled to unbridled *laissez faire*. The using of wealth is the end and aim of the producing of wealth, and if it is used badly, its production to begin with was a waste and a futility. All too widespread has been the assumption that anybody was justified in making poor goods, or goods which could only bring harm to the consumer, provided he was clever enough to find buyers; and that if the buyers were foolish or ignorant enough to buy such goods, it was their own fault, and they deserved to suffer the consequences. Nobody was supposed to be his brother's keeper in any affair which touched the spending of his brother's income. Maximum production has been extolled as the supreme virtue without much concern as to what it was that was to be produced. Hence much production has been of a sort that degraded men in the consuming. It is encouraging therefore that the tendency is

appearing positively to treat the spending of income as a province wherein the methods of scientific analysis apply. Only by knowing why consumers behave as they do, and by understanding how their behavior can be redirected advantageously, can the modern economic community acquire an intelligent self-control.

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CHAPTER X

MONEY AND CREDIT: THEIR SERVICES AND DANGERS

The universal unit of measurement for the elements of the economic order is money. The language of business is always dollars and cents. Labor works for a money wage, capital invests money for a money return, management assembles all the factors of production in terms of money costs and money gains, the market buys and sells at a money price, finance is the institution of money itself. Every business element has to be translated into terms of dollars and cents before business men can calculate about profit or loss. The various steps and particles of the economic system must have a money price tag placed upon them before they can play a part in economic life. By thus reducing economic elements to a common language the money unit of measure serves as a great unifying and organizing factor in economics.

A price system exists when all economic services, commodities, or transactions are measured in value by some medium of exchange. The assortment of specialized services, tasks and functions has become so vast and intricate only because each separate item could be brought within the comprehensive price régime. In most modern countries, these units of money price are such as the dollar, the pound sterling, the franc, the mark, etc. In an economic system based upon money prices, all economic activity has to be reduced to a price term. This fact makes possible the minute subdivision of labor, the division of tasks, the use of machinery on a large scale and the consequent increase of production.

NOTE—The purpose of this section is not to give a technical account of the detailed processes of banking and exchange, but to describe some of the main elements in the structure of money and credit institutions. The subject involves many intricacies and much detailed analysis, and it is difficult to sort out those central and

The far-reaching consequences can best be understood only after the chief money instruments are clearly in mind, and their functions are understood.

The precious metals have been important money materials in the development of modern price systems, and the most important of the metals has been gold. In the United States at present, 23.22 grains of pure gold enter into the dollar. For coinage purposes, a copper alloy is used, so that the actual dollar contains 25.8 grains of gold nine-tenths fine. An act of Congress definitely establishes that amount of gold as the content of the dollar. Likewise anyone holding a dollar in any form of money holds the equal of 23.22 grains of pure gold. If a person has the raw gold he can take it to the United States Government and have it converted into gold coins. This free coinage insures that the ratio between the value of the gold as raw metal and the value as money coin shall remain constant. Free coinage exists for gold alone and for no other metal in this country, and this exclusive right of gold is the factor which establishes gold as the single standard of value in our price system.

The advanced economic systems of the present time are organized under a price system upon the principle of the single standard. A century ago, only one country, England, had adopted the single standard, but within the century the new principle has received wide acceptance.

The alternative was bimetallism, in which gold and silver usually were the standard metals. The reason for the general abandonment of the bimetallic standard appears in the experience, for example, of the United States. The American bimetallic system began by establishing free coinage of both silver and gold at the ratio of 15 to 1. That is to say, one ounce of gold would be coined into the same amount of

basic elements which give a substantially true and accurate description, a description which is brief yet adequate to enable the student to grasp the important problems of finance. The effort has been made, however, and it is hoped that the account of the financial institution will be, in spite of the unavoidable condensation and brevity, sufficiently comprehensive to give the student his financial bearings in his economic thinking.

money as fifteen ounces of silver. But gold proved to be worth more for other purposes than in coins, with the result that very little gold was brought to the mints for coinage purposes. The ratio was therefore changed to 16 to 1,[1] but under the new ratio it was found that it paid the holders of gold to coin their metal whereas it did not pay the holders of silver. Silver was worth more as bullion in the open market than in coins, and hence very little silver found its way to the mints. The coinage ratio between the two metals could not be made to correspond with the actual market ratio. Wherever the bimetallic standard is tried, this difficulty gives rise to what is known in economics as Gresham's law, namely, that when the market ratio of the bullion of the two metals does not correspond with the nominal ratio of coinage, the metal overvalued at the mint will tend to drive the other from circulation. The free coinage of silver was abandoned in the United States in 1873. Two subsequent acts of Congress, the Bland Allison act of 1878 and the Sherman Act of 1890, authorized the coinage of a limited amount of silver under certain restrictions. The United States has, by Act of Congress, been definitely under the single gold standard since 1900.[2]

Gold is therefore the standard of value in the price system. A bushel of wheat is compared in value with a pound of tea by comparing the amounts of gold for which each will exchange. The money price is the index of the economic value of any service or commodity or piece of property in relation to all other services, commodities and properties. The value of anything and everything is measured by comparison with the standard gold dollar, and this standard is the universal unit of economic measurement throughout the price system.

Subsidiary Metallic Money

There is a subsidiary or token metallic money which circulates and performs the services of purchase and sale, and

[1] 16 to 1 is approximate; the exact ratio is 15.988 to 1.

[2] Except for certain special legislation permitting limited coinage of silver, the United States has been on a gold basis since 1873. Bimetallism is now mainly a matter of historical interest.

which is accepted in payment because it is redeemable in gold. We have in the United States, for example, the silver dollar, the half-dollar, the quarter, the dime, the nickel and the one-cent piece. None of these coins contains actual raw silver, nickel, or copper equal in value to the figure stamped on the face of the coin. If the coins were melted and the bullion sold in the metal market, the selling price would be only a fraction of the face value which they are given in the coin. Yet they circulate freely, the reason being that they are redeemable in gold at their full face value and that they are legal tender up to certain amounts.

Those forms of money are legal tender which the law requires people to accept in payment of debts. Gold is legal tender in any amount, but the subsidiary coins in only limited amounts. An exception must be made of silver dollars, which are legal tender in any amount, except when otherwise stipulated in a contract. The smaller silver coins are legal tender to the amount of ten dollars, and nickels and pennies to the amount of twenty-five cents. The metal coins must be accepted in payment of contracts or debts to these amounts.

The inconvenience of carrying heavy and bulky coins is obviated by the use of various forms of government paper money. In popular knowledge, this paper money is simply the dollar bill, the five-dollar bill, and bills of other amounts. However, the paper bills have different origins. Some are gold certificates, with a dollar of gold reserve in Government vaults for every dollar of paper. Some are silver certificates, with a silver dollar in reserve in Government vaults for each paper dollar in circulation. The paper money is redeemable in metal coin on demand, and is legal tender in the same way as the respective coin.

We have also as paper money government notes which are not backed by a metal reserve equal to the full face value of the notes. The partial reserve is practicable because only a fraction of the paper bills will be presented for redemption at any one time. Legally, the full issue of paper money is convertible into specie, but this legal provision is made only because in actual practice the Govern-

ment is called upon to redeem only a small amount at a time. Treasury Notes of 1890, redeemable in gold coin, and the so-called greenbacks issued during the Civil War, redeemable likewise in gold coin are paper money issues of this partial reserve type.[1]

A third type of paper money is sometimes resorted to, namely fiat or inconvertible money. Government paper money of this type has no reserve of metal, not even a partial reserve. It is not redeemable in any standard of value. The United States at present has no fiat money in circulation. The greenbacks when first issued were fiat paper money, and the fact that they were not redeemable caused their purchasing power to depreciate far below their face value. When they were made redeemable in 1879, their purchasing power rose to the par of the face value. Most Governments are disposed to avoid fiat paper except in case of war emergency. Germany floated huge inconvertible paper issues during and following the World War. The war inflation in England's currency has undermined the relation between her paper money and gold reserves, and has left her, for a time, at least, on an inconvertible basis. The Russian Bolshevik Government in 1920 had already issued in Russian money an equivalent of eighty billion dollars in irredeemable paper money. Continental Europe at the end of the war was, in general, using money which could not be redeemed in the gold standard. The situation would appear, however, to be temporary and Europe appears likely to attempt to get back to a redeemable standard gradually and ultimately. The fiat principle does not commend itself as safe and acceptable to the modern capitalistic economic systems.

In the United States to-day, therefore, all forms of money issued by the Government refer to gold ultimately as the standard of value. The money forms have general acceptability in price transactions. Also they are legal tender by Government authority and are backed ultimately by gold reserves. Obviously the value of the gold in the dollar

[1] See pp. 406-411 for forms of paper money under Federal Reserve Banking System.

thus stands as the unit standard of value for the measurement of all price relations, and directly or indirectly, through the various subsidiary and paper money instruments, the money medium of the price system is maintained.

Although these forms of money establish a standard of value for the price system as a whole, nevertheless they constitute only a very small part of the actual medium of exchange. About nine-tenths of all business transactions take place without the circulation of any of these money instruments. The great bulk of business is done by credit instruments. Credit allows people to secure goods now and to pay for them later on. It means essentially the same process as borrowing. A seller trusts a buyer for payment in the future. Or a buyer pays a seller immediately with money borrowed from a bank to be repaid later. The various instruments for the application of the principle of credit serve the huge majority of all price transactions. In the forepart of the last century, credit was of small importance, but to-day it is of dominating importance throughout the price system. The credit system is a recent creation and has come about in response to the pressing needs of the highly specialized economic system resting upon machinery and applied science.[1]

Banking institutions have developed as agencies for the handling of credit and money instruments. The paramount attention of commercial banks is devoted to the operation of the credit system. Not all banks are commercial banks. Some are investment banks, some are savings banks, some are trust companies, etc. But the banks of central importance in the conduct of credit operations are the commercial banks, and hence the following description of the relation of commercial banks to credit control should be understood as a description at the outset of the pivotal part of credit institutions. This does not mean that all commercial credit passes through the hands of bankers, but inas-

[1] See Scott, "Money and Banking," 1916, pp. 92-94; also Laughlin, "Credit of Nations," pp. 8-12, and Chapter II; and H. G. Moulton, "Financial Organization of Society," Chapter IX.

much as most commercial credit does involve banking operations, it will be clearer and more accurate to study commercial credit in connection with commercial banks, and incidental forms of commercial credit which do not involve banking can be noted adequately in passing.

Commercial credit may be classified in three major forms, namely, open accounts, promises to pay, and orders to pay.[1]

Open accounts are often called book accounts, and take place with or without banking activities. An example of open accounts carried on without the direct aid of a bank is the very familiar process of "charging" goods bought from a grocery store. The grocer keeps on his books a record of all goods bought by each customer, and at regular intervals, probably every month, balances up the total price of the goods bought and the total amount of payments made by the customer during the month. The balance owing the grocer is then paid, possibly in money, more often in the form of a check drawn on the customer's banking account. If checks are used, then a process of open accounts with a bank is involved. The customer pays most of his bills, grocery and otherwise, by checks, and at the same time he is constantly receiving checks from people who owe him in settlement of their debts. These checks which he receives from others he deposits from time to time at the bank. The books of the bank make a record of all that the man deposits and all that he draws out, and from time to time the bank gives him notice of the balance. A large part of the purchases of retail dealers from jobbers are financed by book credit. The jobber carries the retailer's account on his books for a certain period of time. This open account is in the nature of a loan to the retailer for the period involved and is a common form of credit.

Promises to pay take many forms, such as promissory notes, bank notes, or government notes. The government paper money already described is in the nature of a promise by the Government to pay on demand gold or other standard money. Banks are allowed to issue notes for circula-

[1] Scott, "Money and Banking," p. 95; Moulton, "Financial Organization," p. 163.

tion, which are similar promises to pay to the bearer on demand a certain sum of money. A promissory note is a person's signed legal promise to pay at some future date a certain sum to another party. Most promissory notes are settled eventually not by the passing of specie or Government paper money, but by further credit devices. For instance, a check is drawn in payment, and the person receiving payment deposits the check at the bank, where it is recorded in the regular process of accounting by the bank.

The third form of commercial credit, the order to pay, is commonly known among business men as the bill of exchange or draft. Suppose a wholesale merchant sells to a retailer $10,000 worth of shoes. The retailer cannot pay cash,—in fact he cannot pay for the shoes until he has in turn sold them to his customers. The wholesaler must wait for his payment until the retailer has had a chance to sell a large part of the shoes. To take care of the deferred payment, the wholesaler writes out an order to the retailer to pay to him ten thousand dollars at the end of a stated period, perhaps three months. This order to pay is a credit instrument. The principle and method involved have very wide applications in business. The variety of applications will be explained more fully later in the section on banking.

Banking and Commercial Credit

Production, wholesaling, retailing, transportation, all are directly dependent upon borrowing in some form for their activities. The commercial credit operations of banks provide such loans for borrowers, and this is the paramount function of modern banks.

This assertion that banks exist primarily for the purpose of lending money does not square with a widespread popular notion of banking. The popular conception often seems to be that a bank is a place to put money for safe keeping, perhaps to draw a small rate of interest. A bank is thought of as a place where anybody's surplus cash can be deposited. Bank deposits are thought of as money put into a bank. It is true that this storing of money is an important function of banks, but under the modern price and credit

system, a new function has developed which overshadows the old in importance. Under the new function, a bank deposit is not necessarily money which a customer has put into the bank, but is a borrowing from the bank. At first thought, it seems paradoxical to consider a loan made by the bank as a deposit in the bank. The apparent contradiction gives rise to real difficulty in understanding the great service which banks render to the business community through deposit currency, *i.e.*, loans.[1]

The loan involves a sum drawn out of the bank for a period of time and a sum put into the bank at the end of the stated period of time. The loan always involves the assurance that at a specified date the borrower will return the amount of the loan to the bank. Hence, immediately and during the period of the loan, the amount of the loan is assigned to the borrower, but at maturity the amount of the loan is something coming into the bank. The loan involves a promise to pay into the bank at the date of maturity the sum specified. This assured payment into the bank is therefore rated as a deposit. The bank always has as much coming in as the amount of loans put out with borrowers.[2] Hence loan deposits are on the one hand what is due the borrowers to be supplied by the banks and on the other hand what is due the banks from the borrowers when the loans are paid up.

As explained in the Federal Reserve Bulletin, "The naïve idea that a bank deposit normally originates by the bank's customer making a deposit of cash in the bank does not reveal the substance of the situation in countries like the United States, with a highly developed system of bank credit and its utilization through the form of the deposit account. The most usual form in which bank deposits originate is by borrowers going to a bank to seek accommodation and offering their notes for discount, the bank making the loan sought by the customer by opening a credit or "deposit" on its books in the borrowers' favor. Normally,

[1] See I. Fisher, "Purchasing Power of Money," pp. 32-47.

[2] Also the bank has interest, or discount, on the principal of the loan.

therefore, what are called deposits, increase as loans and discounts do; in other words, as borrowings from banks increase."[1]

Deposit currency is the chief creation of commercial banking and a clear conception of its workings is essential at the outset. Deposit currency has come in recent years to make up about nine-tenths of the actual currency circulation of the country.

Deposit currency is a substitute for the old forms of money. The new form has come into being because it has been found more convenient for business men to use. It is created in the following manner: A bank has to begin with a certain amount of money as a foundation. The capital stock represents money paid in, the bank building has a real estate money value, a number of people in the community have left money with the bank for safe keeping. Suppose the total of all such resources amounts to $1,000,000. What is the lending power of the bank? Is it $1,000,000? As a matter of fact, its lending power is much more than that amount. The total amount which the bank can lend exceeds many times over the total amount of cash and money which the bank possesses. This, too, seems paradoxical, for it will be asked, how can a bank lend that which it does not have? If the total funds owned by the bank are only $1,000,000 how can it lend more than that amount? The device of deposit currency accomplishes the task.

A deposit loan is a loan which gives the borrower a right to draw actual money from the bank, with the tacit expectation and understanding that as a matter of real practice, the borrower will not assert the right and will not draw the actual money out. Instead of asking for the actual money, the borrower will use the loan by writing checks. To make the transaction concrete, a definite example may be assumed. Suppose the Baldwin Locomotive Company, the New York Central Railroad, and the Bethlehem Steel Company each borrows $1,000,000 from the National City Bank of New York City. The total loan made by the National City Bank would be $3,000,000. Assume that the New

[1] September 1, 1919, p. 815.

York Central orders $1,000,000 worth of locomotives to be made by the Baldwin Locomotive Company, and that the latter buys $1,000,000 worth of steel for its needs from the Bethlehem Steel Company, and the steel company buys $1,000,000 worth of raw metal for its needs. How are the accounts settled? The railroad company may write a check on the National City Bank ordering the bank to pay the amount of the $1,000,000 loan to the locomotive manufacturers. The bank thereupon transfers on its records that sum to the account of the Baldwin Locomotive Company. Meantime the Baldwin Locomotive Company meets its debt to the steel company by writing a check on the National City Bank for the amount of $1,000,000, and on the records of the bank that amount is transferred to the name of the Baldwin Company. In the same way, the Bethlehem Steel Company meets its debt by writing a check on the bank, as a result of which its loan of $1,000,000 is put on the account of the corporation with which it is doing business. The paramount feature to notice is that money has not been passing around directly through the hands of the three big corporations. They did not see, or want, or ask for gold or silver, or dollar bills. These money forms did not actively enter into the transaction. Nor need the bank have had in its vaults $3,000,000 to back up the transaction. A fraction of that amount in actual money would be all that was necessary. The deposit loan would be carried by transferring the "right to draw money" from the name of one corporation to the other. The actual money would never be touched. By the use of checks, the borrowers could direct the bank to transfer the right to the money to other parties, and the banks could record the transfer as a matter of book accounting. The actual money would not be moved.

It is natural to wonder, then, what would happen if the various borrowers should all go to the bank at once and demand actual money. The bank has given them one and all a right to claim actual money, and yet the bank does not possess anything like the full amount itself. What would happen if all these borrowers should ask for gold and silver

and dollar bills? The answer is that the whole banking and credit system is built upon the tacit understanding that the borrowers will transact their business by check and will never really draw the actual money called for in the loan. This broad understanding is the very foundation of commercial banking, and the custom of banking and commerce has become so firmly established that the understanding is as much a dead certainty as any fact in economic life. At any one time, only a few borrowers will ask for actual money. The great mass of loans are in the form of a paper statement, and the use of the amount mentioned in the loan is made by checks instead of by the actual passing of money. The deep confidence that all borrowers will not ask for actual money at once makes possible the carrying of loans by the bank much above the actual cash resources of the bank.

In the foregoing discussion, the general principles have been mentioned, but no statistical estimate has been made of the possible ratio between cash resources of all the banks of the country and the deposit loans as a total. The currency statistics of the country indicate that the cash resources of the whole banking community may be as small as about one-twentieth of the deposit currency. The lending power of the whole banking community is at the maximum about twenty times as great as its cash resources. Of course, the lending power is not always used to the maximum. This deposit currency is credit, and by this agency the countless transactions of the business community go forward, and the price system functions.[1]

There are then two major forms of deposits: First, funds actually put into the bank by customers, and, second, funds borrowed from the bank by customers; of these two, the borrowed funds constitute the great bulk. Both types of deposits are handled for the most part by checks. Checks are quicker, handier, easier. They can specify any odd amount of dollars and cents, as, for example, $1756.79, with-

[1] For the country as a whole, the percentage of cash reserve to total deposits varied from 11.7 in 1913 to 6.6 in 1919. See E. W. Kemmerer, "High Prices and Deflation," p. 28.

out the nuisance of counting out that amount of money. They can be duplicated if lost, and they can be made payable to particular persons. In the United States, checks are used in making over 90 per cent. of all payments. They simplify the vast array of price transactions, and facilitate business exchanges to the amount annually of about $250,000,000,000. They are the natural instruments for the working of the deposit loan system of credit payments.

This explanation of deposit currency has been made thus far primarily from the standpoint of the banker, but for fuller clearness an explanation should be made also from the point of view of the customer of the bank. When the business man or the corporation carries a deposit with the bank,—a deposit of the type which involves not a loan but the placing of funds in the bank's keeping,—the fund is used to meet a wide variety of bills and expenses in the business. The business man may desire to pay a dozen different concerns for raw material bought from them; he may desire to pay a score of bills incurred for working capital; he may desire to meet his regular payroll for labor; and he may pay them one by one by means of checks. At the same time, the business man has payments coming to him from those who owe him money. He is constantly receiving checks from other business men in settlement of their debts to him. As these come in, he turns them over to his bank to be recorded on his account. The bank serves as a kind of clearing office for the two streams of payments, the payments going out and the payments coming in. At certain intervals, the bank supplies reports of the amounts of each, and gives a record of the balance. The scores of business men being paid by the customer and the scores of others who are paying him what they owe him, are using for the most part checks based on bank deposits (or other credit instruments, such as drafts, bills of exchange, acceptances, etc., which will be explained later). Actual money is not being passed from hand to hand. Credit instruments enable the banker to adjust the accounts of the business man by recording the balance of receipts over expenditures. The checks show who would be entitled to the actual cash if

a showdown were demanded, and the bank were to be called upon to pay up with the money itself, and these check records make possible a book account in the bank showing what the customer has paid out by writing checks and what he has received by cashing checks received from others. The process of accounting and of balancing the two streams of payments without the actual circulation of money itself, economizes the use of money, makes the system of price transactions easier and simpler, and points to the bank as an indispensable servant of business men.

The question arises, therefore, How is the bank paid for rendering such services? The banker has to make a profit, and since the major part of his work is in the form of handling deposit currency, he must be able to make the substance of his profit from that process. For clearness, the profit from the two types of deposits may be considered separately. First, deposits which involve the actual placing of funds in the keeping of the bank may be considered. The bank may pay a small rate of interest to the customer for the sake of having the funds in its control, and then may lend the funds out to someone else at a higher rate of interest. The margin between the two rates of interest would be the margin for profit. But the funds may be placed with the bank for safe keeping and for convenience without any interest being paid to the customer. In the latter case, it is natural to wonder whether the bank can lend these funds out in the same way. The practice of banking allows the banks to lend not all but a considerable proportion of the funds, the practice being made safe and feasible because the bank knows that it will not be called upon by all of its customers to refund the deposits at any one time. Moreover, the bank can and does aim to arrange the length of time of its loans and the dates of maturity in such a way that a steady stream of loans will be maturing at known periods during the year. This arrangement, combined with the assurance that the customers will not come together on the same day and announce that one and all want their money out, makes it safe for the bank to lend out a large proportion of the amounts placed in its keeping

by customers. In transactions with such deposit accounts, the bank may or may not be obliged to pay any interest for the deposits, but does on the other hand receive the current rate of interest for lending out the funds. So whether the bank has to pay a low interest rate for the deposits or receives them free for safe keeping, it makes its profit by means of lending the funds out again at as good an interest rate as can be secured. By this means, the bank makes a profit while rendering a real service to the customers who have placed the money in deposit and to the customers who have borrowed from the funds thus deposited.

However, if this were the only means of profit, the banks would not be highly profitable institutions. They have a further source of profits in the loan deposits, because the amount which can be loaned is well above the cash assets which the bank possesses. The bank is a "manufactory of credit" in that it creates loans above and beyond the amount of its actual money resources, and this manufactured credit, this loan deposit currency, brings a rate of interest to the bank, thereby furnishing income toward the profits of the bank. To quote David Friday, "What has happened is that the bank has loaned out to people who have left those loans with the bank as demand deposits a large amount of credit in excess of its capital and surplus and deposits made by real savers. . . . The unique power which the banking institution has is this ability to manufacture credit, sell the right of its use to individuals, and yet be assured that the credit shall remain upon deposit with the bank and not be drawn out in such manner as to subject the bank to depletion of its cash reserves."[1] Moreover, such deposits as are not needed to meet immediate obligations can be invested in securities of railroads, public utilities, Government bonds, etc., to draw an investment income. Principally from these devices, the banks manage to make a substantial profit in their enterprise. The national banks of the United States, for instance, during the eight years ending June 30, 1916, made net earnings of about 9 per cent. on their combined capital and surplus.

[1] D. Friday, "Profits, Wages and Prices," pp. 213-214.

Forms of Loans

The methods by which banks loan credit assume a wide variety. One important form is single-name promissory notes of individuals or corporations. The borrower is granted a loan because the bank has confidence in his ability to pay back the amount when it comes due or in his character and integrity. No definite property is pledged as security, but the business prosperity of the borrower must be clearly assured. This business prosperity is ascertained by inquiries in the business neighborhood about the state of the borrower's business, by consultation of the records of commercial agencies, such as Dun's and Bradstreet's, indicating whether the borrower's credit rating is sound, by personal interviews with the would-be borrower, by requiring the borrower to make a detailed financial statement showing resources and liabilities, and by making sure that the borrower's quick assets are at least double his current liabilities. The last criterion is of special significance, because the quick assets include assets which could quickly be converted into money for payment of the loan when due. Such quick assets include cash on hand or in banks, bills and accounts receivable, merchandise and raw materials that are salable. These assets should be at least double all current liabilities of the borrower up to the date of maturity of the loan. The bank thereby has adequate assurance that the borrower will have full ability to pay when the time comes. Honesty and ability on the borrower's part are the fundamental considerations which determine whether the bank will consider a loan safe. Funds raised by the loan are used principally for working capital purposes, such as the purchase of raw materials or of commodities to be used in production processes or distribution processes.

A second form of loan, also of wide importance, is two-name paper. This paper covers indorsed notes and trade acceptances. Examples might be found in the retail merchant who buys goods from a wholesale house, and being unable to muster payment for the goods until he has had

time to retail them out to his customers, gives a promise to pay at the end of a certain period. The wholesaler, however, does not want to wait for his money, so he takes the promise to pay to his banker, indorses it, and secures from the banker immediate payment. The note of the retailer contains two names, his own and the wholesaler's, and this two-name paper provides two parties responsible for the payment of the note when due. The bank holds the note until it comes due, thereby granting credit or what amounts to the same thing, making a loan which finances the trade deal. A trade acceptance differs from an indorsed note in that the acceptance is an order written by the seller to the buyer requiring payment, whereas the indorsed note is a promise to pay written by the buyer to the seller. When the buyer receives the order to pay, he writes "Accepted" across its face, and returns it to the seller. The seller then holds a completed trade acceptance which he may present at his bank, and if the acceptance meets with the banker's approval, he receives payment at once. Hence the seller does not have to wait for his payment; the bank does the waiting, and thereby serves to loan the amount to finance the transaction. These forms of commercial paper arise from actual commercial transactions for agricultural, industrial, or business purposes. Commercial paper has been estimated as comprising something like one-fourth of all bank credit.[1] It provides a most important service in commercial transactions by making it possible for buyers and sellers to finance their activities in forms which supply adequate safety for bank credit support.

Other forms of loans are distinguished by other types of security. Some loans are secured by mortgages on real estate property, some by promissory notes which the borrower has in his possession awaiting payment by people in debt to him, some by collateral in the shape of stocks and bonds. If, for any reason, the loan made by the bank on such security is not paid at maturity, the bank can take the real estate, or the collateral notes, stocks, or bonds, and use

[1] B. M. Anderson, "The Value of Money," p. 512.

the proceeds from them to supply payment of the loan. Still other forms of security for loans are bills of lading or warehouse receipts. These instruments give title to actual goods in process of shipment, or in storage, and the goods themselves are the real security behind the loans.

Moreover, commercial banks use a considerable part of their funds for investment purposes. The facts of the case at this point suggest how misleading is a frequent conception of commercial banks, namely, that the overwhelming bulk of their work is devoted to purely commercial credit. "Excluding real estate loans, more than one-half of bank-credit represents either ownership of bonds (with some stock) or else advances on stocks and bonds."[1] Commercial banking is vitally dependent therefore upon investment loans, that is, long-time credit devoted to the financing of the fixed capital requirements of corporations. Purchase of stocks and bonds, or loans to others who use the credit toward such purchase of stocks and bonds is in the nature of investment credit. Stock exchange speculation relies in a very large degree upon funds derived from banks. However, stocks are a minor part of direct bank investments, the bulk of such investment loans being made in bonds, either corporation bonds or government bonds. Investment credit prefers bonds over stocks because of the more conservative character of bonds.[2]

A different classification of loans shows time loans and demand loans. Time loans run for such periods as thirty, sixty, or ninety days, or more. Demand loans may take the form of call loans, in which case they are used for stock market speculation; or they may take the form of demand credits in which it is understood that the loan will be allowed to run indefinitely, provided only that it remains safe in all respects. The length of time loans, and the dates of maturity, are arranged in such a manner that a certain amount of loans is maturing all of the time. This insures a constant stream of incoming payments for the bank be-

[1] Anderson, *Ibid.*, p. 512.

[2] For explanation of relative security of bonds and stocks, see pp. 209-211.

cause of the creditors who have to pay off their debts. By scattering the dates of maturity of time loans fairly evenly throughout the year, the bank has money coming in regularly. As loans mature, the payments on them form the basis for new loans.

Discount

When a bank collects interest on the loan at the time when the loan is made, the interest is deducted from the amount of the loan in advance, and this deducted interest is known as discount. Discount then differs from interest in that interest is collected at the expiration of a loan, whereas discount is deduction of the amount of the interest at the making of the loan at the outset. The discount enables the banker to make some profit on the transaction, and pays him for the service of creating the loan credit. The borrower is willing to pay the discount because he recognizes that the banker is rendering him a real service in enabling him to carry on his business.

The Network of Financial Institutions

Commercial banks are the most important of the financial institutions, but there are other types of financial institutions of vital importance, and the various types supplement each other in a multitude of ways. In their entirety, the financial institutions of all sorts constitute an immense financial network, interdependent and interrelated, and unify the financial services required in modern specialized industry operated under the price system.

Investment banking institutions play a very important rôle in the whole financial system, their advent being a practical necessity under the régime of corporate industry. Investment bankers serve as middlemen between corporations issuing securities and investors seeking to purchase securities. Investment bankers have thus far been keenly jealous of their reputations for dealing only in securities which are safe and reliable. They have shunned speculative securities, and have confined their services to the better type of stocks and bonds. Most corporations invite the aid of investment bankers in selling their securities to the invest-

ing public, and most investors are glad of the expert advice and assistance of the investment bankers in directing them in placing their money safely, wisely and profitably.

