UNIVERSAL
LIBRARY

OU_162152

UNIVERSAL
LIBRARY

OSMANIA UNIVERSITY LIBRARY

Call No. 306/D62E Accession No. 25802

Author Dixon, R. A.

Title Economic, Institutional & Cultural Change.

This book should be returned on or before the date last marked below.

Economic Institutions
and
Cultural Change

Economic Institutions *and* Cultural Change

RUSSELL A. DIXON
Assistant Professor of Economics
University of Pittsburgh

With the assistance of
E. KINGMAN EBERHART
Assistant Professor of Economics
College of Wooster

FIRST EDITION
SECOND IMPRESSION

McGRAW-HILL BOOK COMPANY, INC.
NEW YORK AND LONDON
1941

ECONOMIC INSTITUTIONS AND CULTURAL CHANGE

COPYRIGHT, 1941, BY THE
McGRAW-HILL BOOK COMPANY, INC.

PRINTED IN THE UNITED STATES OF AMERICA

All rights reserved. This book, or parts thereof, may not be reproduced in any form without permission of the publishers.

THE MAPLE PRESS COMPANY, YORK, PA.

Preface

Capitalism is a way of life under which people of industrialized areas have developed their economic system from one of scarcity to one of potential abundance. Today the major social problems center around the adequacy of capitalism as an organizing principle of life. The culture called capitalism is composed of broad patterns of thought and action called institutions. Many of these grew up in a social milieu distinctly different from that prevailing in most industrialized areas of the world today. Some have been modified to serve in the solution of the problems created by the new technological and social forces. Others have remained as the bulwark of those whose economic powers depended upon them in a past age. All have felt the impact of technology and business organization. Furthermore, the institutions of capitalism are being modified by the efforts of all industrialized groups to meet the social problems of depression and nationalism. New patterns of life are being proposed and even aggressively advocated by those who feel that the present institutional framework is too antequated for further remodeling. Modification of existing patterns by the superimposition of new institutions is urged by others. Rehabilitation of old and decadent institutions is offered as the solution by still others. But before an individual can intelligently judge the

proposals of these numerous groups he must analyze and evaluate the institutions of modern capitalism.

The institutions of our world are so numerous and complex that no one could even hope to outline them within the covers of a single volume. But while all are interrelated and interacting, those organized around the economic activities of man are most important to an understanding of the structure and functioning of the cultural pattern called capitalism. Economic institutions compose the area in which the chief forces of cultural change now operate. Even in this restricted sphere an adequate analysis would require many volumes. By restricting the analysis to the more basic economic institutions of our society, the author hopes to make this brief work sufficiently comprehensive to be meaningful and helpful to the student of social change. In the analysis of each of six institutions he has tried to trace in broad outline its origin, development, structure, and functions so that the process of institutional growth and modification can be more fully appreciated. In evaluating these institutions the author has endeavored to maintain a social rather than an individual point of view. His purpose is not to advocate, defend, or denounce any type of social organization but rather to indicate the role of economic institutions in social and cultural change. Whatever cultural changes may result from the forces now operating in society, they must grow out of the patterns of thought and action that now characterize our society. All cultural changes develop within the institutional framework of society. They must of necessity emerge from the established ways of life. The future may be significantly different from the past, but it will have many elements of our present culture as important units in its pattern. The author hopes this volume may serve to orient the student of the social sciences to the never-ending process of cultural change.

The author is indebted to the works of many able scholars for the ideas presented and developed in this work.

He is particularly indebted to the works of Walton Hamilton, Gardiner Means, Thorstein Veblen, and others who have made institutional analyses of modern economic society. He has, of course, been greatly assisted by his colleagues, especially those who have taught the course in which preliminary editions of this work have been used.

The assistance of E. Kingman Eberhart deserves special mention. In 1934 he assisted in writing the syllabus, *Economic Institutions*, which was used in the basic orientation course at the University of Pittsburgh. He also taught several sections of the course and offered many valuable suggestions which have been incorporated in this book. His efforts are deeply appreciated and gratefully acknowledged.

RUSSELL A. DIXON.

UNIVERSITY OF PITTSBURGH,
June, 1941.

Contents

PAGE

PREFACE v

CHAPTER 1. CULTURE AND INSTITUTIONS 3
A. The Cultural Pattern 4
B. The Nature of Institutions 13
C. Role of Institutions in the Social Process 16
D. Growth and Decay 19
E. Social Effects of Institutions 22
F. Summary View 25

BIBLIOGRAPHY 27

PART I

THE INSTITUTION OF PROPERTY

CHAPTER 2. ORIGIN AND DEVELOPMENT OF PROPERTY 33
A. The Economic Surplus 34
B. Claimants of the Surplus 40
C. Historical Development 43

CHAPTER 3. THE STRUCTURE OF PROPERTY 48
A. Social Basis 49
1. Social Sanction 50
2. Exclusive Control 53
3. Freedom of Contract 58
B. Relationships Involved 59
1. Man to Material Wealth 59
2. Man to Man 60
3. Man to the Cultural Pattern 64

PAGE

C. Supporting Theories 66
D. Types of Property 69
1. Unit of Control 70
2. Legal Forms 73
3. Social Forms 75

CHAPTER 4. THE FUNCTION OF PROPERTY 78
A. Production 78
B. Utilization of Natural Resources 81
C. Distribution of Income 90
D. Determination of Social Status 92
E. Security 95

EVALUATION OF PROPERTY 99

BIBLIOGRAPHY 101

PART II

THE INSTITUTION OF THE PRICE SYSTEM

CHAPTER 5. THE DEVELOPMENT OF THE PRICE SYSTEM 109
A. Origin 109
B. Structure 112
1. Money 114
2. The Market 126

CHAPTER 6. OPERATION OF THE PRICE SYSTEM 131
A. Price Levels 132
1. Measurement 134
B. Price Fluctuations 139
1. Inflation 143
2. Deflation 148
C. Manipulation 150
D. Investment Valuation 153
1. The Process 155
2. Social Results 159

CHAPTER 7. EXPRESSIONS AND EFFECTS OF THE PRICE SYSTEM . . . 164
A. Thought Patterns 164
B. Social Control 168
C. Capital Accumulation 172
1. Interest as Regulator 173
2. Corporate Savings 175
3. Insurance Reserves 178
D. Incentive to Production 178