One function of investment banking is careful analysis of the soundness and reliability of the corporation whose securities are seeking the investment market. This analysis is possible only at the hands of experts. It includes a very elaborate survey and investigation of legal factors, such as taxation provisions, degree of regulation of the corporation by state or federal governmental commissions, laws affecting the business, etc.; of engineering factors, such as productive equipment, efficiency of management, nature of material, etc.; of financial technique, such as fair price to be charged for the securities, rates of income, dates of maturity, means of registration, etc.; of general economic factors, such as stability of demand for the corporation's products or services, advertising policy of the company, amount of competition, market conditions, labor policy, etc.; and finally, of the psychological element, such as the public taste, confidence in the leading men in the enterprise, mood of the investing public, and general acquaintance with the line of business. The isolated investor has neither the technical skill and intelligence requisite for such an investigation and analysis, nor the money or the time to carry it out.

The mass of investors are thus absolutely dependent upon the judgment of the investment bankers. They are helpless in their remoteness from the true facts of corporation finance, and in their incapacity to analyze and understand the factors which make an investment safe and sound. The average small investor buys bonds with blind confidence in the opinion of investment bankers whom he has never seen. This reacts upon the bankers as an inducement to build up a reputation for great sagacity and reliability in passing upon stock and bond issues. The bankers cover their chances of making an error by stating that the information given in connection with a bond issue is not guaranteed but comes from what they consider to be reliable sources. If the investment bankers are careless or selfish or inadequate

there may happen a calamity such as befell the New York, New Haven and Hartford Railroad a few years back. Moreover, the chances for depredations by occasional dishonest investment dealers are not properly under control under present conditions. The cardinal fact in this investment situation is the helplessness of the average individual investor, and his dependence upon investment bankers for such safety as may exist for his invested funds. Hence, the psychological factor of good will is of utmost importance to the investment banker. "In this light," as A. S. Dewing points out, "good will is perhaps a more valuable asset to his business than to that of any other merchant, and ordinarily he protects his reputation at all hazards, even though it involves him temporarily in heavy losses."[1]

In these services, the investment bankers serve as a kind of balance wheel between the optimistic psychology of the promoters of corporations and the credulous psychology of investors. The promoters of new corporate enterprises are usually characterized by the tendency to over-emphasize the bright side of their new projects. A splendid trust in the future earning power of the new corporation enables them to spread a contagious enthusiasm broadcast, and their spontaneous optimism often leads them to excessive confidence in new adventures. Moreover, the mass of investors are all too easily enthused by fine hopes, and the promise of big dividends has almost magic effects in persuading many people to sink their money in securities. A large part of the investing public is surprisingly gullible, and the investment banker saves the investor from the fate to which his own credulity would often lead him, by standing as a conservative buffer between the promoter of the corporation and the prospective buyers of the stock. How important this service of the investment banker is appears from the fact, as stated by Dewing, that "it is probably not an exaggeration to state that upwards of ten enterprises are rejected by every investment banker for every one that is accepted."[2]

[1] A. Dewing, "Financial Policy of Corporations," II, p. 28.
[2] *Ibid.*, II, p. 30.

After the investment banker has decided to act as the merchant to sell the securities of a corporation to investors, he proceeds to map out a selling plan. He seldom undertakes the sole responsibility for marketing the securities. On the contrary, he organizes an underwriting syndicate of bankers to market the securities by their associated efforts. This group of bankers takes the securities from the corporation at a certain price in the expectation of selling them to the buying public at a higher price. If this expectation proves well founded, the sales take place all right, if not, the syndicate suffers a loss. The syndicate takes the risk, in other words, of marketing the bonds or stocks. The existence of this risk is the main reason for forming the syndicate. The group action serves to distribute the risk among a number of bankers. No one investment firm is overloaded with financial responsibility, and the action as a group serves to make the whole transaction for the marketing of the securities surer and safer for all parties concerned. In the larger and more important transactions, the number of underwriters may run as high as more than one hundred.[1]

The profits of the investment bankers may be of two sorts, commissions on the sales, or bonuses of common stock. The commissions on sales arise from the margin between the price paid the corporation for the securities and the price charged investors. For instance, if the bankers buy securities at 96 and sell at 98, the margin of two gives the banker's commission. At the same time, the syndicate may be given blocks of common stock which represent not present tangible property, but have value because of the prospect that the earning capacity of the new corporations will be great enough to pay dividends on the common stock in the near future. The profits in some cases have been enormous. The promotion and underwriting of the United States Steel Corporation with its various subsidiaries resulted in the award of about one-seventh of the total capital stock of the Steel Corporation for promoting and under-

[1] Brandeis, "Other People's Money and How the Bankers Use It," p. 43.

writing services, or a total of more than $150,000,000. But there have been frequent losses of large sums among underwriters. "Their profits through successful syndicates are often almost, if not entirely canceled by losses from unsuccessful underwritings."[1] The risks involved, of course, warrant substantial profits, although in a number of cases the profits have seemed to be exorbitant and unearned. In general, the profession of investment banking is looked upon as being generously lucrative.

Investment banking involves, besides analysis and underwriting, the actual disposal of the securities to the buying public. A large part of the securities are marketed through large distributing houses, retail banking houses, bond houses, and local retail merchants. Bond salesmanship is one of the highest types of salesmanship and necessitates an unusual grade of personality, ability and enthusiasm among the salesmen. These distributors of one sort and another all rely mainly upon personal solicitation to sell the stocks or bonds. There is, therefore, a very elaborate machinery for the analysis, underwriting and marketing of investment securities, a machinery which facilitates the merging of the funds of widely scattered investors into the hands of corporations to be used for purposes of business organization and activity.

The corporation securities considered thus far have been high grade securities, where risk is reduced to a minimum for investors, where money is reasonably safe, where income is reasonably sure. But there is another class of corporate securities quite the opposite in character, and very large and very important, where the risks are so high that they are properly termed speculative securities. These speculative, or low grade securities, take the form of stocks, virtually never of bonds. Most business, at the outset, is faced with great hazards. Most corporations have to prove themselves before investment bankers will back their securities. At their best, with the most careful management and the most cautious planning, new corporations are experiments

[1] Dewing, "Financial Policy of Corporations," II, pp 125-127, 148-151.

whose chances of failure are large; and at their worst, they are reckless or fraudulent schemes to exploit a gullible public.

The downright frauds take a toll of hundreds of millions of dollars annually from the innocent public. Patent medicine fakes, fictitious schemes sold through the mails, swindles advertised in newspapers, Ponzi adventures, and their like are very common and fleece the credulous public of immense sums every year. Certain ingenious concerns have compiled lists of those people who in the past have snapped most easily for the bait of swindlers, and for a fee they provide so-called "sucker lists" to the leaders of new schemes of fraudulent exploitation. This record of the individuals of the country whose instinctive equipment makes them practically unable to say "No!" to new glittering promises of immense profit is a real asset in selling the new securities. The people on these lists are those who are incapable of guiding their future action by past experience; their psychology makes them easy marks time and again for clever swindlers.

Many low grade securities are not frauds, but are so highly speculative that the chances are strong for an ultimate collapse of the new company and the consequent loss of the money sunk in the scheme. New oil companies and new mining adventures are typical of these extremely hazardous undertakings.

In an effort to check the marketing of all such low grade securities, most states have passed laws, commonly called "blue sky laws." The laws have not proved effective to a satisfactory degree and there is still urgent need of protecting the innocent public from blind credulity, and restraining the fraudulent or reckless promoters from gross exploitation.

Two extremes of financial securities have thus far been presented, first, the thoroughly high grade; second, the distinctly low grade. There is a vast body of intermediate stocks, neither ultra-speculative nor completely conservative, which also have to find a market. This body of securities is represented in the bulk of preferred stocks offered

for sale and the more cautious common stocks. Some of these securities are sold direct by corporations to their laborers. For example, the United States Steel Corporation reports approximately 50,000 shares of stock sold to the workers in the steel plants. Some are sold direct to general investors. A very large proportion is sold through the stock exchanges.

The stock exchange is a market-place for corporation securities, including bonds, preferred stocks and common stocks. A large number of the bond issues which are sold through bond houses are also listed on the exchanges, but the actual sales through the exchanges are probably not more than one-tenth of the sales through investment bankers. The New York Stock Exchange is a voluntary association of not to exceed 1,000 members. Membership has to be purchased, and in recent years the price given for membership has run as high as upwards of $100,000. The Exchange maintains a "Committee on Stock Lists," whose duty it is to require evidence from the corporation applying to have its stocks or bonds traded in on the floor of the Exchange, to prove the financial, legal, commercial, and technical status of the concern. The Committee is a safeguard against fraudulent securities and over-speculative securities. The Committee is not so exhaustive or so careful in its analysis of the applying corporation as the investment bankers are in selecting the security issues which they will deal in, but the Committee does carry the analysis far enough to eliminate the more dangerous corporate securities from the privileges of the Exchange. There is also the Consolidated Exchange, which at first dealt almost entirely in mining securities, but which has broadened its activities, and now deals in a great many issues which are at the same time listed on the New York Stock Exchange. Finally there is the New York Curb Exchange, until recently held in the open street, which deals in a great many security issues which are too speculative to win admission to the Stock Exchange. It also provides a sale for the securities of many small corporations. The exchanges provide a market-place for the securities of different grades, and facilitate the buy-

ing and selling of investors and speculators on a grand scale.

The memberships of the Stock Exchange make possible the functions of brokers, that is, of buying and selling not for the member's own account only, but for the account of anybody who has money to place. Brokers to deal through the various types of exchanges have built up a system of large scale operations. The brokers serve as agents for customers, and work for a commission. Their duties are to buy when the customer says buy and sell when he says sell, meantime supplying him with much expert information and advice on the value and probable income of the securities in the future. The larger brokerage houses maintain branches in the large cities of the country and are in constant communication with the branches by an elaborate telegraph system.

In the year 1918, the volume of transactions on the New York Stock Exchange alone was 144,118,469 shares. That number of shares changed hands between buyers and sellers. The total par value of all securities listed on the New York Stock Exchange in 1918 was approximately $40,000,000,000.[1] "On the floor of the New York Stock Exchange we have dealings in excess of 25 billions for 1909. This is nearly as large as the figure we have assigned. . . . to total retail trade of the country, and it may well exceed the retail trade in fact."[2]

A large proportion of these stock and bond transactions is conducted by means of borrowed money and checks, in other words, by means of bank credit. The common form of bank credit to finance speculative deals is call loans, that is, loans which the banks can require to be repaid at a day's notice. The call loan is used by the broker to provide nine-tenths of the purchase price of the stock, the other tenth being provided in cash by the customer. This form of buying and selling is known as trading on margins. Bank credit is extended, moreover, in vast amounts, to corporations to provide them with capital needs, and is se-

[1] Jordan, "Investments," pp. 258-259.
[2] B. M. Anderson, "Value of Money," p. 250.

cured by stock and bond collateral. Also, banks directly invest in the neighborhood of 20 to 30 per cent. of their funds in stocks and bonds, and these investments constitute for the most part long-time loans. Bank loans for investment or speculative purposes thus comprise an astonishingly large proportion of the credit extensions of commercial banks. The conclusion has been drawn by Moulton that, "It is enough that we may safely conclude that around 50 per cent. of all loans of national and state banks and trust companies is devoted to investment uses, and that, including direct investments, in the neighborhood of two-thirds of all the credit extended by commercial banks goes for fixed rather than for working capital."[1]

In one way and another, the market facilities for stocks and bonds supplied by the exchanges are of the greatest importance in the organization of the price system, and are indispensable for a system of economic enterprise in which corporation securities play a primary part. The exchanges make possible a place where the holder of securities can virtually always find an immediate sale for his holdings. The would-be buyer can find offerings of securities to suit every whim or taste, from the ultra-risky to the ultra-safe. People having funds for short periods available for use can place them in remunerative securities for the limited period. The constant bidding and asking of prices between buyers and sellers places a constant valuation upon the securities of any corporation, a valuation which takes fully into account the prospective earning capacity of the corporation. In brief, the services of stock exchanges may be summed up as follows: First, they make it possible for anybody to convert his savings into shares of property which yield income; second, they insure that shares of corporate property shall always be marketable, that whenever the holder wants to sell, he may find a buyer; third, they provide a means whereby those who are willing to take the speculative risks of industry may compare their forecasts of industrial and commercial values, and of the future

[1] *Journal of Political Economy*, Vol. 26, p. 658. See also B. M. Anderson, "Value of Money," Chapters 13 and 19.

earning power of corporations, and by their competitive and composite judgment adjust property prices to property earning power; they make possible bank credit based upon material which can be quickly converted into money, that is, based upon collateral security in the form of stocks and bonds.

Savings Banks

Another form of financial institution is found in savings banks. These banks exist for the purpose of collecting savings in small amounts. People who can lay aside only a few dollars at a time find in savings banks a place for the safe keeping of their money and at the same time are able to draw a small rate of interest. The banks make profits by lending out the bulk of the deposits thus made, at higher rates of interest. The loans must be very conservative, and the type of loans which can be made is restricted by law to the safest and best. In 1920, the savings banks of the United States had over 11,000,000 depositors with a total of deposits of more than $6,500,000,000. This vast fund of savings, averaging for each individual depositor less than $700, is aggregated by the savings banks, and the lump sums derived from the assembled mass of petty accounts are used to finance the fixed and working capital requirements of industry to a huge total amount. The function of the savings banks for the depositors consists of holding their savings in safe keeping at a small interest rate; their function for industry and commerce at large consists in bringing together a scattered mass of individual small sums into a total fund of capital available for investment and commercial credit. The savings banks pool the savings of millions of small investors and thus make their savings available for large scale credit operations such as are necessary in the conduct of modern corporations.

An essentially similar function is performed by insurance houses, although they are not commonly thought of primarily as savings bank institutions. However, the premiums paid into the insurance companies build up large

funds which must not be allowed to lie idle. The insurance companies use the funds derived from premium payments for investments and loans. The total amount of life insurance assets utilized in this way in 1917 was nearly $6,000,000,000. The money paid in by millions of scattered policy holders is thus collected into lump sums, and converted into real estate holdings, mortgages, bonds, high grade stocks, policy loans, and short-time loans to business concerns. Insurance concerns are usually under careful government supervision and are required to be highly cautious in placing loans and investments. Their responsibility to their policy holders is of the utmost importance, and their services to industry and commerce generally in the form of credit creations facilitate greatly the activities of economic life.

Trust Companies

The complicated interrelations of modern finance led during the last generation to the organization of trust companies. Their functions are various. One function is to act as trustee of the mortgages or collateral pledged as security when bonds are issued. This trusteeship requires an oversight of the value of the properties pledged as bond security, and a responsibility for observing that the terms of the bond are lived up to by the corporations concerned. This function therefore serves to protect the rights and interests of investors who could not personally take charge of such matters. A second function is that of transfer agent. When one form of stock is substituted in a corporation for another form, when one form is replaced by new forms of securities, the trust company acts as agent to call in the old certificates and pass out the new ones. It is also transfer agent in recording the transfer of stocks and bonds from one owner to another. The trust company stands between the corporation and the owners of its securities, with the responsibility for an independent and reliable record of all such transfers of securities. A third function is registration of securities to prevent overissue. The trust company, by registering the total of all stock

actually issued, can make sure that this total does not exceed the amount authorized. As registrar, the chief service of the trust company is to prevent the corporation from issuing securities above the maximum authorized. Fourth, in case of default of interest on bonds, or of insolvency, or reorganization or amalgamation of properties, it becomes important to have a reliable agent who can hold stocks and bonds and other property claims in trust pending the readjustment of property. The trust company is the logical agent for this service. Finally, trust companies act as fiscal agents for private corporations and for educational and social institutions of many sorts. The fiscal duties may be the supervision of interest and dividend payments, the custody of securities, a careful scrutiny of the property and business of corporations whose securities are in custody for the purpose of making sure that efficiency and stability are maintained, and a general charge of the care and protection of property interests for their clients. These services are all indispensable under a corporate property régime, and the trust companies therefore are an indispensable institution in the corporate financial system.

There are other highly important services of trust companies in addition to their services to corporate industry. The handling of estates has come to involve so many technical and legal problems that it requires the constant guidance of experienced and skillful experts. Trust companies act as administrators, executors, guardians, trustees, assignees, custodians of properties, etc. They offer services for the making of wills, and for executing them in due time. Holders of property who do not wish to be bothered with managing it, or who do not feel themselves competent to manage it, can voluntarily turn the property over to the care and control of a trust company, thus receiving all of the benefits of property ownership with few of the worries and responsibilities of managing it. The expert guidance and control supplied by trust companies is of imperative importance for the safe and wise use of vast amounts of property. Trust companies may also engage in the prac-

tices of commercial and investment credit.[1] In a wide variety of ways, they supply essential functions in the operation of the highly technical economic system of modern times.

Foreign Investment Banking

The exchanges provide facilities which are taken advantage of in the buying of domestic securities, but offerings of foreign securities require other marketing facilities. Before the World War, European nations were well advanced in facilities for the safe investment of their funds in the securities of countries all over the world. The foreign investments of Great Britain alone amounted to nearly $20,000,000,000 before the war. European nations before the war held upwards of $6,000,000,000 worth of the securities of American corporations. The savings of Europeans each year gravitated toward the corporation stocks and bonds of foreign countries, with the result that the industry and commerce of non-European countries were in a very considerable degree owned by Europeans. The development and economic progress of outside countries depended upon capital funds from the more highly developed industrial countries of Europe. Each country had financial institutions which connected investors at home with securities abroad in ways which were reasonably safe and profitable. For example, the investors of Great Britain had access to British investment trusts which served as a medium and agent between home investors and foreign corporations. These trusts were able to make some analysis of the corporations seeking a market for their securities in Great Britain, and were able to diversify investments in such ways as to minimize the risks of foreign investments within safe limits.

[1] In fact, most trust companies now have a large part of their operations in the form of straight commercial banking and of investment banking. Trust companies may become members of the Federal Reserve System; and commercial banks which are members of the system, may by special permission of the Federal Reserve Board, engage in the special trustee activities of trust companies. Trust companies also, in many instances, combine with their commercial banking activities, the activities of saving banks. Some trust companies are such in name only and do almost wholly commercial and savings banking.

Before the war, the United States bought only a negligible amount of foreign securities. Her home savings were not enough to buy all of the securities of her home corporations. American corporations often relied upon European investment bankers and trusts to float their securities in European market circles. As stated, American securities owned abroad were nearly $6,000,000,000. The war changed the relationship so that now these securities have largely returned to the hands of American investors, and, what is more impressive, Americans hold upwards of $4,000,000,000 of European securities. In addition to these security holdings, the United States Government has loaned to the European countries about $11,000,000,000, and a floating indebtedness to Americans for unsettled export accounts has run up to over $3,000,000,000. This situation involves an annual interest owing the United States of about $600,000,000. These relations make of the United States a creditor nation.[1] The fuller implications of this creditor status will be gone into later, but at this point it is important to understand that the net effect upon the financial institutions of the United States is to encourage a continued and increasing investment of American funds in the industrial securities of those European countries which are debtors to the United States.

Investment trusts therefore become a necessity in this country. Under the Edge law, passed by Congress since the war, banking institutions are authorized to associate themselves for the purpose of making available to American investors securities which will provide funds for commerce and industry for foreign countries. Several such associations among large bankers have already been formed, and although the future of their activities is uncertain, it appears hopeful that the new investment trusts for foreign corporation securities will have indispensable func-

[1] See Annual Report of United States Treasury, 1920, pp. 73-92; Federal Reserve Bulletin, Nov., 1921; Moulton and Bass, "America and the Balance Sheet of Europe," pp. 19-27; Friedman, "International Finance and Its Reorganization"; "Annals of the American Academy," March, 1921; B. M. Anderson, Jr., Chase National Bank Economic Bulletin, Oct. 5, 1920.

tions in the placing of American savings and in the financing of foreign industry and trade.[1]

Other Financial Organizations

Several other credit and money organizations enter into the processes of the financial system. Commercial paper houses operate by selling notes and bills of exchange of business men to bankers. They serve as brokers, and business men find it advantageous to patronize them because of rates more favorable than banker's rates, or because a business firm wants more credit than its bank desires to handle, or because a firm desires to treat its borrowing power with its bank as a reserve for emergency needs. Discount companies operate by purchasing accounts receivable from business men, thereby supplying business men who have sold goods on credit with immediate money for their business needs. The discount company waits for the accounts to mature, and thereby serves both the buyer and the seller of the goods. Such companies, in turn, borrow heavily from the commercial banks to obtain the funds which they supply to business men, by discounting their accounts receivable. A large part of the accounts receivable discounted in this way are automobile accounts. The automobiles of the country are bought, in the majority of cases, on credit. The automobile corporations are not themselves able to wait for the accounts to be paid, and hence secure immediate money by discounting the promises to pay of the buyers of cars with discount houses or automobile banks.

Agricultural credit has in the past been subject frequently to very high rates of interest. The credit has been secured largely from country commercial banks, cattle loan companies, private individuals, store keepers in the community, the manufacturers of farm machinery, and farm mortgage companies. Since 1916, agricultural credit has been facilitated by a Federal Farm Loan System, which

[1] Moulton, "Financial Organization of Society"; J. M. Keynes, "Economic Consequences of the Peace"; F. A. Vanderlip, "What Happened to Europe"; P. M. Warburg, *Political Science Quarterly*, December, 1920. See also pp. 423-426 of this volume.

provides for Federal encouragement and supervision of Federal Land Banks, Farm Loan Associations, and Joint Stock Land Banks.

The basic principle of this system of farm credits is that farmers may borrow money by giving, as a security, mortgages on land values, and that the farm banking institutions may use this mortgage security as the basis of bond issues to be sold to general investors. The sale of such bond issues supplies the banks with funds which can be used in the financing of further farm loans based in turn on their proper security of land mortgages. Thus the farm banks obtain a large part of their loanable resources by issuing bonds based upon farm mortgages in their possession. Other resources are obtained by the sale of capital stock to private investors and to the United States Government. Farmers secure their credit by mortgaging their land to the banks as security for the loans. The machinery of this farm credit system consists, first of all, of a supervisory body, known as the Federal Farm Loan Board. This board divides the country into twelve districts, and establishes a Federal Land Bank in each district. Each of these twelve district land banks may in turn establish branches in its own district. The amount of loans of these land banks in 1920 was about $350,000,000. Loans of these Federal Land Banks are made through Farm Loan Associations, composed of farm owners, who own shares of the capital stock of the land bank. Rates of interest are not to exceed six per cent. and loans may run from five to forty years. In 1920 there were approximately four thousand Farm Loan Associations in operation, principally in western and southwestern states. There are also established, under supervision of the Federal Farm Loan Board, what are known as Joint Stock Land Banks, which are private corporations, and which cannot have any of their stock owned by the United States Government. These banks are subject to the maximum interest rate of six per cent. and they may, subject to certain limitations, loan any amount they wish and for any purpose. In 1920, there were twenty-five active banks of this type, with mortgaged loans amounting to

approximately $79,000,000. By this machinery, long-term rural credits are facilitated, but short-term credits are not materially aided. Moreover, the loans of the land banks are aimed to aid persons who are already owners of some amount of land more than to aid tenants of farms. The system needs a much wider extension than at present, but it is a move in the direction of supplying farmers with credit at reasonable rates of interest when and where needed.

In addition to all of the previously mentioned credit institutions, there are numerous pawnbrokers who furnish credit, usually in small amounts; there are so-called loan sharks who make loans to people who are in pressing need of small sums, at rates of interest running as high as 200 and 300 per cent.; there are co-operative banks established by credit members and others established by labor unions, the latter being illustrated by the recent banks organized by the Railroad Brotherhoods; there are Morris Plan Banks, which extend credit for consumers' needs; and there are building and loan associations with a membership of more than 4,000,000 and total assets of about $2,000,000,000 which serve to finance home buying and to care for the savings of members and investors.

This array of financial institutions, ranging all the way from commercial banks to building and loan associations, constitutes a vast mass of credit and money organizations, a varied and scattered horde of different types of concerns, each serving special needs and performing in its own particular way useful and indispensable functions. But in their entirety they are bound together in one harmonious, unified, interrelated price system. The two striking aspects of the whole financial system are first the immense variety and the wide range of different types, and, second, the unity of financial organization which is attained out of the multiplicity of forms and types. The means whereby unity is achieved deserve description at some length.

The Interdependence of Financial Institutions

The multitudinous types of financial organizations are all cogs in a single financial wheel. They are interrelated and interdependent, and function as a financial clockwork.

It has already been stated that the commercial banks hold the position of dominating importance in the financial structure, and it is therefore proper to consider the machinery by which the commercial banks within each local community and between communities are enabled to function in co-operation and harmony with each other. In any city of considerable size, the main banks are organized in clearing houses. The principle of the clearing house is in essence that the member banks shall settle the balances of debit and credit among themselves by a process of cancellation. In a single city, the banks are not acting each independently of all the others, but are constantly doing business with each other. If there are twenty important commercial banks in a given city, the depositors of each bank are drawing checks on their accounts and sending the checks to depositors in the other banks as a means of paying bills to business men who keep their deposits with those other banks. Suppose a business man who does his banking with bank No. 1 is engaged in business deals which involve the payment of bills to and the receiving of money from fifty other men. Suppose the fifty other men have banking done, not by bank No. 1, but by the other nineteen banks in the city. Checks are passing back and forth through the various banks, to and from the various business men, with the result that the deposits of each business man vary from day to day. The check amounts to an order to the business man's banker to transfer a certain amount of funds to another man's banker to be put to the deposit account of the second business man in that bank. Hundreds of checks call for hundreds of transfers of funds from bank to bank, involving millions of dollars. The clearing house is a simple and convenient means of effecting such transfers by means of cancelling the accounts of the various banks in the clearing association. Each bank sends to the central clearing house its checks on other banks, representing the amount owed *to* it by other banks. The other banks bring to the clearing house the checks on the bank first mentioned, representing the amount owed *by* it to other banks. The

totals are set over against each other, and balances are ascertained. The balances only are paid.

The methods of paying such balances vary greatly, including direct transfer of cash, clearing-house certificates based upon cash deposits by each member bank with the clearing house, drafts by small banks upon banks in large centers, and adjusting banks' balances with the regional Federal Reserve Banks. Since the entry of the Federal Reserve System of banking, balances can be settled by each bank's depositing funds with the Federal Reserve Bank of the district and thereafter ordering the bookkeepers of the Federal Reserve Bank to transfer on their books the balances involved in the inter-bank clearings. A system of book accounting then increases or diminishes the deposits of each bank and thereby, without the handling of actual money, even the balances are adjusted by merely making the proper entries on the books of the Federal Reserve Bank.

A considerable percentage of the banks in a city are not members of the clearing-house association, due to the cost or to the fact that they are not wanted. These non-member banks clear their accounts by using one of the member banks as agent. In smaller communities, local clearings between banks are made by each bank's sending a messenger to the other banks to present the check accounts, and thereby to secure a cancellation of a part of the count and a payment of the balance. The bulk of clearings, however, are made through the big banks organized in clearing houses. The largest clearings are in New York, where the average daily clearance runs above $300,000,000.

The consideration thus far has been devoted to interbank clearings within a town or city. It is equally important to effect clearings between banks scattered all over the country. The Federal Reserve System supplies a means for carrying out these clearings between the banks of different communities. Twelve Federal Reserve Districts are marked out, with a Federal Reserve Bank in each district. Each of these reserve banks acts as a clearing agent for the banks within its district. For example, if a bank in Buffalo re-

ceives from one of its customers a deposit of checks, some of them made out on a bank in Albany, some on a bank in Rochester, and some on a bank in Poughkeepsie, the Buffalo bank may send the checks direct to the Federal Reserve Bank of that district, located in New York City. The Federal Reserve Bank in turn makes the collections from the banks in Albany, Rochester and Poughkeepsie. At the same time, the three latter banks may have sent checks drawn on the Buffalo bank to be collected through the Federal Reserve Bank. The reserve bank, by a process of book accounting, may offset the debits and credits of the various banks, and the balances may be adjusted by book entries transferring deposits which the member banks carry with the reserve bank. This system practically does away with the shipment of specie from bank to bank, and effects clearance between banks by the use of checks and book accounting.

The clearings between banks in the twelve separate reserve districts are effected in a similar way. A bank in one district desiring to collect a check drawn on a bank in another district sends it to the reserve bank in its own district, which forwards the check to the reserve bank in the other district, which in turn collects from the specified bank within its jurisdiction. Each of the twelve Federal Reserve Banks ascertains daily the total of all its credit demands upon the other reserve banks and wires the amount to the Federal Reserve Board at Washington, D. C. This central organization at Washington holds a "gold clearance fund," consisting of actual deposits of gold or gold certificates from the twelve reserve banks. The central board therefore lines up the claims of each of the twelve reserve banks against the others, and after arriving at the balances due to or from each bank, pays the balance by making an entry on its books increasing or diminishing the gold deposits of each bank. This gold clearance fund is not actually handled in each case; there is simply a record made on the books of the central board signifying that a part of the gold deposits of one reserve bank is transferred to the account of another. This system of clearance involves a

minimum of money shipments, and accomplishes the services of clearance by the use of checks and book accounting.[1]

The principle of clearance of interbank accounts has the most far-reaching and inclusive applications throughout the banking system. It unifies the financial services of the 30,000 commercial banks of the country, and facilitates the use of credit in the bulk of trade and industrial transactions. It provides the machinery for an adequate enforcement of the solid interdependence of financial institutions and simplifies the almost infinite interrelations of tens of thousands of banks in a most economical and reliable way.

The Federal Reserve System

Banking in the United States is supervised by what is known as the Federal Reserve System. The unification and the effectiveness in almost every way, of the banks of the country, are directly related to the Federal Reserve System.

The Federal Reserve System was established by an Act of Congress in 1913, and has been subject to a number of subsequent modifications and improvements. The system provides for twelve banking districts in the United States, the boundaries of the various districts being set by commercial and industrial reasons rather than by geographical ones. Each district has a city containing a Federal Reserve Bank. The twelve reserve cities, the financial centers of their respective districts, are as follows: Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas, San Francisco.