CHAPTER 8. FORCES MODIFYING THE PRICE SYSTEM 182
A. Corporate Administration 184

PAGE
B. Labor Organization 187
C. Fair-trade Laws 189

EVALUATION OF THE PRICE SYSTEM 194

BIBLIOGRAPHY 195

PART III
THE INSTITUTION OF FREE ENTERPRISE

CHAPTER 9. ORIGIN AND DEVELOPMENT OF ENTERPRISE 203
A. The Domestic System 204
B. Early Industrialism 206
C. Transitional Period 210
D. Modern Industrialism 212

CHAPTER 10. THE IDEOLOGY OF ENTERPRISE 216
A. Individualism 216
1. Development 217
2. Expressions 221
B. Laissez Faire 232
1. Government 233
2. Rationality 234
3. Gain Motive 235
4. Market Price 236
5. Public Welfare 237

CHAPTER 11. THE COMPETITIVE ORGANIZATION OF ENTERPRISE . . . 239
A. Nature and Scope 239
B. Forms 240
1. Individual 240
2. Industrial 241
3. Technological 243
4. Regional 243
C. Functions of Competition 244
1. Regulation of Industry 244
2. Promotion of Efficiency 245
3. Technical Progress 246
D. Modification 247
E. Appraisement 249

CHAPTER 12. THE SCOPE OF ENTERPRISE 255
A. Agriculture 255
B. Petty Trade 256
C. Promotion 256
D. Finance 258
E. Business 260

PAGE

EVALUATION OF FREE ENTERPRISE 262

BIBLIOGRAPHY 263

PART IV

THE INSTITUTION OF TECHNOLOGY

CHAPTER 13. SCIENCE AS THE BASIS OF TECHNOLOGY 271

A. Problems 271
B. Science 272
1. Nature 273
2. Development 274
C. Basic Assumptions 281
D. The Scientific Method 282

CHAPTER 14. THE STRUCTURE OF TECHNOLOGY 288

A. Machines 288
B. Power 291
C. Machine Tools 294
D. Roundabout Methods 298
1. Production Costs 300
2. Role of Technicians 305

CHAPTER 15. THE SOCIAL EFFECTS OF TECHNOLOGY 307

A. Specialization 307
B. Interdependence 309
C. Standardization 310
D. Mass Production 312
E. Productive Capacity 315
F. Unemployment 318

EVALUATION OF TECHNOLOGY 321

BIBLIOGRAPHY 322

PART V

THE CORPORATION AS AN INSTITUTION

CHAPTER 16. THE ORIGINS OF THE CORPORATION 331

A. Medieval Beginnings 331
B. Commercial Development 332
C. Industrial Capitalism 341
D. Modern Conditions 346

CHAPTER 17. THE LEGAL STRUCTURE OF THE CORPORATION 350

A. The Charter 352
B. Ownership Rights 355
C. Internal Organization 361

PAGE

CHAPTER 18. THE FINANCIAL STRUCTURE OF THE CORPORATION . . 365
A. Stock 365
B. Bonds 369
C. Accounting 373
1. Statement of Condition 374
2. Profit and Loss Statement 381

CHAPTER 19. THE CULTURAL SETTING AND OPERATION OF THE CORPORATION 389
A. Place in Business and Industry 391
B. Place in Modern Society 394
C. Operation 399
1. Internal Controls 399
2. External Controls 411

EVALUATION OF THE CORPORATION 420

BIBLIOGRAPHY 422

PART VI

THE INSTITUTION OF CONSUMPTION

CHAPTER 20. THE NATURE AND DEVELOPMENT OF CONSUMPTION . . 431
A. Meaning 432
B. Origin and Development 434

CHAPTER 21. FACTORS CONDITIONING CONSUMPTION 440
A. Industrial System 441
B. Distribution of Income 442
1. Depression Income 443
2. Prosperity Income 447
C. Price Structure 449
D. Advertising 456
1. Historical Development 456
2. Spheres of Operation 458
3. Functions 459
4. Cultural Evaluation 471

CHAPTER 22. THE STRUCTURE OF CONSUMPTION 473
A. Levels of Living 474
1. Measurement 475
2. Relativity 477
B. Conspicuous Consumption 478
C. Buying in the Market 479

CHAPTER 23. THE CONTROL OF CONSUMPTION 484
A. Food and Drug Administration 485
B. Bureau of Standards 490

PAGE
C. Other Governmental Agencies 495
D. Private Agencies 500
E. Consumer Education 503
F. Producer Education 505

EVALUATION OF CONSUMPTION 507

BIBLIOGRAPHY 509

INDEX 517

Economic Institutions and Cultural Change

Chapter 1

Culture and Institutions

As an individual grows from helpless infancy to active maturity he is shaped and molded by the persons and things that constitute his environment. All human activity finds expression in established ways and within limits prescribed by society. In fact, most patterns of behavior are so gradually and unconsciously acquired in the process of growing up that they come to be accepted as normal or natural. The physical exertions of the child are manifestations of his inborn abilities. A baby's ability to react to physical stimuli by flexing muscles, and thereby moving arms and legs, gradually is elaborated by a long process of training into the techniques of walking and manipulating objects. The new-born child has the power to grasp an object such as a pencil, but years of training are required to enable him to grasp a pencil in such a way as to write. Writing is a technique involving the abilities of grasping a pencil between the thumb and fingers and of flexing the muscles of the arm and fingers. These same abilities are involved in the techniques of sawing, planing, eating with a spoon, and a myriad of other activities essential to meaningful behavior in modern society. Techniques are patterns of abilities; occupations and professions are patterns of techniques. In fact, the whole round of life is but a series of patterned actions arranged in hierarchies from simple

techniques, such as writing, to complex institutions, such as property, technology, or business. A visitor from another world would doubtless be impressed first with the complexity of our human relationships, and secondly with the similarity of human actions.

The economic activities of man center around the manipulation of his environment for the satisfaction of his wants. Both the wants themselves and the ways and means of satisfying them grow out of and in turn comprise a part of a complex series of interrelated patterns called institutions. Institutions themselves are patterns in a larger entity known as culture. The institutions of a given people are integrated into a functioning whole by the enveloping culture. It is important that we understand the nature of this all-embracing social force.