An impressive feature of the organization of the twelve Federal Reserve Banks is the extent to which they are owned and directed, not by government officials, but by the member banks of the districts. Each member bank is required to purchase a minimum amount of the capital stock of the reserve bank of the district. Hence, the capital stock of the Federal Reserve Banks is owned by the member banks of the respective districts. The board of directors of each Federal Reserve Bank consists of nine members, six of

[1] See E. W. Kemmerer, "The A B C of the Federal Reserve System," Chapter VIII.

whom are chosen by the member banks, and three of whom are chosen by the Federal Reserve Board at Washington. Hence the dominant power in the board of directors of each reserve bank is not with the three appointees of the Government, but with the six representatives selected by the member banks. The central board, known as the Federal Reserve Board, consists of seven members, including the Secretary of the Treasury and the Comptroller of the Currency as ex-officio members, and five men selected by the President of the United States. There is also a Federal Advisory Council, consisting of one representative from each of the twelve reserve banks, to keep in advisory touch with the Federal Reserve Board. These items constitute the main framework of the Federal Reserve System. Hence, the organization provides for a substantial amount of unification of control, but this is not carried to the extreme of government paternalism. The co-operative unity of the twelve reserve banks enlists the concerted interest of the constituent parts of the system as much as possible.

The principles and policies of the system cannot here be presented in all their elaborate detail, but the basic features can be given in a condensed form which ought to make a clear picture of the primary functions and purposes. This condensed description will be given under the following heads: centralization, note issue, deposit currency, reserves, clearings, panics.

Centralization

Prior to the Federal Reserve System, the banks of the United States, about 30,000 in number, were for the most part, independent concerns, each working for itself and by itself, with little co-operation or teamwork. The thousands of banks were extremely decentralized, their reserves were scattered widely, their interrelations were limited, and each bank was largely dependent upon its own resources, and those alone, in time of need or of panic. The Federal Reserve System set up a machinery which tended to increase co-operation between banks, to bring about co-operation in the use of their resources, to enable strong banks to tide

deserving weak banks over crises, and to centralize generally the functions and powers of the banking world.

Note Issue

It had long been a practice for national banks to issue notes secured by Government bonds, for the purpose of providing a circulating medium to perform the work of money instruments in the business world. Bank notes, in popular knowledge, are simply five dollar bills, and bills of higher denominations, which pass from hand to hand in everyday buying and selling. In times of business prosperity and expansion more of these bank notes are needed. More money is needed to produce and market more goods. Prior to the Federal Reserve System, before the bank could issue additional bank notes to meet the new trade needs, it had to purchase an equal par value of United States Bonds as security for the notes. If the price of bonds on the market was high, it might not be profitable for the bank to purchase them as a basis for the note issue. It so happened that often when trade needs called for new note issues the prices of Government bonds were high, and the result was that just when the trade needs were most urgent the banks might be most heavily discouraged from buying bonds as a basis for new note issues. Therefore the note issues did not expand and contract with trade needs, and the resulting inelasticity of hand-to-hand money was a most distressing embarrassment for the commercial and industrial life of the country.

The Federal Reserve System did not abolish the old national bank notes which remained in existence in 1913, nor did it forbid further issues of them, but it provided means making possible their gradual elimination from the monetary supply if the banks desire such an elimination. A new bank note currency of two sorts was created,—Federal Reserve Bank Notes and Federal Reserve Notes. The former were in most essential respects similar to the old national bank notes, being secured by purchases of Government bonds or short-time obligations of the United States Government. Provision is made whereby the new bank notes

can be gradually substituted for the old national bank notes. Early in 1920, the old national bank notes still outstanding amounted to about $725,000,000. In the seven years of the Federal Reserve's operation, only about $32,000,000 of the old bank notes had been retired,—a condition which would indicate that the old bank notes are likely to remain in circulation for some time to come. The total volume of the new Federal Reserve Bank notes on January 18, 1922, was $84,878,000. Hence the combined total of old and new bank notes outstanding was approximately $800,000,000.

If the Federal Reserve System had provided no other form of note issue than this, it would not have solved the problem of elasticity of circulating currency to fit the trade needs of the country. The system did provide a further form, known as Federal Reserve notes, and these notes are directly calculated to supply the needed element of elasticity in the currency system. The Federal Reserve notes are issued against commercial credit instruments primarily, but are possible also against gold and gold certificates. Commercial credit instruments are the fundamental reliance for assets to back up the notes. Such commercial credit instruments include promissory notes or bills of exchange or bankers' acceptances which represent strictly commercial, industrial, or agricultural transactions, but exclude credit instruments to be used for speculative purposes. Assets for these notes also include credit instruments created for the purpose of trading in the securities of the United States Government, a provision widely utilized in floating the war loans.

The method of putting out these notes is, in its main essentials, as follows: Any member bank which finds that some of its customers desire actual paper money when they borrow from the bank instead of a deposit loan upon which to draw checks, will send some promissory notes, or bills of exchange, or banker's acceptances to the Federal Reserve Bank of its district. This reserve bank will rediscount the credit instruments thus received,—that is, will pay the member bank the amount of the credit paper less a rate of interest deducted in advance. The form of payment will

be Federal Reserve notes. These notes are simply the paper bills which everybody freely uses in everyday purchases, and the member bank can pass them out at the cashier's window in making change, or in cashing checks. It can lend them out to borrowers from the bank, drawing on them the prevailing rate of interest. A loan of this sort differs from a deposit loan in that the borrower takes away with him a roll of paper bills instead of a mere entry on the bank's books entitling him to write checks to the amount of the loan. The bank makes a profit because it secures interest on the paper bill money supply. The circulating currency of the community is increased, and hence the expanded trade needs of the community are taken care of.

The commercial paper which the Federal Reserve Bank discounted has to be deposited with a Federal Reserve agent who has in his keeping a supply of paper notes ready to turn over to the reserve bank when the proper commercial paper is presented to him. This Federal Reserve agent represents the United States Government, since he is one of the men on the board of directors of the reserve bank who is appointed by the Federal Reserve Board in Washington. He is directly a Government agent. A further requirement must meantime have been met by the Federal Reserve Bank, namely, it must keep a gold reserve of not less than 40 per cent, as a security behind the notes. The total outstanding notes on December 23, 1920, were $3,404,931,000 and on January 25, 1922, $2,184,001,000. The process of this note issue from beginning to end can be summarized as follows: First, an actual commercial, industrial, or agricultural transaction, or purchase of Government securities; second, a credit instrument, such as a promissory note, bill of exchange, or banker's acceptance; third, the credit instrument from the local bank rediscounted through the Federal Reserve Bank of its district; fourth, the credit instrument deposited with a Federal Reserve agent as the basis of note issues and simultaneously a pledge by the Federal Reserve Bank of a gold reserve equal to 40 per cent. of the note issue; fifth, the notes turned over by the agent to the reserve bank and by it passed on to the member

bank where the credit instrument originated; finally, the notes passed out by the local member bank to its customers in the loans and other financial relations of that bank, so that the notes finally become actual circulating medium. The whole process provides an elastic note issue because the starting point of the increased note supply is increased commercial, agricultural, and industrial activity with its accompanying commercial paper, and the finishing point is more paper money in circulation to take care of more business activity.

In actual banking practise, it is very common to deviate from the course which has just been outlined. Banks get the notes first and borrow afterward. The notes are charged against their accounts and sent to them at their request, and it is only when their reserve balance is going to average below the required amount during the period, that they borrow to replenish the account, which may have been drawn down by payment of checks against the bank, or through the clearing house, or by demands for currency.

When business activity decreases, the note issue tends to be retired in proportionate amounts. The member bank receives the paper notes back from its customers in the daily round of duties. The paper money is used to pay wages, to meet bills at the grocery store and the dry goods store, to pay for farm machinery, to settle personal accounts and in a wide variety of daily business dealings. The various parties concerned put their money on hand on deposit with their bank, in other words, the paper notes float back to the bank which holds their accounts. The local bank can use the paper notes then in meeting its payments to the Federal Reserve Bank, and the Federal Reserve Bank can retire the notes as they come in. It is to the interest of the local bank to return the notes to its Federal Reserve Bank because the local bank is forbidden to count such notes as legal reserve. If the paper notes go to other banks than the one which first passed them out, the other banks find it to their interest for the same reason to use them in payment of their obligations to their Federal Reserve Bank. This contraction of note issues is

described in a report on Federal Reserve Notes and Currency Expansion made by the Governor of the Federal Reserve Board in 1919. The report states that the Federal Reserve notes "are issued only as a need for them develops, and as they become redundant in any locality they are returned to the Treasury at Washington, or to a Federal Reserve Bank for redemption. Thus there cannot at any time be more Federal Reserve notes in circulation than the needs of the country at the present level of prices require, and as the need abates the volume of notes outstanding will be correspondingly reduced through redemption."

It will be remembered that gold and gold certificates may also serve as the basis for such note issues. If banks had gold, it was policy during the war especially, to encourage member banks to meet their obligations to reserve banks in gold. Hence gold and gold certificates have been concentrated in the vaults of the reserve banks, where they serve as the basis for note issues up to the value of the gold. The credit expansion of war times to meet the needs of increased trade and production was thereby made possible, because the gold concentrated in the reserve banks stood as the basis for continued notes outstanding. Most of the gold and gold certificates gravitated into the reserve vaults of the reserve banks and have been almost entirely withdrawn from active circulation. As stated in the Federal Reserve Bulletin of August 1, 1919, "Federal Reserve notes have practically displaced gold certificates in circulation, the latter being drawn into the banks and used as reserves, while a corresponding amount of reserve notes have been issued to take their place as media of exchange."

In popular usage, the various forms of bank note issues are considered as money. The various forms of money in existence in the United States would, then, be gold, silver and other metallic money; Government paper money, such as gold or silver certificates; Treasury notes; United States notes; National Bank notes; Federal Reserve Bank notes; and Federal Reserve notes. The grand total of all these forms of money in the United States in 1920 was approxi-

mately $8,000,000,000. This sum is the general stock of money in the United States. But not all of this is in circulation. Something like one-third of the amount is held in the United States Treasury and in the banks as assets and reserves; the remaining proportion, roughly estimated at two-thirds, is in actual circulation. This circulating money passes from hand to hand many times during the year. The rate of turnover of the money supply is not constant from year to year, but studies by Irving Fisher and others indicate a rate of turnover ranging near to twenty. In other words, the average dollar changes hands in the course of a year about twenty times.[1]

Deposit Currency

It is apparent that money provides a medium of exchange for an enormous volume of trade. Taken by itself, the volume is enormous, and yet, in relation to the total volume of trade of the country, it is small. The estimates made by Fisher indicate that the total volume of trade is from twenty to thirty times as great as the fraction which is conducted by the use of money as a medium of exchange. What, then, is the medium of exchange for this huge balance of trade? The answer is, deposit currency.[2] The deposit loans and accompanying checks supply the medium of exchange for the overwhelming preponderance of business deals. Consequently, important as an adequate supply of money may be in all economic life, there is a vastly greater use made of deposit currency as a medium of exchange.

Prior to the Federal Reserve System, the banks were unable to adapt deposit currency to trade needs. Their organization was so decentralized, their reserves were so scattered, and their individualistic power was so accentuated that deposit currency was often lacking to meet trade

[1] Kemmerer, "A B C of Federal Reserve System," p. 57; Fisher, "Purchasing Power of Money," p. 290; Anderson, "Value of Money," Chapters 12 and 19; I. Fisher, *American Economic Review*, 7: 934.

[2] See I. Fisher, *American Economic Review*, 7: 935. It should be noted that the rate of turnover of deposit currency is two to three times as great as for money; e.g., Fisher estimates for 1916 that money changed hands about 24 times in the year, and deposit currency 60.2 times.

needs in time of prosperity. No unified control existed to check extremes of speculation, and no adequate concerted policy prevailed in time of financial crisis to tide weak companies over periods of danger. The deposit currency was deficient in elasticity, with the result that farmers and business men suffered from sharp swings of the interest rate, and from inability to secure loans when they were most needed, and banks suffered from the extreme risks of their individualistic attempts to shoulder the responsibilities of large loan deposits in times of emergency. The Federal Reserve System has changed the face of things in a very substantial way. The key to elasticity under the Federal Reserve System lies, first of all, in the method of centralizing and mobilizing reserves.[1]

Reserves

Under the old banking system, banks in large cities had to carry a money reserve of 25 per cent., banks in medium-sized cities a reserve of 25 per cent., and banks in country towns a reserve of 15 per cent. Under the Federal Reserve System, the reserve requirements for each class of banks is reduced to 13, 10, and 7 per cent. respectively against demand deposits, and to 3 per cent. for all classes alike against time deposits.

Moreover, the Federal Reserve System provides that the full legal reserve of each member bank shall be kept in the Federal Reserve Bank of its district. This new reserve requirement has therefore greatly increased the loaning power of the banks. Their capacity to carry loan deposits increased immensely when the minimum reserve requirements were cut by the new law. Each Federal Reserve Bank is required to hold a minimum reserve of 35 per cent. against all of its deposits. This reserve requirement should be clearly distinguished from the reserve requirements of the member banks. The reserve requirements of the twelve reserve banks and of member banks are two distinct and separate things.

These reserve ratios in reserve banks and in member

[1] Kemmerer, "A B C of Federal Reserve System," pp. 17-18, 64-65.

banks combine in such a way as to make the total reserves necessary for the banking system as a whole less than these ratios, taken by themselves, would indicate. For instance, in the case of banks of the large cities whose reserve requirement is 13 per cent. against demand deposits and 3 per cent. against time deposits, the Federal Reserve Banks holding these reserves are required legally to hold only 35 per cent. against deposits of bankers' reserve balances. Thirty-five per cent. of 13 per cent. is 4.55 per cent. legal cash reserve. By the same calculation, the reserves kept by Federal Reserve Banks for the banks of middle-class cities against demand deposits is 35 per cent. of the 10 per cent. requirement, and for country banks 35 per cent. of the 7 per cent. requirement. Hence for the banking system as a whole, the reserves necessary amount to only three to five per cent. of total deposits. As a matter of safety, this possible limit is not actually reached. A margin above the extreme possible minimum is adhered to as a margin of safety.[1]

With this arrangement of reserves, the member banks are in a position not merely to expand their loans more than ever before, but to make their loans elastic enough to accommodate trade needs under virtually all normal conditions. If the commercial bank in any community is faced with a high demand for loans, and finds that with its present resources its limit of loans has been reached, it has ready at hand a means of solving the problem. One recourse is to borrow funds from the Federal Reserve Bank of the district, giving collateral security. The reserve bank extends the loan for a short period, not to exceed fifteen days, and the only permissible collateral is such notes, drafts, bills of exchange, or banker's acceptances as are eligible for rediscount or for purchase by Federal Reserve Banks, and bonds or notes of the United States Government.

Another recourse is to rediscount commercial paper with

[1] See Moulton, "Financial Organization of Society," p. 483; Kemmerer, *American Economic Review*, June, 1918, Vol. 8, pp. 260-261; H. L. Reed, *American Economic Review*, June, 1918, Vol. 8, pp. 270-282; Kemmerer, "High Prices and Deflation," pp. 14-30.

the Federal Reserve Bank of the district. By this recourse, the commercial bank which wishes to secure increased loaning power sends some commercial paper from its files, such as promissory notes, bills of exchange, acceptances, etc., to the reserve bank, where the paper is discounted, and the amount remaining after the discount is deducted becomes a deposit in the reserve bank to the account of the member bank. If the member bank were now able to make loans only up to the amount of this new deposit, its loaning power would be increased, but not to any large degree. What happens is that the new deposit which exists with the reserve bank is counted as so much new reserve for new loans. The new reserve will serve as the basis of loans, if the bank is in the middle class of cities, to ten times the sum of the reserve. The new reserve is counted as a basis for new loans just as fully as though it were a new deposit of gold with the reserve bank. The reserve banks always stand ready to rediscount suitable commercial paper for member banks. The recourse is always open to the member bank. In time of emergency, it can always turn to the reserve bank, rediscount some of its commercial paper, and use the deposit of commercial paper as a reserve for loans to its customers several times that amount. The power to expand loans to meet trade needs is consequently elastic.

Although this practice is available as an emergency recourse, ordinarily only a small part of such borrowings by member banks actually are used to increase the amount of their reserve balances. As the borrowing device has worked out in actual practise, such borrowings are in very large measure taken in the form of Federal Reserve note issues.

But, it may well be asked, is there no limit to the loans which the reserve banks can make in this way? If all commercial banks in a particular district come to the reserve bank at one and the same time and ask for collateral loans or rediscount loans, will not the Reserve Bank find its own lending power overdrawn? In that event, and the event has often occurred, the reserve bank has an immediate and sure recourse in the system of mobilizing reserves. As has been before stated, the reserve banks are required to keep a

cash reserve of 35 per cent. against deposits. If any one reserve bank finds that its loans to member banks are becoming so great as to exceed that ratio, it can turn to the Federal Reserve Board at Washington, and through it borrow additional reserves from some of the other reserve banks of the country. Some of the other reserve banks of the twelve will have an excess of reserves, and will be called upon to lend from their surplus of reserves. This possibility of one reserve bank's being carried over a period of heavy loans by a temporary grant of reserves from another reserve bank which at the time is in a period of light loans enables all of the reserve banks to co-operate to a most beneficial degree. This mobilization of reserves between districts makes possible the fullest possible utilization of the total reserves of the banking system, and enables the banks in each district to carry on their operations with the assurance that they are not dependent upon their own individual resources, but have back of them the combined banking resources of the nation.

In case all the reserve banks should find their loans becoming excessive for their reserves, the law provides that temporarily the 35 per cent. minimum requirement may be waived. However, before this extreme stage would be likely to arrive, the reserve banks would be able to put a check on further loans by raising the discount or interest rate. This increase of money rates would make borrowing so expensive for the customers of the banks that they would be discouraged from making any further additional loans than might be absolutely necessary. The provisions of the law thus equip the reserve banks to restrain the speculative and business loans of the country after a danger point has been approached.

Clearance and Other Functions

The process of clearance and collection of checks has already been described, and it should be clearer now, with a more detailed picture of the various phases of the Federal Reserve System in mind. The reserve banks, moreover, are not confined to dealings with member banks. They may

buy in the open market eligible bills of exchange, bankers' acceptances and government securities. Also, reserve banks are more and more to become the places of deposit for funds of the United States Treasury Department.

Out of the whole machinery of the Federal Reserve System, no part arises of more dominating importance than the elasticity of deposit currency. Not only can deposits be expanded to meet unusual trade needs, but after the trade needs have been met the loans become paid up, and a due contraction of the deposit currency takes place. Elasticity involves both expansion and contraction, and the two ideals are achieved in a way which is an incalculable advance over banking methods before 1913. The Federal Reserve System enables the banks of the country to perform the functions and services which economic activities demand, and the law which established the system is one of the most constructive pieces of financial statesmanship that have ever been placed on American statute books.

International Banking and Credit

International commerce has come to be of fundamental importance to the economic prosperity of nations, and international banking has developed credit facilities for the making of international payments. The estimate has been made that "the manufacturing capacity of the country has reached a point about 20 per cent. in excess of domestic requirements, and on the finding of profitable markets for this surplus production depend not only the particular industries involved, but the general business condition of the entire country."[1] Prior to the World War, the financing of America's foreign trade was largely dependent upon European bankers, but with the colossal financial shake-up which the war brought, American traders have been put in a position which requires that American bankers provide the financial machinery for the trade of their own country. A transition from domestic banking to international banking by American banks has been one of the notable consequences of the war and post-war periods.

[1] G. E. Roberts, *Economic World*, April 16, 1921.

The Principles of Foreign Exchange

Under the normal peace time conditions of trade before the war, the trade between the Great Powers was financed upon the basis of the existence of the gold standard of money and credit. The currency in circulation in the economic systems of the Great Powers reflected the stable confidence of the economic community that forms of money and credit were convertible into gold. That confidence was wrecked by the large issues of paper money, inconvertible into gold, in the European countries, and by the large shipments of European gold to America in settlement of Europe's new accounts as the debtor of America. The point should be clear, however, that the principles of foreign exchange commonly assume that the gold standard is in operation, and that other forms of money are convertible into that metal.

The exchange mechanism centers around the payment for exports and imports between countries by offsetting the bank deposits of one country against the bank deposits of another, and settling only the balances by shipments of gold. The balances which cannot be offset and cancelled are, in proportion to the total amount of the accounts, comparatively small, and hence the actual shipments of gold between countries in normal times are likewise comparatively small.

The bank deposits which are cancelled internationally in this fashion are primarily in the nature of bills of exchange. To put the process clearly, a very simple illustration may be assumed. Two Americans and two Englishmen are engaged in international trade. One American buys $1,000,000 worth of goods from one of the Englishmen; the other American sells $1,000,000 worth of goods to the other Englishman. Then one American owes $1,000,000 abroad, the other American is owed $1,000,000 from abroad. Each account is carried in the form of a bill of exchange. That is, each seller writes an order to the buyer, or on the buyer's bank, if arrangement has been made by the buyer to pay the amount to the seller. These bills of exchange are the

paper evidences that within a certain period the stated sums of money will be paid by the buyers of the goods. Who is to wait for the payment to be made? Must the seller wait one, two, or three months? The fact of the case is that the seller can have his bank wait until the date of payment, and can himself obtain from his bank immediate money if he so desires. Suppose the two bills of exchange for $1,000,000 each come to the same bank. One represents money owing by Americans to foreign concerns, the other money owing to America by foreign concerns. The American bank can then collect $1,000,000 from one American trader, and pay $1,000,000 to the other American trader. Meantime, an English bank can do the same with the English side of the transaction. No gold will need to be shipped. The bills of exchange can be cancelled against each other by the banks of the two countries, and by the system of credit instruments the international transactions are completed without the passing of gold back and forth.

The illustration, of course, oversimplifies the matter. There are hundreds of importers and exporters in both countries, and they are yearly drawing thousands of bills of exchange on each other. These bills of exchange pass into the hands of the banks and are bought and sold between banks. There is an open market in banking circles for the bills of exchange, and the law of demand and supply operates in the sales made practically the same as in the sales of commodities in wholesale markets. This fluid condition of the market makes possible a steady matching of bills due to foreigners and bills due from foreigners, and a ready cancellation of the great bulk of the accounts without the direct shipment of gold between countries.

But normal exchange is built upon the assumption that gold is available at any time, and that balances will be adjusted by gold shipments. The relation of gold to exchange is affected by the differing units of money in various countries. England's unit of money is the pound sterling, which contains the same amount of gold as $4.8665 of American money. To put the fact the other way around, the English pound sterling contains 4.8665 times as much gold as does the American dollar. This ratio is called the

par of exchange between the two countries. The French money unit, the franc, contains less gold than the American dollar. The dollar has 5.18 times as much gold as the franc, and this ratio is the par of exchange with France. The par of exchange with various countries is therefore the ratio between the amounts of gold contained in their respective money units.

But the exchange is above or below par a great deal of the time, and the fluctuations in normal times reflect the demand for and supply of bills of exchange. If New York has been shipping huge exports abroad, it will also have been drawing a huge supply of bills of exchange on foreign buyers. This huge supply of bills, thrown onto the New York exchange market, will affect the relations between the demand and supply of bills, and the price of exchange will fall. Supply and demand shape the price of bills of exchange in much the same way as they shape the price of wheat or any tangible commodity in the market. If there is a large supply of wheat in the country, the price paid tends to fall. In the same way, if there is a large supply of bills of exchange in the New York market, the price offered by those bankers who buy such bills will tend to fall. The rate of exchange will drop perhaps to $4.865, or even to $4.845. But it would not drop below the latter point because it would be cheaper for buyers to pay for goods by actual shipment of gold than to use bills of exchange at so low a price. The margin between $4.845 and $4.865 represents the cost of shipment of gold between countries. It remains true, conversely, that if the supply of bills of exchange is scarce in the New York market relative to demand, the price will tend to be bid up above par, but not above $4.885, because beyond this point it would pay to ship actual gold between countries.[1] When the price of exchange moves either way beyond these limits, or the "gold points," as they are called, the fluctuations tend to be checked by virtue of the fact that it will pay to ship

[1] The figures for the gold points are given here as approximations. It is obvious that they change as the cost of shipping gold between countries changes.

gold between countries. This imminent possibility of gold shipment serves to redress the balance of the exchanges and keep them within a fairly close margin of the par of exchange.

The international bankers of one country organize the flow of bills of exchange and the clearance of international deposit accounts by themselves maintaining deposit accounts with correspondent banks in foreign countries. The making of payments through bills of exchange is conducted by the process of transferring deposit accounts back and forth between home banks and their correspondent banks of deposit abroad. For example, a New York furniture exporter ships $1,000,000 worth of furniture to a London buyer. The London buyer has his deposit account with a London bank. This London bank in turn has a deposit account with a correspondent back in New York. The London buyer transfers $1,000,000 of his bank deposits to the account of the London bank, and the latter in turn transfers $1,000,000 of its deposits with its correspondent bank in New York to the account of the New York furniture dealer who shipped the goods. This method of transferring bank deposits from party to party and bank to bank between countries is essentially the same in principle as the method of clearings between banks within a country in its domestic credit transactions.

It remains to be observed that if the discrepancy between the demand and supply for bills of exchange should remain for any considerable time at a point so great as to cause large international shipments of gold, the shift in gold reserves between countries will so affect interest rates and price levels in the countries concerned as to bring the financial and trade relations gradually back to normal, and to bring the rate of exchange back approximately to par.

The supply of bills of exchange in the United States drawn on foreign countries arises not only from the exportation of goods, but also from sales of American stocks and bonds to foreign buyers, from loans extended by foreign bankers to American bankers, and from international services rendered by Americans, such as providing foreign

travelers in America with funds, rendering legal services to foreign concerns, etc. All such international transactions give rise to a flow of payments from abroad to American creditors. A demand for bills of exchange, that is, for a means of providing an outflow of payments from America, arises from essentially the converse of these various dealings between nations. Before the war, America's exports considerably exceeded her imports, and this excess represented so much payment due Americans above American payments due foreigners. This excess value was, however, offset by the other factors which affect the supply and demand for credit settlements, because Americans had to meet heavy interest and dividend payments on the $6,000,000,000 of American stocks and bonds held by foreign investors; they had to pay premiums on insurance held by foreign companies; they had to pay interest to bankers making loans in America; they had to pay freight bills to foreign ship owners who largely carried American goods; and they had to meet the expenses of the numerous Americans traveling abroad. The foreign payments for America's huge exports were therefore made partially by goods, but also, and to a substantial degree, by numerous other forms growing out of a wide variety of services and dealings. To quote F. W. Taussig, "During the quarter century preceding the great war, we had a large excess of merchandise exports. That excess enabled us to meet some heavy obligations of our own toward foreign countries. Through it we were able to pay the expenses of our tourists in Europe, freight charges on our imports and exports carried in foreign vessels, to meet accruing interest and dividends on external holdings of our securities, to remit the sums which foreigners newly arrived in this country were sending to friends and relatives in their home countries."[1]

All this describes the normal conditions before the war. Since 1914, the conditions of credit, trade and exchange have immensely changed. Soon after the outbreak of war in Europe in 1914, the exchange rate for British sterling soared as high as $7.00. After the first shock to commerce

[1] *Economic World*, Vol. 21, p. 811.

and credit was past, orders for war materials came from Europe in such large amounts that a vast supply of bills of exchange were thrown upon the American market, and this supply caused the price of exchange to decline far below par. When the decline had reached $4.48, the British Government interfered with the normal operation of the exchange mechanism, and by various devices arbitrarily maintained the exchange rate at a minimum point of $4.765. Other European countries followed suit. This "pegging" of the exchanges, as it is termed, lasted until about four months after the armistice was signed. The European governments then released the exchange rates to the working of natural forces, with the result that rates declined violently. In 1920 the rate of exchange in the pound sterling fell as low as $3.18, rose again to about $4.00, and in February, 1922, was ranging close to $4.30. The decline in the exchanges of other leading European currencies has been on an even greater scale. One of the greatest declinations has occurred in the German mark, which fell from a par of about 24 cents per mark before the war to about one-third of a cent per mark in the fall of 1921.

The depreciation of exchange has led Europe to make huge shipments of gold to the United States. The immense volume of gold importations has swollen the reserves of the banks in this country, and these swollen reserves have been the basis for the tremendous credit expansion in America since the beginning of the war.

"Gold has practically disappeared from the channels of trade of nearly all important European countries and in its place we find a group of heterogeneous paper currencies, which have been issued frequently in such volume that many of them lack any semblance of stability of value."[1] The huge issues of paper money, inconvertible into gold, in European countries have caused the values to depreciate far below normal standards. The purchasing power of these countries has diminished as a direct consequence of war financing in which the convertible gold standard was

[1] H. A. E. Chandler, *Economic World*, May 21, 1921.

abandoned, and paper money flooded the European currency supplies. The reason for the great decline in the rate of foreign exchange on American markets lies in the extraordinary fall in the purchasing power of the foreign currencies. The general theory which accounts for the low rates of exchange may be stated as follows: the valuation in one country of the money of a foreign country will depend upon the relative purchasing power of the currencies of the two countries. The theory is to the effect that the primary reason for the wide divergence of foreign exchanges from their gold parity is found in the relative depreciation of currencies in different countries, or, to put the same idea in another way, in the relative domestic purchasing power of the currencies of different countries.[1] After a careful statistical survey of the fluctuations in purchasing power of the currencies of various countries in comparison with the fluctuations in exchange rates, the Federal Reserve Board has lent its authority to the soundness of the theory. The pre-war conditions of exchange are clearly subject to a drastic alteration in the light of developments occasioned by the war. The new economic conditions amend the principle that exchange will not be able to fluctuate to any serious degree beyond the so-called "gold points," and the new conditions force the thinking of economic students on the subject onto a new plane.

The international financial relationship of the United States has been transformed by the war. Before the war, this country was a debtor nation, owing to Europe through investments held abroad and through loans approximately $6,000,000,000. Today this country is a creditor nation, and a creditor on a grand scale. The United States bought back in the neighborhood of $5,000,000,000 worth of the American securities which were formerly owned abroad, and extended government loans to Europeans to the amount of about $11,000,000,000 and private loans on trade shipments of about $3,500,000,000. In the meantime, the export trade of the United States has been so greatly in excess of her import trade that an enormous trade balance of

[1] See G. Cassel, *Federal Reserve Bulletin*, December, 1920, p. 1278.

exports over imports has been built up in the last seven years, amounting all told to more than $17,000,000,000. The United States is heavily a creditor nation; her exports greatly exceed her imports; the rates of foreign exchange have departed violently from their normal standards; the United States alone of the great economic powers has come through the war with her gold standard intact; all in all, the international financial relations of the United States are profoundly transformed.

The new financial status of the United States has made it necessary for American banks to finance with their own resources the great bulk of America's foreign trade. Prior to the war, London was the center of the world's international banking. Years of banking history had firmly entrenched London banks in the confidence of the business men of the world. New York as a center of international banking was distinctly subordinate to the great world center, London. The new financial status of the United States has practically forced American banks to develop for themselves international credit facilities on the large scale necessary to accommodate America's enormous post-war foreign trade.

Under the pre-war status, the amount of payment which Americans made to foreigners annually, in the form of interest on securities and loans held abroad, in the form of expenditures of American tourists abroad, immigrant funds sent home, freights, insurance and the like, came to about $500,000,000. America was able to make this payment by the excess of her exports over imports. Under the post-war status, foreign countries are obliged to remit to the United States annually about $600,000,000, because of interest due on foreign securities and loans held in America. At present, Europe cannot pay these sums by exports to the United States. Europe is so strongly in need of goods from the United States that European imports from the United States considerably exceed exports to the United States. Consequently, the creditor relationship of the United States tends constantly to become greater.

A variety of banking developments have taken place in an attempt to equip American trade to meet the new posi-

tion. Under the Federal Reserve Law the Federal Reserve Bank of New York has entered into mutual relations to act as correspondents or agencies, with the banks of numerous foreign countries. Also, national banks which are members of the Federal Reserve System may, under the supervision of the Federal Reserve Board, establish branches abroad. Under this provision, the National City Bank of New York City has established more than forty foreign branches, distributed among the strategic commercial centers of the world. Another extension of foreign banking facilities has taken the form of creating and expanding correspondent relations with foreign banks, and the banking relations thus formed provide Americans with banking service in virtually every important foreign commercial and financial center. At the same time, a number of banks have expanded their foreign departments greatly and their representatives are increasingly spending their time abroad in personal study of international credit problems.

American banks are able to undertake these new financial responsibilities because of the new provisions of the Federal Reserve Act. The new reserve act authorized an acceptance market in American banks, and the result is that bills of exchange can be drawn in dollars on American banks. In 1920, about $5,000,000,000 worth of acceptances were dealt in by American bankers, most of them drawn in connection with foreign trade. The acceptances handled by American national banks are limited to periods not to exceed six months, and such foreign trade as can be financed by short-term credits has been facilitated by the new American acceptance market fostered under the Federal Reserve System. This new market is slow in development, but promises to expand gradually and to attain a steadily increasing importance.

In addition to these expanded banking facilities, two types of foreign credit corporation have been authorized under the Edge Act, and hold large promise for the future of American banking. One type undertakes the extension of foreign credits by the use of acceptances, and their services are broader than those of the merely national com-

mercial banks because they are allowed to handle acceptances running for periods longer than six months, usually about one-year periods. The acceptances, for long and short periods, of all types of banking institutions are included in the estimated total of $5,000,000,000 for the year 1920. International conditions are such that even these long-term credits are not adequate to finance the needed trade between America and foreign countries. So large a number of business houses abroad are under the obligation of recovering from their wartime prostration that they cannot pay for goods bought from America for several years to come. Nevertheless, if these industries abroad are to get onto their feet, they must have American supplies, and the second type of foreign financing corporation is devoted to supplying the long-time loans requisite for the revival of such foreign industries. The process of credit extension has already been partially described under the section dealing with foreign investment trusts. The American institutions are authorized to make loans to foreign concerns, using the stocks and bonds of these corporations as collateral for the loans; and, in turn, the American institutions are authorized to issue their own securities for the investment of the American public. The two types of foreign financing have brought into being more than a score of American banking corporations. They are under the supervision of the Federal Reserve System, and offer large services to American foreign trade in the future. Owing to the unstable political and financial conditions of Europe, the longtime risks of the second type of foreign credit have discouraged bankers from organizing such debenture credit institutions. As European conditions become stabilized, there is good reason to anticipate their gradual promotion among American bankers.

In addition to all these private efforts under government incorporation and supervision to cope with America's financial needs, there exists the War Finance Corporation, empowered to assist exporters with credit derived from government resources. This credit has been used to facilitate the international shipment of agricultural products,

and is an important supplement to the other agencies of international credit.

The problem of financing foreign trade is by no means solved. Old habits, traditions and prejudices are still powerful and often discouraging, but the will and determination to undertake the responsibility of providing American credit for American trade is certainly apparent, and with the mind of American bankers turned in that direction there is strong reason to feel confident that the new financial status of the United States will be wisely established.

The Dangers of the Credit System

"Credit is so delicate a thing that it is dangerous to talk about it." This statement by the wartime president[1] of America's largest bank suggests that at the very time when the credit system is performing the indispensable functions which have been described up to this point, it also is loaded with possibilities of danger, and even of disaster.

Business Cycles

Business depression and financial panic are imminent possibilities in the modern price system. The normal state of economic life is not an even flow of economic activity, but a stage of transition from prosperity to depression or from depression to prosperity. Depression automatically sets at work forces which breed gradual prosperity culminating in a crisis, or even in a panic; and the crisis in turn automatically sets at work forces which put the economic system through the experiences of depression. The pendulum swings from one extreme to another on the average every seven to ten years, and the economic history of America is replete with these periodic fluctuations. Economic life is never static; it is always dynamic, always in process from one stage to another. The business cycle is a paramount feature of all economic calculation.

The cycles of business are not planned by conspirators, but are inherent phenomena in the natural processes of the

[1] F. A. Vanderlip, "What Happened to Europe," p. 98.

credit system. Prosperity cannot continue for more than a few years at a time because of factors inherent in the credit system, factors which the dominating business leaders have up to date found no way of controlling adequately. As business comes into a state of high prosperity, the costs increase faster than the income. Briefly this process takes place as follows: Concerns resort to the use of old equipment, out-of-date machinery, and badly located plants in order to fill big orders, and all such manufacturing methods involve extraordinary costs per unit of product. Wages tend to rise unusually high, and the efficiency of labor falls off. Prices of raw materials rise faster and higher than prices of finished products, and interest and discount rates ascend on a like scale. The efficiency of management tends to decline because of the rush and confusion of overloaded business. The expanded business rests very largely upon borrowed funds, and as the loans increase they approach a point where they threaten to exceed the legitimate ratio to bank reserves. A tension in the money market arises, interest rates gradually increase costs, and a general credit stringency prevails. Under these influences, profits suffer a reversal. The costs advancing disproportionately eat up the margin between total cost and selling price and in numerous industries the very prosperity which originally brought fine profits evolves conditions which in the end bring drastic profit reductions. But the security behind the large loans upon which business depends is faith in the ability of business to earn large profits. The threatened reduction of profits therefore undermines that element of business confidence which is the basis of credit. This condition overtakes specially unfortunate business concerns first. The creditors which have supplied them with loans become alarmed and fearful lest their money cannot be repaid unless it is called in at the earliest opportunity. Creditors, for the same reason, deem it unsafe to renew old loans or to make new ones. Without extensions of credit, the most unfortunate industries face a crisis. With the news of their jeopardy, the feeling of nervousness and lack of confidence spreads to other businesses, and a general process

of squeezing debtors takes place. The crisis has been reached, the apex of prosperity, and the forces which brought it about were natural, inherent forces which evolved their dangerous consequences as a matter of the due and normal course of events.

The crisis has, in years past, frequently plunged into panic. Bankruptcies, failures, financial disasters have occurred on every hand. It is widely hoped that the Federal Reserve System has brought credit under sufficient control to avert the outright panic. By the processes already described of mobilizing the reserves of all the banks to come to the rescue of those most hard pressed, bank failures are reduced to a minimum. By the processes of loaning and rediscounting between reserve banks and member banks, the banks are able for the most part to rescue business concerns at the crucial moment and avoid the extreme calamity of bankruptcy. By the processes of raising the interest and discount rates on the loans to member banks for some time before the anticipated crisis, the reserve banks can discourage unwise and speculative loans, and prevent the forces of crisis from securing too complete a grip on the economic order. The Federal Reserve System is looked upon generally as being "panic-proof." But it is not looked upon as having the power or the capacity to prevent the fluctuations which lead from prosperity to crisis, and the ensuing depression.

The period of depression is a time of recovery and readjustment. Business failures increase, unemployment is widespread, and consumers out of work have a reduced purchasing power and a reduced demand for commodities. People are wary of investment in new enterprises, and the value of securities reaches a low level. Prices of all commodities tend to fall, interest rates to decline, and wholesale and raw material prices tend to drop more than other prices. Laborers who can get work increase their efficiency in the hope that thereby they will win the favor of their employers and will not be laid off. The costs of doing business decrease. The stocks of goods piled up during prosperity are gradually sold out. The consumers' strike passes,

new production is required, bargain prices in stocks and bonds invite people to snap them up and investment revives, business begins to pick up, expansion recurs, and gradually economic life emerges from the depression to the first stages of a new era of prosperity. The cycles continue, from stage to stage, from transition to transition, normally, naturally, persistently.[1]

The most recent industrial crisis occurred in its severest aspects during 1920 and 1921. The armistice was followed by an outburst of prosperity accompanied by all those undermining forces which evolve an industrial crisis. Costs of production increased, wages went up, efficiency dropped, and profits exhibited a marked decline. Prices had risen greatly, having reached in such commodities as clothing and house furnishings a level of 353 and 331 per cent. respectively above the level of 1913, and in the wholesale market building materials having risen as high as 341 per cent. over 1913. These extraordinary prices started a general refusal of consumers to buy these commodities, and the refusal thus begun spread broadcast until a general "consumers' strike" was in effect in 1920. The expansion of bank deposits reached a maximum, and in 1920 the Federal Reserve took steps to discourage further loans by increasing the discount rate. Unemployment became widespread, manufacturers shut down or ran at fractional capacity, and a general depression prevailed throughout 1920, continuing into 1921. The depression was accentuated by international conditions. The amount of the reparations payment to be made by Germany still remained uncertain in 1921, and exports fell off decidedly, owing to unsettled economic conditions abroad and to limited international credit facilities.[2]

The business crisis and depression brings in its course no small amount of human distress and economic waste. Production of all the comforts and luxuries of life is drastically cut, and millions of men face the prospect of months without income, with all that such a situation means in terms of anxiety, poverty, and privation. A psychology of

1 See W. C. Mitchell, "Business Cycles," especially pp. 475-599.
2 David Friday, *Review of Reviews*, February, 1921, pp. 170-172.

fear saturates the men in the business world, and the morale of workers is dissipated by loss of jobs. Probably no other loss in modern economic life, except the loss from war, compares with the loss accruing from the extremes of business cycles. To the country as a whole, a depression is the cause of almost incalculable waste and of enormous human suffering. It brings no substantial good, except as it is necessary in dissolving the peak of prosperity and spinning the credit system through another cycle. No one hopes to eliminate completely business cycles under the credit system of modern industry. They are part and parcel of the economic order under the modern price system. But there is every right to expect that the extremes of the cycles can be substantially alleviated. The Federal Reserve System saved the country from a full-fledged panic in the crisis of 1920, and thereby eradicated from the period of business crisis the most painful excesses. No reason is apparent why the sufferings of the business cycle cannot be reduced materially. It would be foolhardy to attempt to eliminate cycles altogether. But it would be equally foolhardy to flinch from the plain necessity to stabilize business much beyond the present point. Indeed, no one should be blind to the fact that the price system is a tremendous challenge to the chief operators of the industrial, commercial and financial system,—a challenge that industry must be stabilized more thoroughly. There is still room for transitional eras, for action and reaction, for a dynamic economic life with seasonal and periodic fluctuations between better and worse, but the great responsibility of the future is to eliminate the grossly wasteful and deplorable consequences of crises and depressions. To stabilize business is one of the pressing problems of the immediate future, and its magnitude and importance cannot be overstressed.

Important proposals which will figure in this evolution toward more stable business cannot be discussed in detail here, but some of the chief proposals may well be mentioned briefly. The centralization of the banking system under the Federal Reserve Banks, with all the methods for mobilizing reserves, securing elasticity of credit, and regu-

lating the volume of business loans by manipulating the interest and discount rate, has raised to the maximum our immunity from downright panics. The Federal Reserve System also does much to tide businesses over the tightest pinches of the crisis and even co-operates with them in a process of reorganization of their broken down financial structure. Secondly, it has been proposed that government and railway purchases and improvements be so distributed as to provide employment and business orders when the period of contraction in private corporate industry threatens. Public buildings, highways, and enterprise of all sorts could be used as a kind of balance wheel to stabilize the transitional eras in business. Some private concerns already announce the possibility of carrying on the construction of new buildings and the expansion of plant during times when normal production tends to decline, and point out the distinct advantage of profiting by the low prices of building materials prevailing usually during a period of depression. Thirdly, the progress in personnel administration made by pioneer concerns during and since the war, and the scientific application of psychological principles to production, promises a way of stabilizing efficiency and labor costs so that during a period of prosperity they will not encroach upon prices and profits too rapidly. During the crisis and depression of 1920, it became known that, although most corporations had suffered from unusually high wages and a drastic slump in labor efficiency, nevertheless there were a substantial number of corporations which had reduced unit labor costs by the use of scientific and psychological methods of labor administration. If the principles already demonstrated by these pioneer corporations can be generally adopted, the new control of labor cost and production efficiency will do much to stabilize prosperity in economic life. Fourthly, the war has more than ever linked America financially and commercially with foreign countries. With the evolution of banking facilities to supply proper credit for foreign trade, and with government encouragement and greater private interest in organizing foreign markets, there is in process

of growth a new stabilizing factor in the form of foreign trade. Foreign markets offer an outlet for an excess of production above domestic needs, and, rightly controlled, promise to alleviate the market restrictions of domestic trade. America is therefore taking strides in the direction of a greater stabilization of business to the extent that she accepts the opportunity in international commerce which the war has thrust upon her. In the fifth place, the infinite interrelations of modern business call for the light shed by national and international economic statistics. In the past the collection of statistical information on all branches of production, commerce and credit has been decentralized and scattered, with the result that the calculations and anticipations of business men have been made partially in the dark. The first cure for over-production during a period of prosperity would be to make known to all producers just how much of each commodity has been and is being produced. The Department of Commerce of the Federal Government has announced plans for co-ordination and centralization of statistical service for business men. The Federal Reserve Board, through its regular bulletins, has already taken important steps in the direction of more adequate financial and industrial data. Adequate statistics may serve as economic barometers in the calculations of business men and should lead to accurate economic forecasting.

Finally, the proposal to stabilize price levels deserves most serious consideration. A recent writer, referring to the price changes with the last business cycle, declares: "The United States has maintained the gold standard without serious limitation and has reorganized its banking system on approved lines. Nevertheless we have had price fluctuations almost as violent as those of the greenback period. These fluctuations have caused unmerited suffering to millions of families and have heaped unearned riches upon thousands. They have caused wasteful struggles, encouraged extravagance among some, and created the class of "new poor." They have promoted speculation and reduced the efficiency of management and labor. We are

poorer in goods, more quarrelsome in spirit, less ready to work because of these fluctuations. All this has happened and is irretrievable. But within a few years fresh changes may happen just as evil in their consequences. This wretched record and this wretched prospect are a grave indictment of our present form of economic organization."[1] The frequent changes in the price level have deep effects upon the purchasing power of the income of many classes of people. Rising prices, with a rising cost of living, bring a struggle among wage earners to have their wages raised in order to keep pace with increased prices; and as soon as the peak is reached, and prices begin to fall, employers commence to cut wages correspondingly, and wage earners suspiciously and distrustfully fight the cutting process. The upward and downward swings of the price level serve as most aggravating causes of the industrial unrest which everybody abhors. Incomes derived from conservative investments were practically cut in two by the sharp decline in the purchasing power of the dollar during the war and after. Fixed salaries likewise suffered a severe dwindling in their purchasing power, insurance policies depreciated in value, pensions were halved in purchasing power. In a period of declining prices, numerous classes suffer in like degree. Rising prices virtually confiscate a considerable part of the value of fixed incomes, salaries, etc., and of property investment. For the protection of conservative property interests and for the proper conservation of the life and welfare of labor, it is of the utmost importance that a greater stabilization of prices be attained.

A plan very thoughtfully advocated at present is that known as "stabilizing the dollar." The plan is chiefly fostered by Irving Fisher of Yale University, and has come to hold the serious attention of a large number of careful and prominent economists and bankers. It rests in large measure upon the quantity theory of prices. In its simplest terms, the quantity theory states that prices equal the quantity of money times its velocity of circulation plus the

[1] W. C. Mitchell, *American Economic Review*, March, 1920, Supplement, p. 155; See also *American Economic Review*, Supplement, March, 1922.

quantity of credit (for the most part, bank deposits) times its velocity of circulation, divided by the number of units of trade. The velocity of circulation refers to the number of times which a dollar changes hands. The rate of turnover of money and credit affects the influence of a given amount of money and credit on prices. A large volume of money and credit instruments, passing rapidly between buyers and sellers and producers and consumers has direct effects on price levels. The rate of circulation varies greatly from time to time, but statistics at present indicate that the rate of turnover for money ranges in the neighborhood of twenty times a year, and of credit forty to sixty a year. The quantity of the medium of exchange in its entirety, multiplied by the rate of its passing from hand to hand, fundamentally determines price levels, so the theory runs.

The influence of the volume of medium of exchange, moreover, depends upon its standard of value, which is gold. Paper money or deposit currency is redeemable in gold and hence represents the same standard of value as gold. This standard of value arises from the intrinsic worth of the 23.22 grains of pure gold in each dollar. The proposal to "stabilize the dollar" is to change the amount of gold in the dollar according as prices tend to go up or down. Price levels can be measured by index numbers, arrived at by statistical averages of prices from time to time. To quote Irving Fisher: "In short, then, our rule or criterion of adjustment is simply this: for every one per cent. of deviation of the index number above or below par found at any adjustment date, we then increase or decrease the dollar's weight by one per cent." If it be objected that confusion would result from coining gold dollars of varying weights, the explanation is given that the gold would not be coined, but would remain in bullion form, and would be a redemption[1] fund for all outstanding paper money and credit instruments. As a matter of fact, practically all gold coin is now retired from circulation and used as re-

[1] For a clear explanation of the full technical details of this important plan see "Stabilizing the Dollar," by Irving Fisher.

serves against outstanding forms of currency. Under the plan to stabilize the dollar, the amount of gold by weight for each dollar would be adjusted by keeping the gold in bullion form.

A sharp controversy over the practicability of this plan has raged between different schools of economists and between bankers. The proposal is of immense importance to the whole price system, and deserves a thoroughly scientific analysis, based upon full and complete statistics of finance, and a most constructive consideration of the economic principles involved.[1]

The quantity theory of money offers a partial explanation of the changes in price levels, but there are sharp price changes which can scarcely be attributed to changes in the quantity of money. For instance, from 1915 to 1917, there was a general price increase in the United States of 85 per cent., caused largely by the heavy demand for American goods in Europe to enable those countries to carry on the war. As this extraordinary demand led to higher prices, there was a need for an increase in the circulating medium, and this increase of money came, but as a sequel to the price increase rather than its cause. During the years when America was in the war, price increases were substantially checked by virtue of the price-fixing restrictions of the various war boards. From the armistice until the peak of high prices in 1920, the price level rose sharply by a gain of more than 60 points. The only exception to this general rise of prices appeared in the first two or three months following the armistice, when a slight slump in prices occurred. The causes of the general increase in prices following the war were chiefly the foreign demand for goods to replace the stocks of goods depleted during the war, and to provide equipment for reconstruction, and, secondly, the growing inefficiency of labor with consequent mounting of labor costs. The rising tide of prices was turned when a psychological transformation took place in the buying pub-

[1] For a statement of criticism of the theory, see Laughlin's "Money and Prices"; B. M. Anderson, "The Value of Money," and David Friday, "Profits, Wages and Prices"; B. M. Anderson, *Economic World*, Aug. 7, 1920.

lic and the so-called buyers' strike began. The consumers' strike, a general effort at thrift and economy, a general waiting for prices to come down, dragged the price level down substantially during late 1920 and throughout 1921. During all these shifts of price levels, there were corresponding changes in the volume of money and credit in circulation and in the rate of turnover, but it is next to impossible to ascertain conclusively in each case whether the high prices caused more currency to come into circulation or the increased circulation caused higher prices.

The quantity theory undoubtedly explains many price movements, but does not satisfactorily account for all up and down alterations. Changes in the demand for goods, either at home or abroad; changes in the psychology of consumers; changes in the psychology of laborers, measured in labor inefficiency; changes in governmental restrictions on prices,—these and other factors exercise determining influences over prices, and should be included in any interpretation of prices which is comprehensive.[1]

The Dominant Influence of Financial Institutions

If any of the institutions of economic society can be said to be dominant in the active direction and control of all phases of the economic structure, they would be the financial institutions. All modern business activity is dependent upon borrowed funds and currency issues for its maintenance, and loans and money are organized, directed and restricted by financial institutions. Investment bankers select certain corporations whose securities they put on the market, and reject others. The reasons are those which are good and sufficient in the eyes of the bankers. If the bankers decide to withhold their aid in marketing a concern's securities, this refusal may make impossible the existence of the concern. This dominant position of investment bankers is enhanced by the large degree of combination which exists between bankers. The accusation has

[1] See David Friday, "Profits, Wages and Prices," Chapters VIII and IX; also G. R. Davies, *Journal of Political Economy*, XXIX, pp. 213-222.

been made by some authorities that this combination amounts to a money trust. In 1912 a Government Investigating Committee made a very elaborate investigation of the charges. They arrived at the conclusion that the combinations of bankers held a financial power which was a menace to free competition and which jeopardized the rightful business interests of corporations frowned upon for any reason by the money power, but the Committee admitted that there was no evidence that this immense power had actually been used in an unjustifiable manner. The appearance of a newcomer among industries may mean the threat of severe competition against an old concern financed through a powerful group of investment bankers. As a means of self-protection, the old concern may attempt to scotch the newcomer before it is hatched by persuading the bankers to decline to market its securities. This is a theoretical possibility, but the Committee found no conclusive evidence that the power had actually been so used. These charges of one sort and another have never been well enough established by evidence to convince those who were not easily amenable to criticism of financial interests generally. Certainly the power to give life to favored industries is there, and the power to take life away from unwelcome industries is there, and probably from time to time the power is exercised in questionable ways. But the investment bankers enjoy widely the reputation of basing their judgment upon fundamental considerations of safety and security, and to the extent that these considerations predominate, the bankers are rendering the public an indispensable service in providing expert analysis of investments and a medium for the placing of money where it will bring income to the owner.

The making of commercial loans likewise carries a dominating influence over business houses. A threat to withhold future loans for working capital is sufficient to force a business into the adoption of almost any policy of reorganization, retrenchment, expansion, or what not, which the bankers may desire. The charge of combination between commercial bankers has rarely been made. The money trust is a term applied mainly to investment bankers. The

co-operative efforts of commercial banks through clearing houses, bankers' associations, and the Federal Reserve System lead ordinarily to constructive co-operation and are remarkably free from dangerous and objectionable discrimination. During the post-war crisis and depression, commercial and investment bankers co-operated in scores of cases to tide enterprises which were hard hit over a period of reorganization and recuperation. The co-operative efforts of credit bankers saved scores of business houses from bankruptcy, and enabled them to get on their feet again. In no previous crisis and depression have the bankers co-operated in such constructive ways to avert outright disasters among suffering corporations.

Yet the bankers are not free from grave sins of omission. Farm credits have not been available promptly and at the most favorable rates, and the marketing of crops has suffered from restricted credit facilities so greatly as to cause huge losses to farming populations.[1] The bankers, moreover, have not facilitated the building of homes by a ready supply of credit at moderate rates of interest. Interest rates on call money have been at times exorbitant, and during the period of recovery from the business depression after the war not a few bankers were sharply accused by bank officials of exacting unreasonable terms for helping prostrated industries to struggle to their feet. Small businesses which might prove harmful competitors to old established companies, such as the big steel combinations, the packing houses, the mines, or the railroads, and which might by this competition weaken the values of the securities of these big companies on the Wall Street Stock Exchange or in the investment market, have been too often frozen out of existence, so it is charged, by the organized bankers.

A prominent feature of this domination by bankers is found in the system of interlocking directorates. At the time of the Pujo Investigation in 1912, it was found that eighteen of the largest financial institutions were affiliated

[1] See *Federal Reserve Bulletin*, September, 1921, p. 1030; also, "Proceedings National Conference on Agriculture," Jan.-Feb., 1922.

by interlocking directorates with each other and with a vast collection of industries of all sorts. In all, they held "764 directorships in 134 corporations having total resources or capitalization of $25,325,000,000." Banks are glad to have some of their executives on the boards of directors of the corporations which they are helping to finance because it enables the banks to secure inside information steadily on the management of the corporations, and to make sure that the interests of investors are amply protected. Corporations are usually glad to have prominent bankers on their boards of directors. The interlocking directorates establish a real community of interest between bankers and business men, and concentrate this community of interest in high degree. No adequate evidence has been produced to show radical abuse of the power created by this immense financial concentration. It is equally true that no adequate evidence has been produced to disprove the abuse of the power. As the Pujo Committee declared, "the data have not been available." The only fact which is completely established is that the financial power is enormously concentrated, and at any time might be used in dangerous ways. The sense of business ethics and the spirit of social obligation which prevails among the leading bankers is the only real safeguard against the unwise exercise of their financial power. Government supervision has been attempted, for instance, through the Clayton Act, forbidding interlocking directorates between banks, but it is doubtful if the new prohibition has materially dissolved the community of interest in big banking and big business. The influence of the Federal Reserve System upon the social use of financial power rests largely upon the high sense of social responsibility in the minds of bankers themselves. The Federal Reserve System cannot be much better than the level of economic responsibility in the spirits of the most powerful bankers. The only genuine guarantee that the huge financial power will be exercised properly is the code of honor among leading financiers, and the psychology of the most influential bankers. It is true, then, that the institutions of modern banks and corporations tend to

throw a concentrated power into the hands of the men who control the financial machinery of the country. But it is equally true that the power thus created has been in the main applied to industry with a substantial regard for the protection of investors, the growth of business, and the social needs of the country. Undoubtedly the future will see a greater development of the sense of social obligation among the financiers, and will see credit and money organized in ways which will insure larger economic service to the country.

Psychological Foundations of the Credit System

The central functions of the credit system depend at every point upon psychological factors, and it is indispensable for an adequate conception of financial institutions to consider the intangible mental and emotional elements which are everywhere exerting the profoundest influences. The phase of psychological forces which is most conspicuous in financial phenomena is commonly called business confidence. Anyone who might start out in search for a pivotal psychological fact about which swings the great wheel of all economic and financial activity would need to direct his search toward the confidence of the average business man that property will be safe, that debts will be paid, that loans can be made, that investors will be protected. A confidence of this sort is not a tangible thing; it exists only in the minds of men. But take away this confidence in each man's mind that other men will behave in certain ways, and one has taken away the very heart of that mutual and tacit understanding which is the starting point of business calculations. As one writer has declared, "The greatest instrument of production—the thing that really produces modern wealth—is not physical things, is not labor, is not management; it is confidence in the future, it is a credit system based on the expectation of industrial continuity—an expectation that debts will be paid."[1]

A large element in business confidence is the *rational* calculation of the business community. A knowledge of

[1] J. R. Commons, "Trade Unionism and Labor Problems," p. 8.

the technique of credit, money and banking gives an understanding of the manner in which men customarily use the technique and the results in terms of gain or loss. An adequate fund of information on the statistics of trade and finance in general and of those individual concerns in particular with whom each business man has business contracts is a necessary foundation for all confident expectations of safe and profitable business dealings. A cool, analytical judgment of the honesty, ability and eccentricities of business associates and business rivals is requisite for intelligent confidence in the outcome of relations with them. Bankers must constantly attempt to know accurately the amount of trust which borrowers deserve and sellers must estimate accurately the buyers whom they can trust to pay on time. The present and future value of stocks and bonds must be measured by technical analysis and such measurements become the basis for the confidence of investors who desire to place their money in securities and for the confidence of bankers who desire to make loans with the stocks and bonds as collateral security. Without a real degree of faith in the successful outcome of business adventures, practically no adventures would be undertaken. It is the feeling of assurance that business affairs will run in certain channels, and that business men will behave in certain ways, which makes possible at the outset the business undertakings, great and small, of the whole price system. And this feeling of assurance, this strong confidence in the safety of investments, the profitability of enterprise, and the repayment of loans originates in large measure from the rational powers of bankers and business men. It is critical analysis which convinces financiers of all descriptions that they have a reasonable hope of success in their undertakings. When critical analysis indicates that the institutions of finance and industry are nearing a depression, business confidence weakens seriously; and when it indicates an approaching period of high prosperity business confidence becomes irresistible.

Critical reasoning and analytical judgment are not, however, the only elements in business confidence, and indeed

even the best judgment of business men is subject to profound influences from instinctive forces of which their minds are but vaguely conscious. Probably no instinctive forces are more influential in swaying the most careful and sagacious judgments of financiers and business men than those centering about the instinct of the herd and the emotions and impulses of crowd behavior. Shortly before the outbreak of the World War in 1914, the cry went up from financial circles that a panic was imminent because of certain economic policies of the National Government. President Wilson declared that in actual fact no extreme depression of business existed, but, he explained, certain financial interests, by their doleful warnings and prophesies, were bringing about a "psychological panic." Even though it be granted that business was not satisfactorily prosperous at the time, it was obvious that there was a large element of truth in the phrase "a psychological panic." In other words, the pessimism of financial leaders, when spread broadcast, was capable of making the mass of financiers think that things were worse than they really were, and of disseminating a panicky feeling throughout the groups intimately connected with the financiers. The herd instinct expressed itself among the financial groups in ways which are familiar under such terms as contagion, suggestion, or imitation. The greatest financiers are primary centers of suggestion. Hence, the warnings and counsels of these towering figures spread a feeling of firmness, or uneasiness, as the case may be, through the financial community. Very wealthy men, presidents of leading banks or industrial corporations, government officials, experts on the statistics of finance or trade, exercise a contagious influence over the judgments of the financial crowd. When they feel pessimistic, the bulk of financiers follow suit; when they feel optimistic, that is the clue for the rest to follow. In the life of the herd, leadership is a central force, and in the life of the financial community financial leadership determines the tone of credit, the degree of confidence, the degree of faith or fear for the future which predominates.