A. THE CULTURAL PATTERN

Perhaps nothing is so hard to define as something so common that it is taken for granted. Most people living in the cultural pattern called capitalism are unconscious of the force it exerts in their everyday lives. Usually they assume that the behavior manifested by their fellow humans is "natural" or that it is a compromise between "human nature" and the "interests of civilization." What they forget is that their own lives are a product of the same social forces that form and condition others. The obvious physical and mental differences of individuals, together with the enormity and complexity of modern life, tend to blind them to the larger pattern which underlies the surface manifestations of human behavior.

Throughout life the average individual holds to a way of life that he unconsciously came to accept not only as proper but also as normal. His vicarious contacts with the people of other cultures lead not to a realization of the basic causes of their differences but rather to the conclusion that they are lower in human evolution or that they are an inferior race less well endowed with mental or physical capacities.

Such an interpretation is largely the result of measuring the behavior of others in terms of our own. Our own culture has fitted us with an editing device which enables us to see only certain parts of the external world. What we see is that which our culture has developed our capacity to see. Our standard of value is that which we have unconsciously come to accept as the result of long usage. It is important, then, to realize that all people are products of a certain pattern of life which they did not create and cannot materially change. Only when we become conscious of the larger patterns of our own culture can we understand the nature of social change and appreciate the sterility of studying any single aspect of man's life apart from the larger social forces which give it meaning and purpose.

Economic activity has little meaning apart from the larger social context in which it takes place. To study the ways by which man satisfies his wants without considering the sources of these wants, the origin of the means employed, and the influences of his beliefs and aspirations, is to study something that does not in reality exist. Man is not a mechanism which can be adjusted to perform first one set of functions and then, with slight readjustment, others. He is not engaged at one time in the gaining of a livelihood to the exclusion of his political, social, or religious activities. Instead, his efforts to make a living are directed and conditioned by his whole round of life—his attitudes toward the political organization of his state, toward the other members of his family or club, and toward the church in which he worships. All these in turn are conditioned by his economic activities. Economics is, therefore, not a phase of life but a point of view—a way of studying human activity. To understand modern economic activity, which has become the dominant and directive force in our industrialized world, one must appreciate its place in the social entity called culture.

The term "culture" has many meanings or connotations. Doubtless the most common one refers to the niceties of

social relationships and a familiarity with the literature of the past. We often hear one who conducts himself with deft politeness and courtesy and who quotes apt phrases from great authors referred to as "a cultured gentleman." But this meaning of the term is much narrower than that used to refer to the larger social entity in which all aspects of human life, both the so-called "cultured" and "uncultured" or "vulgar," have a place and purpose. Perhaps the best means of understanding this broader connotation is to study the expressions of some leading students of this approach to the social sciences.

One of the earliest authors to use the term in its broad meaning was E. B. Tylor, who referred to culture as "that complex whole which includes knowledge, beliefs, art, morals, laws, customs, and any other capabilities and habits acquired by man as a member of society."[1] The final phrase—"acquired by man as a member of society"—is the most significant part of this definition since it so clearly states the origin of culture. Man acquires his way of life, his capacity to react to the actions of others and to direct the forces of nature, as a member of an organized and functioning group called society. Robinson Crusoe, the oft-referred-to natural economic man, developed no culture on his island home; he merely modified the resources of that fruitful island in ways he had learned and for the satisfaction of wants he had acquired as a member of the society from which he had been separated. Culture refers to the organized life of a group, not to the behavior of one individual apart from a functioning group.

Modern anthropologists emphasize the interdependency of all parts of a culture. Clark Wissler, an American anthropologist, views culture as "a great complex embracing the whole round of life [in a given region at a given time]."[2] No part has meaning except in terms of the other parts. Furthermore, the activity of the individual not only is

[1] TYLOR, E. B., *Primitive Culture*, 1871, John Murray Co., London, p. 1.
[2] WISSLER, CLARK, *Man and Culture*, 1923, Crowell, p. 2.

fashioned by the forces of his environment but also comes to have meaning and purpose both to himself and to his fellow workers in terms of the organized ways of life. Social organization is nothing more than a group of people acting in common ways and for common purposes. Bronislaw Malinowski, an eminent functional anthropologist, considers organization to be the integrating feature of culture. "The real component units of cultures . . . are the organized systems of human activities called institutions."[1] He also emphasizes the importance of the enveloping culture when he says that social organization cannot be understood except as part of a culture. Just as individuals are related in and coordinated by social organizations called institutions so the many institutions comprising a culture are related by the culture in which they have their place and function.

An excellent illustration of the way in which the culture determines the activity and organization of a people is afforded by the iron industry of the Pittsburgh district. The three primary ingredients of iron—ore, coal, and limestone—were all present in the region when the Indians alone inhabited it. Modern anthropologists can find little or no difference in the physical or mental capacity of Indians and Englishmen. But although the resources were at hand and the native Indians possessed the necessary intelligence and energy, no iron was produced in the region during the thousands of years of their occupation. The one vital ingredient—the culture of Europe—was lacking, and the Indians of this and all other regions used the far less serviceable material, stone, as the basis of their civilization. And with stone implements the culture of the American Indian was far simpler and less efficient in serving human wants than that of his European cousins. Malinowski stresses this functional aspect of culture when he says, "Culture is essentially an instrumental reality which has

[1] MALINOWSKI, BRONISLAW, "Culture," *Ency. of Social Sciences*, IV, 626.

come into existence to satisfy the needs of man. . . . Culture, the cumulative creation of man, extends the range of individual efficiency and the power of thought and action. . . . "[1]

The most pervasive aspect of a culture is its core of beliefs or its ideology. It is this, more than any other aspect, that distinguishes the culture of one people from that of another. In our industrial culture this core is usually very complex and so deeply embedded in our workaday pattern of life as to escape notice. Among simpler peoples it is often more evident.

An historical example will serve to illustrate the nature and importance of this core. During the nineteenth century, when the British were extending their commercial empire over the far-distant parts of the earth, they brought under their protection a South Sea island inhabited by head-hunters. As was their wont, the British did little to disturb the culture of their charges. Much of their success as empire builders can be laid to the simple fact that they learned the elementary social truth that imposing a way of life upon a people is almost certain to invite revolution. But in this case the core of the culture proved to be opposed to what the British felt were the best interests of civilization. The only change made among those primitive peoples beyond introducing British products into the island (in exchange for the native products) was to forbid head-hunting. Not a single native custom, art, law, or organization was modified, yet within a few years the inhabitants of the island passed from an industrious life to one of languor and indifference. The fields remained uncultivated, the huts fell into decay, and even the birth rate declined. At first the British were at a complete loss to explain the sudden and disastrous change. Only when a group of anthropologists were sent to the island to study the situation was the real cause discovered. All activity among the tribes on that island had been organized around head-

[1] MALINOWSKI, *ibid.*, 645.

hunting. The social status of each individual depended upon what he had done to increase the number of enemy heads taken by his group. Grain was grown, huts built and repaired, boats constructed, implements produced, and children borne only for one supreme purpose—to increase the head-hunting ability of the group. With this gone, life had no purpose or meaning.

Of course, this is an extreme case, but it serves to throw into bold relief the importance of the beliefs or ideology of a culture. Ruth Benedict in her able study of primitive cultures emphasizes the importance of this aspect of culture. When she says, "Culture consists essentially of the ideas and standards which men have in common,"[1] she is merely stressing the importance of the ideological core of culture. Clark Wissler is even more emphatic when he says, "Culture is the sum and substance of the thoughts and beliefs of a people. . . . It is a core of ideas and beliefs, actuating a people. . . . "[2] Human activity has meaning and purpose only in terms of the beliefs and aspirations of the group.

With such a background, we may now attempt to examine culture in more detail. Culture has six distinguishing characteristics. First, it is distinctively and exclusively human. Animals do not possess culture in our sense of the term. The old problem of distinguishing man from animals was once thought to be solved by stating that only man could think. Recent psychological research is rapidly compiling evidence that makes this questionable. But no animal possesses a social heritage in the form of artifacts (materials giving evidence of human activity) and records of ideas. One of the most important parts of a culture is its ever-growing social heritage.

Secondly, culture is an integrated, group concept. It is not applicable to the individual. An individual can possess culture only in his relationship with others. Furthermore, all parts of a culture, its institutions and ideology, are

[1] Benedict, Ruth, *Patterns of Culture*, 1934, Houghton Mifflin, p. 16.
[2] Wissler, *op. cit.*, p. 3.

integrated into a functioning whole. This does not mean that there are no stresses or strains within a culture but merely that any change in one element has an effect, to a varying degree to be sure, on all other elements. Furthermore, a new element introduced from another culture (borrowing) or invented by a person within the culture (diffusion) must fit into the larger pattern either by mutual modification or as a complement.

Thirdly, culture is patterned. That is, it consists of well-established ways of acting. Of course, this characteristic is rarely evident since only when other non-established ways are encountered do we become conscious of those we have long been following. The "American way" or the "democratic way" are terms applied to the broad pattern of life to which we are so accustomed. Such phrases have meaning only by comparison with other broad patterns. We become conscious of the American way only to the extent that we examine other ways of life.

The fourth characteristic is closely connected with the third. Culture is non-material. It is the pattern of relationships among people and material things. It can be compared to a picture such as a wall mosaic which is composed of thousands of tiny, vari-colored stones. The picture may be of a rural scene with trees, fields of grain, and cows grazing by a brook. The picture is not, of course, in the stones but in the way they are placed in the mortar holding them in the wall. If by some process it were possible to dissolve the mortar and reclaim each individual stone the picture would be destroyed although its elements would be intact. We might even classify the stone into piles on the basis of size or color, but such effort would produce no picture because a meaningful pattern would be lacking. But if we employ some skilled technician to reassemble every single stone into the same area of the wall, what a different result could be achieved! The picture might be that of a busy city street with its street cars, taxis, and broad sidewalks flanked by tall buildings. A new pattern has been created,

but not a single new stone has been placed. We might compare the stones, the mortar, and the wall to the artifacts and people composing a culture. The same elements are found in widely differing cultures. The peoples and artifacts of the Occident are astonishingly like those of the Orient, but the patterns of life are conspicuously different even to the most casual observer. Culture is something more than the sum of its elements.

Fifthly, culture is supra-individual and non-biological. It is independent of any given individual in the same sense that population is independent of any specific person. The population of New York City will probably be about the same a hundred years from now, but no one living there now will be a part of it then. Similarly, industrialism is composed of the same essential elements today as a generation ago though those living under its aegis are different individuals. Another way of saying this is that the individual is a culture-bearer. Culture goes on from generation to generation as children become adults under molding influences. This does not mean, however, that an individual has no effect upon his culture. Indeed, each individual does leave his mark upon the stage of life. Rather it means that the individual begins with that which the past has produced and carries it forward in ways determined by forces that he cannot entirely control. Thomas Edison invented the electric light, but he used the materials made available by the technology of his day and he grappled with the problem of better light in ways he had learned from his associates in a dynamic society. His genius merely enabled him to see more quickly the solution to a problem which society had created and which others, less able, would have ultimately solved.[1]

Similarly, culture is non-biological. This simply means that it is learned and not inherited. Nothing is more helpless than a new-born babe. Its germ cells carry certain capacities

[1] For a discussion of the role of genius in cultural change, see Dixon and Eberhart, *Economics and Cultural Change*, 1938, McGraw-Hill, Ch. 1.

to develop, but the place an infant will finally fill in society depends upon its relation to its culture. A child raised in a poor home will develop into quite a different man from one raised in a home where the affluence of the parents commands the best training society affords. Or, a child raised on a Yangtze river boathouse will be very different from one raised on New York's waterfront. Germ plasm is important, to be sure. A moron cannot solve the problems of an Edison. But an Edison on Crusoe's island would never command the powers of nature open to a moronic janitor in the Empire State Building. Culture grows more rapidly when carried by well-born persons, but the ablest person must work within the limits of his culture.

Finally, culture grows by invention and diffusion. Each individual sees the world in a slightly different way. Nothing has quite the same meaning to any two persons. Invention is merely the creation of a new relationship among old experiences. All of us have had the experience of solving some problem, perhaps a very trivial one, without the apparent aid of others, only to find that someone thought of that solution many years ago. Although from the standpoint of society we have merely re-created an old and now abandoned idea, we are inventors within the limited sphere of our experience. However, we may actually invent something quite new to our culture that is spurned or rejected by our fellow beings. Only when others accept our new way can it be called an invention in the social or cultural sense. To the extent that others adopt the new, it becomes diffused among the members of society. Finally, when it has become established as the way of life for a considerable number, it can be termed a cultural trait, and the culture has grown by that amount. The old way may persist as the mark of leisure (since the less efficient can be used only by those with more time or greater income) or merely as a part of the heritage. More often an invention lays the basis for the solution of many problems and modifies the culture in various ways. Culture thus accumu-

lates as its traits become more numerous and the resulting patterns more intricate and interrelated.