The mental life of the financial crowd is particularly

susceptible to the emotion of fear. The terrific, driving energy of fear, its primitive intensity and its domination of the whole human being when excited to its higher pitches, find a full expression in the minds of financiers as a group. Nowhere is this power of fear over the administrators of the credit system more apparent than in the waves of business depression and prosperity, in the mental attitudes associated with business cycles. The imminence of depression strikes the fear of loss or even of bankruptcy into the hearts of business men with great force. Each man strives to save himself by retrenchment, or liquidation, or rush sales, or shutdowns, or other recourses, and the very fact that each man is told that everyone else is in the same state of fear raises the fear and pessimism of everyone to the greatest heights. When the instinctive storm has spent itself, and the group mind of the financial community has cleared itself of the sharp excesses of fear, other instinctive energies come into play, and exert powerful influences over the financial mind. In prosperous periods, the instincts of acquisitiveness, achievement, power, or constructiveness see almost boundless opportunities for successful expression. Bankers supply business men with the credit adequate for huge expansion projects, for vast extensions of business, for speculative undertakings, until great numbers of them are carried away by their splendid optimism to all sorts of economic excesses. Their minds become intoxicated by their emotions, and irrational mental judgments lead them into the danger zones of economic life. It is not meant to imply that these psychological phenomena are unaccompanied by strenuous use of the rational faculties, nor that they have no foundation in the facts of economic production and trade. The significance of the account here given is that the facts of trade and the rule of reason are subject to profound instinctive and emotional influences at every turn of financial experience. No other explanation can account for the excessive rush, for the fear stampede, carried often to unnecessary extremes, toward liquidation on the part of the administrators of the credit system during the period of depression. No other explanation can account

for the extraordinary credulity of these same men in periods of great prosperity in giving themselves up to over-expansion, ruinous borrowing and excessive risk-taking. The conclusion is therefore warranted that the *irrational* influences upon business confidence are no less important and powerful than the *rational* influences.[1]

The keenly felt need for sound foundations of business confidence has effected among the banking and credit fraternity extraordinarily high standards of probity, integrity, reliability and honesty. It is among the leaders of banking that we find the most emphatic insistence upon a high code of business morality. Prominent bankers are men whose reputations for absolute honesty in all dealings are unquestioned. They judge the acceptability of clients desiring to borrow money in very large measure by the right of the clients to a name for unimpeachable integrity. To have one's word "as good as gold;" to abide unfailingly by both the spirit and the letter of contracts; to pay debts promptly and undertake no obligations which cannot be met with a certainty; to represent all factors in business dealings fairly and truthfully; to be dependable and reliable under all financial responsibilities,—these are some of the articles of conduct which the administrators of the credit system lay down as minimum and irreducible standards. These standards are plainly indispensable for the maintenance of a sound business confidence, and sound business confidence is plainly indispensable for the maintenance of the psychological bonds which unite all the ele-

[1] An excellent illustration of these psychological influences is given by W. P. G. Harding. In the course of testimony before a Congressional Committee in August, 1921, he was quoted as saying, in regard to the contemporary financial depression: "The Federal Reserve Board did not create this financial depression. It saw it coming, and got ready to protect things, and people ought to be grateful it did so. Now all we need is cessation of pessimism, which marks bad times as foolish optimism marks good times. We all know now everybody was going crazy in the boom during the Fall of 1919. . . . All we've got to do is to get out of everlasting pessimism and quit saying everything is going to the dogs. Why, a man has to put up a good, cheerful face if he wants credit. You can't talk to the banker like you do to the tax assessor."

ments of money, credit, investment and banking into the price system of the present economic order.

The functions of business confidence should be further clarified by a study of the psychological factors involved in saving, thrift, and provision for the future. The first prerequisite to saving money instead of spending it is the confidence that the savings will not be lost, stolen, dissipated or confiscated. If the man who is thrifty can put his savings into insurance policies, savings banks, or stocks and bonds, with the reasonable assurance that his savings will be secure, there is obtained the condition which encourages economy and provision for the future. Financial confidence in the security of savings is thus the beginning of thrift.

Thrift is, in turn, indispensable in building up the gigantic accumulations of capital which characterize the corporation of to-day, and which are the tangible sources of money and credit transactions. Perhaps the most striking feature of the psychology of saving is the fact that a more equal distribution of income would gravely menace the thrift of the country. As J. M. Keynes states, "The new rich of the nineteenth century were not brought up to large expenditures, and preferred the power which investment gave them to the pleasures of immediate consumption. In fact, it was precisely the inequality of the distribution of wealth which made possible those vast accumulations of fixed wealth and of capital improvements which distinguished that age from all others. . . . The immense accumulations of fixed capital which, to the great benefit of mankind, were built up during the half century before the war, could never have come about in a society where wealth was divided equitably."[1] The mass of men find the temptations to satisfy their instincts by immediate consumption so forceful and irresistible that their savings are relatively slight. Of course, working classes with low incomes would be obliged to starve some of their most urgent instincts if they undertook to save in any considerable amounts. Their incomes are often too limited to permit of any material

[1] "The Economic Consequences of the Peace," pp. 18-19.

saving except by excessive self-stinting on the necessaries of life. But when working-class incomes rise above the line of minimum subsistence, there is no assurance that a proper share of the income will be saved. As a usual matter, the worker lives up to his income. Any increase in the share of wealth distributed to the working classes must, therefore, be surrounded with education in thrift, with facilities for placing savings where they will be safe and will draw some interest. In short, a more equitable distribution of wealth would necessitate a constructive move to insure that enough wealth would be saved to guarantee adequate capital accumulation in the future.

The paramount motive to saving among the classes with low income is the parental motive. Alfred Marshall has made clear "that men labor and save chiefly for the sake of their families."[1] But not even family foresight can make large savings from small income. It is estimated that the total savings of the working classes amount to barely one-tenth of the full volume of savings of the country. Higher interest rates cannot be expected materially to increase the savings of these low income classes, because the instinctive pressure for immediate gratification of urgent wants eats up the great bulk of their income.[2]

Saving among the so-called middle classes is prompted by a variety of psychological forces. Family provision for the future is an important motive to middle-class thrift. The accumulation of that amount of wealth which will put a person into the higher social circles, with accompanying prestige and display, is another powerful motive to middle-class saving. Middle-class professional and business men are accustomed to save and reinvest in their professional or business interests, and these "men on the make" thereby associate with saving all those instincts which underlie their basic ambitions in life. Interest rates are usually minor considerations in middle-class saving. "It is probably safe to say that if they cannot get a higher rate of interest they

[1] "Principles of Economics," p. 228.
[2] A. B. Wolfe, *Quarterly Journal of Economics*, Vol. XXXV, p. 23.

will take a low, without greatly reducing their savings."[1] Saving by either the low income classes or the middle classes usually entails considerable sacrifice, some actual abstinence, often real privation. The saving of both these classes has lately come to attract the attention of bankers, economists and public leaders generally, and the doctrine has been widely preached that saving is a virtue of the finest sort, and that extravagant spending for immediate consumption is vicious and dangerous for general economic progress. Thrift therefore is preached almost as a religion and is associated with emotions of patriotism. Undoubtedly, it is of the utmost importance to coach these classes to the maximum of saving consistent with the reasonable enjoyment of immediate necessities and comforts, and the folk psychology of the future will need to be carefully developed in ways which will build up habits, customs, ideals and institutions favorable to thrift among the masses of people.

In the matter of saving, the force of imitation very commonly works to an undesired end. People of low incomes delight to imitate many of the forms of expenditure of the well-to-do. The people of financial prestige, with automobiles, silks, Victrolas, vacations, etc., set a pace which encourages imitation, and in the face of the desire of the common man to imitate the expenditures of the well-to-do, the preaching of thrift as a religious virtue and economic necessity has often discouraging effects. This is especially true because it is felt that saving among the well-to-do does not require sacrifice or abstinence. To all appearances they still enjoy huge immediate consumption, and their saving can scarcely be made to look like a deliberate virtue. "The higher income classes—say of over $50,000—save mechanically, with little or no sacrifice of present wants."[2] The savings of these classes are made in large measure regardless of interest rates. But the fact remains that the savings of these classes are made, and are enormous in their totals. Their larger savings are not due commonly to any

[1] A. B. Wolfe, *Quarterly Journal of Economics*, Vol. XXXV, p. 23.
[2] *Ibid.*, p. 23.

superior virtues of thrift, but to the ease of saving out of a large income. With the development of the modern financial system, corporate industry has come to distrust the adequacy of any of these sources of saving. All told, they would not provide the needed capital accumulation. Corporations rely upon two other sources for capital,—namely, undistributed profits and bank loans. To quote T. S. Adams, "A large part of the annual harvest of thrift, perhaps the largest part, consists of profits earned by business concerns and turned immediately back into business or reinvestment in related kinds of productive activity."[1] To take an illustration, in the slightly more than fifty years of existence of Armour and Company, total earnings of about $140,000,000 have been turned back into the business, whereas only about $30,000,000 have been paid out in dividends. Over 90 per cent. of the present net worth of Armour and Company has come from the reinvestment of this surplus, the small balance has come from cash and stockholders' savings. Not all companies have gone as far with the practice as this particular company, but it is nevertheless a commonly accepted business policy of the present day, and a main reliance of corporations in securing capital.[2] Because of this policy, the conclusion is drawn by David Friday that "other things being equal, capital accumulation is likely to be largest when the share which goes to profits is large. The organization of our industry under the corporate form and the principles of financial management which dominate the corporate institution inevitably work to that end."[3]

The other source of capital accumulation, bank loans for fixed capital, overlaps in many ways the sources which have already been mentioned, but in a substantial degree represents a distinctly additional source of capital funds. The estimates made by H. G. Moulton indicate that in the year 1916 the amount of bank loans used for these purposes was about $9,000,000,000.[4] The steady flow of capital savings

[1] *American Economic Review Supplement*, March, 1915, p. 239.
[2] See A. S. Johnson, *New Republic*, Volume 23, pp. 279-281.
[3] "Profits, Wages and Prices," p. 97.
[4] *Journal of Political Economy*, Vol. 26, pp. 638-663.

is therefore not dependent merely upon the voluntary thrift of individuals, but rests largely upon organized capital accumulation by corporations and banks directly. Any development of economic life in the direction of a wider diffusion of income must safeguard itself against the danger of reducing the annual fund of savings. Individual economy, even under the present system of highly unequal incomes, is not adequate to provide enough savings. The psychology of thrift must be definitely expanded, and the motives to saving must be thoroughly encouraged and sustained by new traditions, habits and policies of the financial institutions themselves. Such a psychological development must be looked for mainly outside of the acquisitive instincts and the interest rate. A recent writer declares his general experience in the following words: "That savings are prompted in practically all cases by reasons other than the rate of interest is the general belief of bankers.[1]

The fact that the foundations of the institutions of credit and finance cannot be understood apart from their psychological aspects needs no further details of explanation. Both the functions and the dangers of the credit system trace their origins back to the instinctive and rational tendencies of business men. The great rational faculties of successful financiers; the omnipresent irrational and semi-rational influences upon the mind of the financial community; the standards of honor which are held up by the administrators of the credit system; the organization of incentives to capital saving, investment and accumulation,—these factors shape the construction of business confidence, and the psychological foundations of the price system.

[1] L. D. Woodworth, *Economic World*, Jan. 22, 1921, p. 118.

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PART III

ECONOMIC ADAPTATION

CHAPTER XI

PUBLIC CONTROL

Economic problems form part of the subject-matter of economic science, and questions of progress, of improvement, of reconstruction, command painstaking thought. All problems of economic improvement are fundamentally two-sided; on the one hand, they necessitate the alteration of institutions the better to fit human nature; and on the other hand, they necessitate the discipline and education of human nature the better to fit institutions. The solution of economic problems requires a blending of human nature and economic institutions. Economic progress involves always the basic element of adaptation between two prime factors, men and institutions. W. E. Hocking refers to man as "the only animal that deliberately undertakes, while reshaping his outer world, to reshape himself also." The human equipment needs discipline and guidance in ways which are not degrading or weakening, and needs opportunities for expression in ways which represent a fulfilment of the primary human instincts and desires, and which are safe for society. At the same time, institutions need to be made to function in such ways that human nature will be neither outraged nor pampered, but will be evoked, expressed and satisfied within social bounds.

Every student comes to economic discussions with certain first principles which give him his orientation for economic thinking. It is these first principles, these elementary conceptions mostly born of family and social traditions, which

need scientific examination. As Justice Holmes profoundly observes, "To have doubted one's first principles is the mark of a civilized man." The first principles of the progressive and of the conservative differ deeply, and in no way more fundamentally than in this respect: the conservative-minded thinker inclines to give present-day institutions the benefit of all doubts and to assume that liberals or radicals, mild or extreme, need discipline to make them conform; whereas the progressive thinker inclines to give human nature the benefit of all doubts and to assume that conservatives or reactionaries need to be forced to reshape institutions so that human nature can be freer to follow its own bent. Conservatives tend to believe that human nature is wrong when it is unruly or dissatisfied; progressives tend to believe that laws, organizations, systems, institutions, are wrong when men become impatient with them. One wishes to reshape *human nature* by new disciplines; the other to reshape *institutions* by reconstruction.

Economic adaptation between these two factors may, of course, come about in many ways,—by mere chance, by blind drifting, by coercion, by pacifistic surrender, by cooperation, by rebellion, by intelligent planning. The economic order is to-day so stupendous in its proportions that individual thinkers all too often look upon the course of adaptation with a fatalistic despair, and resign themselves to the inevitability and inescapability of economic evolution with an optimistic delusion that all will turn out for the best some day anyhow. Such attitudes lie behind the frequent blunders and futilities in modern economic adjustments. Economic thinking worthy of the name must come within the scope of the points of view and mental processes which are insisted upon by the reconstructed philosophy of recent years,—it must be devoted to creative adaptation. Adaptation which is safe and trustworthy is an act of will, based upon an intelligent analysis of facts. It comes from "creative intelligence." To effect a decent balance in reshaping human conduct and in reshaping economic institutions calls for the most elaborate scientific investigations to ascertain facts and methods, for experi-

mentation with alternative courses of economic policy, for unlimited research by private experts and public commissions, for the invention of theories and hypotheses to be tried out and proved or disproved, for the creation of new principles of human behavior, for the discovery of new ideas bearing upon pressing economic problems. Adaptation which is sound and wise has to be wrought out by the deliberate effort of creative minds. Adaptation involves a technique of inquiry, research, experimentation, scientific guessing, reflection, observation, analysis, diagnosis, inference, hypothesis, testing, and verification. In modern society there are specialists and experts, responsible leaders, who are adepts in the use of this technique, or should be, and upon them naturally falls the burden of formulating the lines of economic adjustment in their broadest and deepest aspects. But any over-reaching in the direction of specialization, on the assumption that one class in society should do all the planning, and another class all the handwork and none of the planning, would be dangerous. In his own individual way and within the limit of his powers, every man deserves the responsibility of planning, suggesting, imagining, and few indeed are the members of society who, under proper encouragement, lack that spark of curiosity which seeks satisfaction in ideas, plans, and suggestions. The caliber of the average individual will be measured by the degree to which the latent powers of his human equipment are called into creative use. If he is a thing accustomed to act always under orders, a being whose thinking is done by specialists only, his human equipment is bankrupt in regard to those qualities of personality which can arise only from self-expression and self-assertion. So in his individual manner each person in economic society must be somewhat creative and original and curious if he is to be the best possible member of society.

If the mass of individuals are to have originality and creative ability, each individual must be encouraged to make wise new adaptations to his immediate environment every day of his life. Obedience and unquestioning conformity is not the first law of life, but rather the first law

of life is individual creative adaptation. The man must be free and able to plan improvements in the system under which he moves and works, and he must be constrained to that measure of self-control and self-direction which is necessary to keep him in tune with his immediate universe. The words of John Dewey on this matter are deeply suggestive: "The best guarantee of collective efficiency and power is liberation and use of the diversity of individual capacities in initiative, planning, foresight, vigor and endurance. Personality must be educated, and personality cannot be educated by confining its operations to technical and specialized things, or to the less important relationships of life. Full education comes only when there is a responsible share on the part of each person, in proportion to capacity, in shaping the aims and policies of the social groups to which he belongs. This fact fixes the significance of democracy. . . . Human nature is developed only when its elements take part in directing things which are common, things for the sake of which men and women form groups — families, industrial companies, governments, churches, scientific associations and so on. . . . When the liberating of human capacity operates as a socially creative force . . . making a living, economically speaking, will be at one with making a life that is worth living."[1]

As soon as the average person comes face to face with this attitude toward economic problems, he naturally inquires: What is your solution? What is the remedy for the difficulties of the economic order? What is your answer to the multitude of economic questions which arise on every hand? This kind of inquiry is usual and natural. Men are in search of an ultimate solution for the whole thing. They suppose that of course each man ought to have a theory about the way out of all troubles. Then he could say to everybody, Now if only you would adopt this scheme, all would be well. If only you would put this solution into practice, nothing else would be necessary. And the only trouble with such ultimate solutions is that people simply do not adopt them. Just that is the futility

[1] "Reconstruction of Philosophy," pp. 209-211.

of these single ultimate remedies based upon an "if only." They assume a human behavior which is contrary to fact. It might as well be put bluntly and boldly that there is no one simple solution, and those people who pretend to have one are obliged to live in an imaginary world where everything would be all right if only people would not do the things which people do and if only men would behave in those ways in which they won't behave. Realists who are willing to deal with actual human nature and actual institutions find that we are confronted with a great bundle of economic problems, and bundles within the bundle, and bundles within the bundles. Each requires investigation, inference, experimentation and creative imagination. Problems of co-ordination and correlation between all the bundles of problems will come to the front. The world of economic problems is teeming with infinite diversity, peculiarity, individuality, variety, and the realistic mind seeks to adapt each to each and each to all. This attitude always is a disappointment to many minds, because it gives no rock of ages to step foot upon, but instead makes every man an explorer, a pathfinder, a trail blazer, a discoverer. If it has less certitude, it at least has infinitely more practicality. The specific implications of this attitude are so ably stated by Dewey that it is well to quote him again: "Just what response does *this* social arrangement, political or economic, evoke, and what effect does it have upon the disposition of those who engage in it? Does it release capacity? If so, how widely? Among a few, with a corresponding depression in others, or in an extensive and equitable way? Is the capacity which is set free also directed in some coherent way, so that it becomes a power, or are its manifestations spasmodic and capricious? Since responses are of an indefinite diversity of mind, these inquiries have to be detailed and specific. Are men's senses rendered more delicately sensitive and appreciative, or are they blunted and dulled by this and that form of social organization? Are their minds trained so that the hands are more deft and cunning? Is curiosity awakened or blunted? What is its quality: Is it merely esthetic, dwell-

ing on the forms and surfaces of things, or is it also an intellectual searching into their meaning? . . . What is needed is specific inquiries into a multitude of specific structures and interactions."[1]

A convenient classification for the purpose of helping in understanding the main directions of economic adaptation will be made under the three headings: Public Control, Radicalism, Economic Democracy.

Public Control

The major economic problems, almost without exception, exhibit phases which refer to some form or degree of government control, and the major policies of modern government almost without exception exhibit phases which refer to economic conditions. So politics abounds with economics and economics abounds with politics. The extent to which government should interfere in business is often a matter of bitter debate, and each separate problem has to be disposed of on its own merits. Those economists who are not averse to a liberal measure of governmental control look upon government policies not primarily as an interference with business conditions, but rather as a means of smoothing out troubles and injuries arising from unrestrained business adventures, and as a means of aiding and guiding business toward higher standards. The function of government is not to meddle and intrude where it is not needed, but is to co-operate and constrain and direct and reconstruct where economic conditions fail to right themselves. Referring to this positive responsibility of government, a thoughtful political scientist has commented, "The most striking change in the political organization of the last half century is the rapidity with which, by the sheer pressure of events, the state has been driven to assume a positive character. . . . And, in the main, it is reasonably clear that political good is to-day for the most part defined in economic terms."[2]

Since the World War, the people of the United States

[1] "Reconstruction of Philosophy," pp. 197-198.

[2] H. J. Laski, "Authority in the Modern State," pp. 81, 98.

have undergone a marked reaction away from the extreme forms of government control of economic affairs. The reaction is well defined in a catch phrase which has won wide currency,—less government in business and more business in government. The war emergency brought the basic economic activities of the country under close government supervision. The Federal Government assumed control of the economic life of the nation through a vast administrative machinery: The Food Administration to conserve the supply of foods, restrain prices, and distribute the supply where most needed; the Fuel Administration to control prices of fuel, and regulate priorities in its use; the Railroad Administration to operate, co-ordinate and unify the transportation facilities of the country; the President's Mediation Commission, the National War Labor Board, the War Labor Policies Board, and other special boards, to arbitrate labor disputes, establish industrial standards, adjust wages, and secure maximum labor efficiency; the United States Shipping Board and the Emergency Fleet Corporation to construct ships rapidly, control ships seized from the enemy, and to mobilize and direct shipping forces of the nation; the War Trade Board and the War Trade Council to regulate exports and imports, and to apprehend efforts at trading with the enemy; the War Finance Corporation and Capital Issues Committee to conserve the credit resources of the country for industries essential to winning the war; the War Industries Board to organize the industrial resources of the country for essential war purposes; and other special boards to handle war publicity, stimulate science and invention, investigate and control enemy aliens and their property, construct aircraft, and direct war-risk insurance. Most of the war boards made large use of the practice of licensing corporations as a means of controlling their conduct. Price-fixing, household thrift, priorities, and other means of enforcing war policies brought the great bulk of the economic life of the country under the War Administration.

The extreme extent of this war control placed the business of the country in a position where its freedom of

initiative and its independent judgment were drastically curbed. Although the business interests were as a rule patriotic and willing to submit to superior direction while submission was necessary to win the war, nevertheless the surrender of their freedom to conduct their private businesses was not a pleasant experience, and the minute the war was over business men were straining at the leash for escape from the rigid restraints of war days. The President reflected the predominating sentiment of the country when, shortly after the armistice was signed, he declared in a message to Congress, "While the war lasted . . . we put every material energy of the country in harness to draw the common load and make of us one team in the accomplishment of a great task. But the moment we knew the armistice to have been signed we took the harness off." The war brought the most comprehensive organization of economic life that Americans had ever witnessed, and the restraint and subordination which it involved were repugnant to the American spirit of free initiative and independence of action. The American people knew, in no doubtful mind, that they did not desire so far-reaching and inclusive regulation of their economic life. On the whole, the American people were relieved at the prospect of being able to scrap the war organization and to return to a generous degree of individualism in their business pursuits.[1]

The paramount form of government control is familiar under the name of government regulation. Regulation has been carried furthest in those branches of economic activity which are in the nature of public utilities. During the last fifteen to twenty years, a group of city, state, and federal commissions have grown up to regulate rates and services for public utility corporations. Such corporations include the telegraph, the telephone, water, light, gas, street railways, and steam railroad companies. The railroads have been subject to a great deal of scattered regulation by the separate states, but of late the supremacy of the federal commission over all interstate carriers has been

[1] W. F. Willoughby, "Government Organization in War Time and After."

definitely established. The other classes of public utility corporations have for the most part been subjected merely to state and municipal regulating commissions. These commissions have been indispensable in order to protect the public from unreasonable or unfair rates, and from inferior and inadequate service. Commission regulation of these corporations has come to be accepted as a necessary public policy, and the rulings of the commissions have as a general rule been tempered with a commendable fairness and reasonableness.

The principle of regulation has been most fully developed in the great interstate railroad systems of the country. Railroad transportation is the largest single industry in the country in regard to capital invested, labor employed, and public importance. The railroads are a key industry of the country, and transportation is an indispensable aid in the conduct of practically every important business.

The railroads early developed abuses in the level of rates charged, in unfair practices such as rebates, and in the quality of the service rendered, and in 1887 Congress created the Interstate Commerce Commission. From that year until the present time the Commission has functioned, and its powers and duties have been defined, enlarged and strengthened by several subsequent acts of legislation. The latest law of fundamental significance in railroad regulation is the Esch-Cummins railroad law passed in 1920. This act terminated the period of government operation which had been entered upon in 1917 as a war measure, and marked out greater powers than had ever before been placed in the hands of federal regulating bodies. The main features of the regulatory machinery and its powers and functions may be given in very brief and condensed form as follows: Regulatory power is vested in an Interstate Commerce Commission of eleven members, each drawing an annual salary of $12,000, appointment being made by the President with the consent of the Senate. Terms of office are seven years. The Commission is directed by the Esch-Cummins law to fix railroad rates at a level which will make possible the payment of five and one-half per

cent. dividends on the aggregate value of the carriers' property for the two years immediately following the termination of war control on March 1, 1920. Roads which earn in excess of six per cent. are required to divide the excess equally with the Government. This provision for division of the excess above six per cent. is a permanent provision, and is not limited merely to the two-year period just mentioned. The railroads' share of the excess goes into a reserve fund of the railroad, and can only be drawn upon for the meeting of dividend, rent and interest charges, and for that purpose only to the extent of meeting charges up to six per cent. of the value of the railroad's property. The Government's share of the excess above six per cent. goes to a contingent fund, to be drawn upon to extend necessary credits to railroad companies or to purchase equipment to be leased to them. The Commission is directed by the law to follow as a permanent principle in rate-fixing the obligation to "prescribe just and reasonable rates," so that the carriers as a whole will, "under honest, efficient and economical management and reasonable expenditures for maintenance of way, structures and equipment, earn an aggregate annual net railway operating income equal, as nearly as may be, to a fair return upon the aggregate value of the railway property." The Commission is to publish from time to time "what percentage of such aggregate property value constitutes a fair return thereon." The five and one-half per cent. mentioned above is given as the rate of fair return for the first two years following the abandonment of war control of the roads. Prior to the Esch-Cummins law the Commission had power to fix maximum rates, but the new law gave it power also to fix minimum rates. This provision enables the Commission to prevent the stronger roads from engaging in forms of "rate-cutting" which amount to "cut-throat competition." These rate-fixing powers are equivalent to what would be price-fixing powers in the ordinary line of industry.

The Commission, moreover, has supervision over the issuance of stocks and bonds by railroads, its approval being

necessary before new issues can be made. The guiding criterion for the Commission in passing upon proposed security issues is whether the new securities are "reasonably necessary and appropriate" for giving proper transportation service to the public. Another provision refers to combinations of railroad companies, and permits combinations by methods constantly subject to the Commission's approval, provided such combinations are brought about "under a lease or by the purchase of stock, or in any other manner not involving the consolidation of such carriers into a single system for ownership and operation." As soon as practicable, the Commission is directed to prepare a nationwide plan for the consolidation "of the railway properties of the United States into a limited number of systems," and consolidations of railway corporations in ownership and operation are permitted under the discretion of the Commission. Such railroad combinations and consolidations are specifically exempted from all previously enacted laws for the regulation and control of trusts. This general provision of the Act looks toward a unification and co-ordination of the railway lines of the country, and is an outgrowth of the lessons learned in railway operation during the war period when unification and coordination of the lines were of the utmost importance. A further set of provisions empowers the Commission to require of the carriers during normal times the proper amount and quality of service to insure that the transportation needs of the nation are reasonably met, and during times of stress or emergency to redistribute railroad equipment and service in any way necessary to meet the demands of the emergency period. Complete control of all railroad operations would fall to the Commission in case the emergency were war or the imminent threat of war. A branch of this general class of provisions empowers the Commission to require the joint use of terminals by various roads, and to apply priorities and preferences in the use of railroad equipment when desirable. Old roads cannot be abandoned nor new ones constructed without the approval of the Commission. These powers constitute in their en-

tirety a comprehensive control over virtually all vital parts of the railroad business, and by thus regulating rates, service, finance, construction, competition, consolidation and dividends, the Interstate Commerce Commission assumes a position of the greatest importance in guaranteeing that the transportation facilities of the country shall render the public reasonable service under reasonable terms.

One group of provisions in the Esch-Cummins railroad bill establishes regulatory machinery for the adjustment of disputes, grievances and relations between the railroad companies and their employees. The railroads and laborers may by mutual agreement set up Boards of Labor Adjustment to settle all disputes regarding "grievances, rules or working conditions." These voluntary Adjustment Boards are supplemented by a Railroad Labor Board, composed of nine members, three each representing employers, employees and the public. The powers of this national board authorize it to proceed to investigate any railroad disputes which are not being adequately taken care of by the voluntarily formed Adjustment Boards. Beyond this, the Railroad Labor Board has exclusive jurisdiction over the final settlement in all wage disputes. The powers of the Railroad Labor Board thus comprehend not merely the disputes about "grievances, rules, and working conditions," but about wages as well. The Board has power to enter upon an investigation of any dispute which threatens to interrupt the operation of the roads, and to make an award in settlement of the dispute. The Board relies upon publicity and public opinion for the enforcement of its decisions. In the early history of the bill, a definite anti-strike clause was proposed, enabling the Board to enforce all of its decisions, and giving it power to impose fine or imprisonment upon employers or employees who might fail to obey decisions. This proposed clause was bitterly fought by labor leaders, and by some public authorities, so that as finally arranged in conference the law excluded the anti-strike clause and relied upon public opinion for enforcement of decisions. Investigation of disputes is compulsory, and regardless of whether employees or employers so desire,

the Board is under obligation to make an award and give the terms of the award wide enough publicity to create an informed public opinion on the case.

The Railroad Labor Board and the Interstate Commerce Commission therefore together hold firm control over every important phase of railroad operation. Through these agencies public regulation of the greatest public utility of the nation is made thorough and far-reaching. The major owners of railroad securities and the executives of the roads were very eager to recover the lines from the hands of the government, and to resume private operation. Private operation under such drastic regulation places private initiative and competition on a new plane. Competition of service is much talked about, and competition in efficiency and economy is approved of. But even these forms of competition are subject to intimate regulation on the part of the Commission. The condition of the railroads since the enactment of the Esch-Cummins law has not been fully satisfactory, and weighty difficulties have appeared in securing adequate railroad credits, in effecting adequate economies in operation, and in working out satisfactory adjustment of labor relations. Not a few authorities feel that eventually the present form of drastic regulation will lead to outright government ownership and operation. Perhaps one of the strongest forces tending in the direction of government operation is the force of menacing labor relations. The roads and their employees apparently are unable to find any basis of common understanding, and a state of distrust and suspicion prevails widely. Rumors of strikes and threats of strikes are constantly being heard, and unless the roads can find ways of adjustment of troubles with labor the possibility of government operation is not a light one.