But to the individual, culture is a concept rather than a reality. Only when he reflects upon the ways of life of large groups, such as nations, does the concept have much meaning. To the busy citizen of the workaday world the forest is obstructed by the trees. The vast majority of daily routines have to do with immediately pressing and recurring problems. His nearest approach to the concept lies in the institutions under which he organizes his daily life. These are the broad patterns which he takes for granted and to which he conforms. When asked why he does not remove an annoying individual from the house next door when he would not hesitate to do so in his own home, he refers vaguely to the limitations of property rights. When asked why he willingly pays ten cents for such a simple product as a cigar and grumbles when he pays the same amount for the ticket that enables him to use an intricate and efficient railroad, he merely shrugs his shoulders and mutters that competition determines the one and monopoly the other. And so he refers to the larger institutions of his world much as we so often refer to "the law" allowing this or prohibiting that. It is our purpose to examine those basic economic institutions which so immediately surround us and condition our behavior, keeping in mind that they are but parts of the larger cultural pattern.

B. THE NATURE OF INSTITUTIONS

Institutions are the broad patterns of behavior which determine the relationship of an individual to his physical and social environment and which collectively constitute culture. The basic relationships in any society are those of man to his fellow humans, man to the physical environment, man to the culture (the functioning entity of the social process), and man to the unknown or cosmos. Institutions consist essentially of the accepted ways by

which the individual fits into and becomes a functioning part of his environment. Like culture itself, an institution is supra-individual, that is, it applies to groups rather than to individuals. Institutions are created by man but they owe neither their creation nor their existence to any one person. Once created they exist apart from the specific persons who manifest them in their behavior.

Most institutions are inherited from the past, modified by the present, and transmitted to the future. The rising generation becomes identified with numerous institutions as its members acquire the behavior patterns necessary to meaningful action. "Proper" or "right" ways are merely institutionalized ways. From a functional point of view, institutions are being constantly transmitted, created, modified, and discarded in the social process as man attempts to adjust his environment more nearly to his physical wants and his ideology.

Institutions are composed of simpler patterns of behavior called conventions, customs, or folkways. Any pattern of action clustering about the solution of a recurring social problem, such as the satisfaction of basic human wants for food, clothing, and shelter, constitutes a basic element in an actual or potential institution. A *folkway* is merely a pattern of behavior which characterizes those who follow it. Usually a recurring human problem or interest is surrounded by a system of established practices. These practices or folkways are generally not the invention or product of those who follow them but rather are learned from the older generation. Folkways grow and change with the problems, disturbances, or interests with which they are associated in everyday life. Once established, they become accepted in the same way as the group accepts the problems that brought them forth. As long as the situation calling them forth survives they continue as the usual, proper, or right way to deal with the situation. With the passage of time, however, they sometimes become arbitrary and imperative. The action may become entirely divorced

from the original situation and take on an imputed value by reason of being followed by those who, because of certain attributes, command the respect of others. For instance, when sidewalks were narrow and streets unpaved, the man, by walking on the curb side of a woman, protected her from the muddy splash of passing vehicles and from having to step into the gutter when passing another person. When sidewalks became wide and streets paved, the situation calling forth such actions disappeared, but the folkway continued as the proper pattern of street behavior. Men of wealth or high calling kept alive the practice and set an example for lesser aspirants to follow.

Certain folkways may come to be associated with what a people consider to be indispensable to their welfare. When moral value is imputed to folkways they become *mores*. The return of a neighbor's visit is a folkway, but the payment of monetary obligation belongs to the mores of our society. Neglect of the first, although discreditable to the individual, is not considered dangerous to society; the failure to live up to monetary promises is considered so vital to the prosperity of an interdependent, market-centered society that the defaulter is promptly and severely punished. Mores differ, therefore, from folkways not in nature but in degree. All mores are part of the folkways of a people, but not all folkways are of the order called mores.

Social laws are merely those folkways which, in addition to having the general support of the group as expressed in attitudes and public opinion, have the specific sanction of the group expressed in the mechanism of government. Sometimes laws are considered to be mere formal decrees, but unless they are widely accepted as social habits they have little meaning in terms of human behavior. Even a law as important in the hierarchy of legal dictum as a constitutional amendment cannot be enforced generally unless what it prescribes fits into or finds expression in the patterns of thought and action that characterize the social process of the group.

Group practices or folkways thus constitute the units or basic parts that are combined into complex behavior patterns called institutions. The institutions of enterprise, the price system, and consumption, for example, are made up of the folkways involved in the widely practiced pattern of selling one's efforts or material possessions for money and then using this as a claim upon the myriad products and services offered in the market. And as certain folkways and mores become embedded into complex and formalized patterns called institutions, and thereby become dissociated from the general masses of customs and conventions, they retain the attitudes and moral values attached to them at the simpler and less unified level. Institutions thus often derive their ideology or core of beliefs from those attitudes associated with the situation calling forth the original folkways.

C. ROLE OF INSTITUTIONS IN THE SOCIAL PROCESS

Institutions are primarily patterns of folkways, mores, and beliefs which find expression in the social habits of a group. But the elements of any given institution are not peculiar to it; all or part of them are found in numerous other institutions. The dynamic relationships of the basic elements are the distinguishing and definitive aspects of an institution. These relationships are the result of a core of beliefs around which any given institution is built. The ideology of an institution gives meaning and purpose to the acts of an individual. The father of a given family is an integral element of numerous institutions. He is at once a part of the family, the church, the club, the business organization, and the government. But he is also an element in the many less evident but more pervasive institutions, such as property, enterprise, the price system, the corporation, competition, and democracy, which condition his behavior in relation to other people and things. Their

supporting beliefs guide his conduct and enable others to understand and approve it.

He takes for granted that he may behave as he wishes within his home because it is "his" under the institutionalized concept of property rights. This same behavior pattern also conditions his use of the other material elements of his environment. Each morning he rides to work on a bus, not as an owner but only as a tenant subject to a fixed payment and the occupancy of only one seat. When he arrives at work his actions are conditioned by a whole hierarchy of institutions. He considers it his duty to accomplish certain tasks assigned him by his "boss" or by the conditions of the market. He measures the value of his fellow workers largely in terms of price. Moreover, if he is an employer and their wages exceed the money value of their product or service he calls them inefficient and may not hesitate to discharge them. He may, however, cling tenaciously to an obsolete and inefficient typewriter, because it is one his wife used when she came to work for him as a stenographer years ago. Here his action is controlled by his emotion which he feels free to express under the dictates of personal liberty, private property, or family ties.