The personnel of the Interstate Commerce Commission and of the Railroad Labor Board and Adjustment Boards has a steady influence upon the success of regulation. Fortunately the appointments made are of a nature to command a reasonable amount of public confidence. Probably a weightier factor in the success of regulation exists in the

motives and psychology which prevails among both the rail executives and the rail laborers. Their reactions and attitudes and motives determine fundamentally the effect of regulation upon railroad service to the public. On the labor side, it should be observed that labor union leaders give evidence of a profounder respect for the vital needs of the public than they were willing to during the days of 1916 when the persistent threat to strike led to the Adamson Act regulating hours of labor. The laborers, however, feel a continual suspicion of the owners and executives, believing that they are utterly unwilling to grant the laborers adequate wages, adequate union representation, and adequate working conditions. This suspicion prevents a sound morale among the army of railroad workers, and as long as it persists in its present unhealthy degree the trials of those who are responsible for regulation will be heavy, and the service of transportation will be below its possibilities. On the part of the railroad presidents and executives, it is probably accurate to state that the sense of public responsibility has materially increased in recent years. For the most part they admit the inevitability and necessity of thorough regulation, and are disposed as a rule to give reasonable co-operation to the regulators. In this respect, the "public be damned" attitude is mainly a thing of the past, and a "public be served and pleased" attitude is more in evidence. The low salaries paid to railroad executives, in comparison with those paid to the largest industrial executives, has led as responsible a railroad official as Daniel Willard to remind the country that under such salary scales the best executive ability will not in future years be attracted to railroad positions. Such a drift of the best executive ability of the country toward the higher paid industrial positions would leave the management of the railroads to second-rate ability. In the course of time, such a tendency would severely handicap the transportation service of the country.

The development of motives among great railroad executives is splendidly suggested by a remark by Otto H. Kahn on the railroad career of one of the greatest figures in

American railroad history, Edward H. Harriman: "His career was the embodiment of unfettered individualism. For better or for worse—personally I believe for better unless we go too far and too fast—the people appear determined to put limitations and restraints upon the exercise of economic power, just as in former days they put limits and restraints upon the absolutism of rulers. Therefore, I believe there will be no successor to Mr. Harriman; there will be no other career like his." The ability of great men to harness their capacities in a co-operative enterprise as enthusiastically and energetically as they formerly did in individualistic effort lies at the base of all questions of success in the new era of complete regulation of railway enterprise.

Regulation of banking has been described in detail under the chapter having to do with MONEY AND CREDIT. At this stage it is enough to point out that the Federal Reserve System establishes a machinery for the regulation of banking practice, but that this regulation goes to no such extreme as does the regulation of the railroads. The manner of selection of the directors of the Federal Reserve Banks gives to the bankers themselves the real power in selecting the dominant portion of the boards of directors. Banking regulation does not come merely from the top down, but fundamentally organizes the bankers themselves in a co-operative treatment of banking problems. There is less government dictation and more self-discipline in the Federal Reserve Board. A question which promises to become of increasing public interest relates to the powers of the Federal Reserve System in stabilizing business conditions and averting the extremes of business cycles. Many students believe that a proper regulation of discount and interest rates would restrain business from excessive expansion in times of prosperity, thereby avoiding extremes of depression, and would encourage recovery by offerings of credit at low rates during dull business periods. This issue is the center of much thought and discussion, and a decision in favor of strong powers of this sort in the hands of the Federal Board would have deep consequences

for the business community. The traditions of individualism in banking are against the move, whereas those who are not afraid that co-operation and control in this way would be paternalistic are more inclined to be favorable.

General Regulation of Business

The general regulatory machinery for ordinary business activity exists mainly in the Federal Trade Commission and in the judiciary. The basic laws establishing definite control are the Sherman Anti-trust Law of 1890 and the Federal Trade Commission and Clayton Acts of 1914. Outside of these statutory laws, the courts have dealt with business practices to a considerable extent under the principles of the common law.

The Sherman Act of 1890 decreed that "Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal" and that "Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor." The gist of the act concerned itself with combination to restrain trade or to form monopoly. For more than a decade following the enactment of the law, the interpretations placed upon it by the courts made it of slight effect upon business combinations, and few cases were brought to trial. In 1904 and 1905, the court made a severe application of the law in cases involving the Addyston Pipe Company and the Northern Securities Company, the court holding that these companies had the effect of a restraint upon competition and trade between the States. In 1911, the court ordered the dissolution of two of the most powerful trusts ever formed, the Standard Oil Company and the American Tobacco Company, on the ground that these combinations caused undue and unreasonable restraint of trade. These decisions constituted epoch-marking interpretations of the Sherman Act by drawing a line of difference

between reasonable and unreasonable, or due and undue restraint of trade. Previously it had been assumed that all restraint of trade was illegal, but these decisions pointed out that a standard of reason must be applied in each separate case to the acts of a business combination. In any new case presented to the court, it became therefore necessary for the court to determine as a matter of commercial fact whether the acts of the business combination under question were reasonable or unreasonable restraint of trade. The looseness of this "rule of reason" left business men with the feeling that they were conducting their business under a régime of great uncertainty. Business men could not make intelligent guesses as to what the court's notion of reasonable restraint might be.

One very important question had to do with the issue of whether mere size itself, if great enough, might be declared monopolistic and unreasonable restraint of trade. The Supreme Court gave its opinion on that issue in 1915 in a decision favorable to the United States Steel Corporation, where it was declared: "We dismiss once and for all the question of the mere volume or bigness of business. The question before us is not how much business was done, or how large the company that did it. The vital question is: 'How was the business, whether big or little, done? Was it, in the test of the Supreme Court, done without prejudicing the public interests by unduly restricting or unduly obstructing trade? The question is one of undue restriction or obstruction, and not one of volume of trade." In a subsequent decision on the same corporation, rendered March 1, 1920, the Supreme Court found the steel corporation not guilty of unreasonable restraint of competition and trade. The government attorneys who were prosecuting the corporation were unable to find any independent steel companies who were of the opinion that the trade practices or price policies of the company were unfair, and not a single independent company wanted to testify against the United States Steel Corporation. The Court re-emphasized: "The law does not make mere size an offense, or the existence of unexerted power an offense."

The emphatic ring of these court opinions is somewhat weakened, and a measure of doubt raised, by a decision in 1920 dissolving a holding company known as the Reading Company. he court based its opinion upon the charge that the company had secured "dominating control" of certain railroad and coal properties not by "superior and enterprising management," but by "deliberate calculated purchase for control," and held "that such power, so obtained, regardless of the use made of it, constitutes a menace to and an undue restraint upon interstate commerce within the meaning of the anti-trust act, has been frequently held by this court."

The laws of 1914 were the Federal Trade Commission Act and the Clayton Act. The most significant feature of these enactments is the creation of a commission to investigate trade practices and competition policies and to apply the principles of government control of business in a flexible and constructive manner. The Commission is empowered to prevent unfair competition among business concerns, and in case the corporation fails to obey the Commission's order, it may appeal to a Federal circuit court of appeals for an enforcing order. It may conduct investigations from time to time into the "organization, business conduct, practices and management" of corporations, and may require corporations to submit reports covering information about their business, and to maintain uniform cost accounting systems, open to the scrutiny of the Commission. The Commission, moreover, is authorized to inform itself as to whether corporations obey the decrees of the court under the anti-trust acts, and to report the facts to the Attorney-General. It shall also make investigations to discover violations of the anti-trust acts, and shall make recommendations for the reform of any corporations found to be violating the law, "in order that the corporation may thereafter maintain its organization, management, and conduct of business in accordance with law." The Commission may utilize the power of publicity as a means of controlling the policies of corporations. It may make investigations of foreign trade, and may seek out information

in foreign countries bearing upon trade combinations of the United States. It is an administrative body for the application of the provisions contained in the Clayton Act. The Commission has cleared the air for business men a great deal by drawing up and publishing lists of fair and unfair practices of competition, so that business men may know with some definiteness what they will, and what they will not, be prosecuted for.

The Clayton Act proceeds to define two of the most objectionable forms of unfair competition, namely, price discriminations and "tying arrangements," *i.e.*, such arrangements as requiring merchants to bind themselves to sell at certain prices or to buy exclusively from certain dealers. These types of competition are specifically branded as unfair and illegal, and it is the duty of the Federal Trade Commission to prevent business concerns from indulging in them. In addition, the Commission is given a blanket authority to prevent any and all forms of unfair competition. Also, the act forbids the formation of holding companies or of interlocking directorates where the result may be to substantially lessen competition or to restrain trade or to tend to create a monopoly, and it is the duty of the Federal Trade Commission to see that these provisions are enforced. The acts of 1914 are a broad constructive move in the direction of guiding business instead of merely punishing it; of making clear what is legal and what is not; and of co-operating with business toward the end of securing business methods which are sound public policy and in accord with the law.

The fundamental purposes in the government attitude toward business combination and business methods have not always been clear and definite. One general purpose has been to maintain and safeguard competitive methods in business. The decrees of the courts have often defined their purpose as being to "restore competitive conditions," and the laws that have been passed have announced their objective as the prevention of restraints upon competition. But the competition which is to be preserved is not a completely independent and unguided competition; rather, it

is a competition which is required to keep within certain bounds of "fairness." It is a competition, moreover, which may be subject to some restraint and suppression by business combinations, provided only that such restraint is not, in the view of the court, "unreasonable." And the new competition allows for a substantial measure of co-operation between competing business units. The vast extension of organizations such as trade associations is a move in the nature of co-operation between the several business units in the various lines of trade. Co-operation is the life of trade. "Only by co-operation can the enormous wastes of competition be avoided." Co-operation is not the antithesis of competition, but the supplement, and an invaluable supplement, in the successful organization of modern industry and trade. The element of co-operation is encouraged by the government in the railroads of the country, under the supervision of the Interstate Commerce Commission. It needs to be more definitely approved for industry and trade in general; and clear definitions are in need of formulation, of fair and unfair, reasonable and unreasonable co-operation. Co-operation has been established by the terms of the Webb Act for corporations entering into foreign trade, and under the terms of the Edge Act for banking companies engaged in the handling of investments and credits for the financing of foreign trade. Misguided co-operation would of course lead to forms of monopoly which would be undesirable. In both the coal industry and the meat packing industry it has of late been seriously proposed to add to existing provisions for government regulation to the end that competition and co-operation in those industries may be properly balanced. The purpose of government control as at present applied deserves to recognize the importance of properly blending the principles of competition and co-operation in economic organization.

In the past, a primary purpose of anti-trust legislation and administration frequently has been the prevention of business from growing too large. The popular philosophy of business at the time of the enactment of the Sherman

Act in 1890 found big business dangerous and menacing because of its very bigness. The provisions of the Clayton Act against holding companies and interlocking directorates are a tribute to the same fear of large industrial and commercial power. The Supreme Court has in some recent decisions declared that mere size is not in itself illegal, but doubt as to what is definitely meant by such a declaration is raised by such a judicial attitude as was taken in 1914 by a Federal district court in decreeing the dissolution of the International Harvester Company. In part, that decision stated, "There is no limit under the American law to which a business may not independently grow, and even a combination of two or more businesses, if it does not unreasonably restrain trade, is not illegal; but it is the combination which unreasonably restrains trade that is illegal, and if the parties in controversy have 80 or 85 per cent. of the American business, and by the combination of the companies all competition is eliminated between the constituent parts of the combination, then it is in restraint of trade within the meaning of the statute, under all of the decisions." This comes close to declaring that the company unreasonably restrains trade because of its very bigness, in that it controls over 80 per cent. of the business. Does size itself constitute unreasonable restraint? In the decision of the Supreme Court in 1920 dissolving the Reading Company, it was the "dominating control" of the company, even though it were in the form of "unexerted power" which figured largely in the logic of the decision. The doubtful attitude toward bigness is further revealed in a statement by the chairman of the Federal Trade Commission made in 1918 as follows, "The principal unsettled question remaining appears to be whether a monopolistic combination with the power to crush its competitors is not against public policy and contrary to the law, even though it were not shown to have exerted that power." And the chairman explains his personal conviction that "In ordinary industry and trade, however, the maximum social advantage is not in concentration and unitary organization, but rather in the competition of numerous efficient private

enterprises."[1] It at least seems certain that in any cases where combination is allowed to attain so great a size as to amount to private monopoly, rigid government control similar to that provided by the Interstate Commerce Commission will be applied.

The history of efforts at business control for more than thirty years teaches emphatically that large business establishments are inevitable in the present economic period. Business units of sufficient size to realize the economies of large scale operation are a natural outcome of the economic system based upon modern mechanics, science, and technology. Economic evolution and social progress alike acknowledge a place for the large-scale business establishment. Decrees of dissolution made by the courts have proved in large measure futile. Communities of interest, holdings of stock in various corporations by friendly parties, secret understandings and concert of policy spring up in one way and another. It often has been doubted whether "the mere dissolution of industrial combinations accomplishes anything."[2] The words of VanHise seem thoroughly justified, "Concentration and co-operation in industry in order to secure efficiency are a world-wide movement. The United States cannot resist it." As fast as one form of combination has been attacked by the courts, another form has been invented. The pool gave way to the trust, the trust to the holding company, and the holding company often to the amalgamation, the merger or the community of interest. Control of business methods, of forms of co-operation and competition, and condemnation of evil business practices have met with a reasonable measure of success; but when the attack has been upon mere size because of the dangers of size, it has happened that "Notwithstanding all the law against agreements in restraint of trade, the present generation has seen the greatest movement toward consolidation which is recorded in economic

[1] W. B. Colver, "American Problems of Reconstruction," edited by E. M. Friedman, Chapter X.

[2] See A. A. Young, *Journal of Political Economy*, pp. 204-219, 430-431.

history."[1] It is of significance that Great Britain has during and since the war given direct governmental encouragement to the organization of business on a comprehensive and adequate scale. The trouble with the attitude of the past has been fundamentally that people were unable to discern the psychological forces which were working in the direction of large business organizations. The development of the resources of the American continent, the possibilities in the utilization of modern inventions and scientific discoveries, the economies and advantages to be realized by big undertakings, the seats of economic power that could be occupied by those who succeeded in large business organization, the achievements which would be a tribute to mammoth creative ability,—all these were considerations which fired the imaginations of men of genius. The last generation has been endowed with not a few men of rare and extraordinary capacities, and the opportunities in the economic world which stretched out before them set loose their unparalleled energies. Men in whom the master instincts of domination, constructiveness, possession, fame, power, and thought were of extreme force were stimulated to their highest endeavors by the challenge of economic circumstances. People and governments made the mistake of supposing that this titanic psychological energy could be suppressed or abolished by the enactment of a law or a paper dissolution by the courts. Great human energies were operating in full force, and when they were balked at one point, they found an outlet at other points. The human energies of men could not be suppressed; they could, however, be disciplined. They could be guided, directed, and brought into the service of the economic needs of the community. And, of late, the effort of business control along these lines is a truer recognition of the psychology of business combination, and for that reason has a sounder promise of success.

The possibility of making over the forms of expression which will give satisfaction to the instincts of great cap-

[1] Bruce Wyman, "Control of the Market," p. 142.

tains of industry is difficult to measure. New standards of business honor, new standards of business ethics, new standards of business success gradually turn the emphasis away from mere money-getting or individualistic attainment toward economic statesmanship and constructive public achievement. There is much reason for believing that the following statement of the late George W. Perkins is a fair description of the movement of the times: "The individualistic period in which we have been living . . . quickly brought great fortunes to individuals. Money-making has been the one all-absorbing occupation in this country for the last forty years. . . . On the whole, the individualistic age has not been a success, either for the individual, for the community in which he has lived, or for the nation. This period is passing away. . . . To my mind there is nothing in the signs of the times so certain as this. I believe the sooner the man of the future understands this, accepts it, and prepares to shape his own course accordingly, the more successful his career will be, the better off his country will be, and the happier he and every one else will be. . . . Our only decoration—the almighty dollar—is not as highly prized as it used to be. The man of exceptional ability, of more than ordinary talent, will hereafter look for his rewards, for his honors, not in one direction but in two—first and foremost in some public work accomplished, and second in wealth acquired. . . . In my judgment the fashion of acquiring wealth simply for the sake of possessing it has about reached its greatest height, and the fashion of performing public service for the sake of its performance is coming into vogue."[1] To the degree that this revaluation and rediscipline of motives takes place, the economic organization of the country will increase the measure of human well-being which prevails, and private initiative in public achievement will characterize American business life.

[1] E. M. Friedman, "American Problems of Reconstruction," pp. 50-51.

Governmental Control of Labor

Labor is so vital a part of productive organization that the influence of government control over it becomes of importance. Government control of the laborers of the railroads has already been described in some of its phases. Compulsory investigation of disputes, trusting to public opinion for enforcements of decisions is the established mode of procedure in the railroads. The State of Kansas has attracted much attention by the formation of a State Court of Industrial Relations, to settle labor disputes in all industries of vital public concern, with powers not merely of compulsory investigation, but also of compulsory acceptance of the decision. Both the railroad method and the Kansas method arouse the bitter antagonism of organized labor, because it is felt that the element of compulsion will prove to be an entering wedge for forcing men to work against their will and for involuntary servitude. The fundamental principle in both cases is the uninterrupted operation of businesses which are of indispensable and vital public service. The psychology of labor caused Congress to eliminate a specific anti-strike clause from the Esch-Cummins railroad bill, and has deterred other states from following widely the precedent of compulsion set by the Kansas law. The psychology of labor also underlay a report made by a special industrial commission appointed by President Wilson in 1919 for the purpose of working out an industrial reconstruction program. The commission contained seventeen members, persons of experience and eminence in the country; and great importance attaches to their belief that the wide application of compulsion in the settlement of industrial disputes is inexpedient and unwise, with the parties to industry in their present mood; and that the best mode of maintaining industrial peace and co-operation lies in the direction of a nationwide organization of arbitration and mediation machinery, with regional divisions, exercising the right of investigation and publicity in industrial disputes, but not clothed with compulsory powers to forbid strikes. In the big meat packing indus-

tries, the government established during the war a method of federal control of labor relations under the direction of a federal judge, Judge Alschuler. The powers of the federal judge were extended following the war until the autumn of 1921, and the Secretaries of Commerce, of Labor, and of Agriculture, then approved the termination of this federal control upon the understanding that the meat packers would establish forms of employee representation and joint conference between employers and employees for the adjustment of industrial relations. Government control, moreover, has frequently taken the form of injunctions, in such forms as court orders forbidding laborers to strike, or to picket, or to boycott, or to engage in some other practice held to be objectionable. The element of compulsion in the injunction serves to stimulate extreme bitterness on the part of laborers, and they feel almost universally that the injunction deprives them of their freedom and rights as American citizens and workingmen. The injunction is a measure which ought to be used only in the last resort, as a means of providing indispensable business service to the public or of protecting just rights of employers. Organized labor secured, as a means of protecting itself from court restrictions, the insertion in the Clayton Act of a clause which stated that "the labor of a human being is not a commodity or article of commerce," and that labor organizations are lawful under the anti-trust acts, and may not be restrained from "lawfully carrying out the legitimate objects thereof." Labor unions entertained the hope that this section of the Clayton Act would give them a new status of immunity from interference by the courts, but subsequent judicial decisions indicate that the Clayton Act did not materially alter or improve the status of labor organizations. The act empowers them merely to lawfully carry out legitimate objects, and it remains for the courts to give their own interpretation to the words lawful and legitimate. The act seems in no substantial degree to have mitigated the power of the courts, through injunctions or decisions, to control the practices of labor organizations.

Experience therefore indicates that the situation of the present day calls for the minimum of government compulsion which is necessary to protect vital interests of the public, and for the creation under government auspices of machinery for nationwide voluntary arbitration and conciliation. The arbitrary suppression of the mass aspirations of laborers by undue government control would be fraught with dangerous psychological results. Where labor unrest reflects grievances, and where the instincts of groups of workers are aroused, a policy of suppression can have no other effect than to stimulate unnecessary radicalism, to bring about a balked industrial morale, to stimulate sulkiness, sabotage, and restriction of production, to weaken the ties of Americanism and to make easy the work of agitators. The psychology of the mass of workers requires not merely a closing of certain channels of human expression which society deems dangerous, but also the opening of other channels for the satisfactory expression of the powerful human impulses of labor. When bad expressions of basic labor instincts have to be stifled, good expressions for the same instinctive energies need to be created.

Reform

In a general way, reform refers to those efforts to improve human affairs which take their initiative from leaders and authorities who are desirous of helping the mass of their fellowmen. Reform is not primarily a democratic method because it does not exact responsible effort and alert self-expression from the people who are to benefit most by it. Reform extends a helping hand from the top down more than it builds a self-earned and self-created improvement through the democratic organization of people from the bottom up. Society abounds with social students, public-spirited citizens, altruistic business men, or political leaders anxious to serve their fellowmen, who are continually busy effecting reforms for the good of society.

Most reform efforts of the present day are directed toward economic conditions, and a great proportion of

them seek their ends by the medium of political legislation. Labor legislation is a leading type of reform, and numerous organizations exist for the furtherance of such legislation, conspicuous among which is the American Association for Labor Legislation. Labor reforms include laws establishing minimum wages; prohibiting child labor; protecting women in industry; assuring workmen's compensation and insurance, accident prevention; fire protection and sanitary working conditions; regulating hours of labor and night work; maintaining factory inspection; requiring proper working conditions; supplying adequate housing; restricting the immigration of alien labor; organizing Americanization; creating industrial commissions; providing employment agencies; and endeavoring to help the worker by every device conceivable to the mind of a reformer.

There are numerous societies and associations whose function is to spread publicity in favor of some reform, or to bring pressure to bear on legislators, or to bring direct help to people in trouble. These societies include such different agencies as the Consumers' League, the Federal Council of the Churches of Christ in America, the American Child Hygiene Association, the American Home Economics Association, the Child Welfare League of America, the Intercollegiate Socialist Society, the Industrial Y. M. C. A., the National Conference of Social Work, the National Women's Trade Union League, the Russell Sage Foundation and other foundations, or bureaus of industrial, social and economic research. Almost every field of economics has its set of leagues and societies devoted to reform.

The work of reformers is of genuine service, for it prevents in large measure low standards of human treatment in the economic world, it alleviates suffering, and it arouses a dormant public to face industrial wrongs and provide remedies. The body of welfare legislation, of uplift work, and of reform organization has raised the level of comfort and happiness in the nation and deserves high recognition. It is important, however, to note the limits within which most reforms take effect. Reform is not a unified compre-

hensive program, but is a bundle of particularistic programs, each sponsored by certain groups of individuals who devote their energies to the accomplishment of miscellaneous or single reform acts. In the meantime, the economic institutions remain fundamentally unchanged, and in their normal functioning result in a fairly steady output of the troubles, distresses, injuries and wrongs which reformers can only lighten or alleviate. A great deal of reform seeks to extend the helping hand, but does not reshape the institutions of the economic order in such ways as to insure the institutional elimination of the difficulties. Reform is often subject to the defects common to all welfare work. It is in the nature of public benevolence rather than of self-expression. As long as the status, powers and rights of the various classes in economic organization remain substantially unchanged, the reform movement necessarily works near the surface of things. It is useful and indispensable, but faces certain limits of effectiveness.

Moreover, it is true of a large class of reforms that they rest upon an inadequate view of social psychology. This class of reform aims to give pleasure, safety, comfort, and happiness to social groups. Trouble is to be abolished, danger and risk is to be eliminated, war and struggle to be ended, minimums of food and luxuries to be guaranteed, poverty to be wiped out, fear, oppression and autocracy to be destroyed. The new age that this type of reform looks forward to is one of contentment, harmlessness, leisure, gentleness, kindness, and security. All of this is to be a gift, coming from reform leagues and societies, or from acts of legislation. But such a state of peace and piety and plenty offers no satisfaction to many of the basic instincts of human nature. Men and women do not want gifts of pleasure; they want opportunities to win economic and social advance by the assertion of their own human powers. Men and women need a cause which they can be devoted to, and through loyalty to the cause, through struggle for the cause, through self-sacrifice and heroism and hazard for the cause, they desire to win and create their own betterment. The victories and rewards which come from self-assertion

are real. Men need challenges to invent new social and economic principles and measures, and need opportunities to hew out progress by the strokes of their own hands. The society often portrayed by a certain class of reformers is a complacent haven of refuge, but men cannot live the strenuous life in such a society, and anything short of the strenuous life cannot satisfy the deepest instincts of human nature. Reform movements of this kind largely ignore the fundamental human cravings for zest, risk, responsibility, self-achievement, group loyalty, resourcefulness, sacrifice, domination, power, struggle, conquest. Of course the sounder reform movements avoid the mistaken social psychology of ease and comfort, but it is important that the bulk of reform effort should rest upon a correct interpretation of human nature. Reform in the deepest sense of the word should mean not merely a gift from society to needy groups, but an organization of opportunity for self-achievement, and for group advancement by the creative effort of all members of the group.

The spirit of reform is a splendid reflection of the genuine feeling of human kindness, and the harvest of such a spirit certainly commands admiration. Not a few groups in society are deficient in the virile instincts and the powers of self-assertion and achievement, and the protecting care of society over them is an indication of a high state of civilization. There is no disparagement of the inner value of reforms as a whole, in pointing out some of the limits under which certain classes of reform have worked in the past or in indicating the misleading notions of human nature which underlie certain reform movements. The gist of these remarks is that a reconstruction of reform programs that would reckon more positively with the limits of reform effort and that would incorporate the scientific principles of modern social psychology would greatly increase their power and usefulness.

Public Opinion and Public Control

References have been made to the power of public opinion as a means of effecting fair business practices under

the administration of the Federal Trade Commission and as a means of enforcing decisions bearing upon labor disputes. Public opinion is commonly thought of as an opinion which is right. Pitiless publicity is often suggested as a measure for bringing about adequate remedies of economic wrongs and troubles. And it is ordinarily observed that an economic policy cannot long endure or a method of government control prove effective unless it can secure the support of public opinion. It is appropriate, therefore, to give some analysis to the function and behavior of public opinion in economic matters.

First of all, public opinion is scarcely competent to pass upon technical economic issues. On matters of business ethics or of labor grievances, public opinion is swayed primarily by head lines, and only very remotely by the body of technical facts which bear upon the issue. For instance, a federal judge who would dissolve a corporation on the basis of what he had read about it in the newspapers, or an arbitrator who would decide a wage dispute from his knowledge of the press headlines, would be obviously derelict in his duties because he would be acting without anything like adequate evidence. Yet the judge or the arbitrator would be acting upon exactly the same evidence as serves to form public opinion. The broad spirit of public opinion as it might relate to the rightness or wrongness of profiteering or of a certain standard of living as a basis for wage adjustments, would have real value, but the determination in any particular case of what per cent. of profit is profiteering would rest upon a technical analysis of capitalization, invested capital and other matters of fact, and the determination of a living wage, or what wage would assure the proper standard of living would rest upon a technical analysis of statistics of prices and cost of living, of family budgets, and similar facts. Clearly, the determination and analysis and interpretation of such evidence is beyond the competence of public opinion.

From another standpoint, public opinion is not allowed to form itself freely, without bias or misbalanced information. The Federal Trade Commission gave publicity to its

findings about the profits of the meat packers, hoping that public opinion would eliminate profiteering. The meat packers countered by running expensive advertising in the newspapers and spreading broadcast pamphlets to inform the public that their profit amounted only to a small fraction of one cent out of every dollar of sales. As a result, the publicity of the Federal Trade Commission was neutralized and public opinion was confused and ineffective. Business concerns or labor organizations which have interests at stake conceive it to be their right and duty to use every effort to shape public opinion in the direction which they desire. Hence there has developed the modern art of propaganda. People who once doubted the power of propaganda had those doubts removed during the war by the obvious effects of war propaganda. Since the war, nearly every large corporation has a publicity official whose duty it is to spread broadcast information of a nature to win the good will of the public; and labor organizations from time to time have announced the appropriation of huge sums to be devoted to arousing a sympathetic public opinion. Publicity in such cases is a refined name for propaganda. The public stands between a cross-fire of propaganda, and it would be amazing if the perfectly human public did not reflect this situation in its opinion on important matters. Propaganda takes advantage of every known device of irrational appeal, of unconscious suggestion, of instinct excitation, and the value of public opinion as a help in settling baffling problems has to be discounted to the extent that propaganda is misleading.

Public opinion as an arbiter of disputes between labor and capital is subject to all these limitations in degrees which vary from case to case. Doubtless in most labor disputes the superior power of propaganda lies with employers. Often employers carry large advertisements in the daily press during a time of strike, to arouse public opinion in their behalf. More important than this, the whole social philosophy and economic background of newspaper managers and editors tends to make them unconsciously the allies in sympathy and reasoning with em-

ployers and naturally their headlines and editorials tend to reflect their fundamental and unconscious bias. Charges are often made that newspapers are intimidated by business men who patronize their advertising columns into publishing only news favorable to their interests, but such charges are rarely proved by concrete evidence. Beyond these considerations lies the fact that in the very nature of public psychology the primary concern of the public is uninterrupted operation of business. The public wants peace and quiet, order and smoothness. The public as a rule would rather have industrial peace at almost any price than arouse itself to a study of troublesome conditions and to a careful act of industrial reconstruction. The public wants to be let alone; hence it is ordinarily the ally of the status quo in industry. Labor comes with the sword and attacks the status quo. Most labor demands are for a change. Labor is on the aggressive and just as in international warfare the nation which starts the trouble alienates the sympathy of neutrals, so in industrial disputes, the group which starts the dispute and takes the initiative tends to alienate the sympathy of neutral public opinion. Neutral opinion usually sympathizes with whomever is on the defensive and turns against whomever is on the offensive. In most industrial disputes, capital is on the defensive and labor on the offensive. It results therefore that the weight of public opinion tends to the maintenance of things as they are. It is marked more by a leaning toward habit, custom and inertia than toward newness of thinking, alteration of conditions, and change of policy. From labor's standpoint, the public wants peace more than justice, and industrial quiet more than the active righting of industrial wrongs. These limits to the value of public opinion in industrial disputes need to be recognized when opinion is assigned the rôle of arbiter between labor and capital.

This account of the case should not be allowed to belittle unduly the true importance of public opinion in the rôle which it is competent to play. The public is the injured party in industrial struggles and its determination to pro-

tect itself from unjust interruption of business service deserves right of way. The ideas in the mind of the common man deserve deep respect, and there is no intention here to repudiate public opinion as a useful force in the control of modern business. But the limits of public opinion need to be taken into account; its natural lethargy and inertia recognized; its vulnerability to the skilled presentation of propaganda understood; and its unconscious social and economic bias properly measured. Public opinion on economic issues needs constant education and leadership, needs to be aroused by responsible authorities and informed by agencies which are interested in true publicity rather than mere propaganda. The estimate of public opinion by Viscount James Bryce in his work on Modern Democracies states the matter in admirable proportions: "The value of public opinion depends on the extent to which it is created by that small number of thinking men who possess knowledge and the gift of initiative, and on the extent to which the larger body, who have no initiative but a shrewd judgment, co-operate in diffusing sound and temperate views through the community, influencing that still larger mass who, deficient in knowledge and in active interest, follow the lead given to them. . . . Two dangers threaten . . . all modern democracies. One is the tendency to allow self-interest to grasp the machinery of government and turn that machinery to its ignoble ends. The other is the irresponsible power wielded by those who supply the people with the materials they need for judging men and measures. That dissemination by the printed word of untruths and fallacies and incitements to violence which we have learned to call propaganda has become a more potent influence among the masses in large countries than the demagogue ever was in the small peoples of former days. To combat these dangers more insight and sympathy, as well as more energy and patriotism, are needed than the so-called upper and educated classes have hitherto displayed."[1]

[1] Pp. 456-457, 459-460. See Chapters XV and LXVII.

CHAPTER XII

ECONOMIC RADICALISM

There exists in every economic organization a group of people who, because of certain characteristics which are more or less common to them, come to be looked upon by the rest of the economic organization as "radicals." Some of the most noticeable characteristics of the members of radical groups may be outlined briefly as follows: (1) The evils and faults of society look bigger to them than to the average person; wrongs tower into outrages, economic defects cry out with indecencies, and the troubles and wants of the less fortunate classes of society loom up into atrocious evils and glaring crimes against humanity. (2) Radicals as a rule are more impatient for correction of economic faults than the average person. Delay is in their eyes criminal procrastination, and the faults of society require quick and effective action. (3) Radicals as a group place great stress upon the right of freedom of thought, freedom of the press, freedom of speech, and freedom of agitation. The vocabulary of radicalism emphasizes and re-emphasizes the word freedom from first to last,—a perfectly natural rationalization of their burning desire to be immune from restraint in preaching and spreading the doctrines of radicalism. (4) Radicals demand changes which are more drastic and overhauling than appeal to the ordinary man. They look upon mild reforms and ordinary reconstruction as mere patchwork; what they want is a transformation of society, a remaking of fundamentals, a complete remodeling of economic structure. (5) Radicals give every appearance of feelings of bitterness and hate toward classes who stand in their way. They dwell upon pictures of the class war, and the class struggle, and anticipate the destruction of a class of oppressors. For the mass

of people, for the labor groups especially, they evince genuine love and sympathy, and this is all the stronger reason why they show hatred of oppressors. (6) They look forward to an organization of economic society in which group action shall predominate, and collective and co-operative institutions shall supersede private business. Political groups and non-political co-operative groups compose the anticipated structure of their rebuilt economic society. (7) Radicals place great faith in the willingness of the individual under the radical régime to subordinate self-motives to social motives, and to abandon desires for selfish acquisition or aggrandizement in order to make way for motives of public service and the common good. It is foretold that under the radical régime public-spiritedness will be paramount.

These characteristics of radicals naturally set off the people who hold them as unique and queer, and as different and dangerous. Some people feel that the only adequate treatment for such specimens of humanity is to jail them, lynch them, shoot them, or deport them. There come from time to time waves of popular feeling when this attitude takes possession of nearly the whole of society. Such an outburst of public feeling came during the years immediately following the World War. Even during these waves of feeling, however, there are certain groups which take the stand that radical doctrines are after all not harmful if they are treated intelligently, and that if radicalism is empty and has no basis in fact, it will die a natural death, or will draw an insignificant band of followers, while if it has any basis in fact, society can quietly and in an orderly manner correct the wrongs, and thereby draw the sting out of radicalism. In ordinary times, the group of people who act upon this interpretation of the radical movement are usually the predominant group.

There are distinguishable shades or degrees of radicalism. Some are moderate and patient, and although they believe in drastic changes, they are willing to take time in reaching them. Economic evolution is their principle of action. Others speak of evolutionary revolution, indicating

that they want revolutionary changes in economic structure, and although they will proceed by law and order to secure the changes, yet at the same time they will hurry up the process of evolution, and speed the day of drastic transformation with all their might and main. Others plan for a great upheaval, for a bloodless revolution, for the seizure of all things by the emancipated classes and the surrender of the oppressors. And still others deliberately calculate on force and violence as the means of overthrow of the capitalist power and the rule of the working classes everywhere.

Radicalism has not merely its various shades and degrees, but also its various parties, or schools of thought. Radicalism is about synonymous to most people with socialism, but socialism and radicalism have so many divisions and parties that it is difficult to give the common essence of them all. The case is somewhat as in religion, where a great number of denominations, factions and groups appear, and the interpretation of religion made by each is different from that made by any other. Hence, it is more illuminating than a definition to state that all branches of radicalism partake in some shade and degree of the main characteristics of radicalism which were drawn up at the beginning of this section. Some of the main branches and their main individual peculiarities will be listed below.

1. State socialism looks toward state ownership and operation of the main industries of the country by a political government which has eliminated the capitalist classes from power. The German experiments in state ownership and operation before the World War were state capitalism rather than state socialism in the strict sense of the term. State capitalism is often considered by socialists as a stepping-stone toward state socialism. It is state socialism which is dominant in the American Socialist Party. The Non-Partisan League of North Dakota exhibited the initial stages of state socialism, with state-owned grain elevators, state banks, and the like.[1]

[1] Its leading officers were recalled by vote of the state electorate in the fall of 1921.

2. Guild socialism proposes a dual organization of politics and industry, under which each branch of industry would govern its own productive activity through the organization of its workers, while co-ordination of the various branches of industry would be accomplished through the control of the democratic state. The workers would elect committees and councils to assume the leadership in production, and each branch of industry would thus put the control and operation of its own production in the hands of its workers. The state, representing more particularly consumers, would be a mediating and harmonizing agency, to effect proper adjustments between the several producers' organizations, and to protect the interests of society as a whole. The proposed Plumb plan for operation of the American railroads comes the nearest to the principles of Guild socialism of any project that is well known to this country, but the main stronghold of Guild socialism is among certain influential intellectual groups of Great Britain.

3. Marxian Socialism refers to socialistic schemes based upon the doctrines of a German economist of the nineteenth century, Karl Marx. The essence of Marx's socialistic principles was that the chief forces in the shaping of economic and social policies are economic and materialistic forces. Economic forces would in the long run be the undoing of capitalism itself, for concentration in industry would steadily grow greater and greater, and this would ever more sharply divide workers from capitalists. A class feeling would grow sharper and sharper, the greediness of the big capitalists would bring increasing misery to the workers, and the class war would eventuate. In the class war the workers would unite and strip the capitalist exploiters of their property and decree that land and capital should be owned in common.

4. Parliamentary socialism refers to socialism which aspires to gradual progress by securing the passage of reform laws through parliaments, congresses, and legislatures. The Fabian socialists of England are the prominent representatives of this type of socialism, although almost

every type of socialism contains some degree of parliamentary tactics.

5. Syndicalism is a branch of socialism which exalts the organization of the producers in each line of industry as the supreme form of economic institution. Instead of using parliamentary tactics as a means to attaining power, syndicalists would use trade union tactics. Syndicalists believe in using trade unions as agencies of direct action by industrial methods. Direct action includes sabotage, *i.e.*, spoiling machinery or product as a means of revenge upon employers; boycotts and labels; and most important of all, strikes. The day is looked forward to when the workers in one big union will declare the General Strike against the whole capitalist structure, and with the overturn of capitalism will win control of all industry. The center of syndicalism is in French labor circles, but a group of American syndicalists have sprung up independently, under the title of the Industrial Workers of the World. Their strength as a direct organization dwindled greatly in America during and following the war, but men imbued with their doctrines penetrated the organizations of ordinary trade unions in a great many cases, although the extent of this penetration is practically impossible to estimate with any degree of accuracy.

6. Communism is a form of socialism which pools the earnings and ownings of people, and divides the common fund on some such basis as, for example, to each according to his needs.

7. The Soviet is the name given to the form of political machinery which has been established in the Russian socialistic experiment. The socialism which has been tried out in Russia has been a peculiar combination of some of the main principles of Karl Marx, of communism among peasants and workers, of opportunistic tactics to meet military and industrial crises, and of the dictatorship of a small minority of the proletariat over the bulk of the population. Bolshevism is the creed of the political party which is in power, and has the same relation to the Soviet as the political party in power in a democratic state has

to the general political organization of democracy. The effort to install communism proved incompatible with the human nature of the Russian peasants and workmen, and the leaders of the Bolshevist party have given up the attempt to establish communism as a part of their socialistic undertaking. They have returned to a mixture of government operation of some enterprises, of government control of others, of co-operative producers' societies, and of leasing of industries to individuals to be conducted as under capitalism by private initiative and ability. The Russian experiment has been marked by periods of violence and bloodshed which have outlawed it in the sympathies of the onlooking world, and its administrative inefficiencies and economic demoralization have alienated the public opinion of all democratic countries.

Economic Analysis of Socialistic Proposals

It should be realized that radicalism and socialism are problems that call for painstaking scientific analysis, rather than mere emotional excitement and impassioned vituperation. Large numbers of people are accustomed to dwell upon these particular problems with a great deal of mental heat, but very little mental light. Nothing is more common than for people who are too lazy to think to condemn all proposals for advance and improvement as radical, as if blindly placing that label upon a vaguely conceived project were the end of the whole matter. A study of economics ought above all things else to teach a person to discriminate between proposed changes on their merits, and to be immune from the capricious tendency of many people to brand every project as "red" which they do not feel inclined to think about. Vehement denunciation is not a substitute for intelligent analysis of radical proposals.

The analysis of socialistic proposals may be divided into two main parts, institutional and psychological. One basic institutional difficulty in all socialistic proposals is the difficulty of preserving economic efficiency under the enormous administrative machinery of the socialistic organization. In previous pages attention was given to the question of

the most efficient size of business combinations in various lines of industry and commerce. It was observed that in nearly all branches of economic activity there is a limit to the size of business unit which can attain maximum efficiency. This limit exists even in lines of industry where standardized mechanical processes predominate, but it is especially narrow in lines of industry where the human element predominates. Every increase in size beyond the point of maximum efficiency results in diminishing efficiency. The law of diminishing returns operates in spite of all that leaders of great genius can do, and after a certain point of expansion is reached, the task of organizing the personnel of big enterprises, and of stimulating adequate incentives and motives to efficiency and exertion becomes too great. Socialistic proposals usually ignore this basic economic difficulty, which is established in the very nature of modern technical industry and modern administration of large groups of workers; and optimistically take it for granted that the socialistic administration of industry, which would involve economic consolidation and concentration far beyond anything yet known in private business concentration, would be immune from the difficulties of overwhelming size.

A second institutional difficulty under socialistic projects is the difficulty of economic discipline. Under almost every form of political administration yet experimented with, the spirit of the political agents has made political administration a byword for indifference, slacking, and the desire to get something for nothing. No form of discipline has proved workable in political large scale organization which would secure the same attention to duty and performance of responsibility as is attainable under the moderate sized private business. The capacity to hold men to their tasks, to bend their energies effectively toward productive work, and to fasten their motives and instincts and thoughts adequately upon the handling of their jobs is exercised none too satisfactorily in the moderate sized private business, where the size of the business permits direct supervision of labor and where the unyielding exactions of work

done for pay received can be enforced. Referring particularly to Guild socialism, but using words which apply equally to all socialistic programs, Alfred Marshall aptly writes, "In the present economic system, discipline is enforced in great measure automatically 'by an unseen hand.' It is often rather harsh; and its severity calls for frequent mitigation of human effort. But if automatic discipline is removed, an all-pervading authority must be invoked to check abuse in small matters as well as in large. Unless Guild organization develops some notion, of which it at present seems to have made no forecast, it may probably drift into chaos, from which relief can be found only in a military despotism."[1] With the abandonment of the traditions, customs and habits which now attend upon the workers' attitude toward dismissal, promotion, and efficiency, a new technique would have to be created, and a new habituation of labor psychology developed, and none of the writings of socialists up to date give anything like satisfactory assurance that the transformation of institutional discipline would avoid the chaos of which Marshall speaks.

A third institutional difficulty in socialistic enterprise has to do with the problems of leadership. The history of politics indicates that the qualities of character which make a man popular with the mass of voters are not always the same qualities of character which make a man an efficient executive and administrator. The glad hand, geniality, the broad smile, spectacular achievement, pull with the political machine, and similar qualities play a great part in the popular election of mayors, legislators, governors, and even of presidents. The expert, the technical specialist, the qualified executive, the trained administrator finds it next to impossible to compete in elections with the "man of the people." Private business has the virtue of bringing men of great executive ability into positions of responsibility and power, and there is no assurance that the socialist democracy of economic control and operation would secure the same qualifications in leadership. Human

[1] "Industry and Trade," p. 600.

nature in politics is not such as to make one hopeful of the economic leadership of the socialistic order.[1]

A fourth institutional difficulty concerns itself with the apathy of the average man. In their enthusiasm the socialists assume that the average man is on his tiptoes, straining at the leash, ready to plunge into the responsibilities of socialistic economic democracy. They picture the common worker as a human being who will spring into activity as soon as socialistic democracy is declared, and who will be on duty at all times, alert and eager, taking a man's part in the conduct of economic affairs. But the average worker is an indifferent individual, and it is exceedingly difficult to maintain for any length of time his aroused interest in political and economic problems. Interest and action require exertion of mind and body, and the ordinary individual, after the first snatch of novelty is past, falls into an easy-going inertia. The direct primary has been a disappointment to most of its sponsors because voters proved too indifferent to bother going to the polls to use it. The ordinary town caucus is attended by only a handful of men, and delegates to a nominating convention enjoy the trip and are proud of the experience, but are relieved to have the pain of thinking out a compromise candidate left to a handful of inside politicians. Votes on vital economic questions under the socialistic plan would surely be cast by an active minority; elections of leaders would bring tedium and boredom; attendance at meetings would become a routine aggravation; and the tactics of controlling political interests in the economic commonwealth would permeate the system. The present intellectual equipment and training of millions of workers, their lack of experience in responsible economic citizenship, their unsteady interest in vital economic and political issues make a dubious prospect of the economic society of socialism. The load of intelligent responsibility which socialistic programs entrust to the masses of workers is a bad institutional arrangement.

[1] See Graham Wallas, "Human Nature in Politics."

The paramount psychological difficulty of the socialistic commonwealth is one of incentives and motives. The motives which could be counted upon in the average worker are in doubt. Socialists contend that the feeling of being a part of the co-operative commonwealth would stimulate loyalty and workmanship, and that by placing the premium upon social unity rather than individual aggrandizement, the selfish private motives of capitalism would drop out of use, and public-spiritedness would be realized. Such an analysis of human nature cannot be looked upon as other than a convenient rationalization inspired by the hopes and dreams of the analyst. It is the conclusion of buoyant optimism rather than that of careful observation of human psychology. The making over of motives and the changing of forms of instinct expression is a gradual process at the best, and involves the slow accumulation of folk-ways, customs, traditions, habits and institutions. The usual socialist doctrine takes the quick adoption of new motives and incentives for granted, but this is the very difficulty which lies at the heart of the socialist issue. The motives of men of rare ability, of the potential leaders of the economic order come under the same consideration as the motives of the rank and file. The gradual accommodation of leaders under the capitalist system to the social requirements of the last decade or two has taken the form of some degree of adoption of service motives and of public-mindedness, but there is scant evidence for the hope that the sweeping abolition of motives of private acquisition would result in the facile installation of motives of public achievement and public service.

The easy optimism of socialistic psychology is quickly apparent in the following utterance by Bertrand Russell: "The world that we must seek is a world in which the creative spirit is alive, in which life is an adventure full of joy and hope, based rather upon the impulse to construct than upon the desire to retain what we possess or to seize what is possessed by others. It must be a world in which affection has free play, in which love is purged of the instinct for domination, in which cruelty and envy

have been dispelled by happiness and the unfettered development of all the instincts that build up life and fill it with mental delights. Such a world is possible; it waits only for men to wish to create it."[1]

The socialistic institutions that are proposed place such a heavy burden of responsibility upon the human nature of the average man as grossly to overstrain his mental capacities. The account of inequalities of intelligence and of all instinctive equipment, which was given in previous pages, indicates the incapacity of the average man for the heavy responsibilities of the socialistic state. The further assumption that the bulk of men will want to shoulder their responsibilities, that they will be purged of pernicious instinctive tendencies and filled with idealistic and creative tendencies overrates human nature. Just as many classes of reform underrate the strain that can be put upon human nature, so socialistic projects overrate the strain that human nature will bear. It may be that some form of economic democracy can be developed which will adapt the institutions of industry to the strain which human nature will bear efficiently. Such an adaptation of men to institutions and of institutions to men is the guiding principle of economic democracy and an analysis of the principle will be undertaken in the final chapter of this volume.

In this whole analysis of socialistic proposals it would be blind prejudice to deny that a goodly number of brilliant minds are to be found among the leaders of radical thought. Some people who are not anxious to be strictly honest in their thinking sweep aside all radical thinkers as being in the category of intellectual inferiority. But no matter how much one may disagree with the conclusions of thinkers of opposite opinions, nothing is gained by making light of their incisive comments on the workings of the industrial order or of their painstaking research and investigation. Brilliance of intellect is not missing in the radical groups. As a matter of fact, difference of opinion becomes sharp only when there is some degree of bril-

[1] Bertrand Russell, "Proposed Roads to Freedom," p. 212.

liant observation and inference on both sides. Socialism would not have aroused such bitter and desperate denunciation had not a number of its generalizations disclosed vulnerable sore spots in the existing industrial order. Those people who want most to smite socialism usually do the least, for the simple reason that their emotional reactions are so strong that they lose the power to have respect for integrity of mind and incisive comment wherever they may be found. Vehement opposition is not, as a rule, intelligent opposition. To give due regard to the mental power of socialistic thinkers is not to take the stand that we must admit they are right just because they may be mentally brilliant. The whole force of these remarks is *that effective analysis of radical programs must always endeavor to estimate the weight of an idea at its actual value.*

CHAPTER XIII

ECONOMIC DEMOCRACY

Economic democracy is a comprehensive term and varied definitions are given to it from time to time. The two most common versions of the term refer to democratic control over industry exercised through the medium of the political government, and to democratic control exercised through the medium of some special form of organization within industry itself.

The first version of economic democracy would make the term cover practically all of the matters which have been already discussed under the section on Public Control. The American Government is a democracy, and when democratic government controls and regulates economic affairs, the process is certainly in the nature of economic democracy. This form of economic democracy would include government ownership and operation of industries, and would, for instance, include the Post Office or the Panama Canal as typical illustrations of economic democracy. Certain observers are disposed to term such instances of government authority as state socialism, whereas others are disposed to term them state capitalism.

The dispute over terms is non-essential. The inclusion of public control or of government ownership and operation under economic democracy may be allowed as legitimate. It is not intended to analyze this form of economic democracy at this point, for the simple reason that most of what has been said under PUBLIC CONTROL and under RADICALISM applies to economic democracy of this type. The mechanism of public control provides for a moderate assertion of democratic power through the agencies of the State, and the same mechanism expanded provides for the assertion of democratic power which establishes state own-

ership and operation. Moreover, although the form of democracy under a capitalistic state and a socialistic state would differ profoundly; nevertheless, in either case, state ownership and operation of industry is subject to the same institutional and psychological difficulties as were discussed under RADICALISM. Consequently, the discussion contained in the foregoing sections on ECONOMIC ADAPTATION have a direct bearing on the problems of economic democracy attained through the framework of political democracy.

The discussion of this section has to do primarily with the second form of economic democracy, namely, that attained through the direct organization of industry itself on a democratic principle. Democracy is a loosely used watch word to cover a host of economic programs, and it is the general impression that as soon as a program of action has been labelled "Democracy," its success is predestined. Not a few economic thinkers voice the opinion that political democracy is already won in most modern countries and that economic democracy is the next great human step forward. Assuming that political democracy is practically an unqualified success, they assume that to inaugurate the same structure of government for industry will assure similar happy results in that department of modern life. Such an attitude is uncritically optimistic. It trusts credulously in some obscure magic of "Democracy" to set industry at rights, and grossly overrates the power of a form of organization to escape from or to overcome the grave defects of human nature in the people who live within the organization and through whom it functions. As a preparation, therefore, for a careful and critical analysis of economic democracy, it is desirable to have a correct view of the present status of political democracy. Probably the best account for this purpose is that given by James Bryce in his work on Modern Democracies. The general scope and portent of his conclusions are admirably summarized in the following quotation: "I may here . . . sum up in a few propositions certain broad conclusions which may be drawn from a review of modern popular governments. They are stated subject to certain

exceptions, already mentioned, in the case of particular countries. . . .

"Democracy has belied the prophesies both of its friends and of its enemies. It has failed to give some benefits which the former expected, it has escaped some of the evils which the latter feared. If the optimistic overvalued its moral influence, the pessimists undervalued its practical aptitudes. It has reproduced most of the evils which have belonged to other forms of government, though in different forms, and the few it has added are less serious than those evils of the older governments which it has escaped.

"I. It has maintained public order while securing the liberty of the individual citizen.

"II. It has given a civil administration as efficient as other forms of government have provided.

"III. Its legislation has been more generally directed to the welfare of the poorer classes than has been that of other governments.

"IV. It has not been inconstant or ungrateful.

"V. It has not weakened patriotism or courage.

"VI. It has been often wasteful and usually extravagant.

"VII. It has not produced general contentment in each nation.

"VIII. It has done little to improve international relations and insure peace, has not diminshed class selfishness (witness Australia and New Zealand), has not fostered a cosmopolitan humanitarianism nor mitigated the dislike of men of a different color.

"IX. It has not extinguished corruption and the malign influences wealth can exert upon government.

"X. It has not removed the fear of revolutions.

"XI. It has not enlisted in the service of the State a sufficient number of the most honest and capable citizens.

"XII. Nevertheless it has, taken all in all, given better practical results than either the Rule of One Man or the Rule of a Class, for it has at least extinguished many of the evils by which they were defaced. . . .

"In 1914 there were signs of decline in some countries where decline was hardly to have been expected, and of

improvement in other countries, but nothing to indicate in any country either a wish to abandon democracy or the slightest prospect that anything would be gained thereby. Disappointment is expressed, complaints are made, but no permanent substitute has been suggested. . . . Within the century and a half of its existence in the modern world free government has passed through many phases, and seems now to stand like the traveller who, on the verge of a great forest, sees many paths diverging into its recesses and knows not whither one or other will lead him."[1]

The two most important forms of economic democracy which command deep interest at the present time are works councils and labor unions. The works councils are organizations of workers which are formed, usually, at the initiative of employers and in which powers are granted to laborers by the voluntary action of employers. Labor unions, on the other hand, are organizations of workers which are formed at the initiative of workers themselves and in which powers are won usually as grudging concessions from employers.

Works Councils

The essential structure of the dominant types of works council is fairly simple. The workers in a plant elect representatives who confer with representatives of the management. Nominating and balloting procedure takes place in much the same way as in a political organization. The representatives who are elected organize as a body, with a chairman and other officers, and establish the necessary committees and subcommittees to deal with special problems. The workers' representatives constitute the works council or shop committee and meet the representatives of the management in joint conference for the discussion of industrial problems for the adjustment of grievances, and for general collective bargaining.

These works councils confine their attention to those phases of industrial problems which directly affect the welfare of labor. Such problems include, for the general

[1] Bryce, "Modern Democracies," Vol. II, pp. 562-563, 597-598.

run of plants, hours of labor, wage scales, methods of payment and piece rates. A large proportion, but not all, works councils deal with social and recreational activities, mutual benefit, charity and relief, welfare work, housing, co-operative stores, medical care, insurance, education, Americanization, rest rooms, lunch rooms, prizes, working conditions, accident prevention, factory sanitation, and hygiene of the workers. A smaller proportion of the works councils deal with shop discipline, review of discharge, promotion, hiring, and transfer. Only a few councils deal with the technical improvement of production or with the problems of production management. None are allowed to concern themselves with those phases of management centering around finance, capitalization, or matters which are not directly of importance in the life of the worker.

The power and authority of works councils vary from company to company. In some cases, if workers and management fail to agree on an issue, it is referred to arbitration, but in most cases it is referred to high officials of the company or to the board of directors. Representatives of both workers and management vote on questions and in the overwhelming bulk of cases it is assumed, as a matter of course, that the voting power is equal. This assumption gives rise to the theory that works councils give workers a share in the management. In all ordinary events, the workers do participate in the management of the affairs which affect them. It should not, however, be overlooked that with most plans, in the last analysis the company has ultimate authority in its own hands. Boards of directors do not surrender their ultimate authority in the event of a showdown, but in the everyday administration of works councils, a spirit of give and take and of sharing in management is maintained, and the ultimate location of authority is ignored as much as possible. In fact the success of collective dealing through works councils depends upon the thoroughness with which all questions as to the relative power of the two parties, labor and management, can be relegated to the background. Collective bargaining through works councils succeeds only in so far as fairness is sub-

stituted for force in industrial relations. If the management convinces labor at the outset that every principle and every detail of the council plan are treated on the part of the company with perfect justice, candor and honesty, the plan is in a fair way toward success. But if the management hedges, misrepresents, or threatens, the plan is almost sure to collapse.[1]

Obviously, therefore, the installation of the machinery of industrial democracy merely creates an opportunity for the spirit of the management to evoke a favorable response from labor. The mechanism of organization itself does not insure at all that industrial democracy will be attained. The importance of a good plan of industrial democracy does not consist in any power of the plan as a plan to secure industrial democracy; the importance of the plan consists merely in the fact that it provides a channel for the spirit of management to call out the spirit of labor. Of course, it is equally necessary that the spirit of labor shall be honest and fair, and that labor shall genuinely respond to the responsibilities and powers conferred upon it by the works council plan. But in most plans of this sort the dynamic genius and inspiration behind the plans comes from management, and unless management firmly takes the initiative in establishing a basis of confidence and fairness the plan will fail. For instance, the International Harvester Company has works councils in twenty-four of its plants, and the success of the councils varies considerably over these plants. The degree of success varies, it is found, in direct ratio to the efficiency and spirit of the local management at each plant in applying the system to that particular plant. Moreover, it is necessary to have not merely the local superintendents and executives imbued with the proper attitude and understanding, but also the bosses, sub-bosses and foremen. To this end, many companies have established training schools for bosses and foremen, to acquaint them with the purpose of the works council plan, with its technique and with the new spirit which it is

[1] See address by L. W. Wallace, President of Society of Industrial Engineers, Proceedings of 1919.

necessary for them to evince if the plan is to be a success. Finally, workers themselves have to be educated to understand the significance of the democratic policy, and have to receive correct and adequate information about the affairs of the company to allay suspicion and establish confidence. Industrial democracy involves a technical organization, but it also involves,—and this is imperative,—a basic spirit of fairness and justice on the part of both labor and capital.

Labor Unions

The structure of labor unions has many variations. Numerous structural types of unionism have developed, and an observation of these types is the most useful means of studying labor union structure. The bulk of labor unions in the United States are of the "craft type," *i.e.*, they are organized on the basis of the occupation or craft of the workers. For each distinct type of occupation there is a distinct trade union organization. These craft unions become federated in local, city, state and national federations. The federal groupings aim to effect a certain degree of concerted thought and policy, but in fundamental policies and powers each constituent craft national retains its individual sovereignty and right of self-determination. A different and growing type of labor union is organized on the basis of a given industry. The coal miners' unions are the most impressive illustrations of industrial unions, and include in their scope men of all crafts, occupations and trades, and men of all degrees of skill or lack of skill. A minor type of unionism organizes all the workers of a single geographical division, regardless of crafts or industries, into a single labor union. The craft, federation, industrial, and geographical bases of union organization give rise therefore to the main structural types of labor organization in American industry.

These structural types provide in various ways for the election of leaders by a popular vote among the members. Local units send delegates to city or district or national or international units. The methods of balloting, the powers of members and of leaders, the administrative mechanism,

all show immense variations from industry to industry. The essence of the democratic structure of all types and forms is that the rank and file of unionists have the power to elect officers and thereby to express their opinions on the policies and methods of labor organization. Until recent years the local units of union organization were the dominant factors in the labor unions of this country, and they jealously safeguarded their local rights of self-determination in regard to fundamental policies. Recent years have witnessed a powerful movement toward centralization of union authority and influence in the hands of the national organizations. The weakness of labor in local collective bargaining and its strength in national collective bargaining, and the advantages of nationally administered beneficiary and strike funds have given this centralizing movement a steady impetus. The locals have found it necessary to preserve and augment their industrial power by a policy of uniting on a national scale. Conspicuous forms of control now commonly exercised by national over constituent local organizations are found in the "national regulation of admission requirements, the national control of strikes, and the adoption of national working rules."[1] The center of the brains of the labor union movement and of the real power of leadership exists among the leaders of the national organizations, and the federations of national organizations.