His whole round of life is a series of patterns. His thinking itself is institutionalized. It has been patterned or channeled by long years of formal education in which he was taught to solve problems according to time-tested and, hence, institutionalized methods. Much of life is but an expression of learned responses. Occasionally he may criticize or depart from the accepted way, but such departure will always bring a social reaction from those affected. His unorthodox act will bring censure from those who accept the old way and approval from those advocating the new. He will merely shift his behavior from one pattern to another or from the sphere of one institution to that of an evolving one. In time the new method may come to be accepted by the majority of those dealing with such

problems. It will then be called the accepted or proper way, and the cluster of usages associated with it will constitute the new or modified institution.

Institutions are not isolated actions or even widely accepted ones dealing with a very limited sphere of social behavior. They are rather aggregates of habits which cluster around a large sector of man's daily life. Minor habits or those having to do with ways of dress or manners are more properly called customs. Institutions organize people in dealing with recurring problems of a civilized life. Human society would be impossible without the development of institutions to control the activities of people in everyday relationships.

The vitality or pervasiveness of an institution is dependent primarily upon its effectiveness in dealing with problems inherent in the present social order. Institutions arise in response to social needs which grow out of man's ever-expanding range of activities. They are essentially accepted ways of guiding the actions of individuals. When the need passes or new needs arise beyond its flexible limits, an institution tends to disintegrate or become functionless. Often those who enjoy advantages under its aegis will attempt to maintain it. Such attempts of small groups to retain personal advantages produce serious social pressures and result in the forceful destruction of virulent institutions when the majority rise in revolution to abolish their supposed oppressors.

Social pressures are most intense at the institutional level. The institutionalized right of owners to use productive equipment and employees as their personal economic interests dictate is likely to be met by labor organization which tries to match the effects of unsocial property rights with the equally unsocial might of united action. Such attempts to mitigate the unsocial effects of an established institution by the development of another vested right cannot solve the underlying problem of how to use the resources of owners (machines and materials) and the

energies of man for the benefit of society as a whole rather than special-interest groups. Institutions arise in response to social needs, but they may be retained beyond their socially useful life by a small but powerful minority whose economic interests depend upon the arrangements of a past era.

D. GROWTH AND DECAY

Institutions change only when the circumstances giving rise to them undergo marked changes. Many of the basic institutions surrounding such fundamental human relationships as those of man to man change very slowly in structure although they yield to considerable variation in the outward form of the component folkways and mores. The family is one such tenacious institution which during many hundreds of years has undergone innumerable changes in the supporting folkways but little in its basic structure and ideology. Other institutions undergo marked changes and even disintegrate completely in a few generations. The rate and scope of institutional change, either in the form of newly emerging or slowly decaying institutions or in the degree to which the component parts of an institution undergo change without radical effect on its organizing ideology or formal expression, depend to a considerable extent upon the relation of a given institution to the enveloping social fabric called culture.

Since any cultural pattern has more or less the character of an organic whole, any appreciable change in one part involves something of a change or readjustment at other points or throughout the whole cultural pattern. When a change in the underlying ways of life caused by a discovery or invention involves only a minor part of the whole scheme, the consequent derangement is not often great enough to immediately affect the interests of any well-organized and hence powerful groups in that society. Such changes usually work themselves out in the simpler folkways clustering about but not deeply embedded in

any basic institutions. However, when a change appears in the material basis of the social pattern, such as a new technology of production or a revolutionary alteration in the means of transport, the institutional structure feels the shock at numerous places and reacts with far different results. Such changes may be actively resisted by those whose place in the social or economic hierarchy depends upon the maintenance of the established pattern. Furthermore, supporters of the new may be restrained not only by those whose economic interests depend upon the old established way but also by others who have no interests to protect but merely aspire to the position of those who do. In the struggle the old institution and its supporting beliefs may be clothed with social values alien to its original purpose. If the resistance is well enough organized, the old pattern may withstand the pressure of changing circumstances for a considerable time. Under such conditions institutional change must await a reformation of the underlying beliefs. The inadequacy or irrelevancy of the prevailing folklore must become apparent to those whose real interests demand the new ways. "The evolution of society is substantially a process of mental adaptation on the part of individuals under the stress of circumstances which will no longer tolerate habits of thought formed under and conforming to a different set of circumstances in the past,"[1] says Veblen. Any advance in technology, in population, or in the organization of industry will require at least some members of a group to change their habits of life, and in so doing they will necessarily come into conflict with the established notions of what is right and proper or at least wise. Institutions must yield to changing circumstances since they are essentially an habitual method of responding to the stimuli which these changed circumstances produce.

The usages that grow up around an institution are often so intricate and affect the enveloping strands of the social fabric to such an extent that they come to constitute an

[1] VEBLEN, THORSTEIN, *Theory of the Leisure Class*, 1899, Macmillan, p. 192.

entity apart from the larger cultural pattern. While an institution is in the process of growth and development, those who find its services satisfactory to their way of life are scarcely conscious of its pattern or structure. Gradually it assumes the rigidity of formalized expression in laws, buildings, personnel, ceremonies, and procedures. Those persons essential to its operation acquire vested interests[1] in its structure. In a slowly changing society such formalism may have little effect upon an institution's capacity to deal with the basic problems that brought it into being. But in a period of crisis or in a society of great complexity and sensitivity, the institution may scarcely attain formality before the basis of its functions has passed. Sooner or later, in any case, an institution is challenged or begins to show evidences of the impact of new social forces. Then only do its beneficiaries and supporters become conscious of its structure and of the powers it confers upon them. They often trace back its origins and growth to give the institution the added social sanction of ancient usage. Order, simplicity, and purpose are given to a motley array of practices which served society best when man was not conscious of their structure. Such practices may even be endowed with values far removed from the circumstances that gave them birth. The tangled usages and functions are deftly separated from the larger social fabric in which they originally arose. For instance, the price system is traced to a beginning in the natural freedom of man and the tariff to a righteous protection against people of inferior social organization. As the crisis intensifies or as the pressure of new ways of a mechanical civilization bears down upon the men of one generation, they struggle to deal with it in old and established ways. "Men see with their ideals as well as with their eyes," says Walton H. Hamilton, "and try to crowd the novel life about them into

[1] A vested interest is a socially recognized status or right which depends upon a given social or economic organization. See Ch. 2 for a detailed discussion.

outmoded concepts."[1] When depression brings increased social unrest, men discuss the ills of business in terms of institutions that ill fit the new forces that promote disorder. As dictatorships arise in Europe, the economists of the old school predict their quick collapse in terms of a financial and social structure alien to a collectivist or totalitarian state. The flux of modern life creates problems faster than the institutions of a past era can be modified to deal with them. New institutions arise, and as they clash with old ones the troubled peoples of a region align themselves into hostile camps in support of either the old or the new. The institutions themselves come to be issues while the problems, which only organized action can solve, receive little attention. Thus social change becomes chaotic where it might have been orderly. Only to the extent that we can discern the structure and functions of our economic institutions can we judge their adequacy for the problems of a dynamic capitalistic society.