The source of labor union success is not the type of structure which allows a mass labor election, but is rather the aggressive spirit of the leaders themselves. Labor unionism is still in a militant stage and the militant type of leader tends to come to the front to cope with the challenge. Leaders feel it necessary to be domineering often, to manipulate the rank and file, to ride rough-shod over mass suggestions which obstruct efficiency, and to take action and get results, meantime bringing the rank and file along as best they can. Labor unions can get nowhere in the present industrial struggle by debating society tactics and

[1] G. E. Barnett, *Quarterly Journal of Economics*, XXVII, pp. 455-481.

by constant referendums to find out the will of members. As often as not, members have no will, and even when they do have, it is likely to be misinformed, shortsighted or suicidal. This does not mean that leaders are irresponsible individuals, and contemptuous of the rank and file; but it does mean that they face the imperative need for efficiency in dealing with employers and that the conditions of efficiency are a concentration of power and initiative in the hands of leaders and a willingness on the part of the rank and file to support their leaders as long as their policies get results in terms of better wages, hours and working conditions. Hence, labor union organization is democratic in the sense that a great deal of dictatorial authority rests with officers and leaders in the determination of immediate strategy, and that this authority is subject to the ultimate satisfaction of the rank and file. If the dictatorial and aggressive methods of one leader fail to get results, a new leader will be chosen and will be commissioned to use his large powers to win the desired results. Successful unionism therefore rests upon successful leadership and successful leadership rests upon results in terms of gains to the workers, attained by the aggressive genius of union officials.[1]

In addition to the structural types of unionism, there are certain types which are classified on the basis of the functions which they perform, and of the purposes and methods of their activity.[2] The dominant type, classified on this basis, is *business unionism,* so named because the unionists look upon their activities from a business point of view. They devote their energies to practical material gains, ordinarily through the use of collective bargaining. Their objective is "more, more, more, now." To raise wages, shorten hours, and improve working conditions are tangible, direct, positive objectives, and the union organizations of this type conceive the function of unionism to be to attain these objectives in a practical, business-like way.

[1] R. F. Hoxie, "Trade Unionism in the United States," Chapter VII.

[2] *Ibid.*, Chapters II-III.

A second type is *friendly or uplift unionism,*—a type which inclines to be idealistic, philosophical and co-operative. It, too, uses collective bargaining, but mainly for such benevolent purposes as mutual insurance, profit sharing, friendly benefits, welfare work and social and humanitarian improvement. Most employers who profess to believe in the right of laborers to organize into unions have in mind a unionism of this friendly or uplift type. People who believe in labor unions "as such" contemplate welfare unions whose efforts are directed toward a co-operative humanitarianism rather than toward a militant demand for practical, business-like gains for labor.

Radical unionism is a third type, and as the name suggests, applies to unions professing socialistic or revolutionary purposes. The most aggressive unions of this type have been those associated with the Industrial Workers of the World. The I. W. W. was conspicuous before the war, but many of the leaders of the movement were vigorously suppressed or were deported during the war period, and the formal organization of the I. W. W. was greatly weakened. Their ideas, however, were carried over in not a few cases to unions of the business type, or of the predatory type, by agitators or leaders who sought to spread their philosophy of unionism by "boring from within." It seems certain that the extent of this kind of penetration of old unions with I. W. W. ideas is considerably exaggerated in the popular mind.

A form of radical unionism which has more far-reaching significance is contained in such union organizations as the United Mine Workers of America, the Railroad Brotherhoods, and the Amalgamated Garment Workers of America. The United Mine Workers are pressing for the nationalization of the mines along a quasi-socialistic direction and the Railroad Brotherhoods, by urging the adoption of the Plumb Plan for railroad operation, committed their union organizations to a policy which was essentially in the nature of guild socialism. The purposes of the Amalgamated Garment Workers may be set forth in the following quotation: "An analysis of the strategy of the

new unionism will discover in it two fundamental objectives to which all other policies are subordinated. The first is to organize *all* the workers in the industry; the second is to develop them, through their daily struggles, into a class-conscious labor army, able and ready to assume control of industry. . . . Their whole tendency is in the direction of training the workers for assuming control of production, and of accepting the social and economic responsibility which such control involves."[1] To this end, the garment unions look forward to the abolition of the capitalistic system. Radical unionism has increased in strength in recent years, and particularly so in such basic industries as coal, transportation and clothing.

A fourth type has been designated *predatory unionism.* The most recent exposure of predatory unionism has been in the building trades of large cities. In New York City, a notorious labor leader by the name of Brindell exercised dictatorial and unscrupulous powers for the sake of exacting fees, bribes and blackmail from both laborers and employers. Such unions *hold up* all parties to industry by fair means or foul whenever they see an opportunity to reap a selfish gain. In its extreme forms, predatory unionism adopts *guerilla* tactics, and by ruthless, secret, violent strategy strives to exact the last pound of flesh which the industrial body will bear.

The great bulk of labor unionism seeks its ends by means of collective bargaining. The nature of collective bargaining differs greatly between the ordinary works council and the bulk of labor unions in that the former depends for success upon the voluntary good will of the employer and the spirit of co-operation between labor and capital, whereas the latter depends upon the power of the labor union to win recognition from the employer and upon the relative bargaining might of labor and capital. Most of the success of works councils comes from the fact that employers co-operate with the councils wholeheartedly; and most of the abuses and excesses of labor unions come from the fact that employers dislike to co-operate with labor

[1] Budish and Soule, "The New Unionism," pp. 12, 194-195, 204.

unions, and usually consent to deal with them only when forced to do so. Works councils perform their responsibilities in an atmosphere of friendly co-operation; labor unions perform their responsibilities in an atmosphere of hostility, suspicion, and threats.

The consequence is that labor unions are characterized by widespread policies and deeds which are highly objectionable from the standpoint of the best interests not merely of employers and the public, but of laborers themselves. The objectionable tactics of organized labor arise largely from the fact that labor unions have to fight every inch of the way for industrial control and have to fight then for self-preservation to perpetuate what has been won. Labor resorts to the closed shop in response to basic human instincts demanding self-protection, because the open shop has so often meant in actual practice a free opportunity for employers to discriminate against union members and to cripple union organization. Union rules and regulations which restrict production seem aimed often to secure the maximum of pay for the minimum of work, and in this respect they reciprocate the endeavor of any number of employers to secure the maximum of work from labor for the minimum of pay. If one were to draw up a list of the faults, vices and abuses of the bulk of labor unions and were to trace the causes of each item on the list, he would find them largely in the unhealthy spirit of distrust and antagonism which is widespread in American industry. The penetrating observations of Felix Frankfurter, from experience on President Wilson's Mediation Commission and as chairman of the National War Labor Policies Board, are of sound practical value: "The unions must still fight for their life instead of being a recognized social instrument tested by their contributions to the community as a whole. Not until they are generously and frankly recognized as having a rightful place in our national life will the leaders of labor have time and energy to give to the solution of the difficult social and industrial problems with which organized labor should concern itself. . . . If the fighting spirit imposed by capital upon labor were with-

drawn, then we could proceed to the question which this conference raises, namely: How shall we release the energies of the masses of the people who are workers so that our civilization shall not only remove the sores and injustices which infest it but shall be something fit and adequate for democracy?''

The deepest difficulties in insuring that labor unions are made over into safe and trustworthy instruments of industrial democracy are psychological difficulties. The powerful instincts in employers of self-assertion, domination and freedom of action are thwarted by the demands of labor unions for group self-assertion in deciding industrial issues. Habits, traditions and customs have constituted a steady psychological influence on the business man to make him feel that there is one and only one way to manage business efficiently and that is to run it as he pleases, free from outside restraint; labor unions challenge this accumulation of precepts and habits in business, and it is inevitable and natural for the business man to resist the upheaval of those business principles which he has come to believe are axiomatic. But the greatest psychological force in shaping the attitude of the business man toward labor unions is fear. The business man has a right to fear that if he concedes an inch to labor unions they will take a mile. He has no assurance that if he attempts to co-operate with labor in a constructive way he may not find himself soon at the mercy of predatory unionism. It is this universal fear that labor unions will cling to their abuses and faults if employers do freely and frankly admit them to a share of industrial control which primarily accounts for the fighting attitude of hostility and resistance to the tactics of labor unions. These psychological obstacles to the advance of unionism are at the heart of the problem. As a matter of fact, it would doubtless be disastrous for employers generally to turn over full powers to labor unions suddenly. What would happen, however, if employers approached unions in the same manner as the more progressive of them have approached works councils is not so disheartening a conjecture. The method of approach in

that case is a deliberate and painstaking effort by the employer to establish frank co-operation, to give honest information about the financial affairs of the company, to educate foremen, bosses and superintendents to perform intelligently their parts under the works council system, and to create mutual confidence by every word and every move. The contrast between the method of approach to works councils and to labor unions is extreme, and the success of the constructive and co-operative method in keeping works councils reasonably free from the abuses frequent in labor unions is a ground for the hope that the same constructive and co-operative method applied to labor unions would go far toward removing those abuses as they now exist in unionism.

William Howard Taft, joint chairman during the war of the National War Labor Board and since appointed Chief Justice of the United States Supreme Court, has summarized the situation in words which express both sound public policy and sound economic principles: "Organization of labor has become a recognized institution in all the civilized countries of the world. It has come to stay; it is full of usefulness and is necessary to the laborer. It shows serious defects at times and in some unions. . . . These are evils that as the unions grow in wise and intelligent leadership we may well hope are being well minimized. . . . Whether we will or not, the group system is here to stay, and every man interested in public affairs must recognize that it has to be dealt with as a condition, to be favored in such a way as to minimize its abuses and to increase its utility."[1]

The foregoing account of the institutional and psychological relations between employers and employees would be incomplete at a most important point if the responsibility of labor unions, especially of their leaders, in the circumstances were not pointed out. The militant attitude of labor union leaders may be quite natural under the prevailing conditions, but there will certainly be no escape from industrial antagonism until unionism accepts a more constructive attitude toward problems of production.

[1] D. Bloomfield, "Problems of Labor," pp. 212-214.

Unionism inherits a tradition of aggressiveness and militancy and the tradition is extremely tenacious; but unless the tradition can be altered sufficiently to make a place in trade union principles for a recognition of the basic economic fact that labor organizations can safely be trusted with power only when they evince a willingness and a capacity to promote, encourage and organize greater productive efficiency, then labor can scarcely hope for business recognition or public support. The reconstruction of labor union organization and strategy on principles conducive to labor efficiency and to maximum production is a *sine qua non* of evolving sound industrial democracy from present trade union structure.

In large measure, such a reconstruction of unionism can come only as an act of will on the part of unionists, especially of their leaders. They must make up their minds and exercise their powers of volition before an adequate reconstruction can occur. But the psychological process can scarcely be hoped for if it is to come merely as an act of will. The irrational and blindly instinctive forces which tend to stifle such a deliberate change of mental outlook are enormous, and, it must be admitted, they are likely to prevail under the present state of affairs. Only rarely can men, especially masses of men, rise above their institutional surroundings and deliberately resolve upon a new spirit and a new attitude toward their responsibilities. The level of the behavior of the crowd cannot rise much above the level of its institutional environment. Industrial institutions which invoke pernicious human tendencies and which stimulate dangerous expressions of the primary human instincts cannot be counteracted by the mere logical or rational powers of the crowd mind. On the other hand, institutional arrangements which help men to a co-operative attitude, to self-control, to constructive effort have the most salutary influences upon the beliefs which they put into action. Hence to invent by gradual experiment and by intelligent trial and error the type of industrial institutions best fitted to help the better and hinder the more pernicious expressions of the great human instinctive

energies, is a paramount task for all those who desire to share in hastening the progress of industrial democracy.[1]

A crucial point in industrial institutions is the issue of the proper basis of collective bargaining. The great slogan of labor is that "labor is entitled to collective bargaining through representatives of its own choice." The objection raised by employers is that such a principle enables labor to be represented by leaders of the national union who are not employees of the particular plant where they are representing labor in collective bargaining. Employers have favored the works council because in every case the representatives of the workers at any single plant are themselves workers at that plant. Being employed at the plant, the works council representatives presumably know from direct experience something about the problems involved in production and in labor administration, and have a strong spirit of responsibility to their immediate constituents with whom they mingle constantly in the day's work. If an employer accepts the labor union principle of collective bargaining, he is likely to have to deal, not with a workman in his own plant, but with a leader from a national union's headquarters. From the employers' standpoint this union representative is an outsider and a meddler, and knows little or nothing of the particular problems of an individual plant. To have an outsider interfering in the management of his business impresses the employer as an absurd dictation by an outsider as to how he shall run his business. Hence, the progressive employer accepts the general principle of collective bargaining through representatives of labor's own choice, with the proviso that those representatives shall be persons actually working in the plant which they presume to represent.

From the labor unions' viewpoint, this policy of employers is looked upon as a subterfuge. No one dictates to the employer that his agent in collective bargaining shall be actually employed in the plant. If the corporation is a large one, comprising a dozen or a score or more of plants, the company centralizes its part in collective bargaining in

[1] See James Bryce, "Modern Democracies," Vol. I, p. 10.

the hands of some executive at the main office, who of course cannot be employed in each one of the separate plants of the company. Labor reasons that it should possess a similar prerogative of centralizing its part in collective bargaining. Moreover, labor finds that it is no light task to match labor's brains against the best brains that management can produce. Suppose, argues labor, two men in ordinary life have a dispute and bring their case into a court. Suppose one man hires a brilliant lawyer, a man of great talent and ability, and the other man hires only a mediocre lawyer, a man of slight talent and weak ability. The chances are all in favor of a decision for the man who is ably represented. So in industrial relations, management is represented by brilliant men, by the best experts that management can procure; labor, in order to be represented on equal terms, must have expert bargainers, men experienced in all the strategy of bargaining, the best brains that labor can procure. The detached individual plant is likely not to have any workman on the job who is fully equal mentally to the task; hence there is need of a man trained and practiced in the art of bargaining, a man direct from national union headquarters.

In President Wilson's first industrial conference, appointed to deal with the problems of post-war industrial reconstruction, the committee was composed of prominent authorities representing labor, capital and the public. The attention of all groups was riveted to this problem of whether or not labor is entitled to representatives of its own choice in collective bargaining. In the final vote, the public group and the labor group voted in favor of the unqualified right of labor to representatives of its own choice.[1] A minority of the capital group voted with labor and the public, but inasmuch as the system of voting in force at the conference provided that the adoption of any

[1] The full text of the resolution is as follows: "The right of wage earners to organize without discrimination, to bargain collectively, to be represented by representatives of their own choosing in negotiations and adjustments with employers in respect to wages, hours of labor, and relations and conditions of employment is recognized,"

measure required a majority vote in each of the three groups, the resolution was lost. Thereupon the conference broke up.

In a discussion of the broader principles of industrial democracy, it is important to consider the question of the relation in practice between works councils and labor unions. Are the two supplementary, or do works councils tend to eliminate labor unions entirely? The consensus of opinion among employers using works councils is to the effect that they have nothing against the union and are not aiming to destroy it or eliminate it. They are willing that labor unions should exist, and will allow workers who are union members to sit on the works councils as representatives of the workers of the plant. They contend that there is no valid reason why the union should not supplement the works council. With rare exceptions, they decline to enter into collective bargaining with the union, or to give it official recognition, claiming that one collective bargaining agency is enough and that this is supplied through the works council. Hence, the real meaning of the assertion by employers that they believe in a union supplementing the works council is that they believe in that particular type of union which is classified as friendly or uplift unionism. The welfare, humanitarian and social features of such a unionism may, in the judgment of employers, supplement the efforts of the works council. Theoretically, this division of supplementary functions appears sound and plausible. It should be carefully noted, however, that the works councils themselves undertake such a comprehensive program that when they get through there is little left for supplementing. The works councils undertake welfare work, humanitarian measures, social features, and virtually all forms of friendly and uplift activity. Moreover, the works councils do this usually on company time and at company expense. In the face of this condition, a union which could not gain recognition, which could not bargain for better wages, hours or working conditions, which could only undertake friendly and uplift work, would be an anomaly. It could not collect dues for performing humani-

tarian duties which the works councils perform largely at company expense and it would gradually dwindle in power and influence. In theory, the two may be termed supplementary, but in actual life the works council when efficiently handled covers the ground so thoroughly that there is nothing essential left for the union to do. Hence, as a matter of plain industrial fact, the efficiently handled works council tends to be exclusive of the labor union. The course of contemporary events indicates that the works councils are in fairly exclusive control of collective bargaining in most companies where the councils are employed and the trade unions in fairly exclusive control of collective bargaining in most other cases where any form of collective dealing is in vogue, with occasional exceptional cases where the two stand in some supplementary relationship.

All lines of thought on these issues of industrial democracy lead back to the great fact that the war and post-war period set loose a new flood of human energy in the direction of more control by labor over its own life in industry. Before the war the emphasis in industrial thinking was upon less poverty, better wages, shorter hours and better working conditions. To-day the emphasis is upon labor's right and ability to participate in the government of industry. The former demands have not been abandoned, but they have been co-ordinated with a greater demand that with better wages, hours and working conditions must come a new degree of labor control over industrial matters which deeply affect the life and welfare of labor. Some application of the principle of self-determination to the laborer's position in industry is looked upon as the prerequisite of any serious industrial democracy. Whether the instrument be a labor union or a works council, the worker feels impelled toward a new status as one of the controlling influences in the management of industry. The concise interpretation of Sidney Webb, expressed in 1920, sums up the situation in both America and Great Britain: "The new ideas which are to-day taking root in the trade union world center round the aspiration of the organiza-

tions of manual workers to take part—some would urge the predominant part, a few might say the sole part—in the control and direction of the industries in which they gain their livelihood.''[1]

This being the plain fact of the case, it is imperative to realize that beneath the movement for control lies a truly enormous psychological force. Some of the deepest instinctive energies of millions of human beings are seeking for an opportunity of expression. At this particular stage of industrial progress an outburst of powerful forces of human nature has appeared pointing toward some form of democratic control of economic life. It would be psychologically unsound and economically disastrous to give such untrained human energies free reign. But it is both sound and necessary to provide helpful channels of expression for such human forces, to accustom instinctive energies to self-restraint and self-control, to subject them to adequate working discipline, to repress vicious and pernicious forms of expression, to educate and enlighten and inform men to understand themselves and others in order that the nervous breakdowns and the psychic revolts of a period of industrial transition may be healthfully averted, and to raise the level of intelligence among the rank and file of laborers so that they may be enabled to make the right adaptations between human nature and economic institutions. The reshaping simultaneously of men and institutions is the secure pathway toward industrial democracy.

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INDEX

Ability, unrealized, 223–225
Abnormal psychology, 63–66
Acceptances, bank, 426
Accidents, industrial, 141–143
Accounting, 253–255
Adams, T. S., 448
Adaptation, economic, 453–520; human, to economic environment, 52–69
Advertising, 299–305, 356
Americanization, 161–162
Anderson, B. M., Jr., 348, 382–384, 391–392, 436
Automatic machinery, 78–80; effect on labor, 99–104

Banks, 366 ff.; agricultural, 398–400; commercial, 371–384; corporations and, 271–274; federal reserve, 404–427; foreign investment, 396–398; functions, 373–380; international, 416–427; investment, 384–389; reserves, 377; savings, 393–394; trust companies, 394–396
Bargaining. *See* Collective bargaining
Bassett, W. R., 10
Bimetallism, 368
Bloomfield, D., 512
Bonds, 210–211; foreign, 396–398; investment banking, 384–389
Brandeis, Louis, 90, 236, 387
Bryce, James, 486, 501, 514
Business combinations. *See* Combination

Cannon, W. B., 59–60, 66
Capital, 175–234; production and, 73
Carver, T. N., 55–56, 101
Chance, inequalities due to, 232–234
Checks, 375–380
Chemistry, economic applications, 83–87
Class feeling, workers', 101–102
Clayton Act, 340–344, 440, 468–478
Clearance, bank, 401–404, 415–416
Collective bargaining, 129–135, 505–518
Combination, business, 242–244, 258–276; price policies of, 327–336
Commons, J. R., 56, 159–163, 205, 231, 441
Competition, 256–277, 327–330, 345; public control and, 453–486
Concentration, business, 242–244, 258–276, 327–336, 453–486
Conservation, 19
Consumption, control of, 296–363; description of, 189–193
Contract, freedom of, 206–208
Control. *See* Public control
Cooley, C. H., 97, 102, 109, 193, 349, 357, 361
Co-operation, economic, 274-277; consumers', 362
Copeland, M. T., 297
Corporation, characteristics of, 208–225; extent of, 241–242; management of, 244–253; securities of, 384–393
Cost of production, price theory, 281–285
Credit, 366 ff.; commercial, 371–384; dangers of, 427–450; foreign, 416–427; forms of, 372–373; investment, 384–389; psychology of, 441–450; rural, 398–400
Curiosity, psychology of, 32–37
Custom, wages and, 133–135
Cycles, business, 427–450; control of, 431–437

Demand, creation of, 296–363
Demand and supply, price theory, 285–315, 344–363; wage theory, 118, 160

Democracy, economic, 129–135, 138–141, 268–270, 499–518
Deposits, bank, 374–380, 411–412
Dewey, John, 35, 90, 349, 456–458
Dewing, A., 208, 213, 250, 263, 272, 274, 386
Discount, 384
Discipline, adaptation by, 54–56
Distribution, wealth and income, 177–187, 236–277
Drury, H. B., 80, 114
Duncan, C. S., 291, 297, 309, 314

Economics, defined, 1–2, 69, 199; mechanical and scientific basis of, 72–98
Edge Act, 425–426
Electricity, significance of, 74–76, 88–90
Elimination, adaptation by, 56–57
Ely, R. T., 184, 194, 197, 199, 203–207, 332
Emery, H. C., 308, 346
Engineering, industrial, 93–98
Environment, economic, 52–69; worker and, 141–149
Eugenics, 167–170
Exchange, domestic, 401–404; foreign, 417–427
Executive, technique of, 253–258

Fairchild, H. P., 160
Farm credits, 398–400
Fatigue, 99–115
Fear, 24–26, 108–109, 141–143, 444
Federal Reserve System, centralization under, 405–406; clearance, 415–416; cycles, 430–432; deposit currency, 411–416; foreign banking, 425–428; note issue, 406–411; organization of, 404; reserves, 412
Fetter, F. A., 168
Finance, 366–450
Fisher, Irving, 227, 374, 434
Flight and fear. *See* Fear
Foreign, credit balance, 417–418; exchange, 417–427; investment, 396–398
Freud, S., 58, 61, 64
Friday, David, 73, 136–138, 180–187, 221–222, 430, 436–437, 449
Functions, economic, 72–452

Geology, economic applications, 87–88
Gold, standard, 368–371
Gompers, Samuel, 149
Government control, 453 ff.; wartime, 458–460
Gregarious instinct, 21–23

Habit, 41–43, 133–135, 296–363
Hadley, A. T., 204, 351
Haney, L. H., 212, 259
Health, workers', 142–144
Hobson, J. A., 115, 180, 189, 271, 332, 341
Hollander, J., 123, 124
Hollingworth, H. L., 300
Hoover, Herbert, 9
Hours of work, 110–115
Housing instinct, 29
Hoxie, R. F., 102, 155–157, 507
Human nature, organization of, 39–51
Hunting, instinct of, 29

Imitation, 43–46
Immigration, 157–164
Incentives, 93–97, 127–129; nonfinancial, 144–149
Income, analysis of, 187–232; annual, 178–179; distribution of, 177–187
Inequality, pyschological, 48–51; of income, 183–187, 222–232
Inheritance, 225–230
Instinctive tendencies, adaptation of, 52 ff., 453–520; definitions, 1–7; discipline, 54–56; elimination, 56–57; property and, 195–199; rationalization, 60–63; revolt, 63–68; sublimation, 57–61
Instincts, economic expression of, 8–38
Institutions, economic, 72 ff.; financial, 384–403, 437–441; of property, 193–232
Insurance, 232–234
Intelligence, 32–37; of labor, 149–157; tests, 48–51
Interest, 183–185; effect on saving, 192, 447, 450
Interlocking directorates, 440
Interpretation of facts of wealth, 187–199

Interstate Commerce Commission, 461–467
Inventors, 93–97
Investment banking, 384–389; foreign, 396–398

James, W., 29, 34, 59
Jenks, J. W., 159, 232, 329–333
Job, the laborer's, 104–110

Kemmerer, E. W., 377, 404
Kelley, R. W., 147
Kindness, psychology of, 17–18
King, W. I., 73, 135, 168, 180–187
Kitson, H. D., 144, 146
Knoeppel, C. E., 144–145

Labor, democracy and, 487–498; environment, 141–149; function, 99–104; government control, 477–479; mind of, 149–157; part in production, 99 ff.; power of, 138–141; public opinion, 482–486; skilled vs. unskilled, 158–159; unions, 505–518; wages, 116–138
Laissez faire, 276, 363
Laski, H. J., 458
Lippmann, W., 12, 58, 362
Loans, bank, 373, 380; forms of, 381–384

McDougal, W., 2, 6, 21, 24, 42, 44, 167, 171
Machinery, 72–98
Management, efficiency of, 149–150; finance and, 437–441; power of, 205–215; technique and responsibility of, 236–277
Marginal theory, 281–315
Markets, definition, 279; mechanism of, 313–318; principles and strategy, 279–364
Marshall, Alfred, 96, 254, 267, 270, 305, 308, 328, 347, 447, 494
Mechanical factor, 72 ff.; automatic, 77–80; labor and, 99–104
Meeker, Royal, 122, 192
Mental activity, disposition to, 32–38
Migration, psychology of, 29–30
Minimum, principle of, 216–222
Mitchell, W. C., 358, 430, 434
Money, definition, 366; forms, 367–372; gold and, 367–368; spending of, 346–361

Monopoly, and income inequality, 230–234; and prices, 327–363
Monotony, 99–104
Motives, 1–71; consumers', 346–363; progress, 93–97, 127–129; property and, 195–232

National viewpoint, 171
Notes, Federal Reserve, 406–411

Ogburn, W. F., 122
Opinion, public, power of, 482–486
Orth, S. P., 204
Ownership, income for, 181–185; institution of, 175 ff., 208–216; labor view of, 151–152

Parental instinct, 16–18
Parker, C. H., 58, 65, 79
Parmelee, M., 28, 35, 42, 44, 123
Patten, S. N., 31, 165–166
Pigou, A. C., 189
Play, psychology, 30–31
Population, 19–21; economic phases, 164–171; immigration and, 157–164
Possession, psychology of, 10–13, 97, 195–198
Pound, Roscoe, 206
Poverty, 116–130
Power, natural, 74–77; of labor, 138–141
Price, fixing of, 343–346; policies of, 305–363; stabilization of, 433–437; system of, 76–77, 366; theories of, 281–315
Production, 72–171; national volume, 187–189. *See also* Cost of production
Profit sharing, 128
Progress, economic, 453–458
Property, a group of rights, 199–208. *See* Capital
Psychology, economic, 1–71; and consumption, 346–363; of credit, 441–451; of radicalism, 492–498; of reform, 479–482; of selling, 295–363; of unionism, 511–513
Public, control, 453–482; opinion, 482–486
Publicity, 483–486
Pugnacity, psychology of, 26–28

Quantity theory of prices, 434–436

Radicalism, 487–492; analysis of, 492–498; forms of, 489–492; in unions, 508–509
Railroads, labor control, 135, 464–465; regulation of, 461–467
Rationalization, 60–63; by labor, 149–157
Reform, 479–482
Regulation, general, 468–479; of railroads, 461–467
Rent, 182–183, 215–222
Revolt, psychology of, 63–69
Rights of property, 199–214
Rivalry, psychology of, 26–28
Rockefeller, J. D., Jr., 9, 12
Roosevelt, T. R., 16, 47, 171, 229
Root, Elihu, 251
Ross, E. A., 158, 194, 228
Rural credit, 398–400
Russell, Bertrand, 167

Safety, from accident, 141–143
Sales' policy, 287, 290, 296–363
Savings, amount of, 73–74, 180–181; banks, 393–394; principles of, 346–363; psychology of, 189–193, 446–450
Science, applied, 72 ff.; of economic organization, 90–94; of progress, 455–457
Seager, H. R., 265
Self-assertion, psychology of, 13–15; of labor, 138–141
Sex instinct, 20–21, 52–69
Sherman Anti-Trust Law, 276, 340–344, 468–476
Size, business, 236–239
Slichter, S. H., 100, 107, 108
Socialism, 487 ff.; analysis of, 492–498; forms of, 489–492
Southard, E. E., 68
Speculation, 308–310; stock exchange, 388–393
Stabilization of business, 430–437
Standard of living, 120–127, 340–363
Standardization, 265–267
Statistics, aid to management, 253–255; marketing, 305–308; wealth, 175–234
Stock exchange, 389–393
Stocks, 208–216
Storage, marketing and, 309–311
Style of product, 298
Sublimation, psychology of, 57–61, 502–505
Submissiveness, psychology of, 15–16
Suggestion, psychology of, 43–46
Supply and demand, price theory, 285–315, 344–363; wage theory, 118, 160
Surplus, principle of, 215–222
Sympathy, psychology of, 43–46

Taft, W. H., 512
Taussig, F. W., 95, 228, 284, 345
Taxation, 229–230, 350–360
Taylor, F. W., 91, 99
Tead, O., 20, 147
Technology, economic, 72–98; and labor, 99–104
Tendencies. *See* Instinctive tendencies
Thorndike, E. L., 17, 28, 32, 39, 42, 55, 361
Thought, psychology of, 32–37, 48–51; of labor, 149–157
Transportation, technology of, 80–83; regulation, 461–467
Trotter, W., 22, 33, 45, 65
Trust companies, 394–396
Turnover, labor, 104–110, 160
Types of management, 239–244

Unemployment, 103–110, 160; business cycles and, 430–437
Unions, analysis of, 505–518; bargaining power, 129–133, 138–141

Value, definition, 279–281; of money, 434–437; theory of, 282–296
Vanderlip, F. A., 427
Van Hise, C. H., 331–332

Wages, 116–138; factors in, 120–138; immigration and, 159–160; incentives, 93–97, 127–129; increase, 135–138; share in national income, 182–183, 223; theories of, 116–120. *See also* Demand and supply
Wallas, Graham, 17, 32, 64, 495
War Finance Corporation, 426–427

Wealth, analysis of, 187–232; definition, 175–177, 187–189; measurement of, 177–187
Webb, S., 269
Welfare work, 128–129, 141–149
Wilson, Woodrow, 126, 344, 443, 477, 510, 515
Wolfe, A. B., 447–448
Work, hours of, 110–116. *See* Labor
Worker, mind of, 149–157
Workmanship, psychology of, 8–10, 95–97, 103
Works councils, 502–505

Yerkes, R. M., 94

Zimmern, A. E., 199