E. SOCIAL EFFECTS OF INSTITUTIONS

Institutions are essential to any civilized way of life, but they are not an unmixed blessing. As groups become larger and more intimately associated in industrialized urban life, institutions become so complex and interrelated that, as we have seen, they often appear to exist quite apart from the individuals they serve. Not infrequently individuals attain social status in terms of the institutions they support. When we come to view individuals as mere units in organizations and to judge their social value only in terms of the institutionalized functions they perform, we often come to think in terms of the impersonalized social process in which institutions are the guiding force.

[1] HAMILTON, WALTON H., "Institution," *Ency. of Social Sciences*, VIII, 88. The author is indebted to this able institutional economist for many of the ideas expressed in this section. No better treatment of the nature and functioning of modern economic institutions, especially as they are manifested in the conflict between legal and workaday concepts, can be found than in his writings.

The individual is sacrificed to an entity which we endow with a will and purpose quite apart from the human needs that called it into being. The institution of property or of business enterprise often assumes a place in our thinking distinct from the life and happiness of the individuals who live under its aegis. We come to speak of property rights as though the institution of property had rights apart from the people whom it protects in their possession of or control over things. Persons who point to social suffering caused by misapplications of property rights are told that these are essential to the maintenance of the institution, or are frowned upon as dangerous radicals who advocate a change in the framework of society.

Similarly, the institution of business enterprise often becomes the primary concern of manufacturers, bankers, and even political candidates. Business must be stimulated and kept in flourishing condition. New markets must be found, consolidations made for greater efficiency, new machines created for faster and more precise production, and new models of commonplace articles announced to quicken the purchasing zeal of the public. The lives of all must conform to the changing pattern of business rather than business to the needs and happiness of man. Soon the giant concerns and improved machines spew an endless series of tantalizing new gadgets upon an unresponsive market. Salesmen and finance companies combine their energies to break the jam in the rising pile of unsold goods by inducing people to buy what they do not need with purchasing power they do not have. A depression follows, but the tough fabric of the cultural pattern turns the minds of men into conventional channels of thought. A way out is sought in "stimulants" for a sick economic system. Others talk of the natural return to normalcy that time and the unrestricted operation of economic forces will bring. Meanwhile, the daily round of life of the whole group sinks into a morass of restricted living habits. The costs of maintaining the physical basis of group life through govern-

ment relief are viewed as dangerous threats to business enterprise and its supporting institutions. Such is the unhappy impasse of a society which mistakes its institutions for the real ends of life.

The abolition of institutions under such conditions would be as senseless as going without clothes because those one had fit poorly or uncomfortably. Furthermore, institutions could not be abolished if we willed it. They rest fundamentally in the habits of people. If by some modern magic all material aspects of institutions could be abolished overnight, new ones would emerge as soon as mankind awakened in the morning. The needs of individuals living together in a group can be met only by cooperative action, and such action demands that the individual control his behavior in terms of his relation to others and to group objectives. Even the isolated agrarian family composes an economic institution in the sense that economic needs and biological functions assign each member a pattern of behavior at once meaningful and helpful to the others. However, the institutions of capitalism must be examined critically to discover their adequacy and limitations in view of changing social needs. Only in times of crisis does the institutional structure become clearly apparent to those who live under it. The failure of established ways to produce desired ends lifts habitual action to the focus of attention and enables us to examine critically what ordinarily seems natural or proper. Most generations of man walk in paths which, as Professor Tawney has well said, "they neither make, nor discover, but accept; the main thing is that they should march."[1] However, in times of crisis it is not enough to travel the beaten path. It is necessary to know where it leads and, if it leads to an undesirable destination, to chart a new road or follow another less frequented one.

The search for the inadequacies of an institution or of the total institutional framework involves reflection. This is uncongenial to the bustling peoples of capitalism who

[1] TAWNEY, R. H., *The Acquisitive Society*, 1920, Harcourt Brace, p. 1.

take pride in calling themselves practical because they measure progress in distance traveled rather than goals attained. But the wise thing for a traveler to do who has lost his way is not to increase his speed along the road he is following but to direct his energies toward finding another that leads to his goal. He needs to study the map of the region to determine what roads lead in the direction of his goal. He must first ask, "Where am I going?" and then, "Which, if any, established route will take me there?" Only by a careful examination of institutions can our economic system function in terms of social needs. The history of our economic institutions must be examined to discover what forces brought them into being and what forces remodeled them into their existing forms. Their functions must be considered to find if they are capable of performing them. And finally their relation to our total social pattern must be studied to determine what effects an alteration in one institution will produce upon the larger social fabric. We must always study the forces producing change to find if they are ones of decay or healthy growth.

These will be the guiding patterns of the chapters which follow. Our economic institutions must be under the constant surveillance of thoughtful persons who realize that without them modern civilization would be impossible but that with blind obedience to existing forms our civilization might collapse in the chaos of neglected human needs.

F. SUMMARY VIEW

Before turning to the analysis of some basic economic institutions of modern capitalism, we might profitably restate the essential characteristics and functions of institutions.

An *institution* is a pattern of human activities associated with some socially recognized problem. It is fashioned in the dynamic present from the storehouse of the past, to guide us into the future. Its *structure* is woven into the

larger pattern of a society and cannot be shown in isolation from its enveloping culture. It is "an aspect of all it has met, a potential part of all that it will encounter."[1] Like a culture, an institution has a core of beliefs or ideas, a standard of practices or actions, and usually a material expression. It is essentially an integrated pattern of thought, behavior, and things. Its *origin* lies in the impact of new circumstances upon old and inadequate social usages. It is both created and destroyed by social change. The institutional structure of society grows like a tree; each branch grows and increases its range without direct reference to the other branches, but each is dependent upon the entire tree. Twigs may grow into major branches, die, and fall to the ground while the tree itself is attaining its full development.

The *functions* of institutions are multiple. They set a pattern of behavior or zone of tolerance for individual action. They organize people into purposeful groups and make possible the complex and varied activities of modern civilization. They develop norms of personal action in the cooperative solution of problems. Finally, they identify the individual in his relationships with other people, with material things, and with the cultural pattern. Civilization is a complex of institutions, the greatest accomplishment of man. Our institutions are the framework of our social process, the enduring arrangements of a generation but the forever-changing scene in the never-ending drama of social action.

[1] HAMILTON, *loc. cit.*

BIBLIOGRAPHY

ALLPORT, FLOYD H., "Our Institutional Habits," *Harper's Magazine*, January, 1931 (Vol. 162, No. 968), pp. 182–194.

A consideration of the impact of industrialism upon the institutional structure of society; critical analysis of institutions as psychological phenomena; suggestions for change.

ARNOLD, THURMAN W., *The Folklore of Capitalism*, 1937, Yale University Press.

Ch. 2. The Psychology of Social Institutions, pp. 21–45.

Analysis of the creeds, attitudes, habits, and traditions that underlie and permeate the institutional structure of modern capitalistic society. An excellent critical study of the forces which shape institutions and condition their sphere of social control.

Ch. 6. A Platform for an Observer of Government, pp. 136–164.

A study of the role of institutions in modern economic society; institutions as dynamic forces to be judged by results attained not ideals professed; failure of institutions as basis of social reforms; economics and law as the core of institutionalized beliefs.

BEARD, CHARLES A., "Individualism and Capitalism," *Ency. of Social Sciences*, I, 145–163.

A masterly survey of the origins, development, and principal expressions of the ideological core of capitalistic culture. Especially valuable as background for understanding the broad social forces which find expression in economic institutions.

BENEDICT, RUTH, *Patterns of Culture*, 1934, Houghton Mifflin.

Ch. 1. The Science of Custom, pp. 1–20.

Ch. 7. The Nature of Society, pp. 223–250.

Ch. 8. The Individual and Culture, pp. 252–278.

A scholarly analysis by an able anthropologist of the role of customs and institutions in the general cultural pattern and in shaping the behavior of individuals. Somewhat advanced. No bibliography.

COLE, G. D. H., "Industrialism," *Ency. of Social Sciences*, VIII, 18–26.

The effects of machine production upon economic institutions; an analysis of the institutional changes produced by machine technology and of the problems which lie beyond the scope of existing institutions.

DAVIE, MAURICE R., "Folkways," *Ency. of Social Sciences*, VI, 293–296.

The nature and function of folkways, mores, customs, and laws; their relation to institutions and their role in social change.

DEWEY, JOHN, *Human Nature and Conduct*, 1922, Holt.

Part I. Section 1. Habits as Social Functions, pp. 14–23.

The expression of institutions in habits of individuals; the social nature of morals as expressed in institutions. A philosophical viewpoint.

HACKER, LOUIS M., *American Problems of Today*, 1938, Crofts.

Ch. 6. Life, Letters, and Art in the Machine Age, pp. 146–173.

An analysis of religion, education, philanthropy, science, amusement,

and the fine arts as expressions of capitalistic culture. An interesting study of the interdependency of institutions.

HAMILTON, WALTON H., "Economic Organization," *Ency. of Social Sciences*, XI, 484–490.

A penetrating analysis of the effects of social change upon the institutional framework of industrial society and of the forces producing social change.

HAMILTON, WALTON H., "Institution," *Ency. of Social Sciences*, VIII, 84–89.

The best brief treatment of the nature and function of institutions and their role in the social process. Especially recommended.

HAMILTON, WALTON H., et al., *Price and Price Policies*, 1938, McGraw-Hill.

Ch. 1. The Affairs Called Industry, pp. 1–26.

The evolution of modern industry and its enveloping institutions; emergence of the patterns; development of its ideology; orientation of other behavior and thought patterns to it. The balance of book is devoted to an institutional analysis of seven major industries and a consideration of their place in a changing culture.

HEDGER, GEORGE A. (Ed.), *An Introduction to Western Civilization*, 1933, Doubleday, Doran.

Ch. 1. Man and Society, pp. 1–8.

A general treatment of the nature of social organization and of the role of institutions in social change.

HERSKOVITS, MELVILLE J., *The Economic Life of Primitive Peoples*, 1940, Knopf.

Ch. 2. Anthropology and Economics, pp. 24–43.

A scholarly and penetrating analysis of the two viewpoints; especially good in showing the necessity for studying any social activity in its full cultural setting; somewhat difficult for the beginning student.

HERTZLER, J. O., *Social Institutions*, 1920, McGraw-Hill.

A detailed and well-organized analysis of nature, types, structure, and development of social institutions.

KALLEN, HORACE M., "Functionalism," *Ency. of Social Sciences*, VI, 523–525.

Nature and significance of concept as applied in the social sciences.

KALLEN, HORACE M., "Innovation," *Ency. of Social Sciences*, VIII, 58–61.

A brief but scholarly analysis of the factors conditioning innovations in modern society and their effects upon social change.

KALLEN, HORACE M., "Morals," *Ency. of Social Sciences*, X, 643–649.

Nature and function of morals; relation to larger cultural pattern; property rights as expressions of; effects of technological change upon the moral structure of society. Excellent background material for institutions.

MALINOWSKI, BRONISLAW, "Culture," *Ency. of Social Sciences*, IV, 626–634 (only).

A general treatment of the cultural concept; culture as a pattern and a process; nature and conditions of social change; institutions as divi-

sions of culture. Highly recommended as a general background for understanding an institutional analysis of modern society.

McConnell, Donald W., et al., *Economic Behavior* ,1939, Houghton Mifflin.
Sec. II. The Institutional Setting, pp. 21–105.
A good elementary treatment of the psychological basis, evolution, forms, and social functioning of modern economic institutions. Especially good in showing the inadequacy of a theoretical approach to economics and the irrelevancy of its underlying assumptions to the conditions of modern industrialism.

Ogburn, William F., "Social Change," *Ency. of Social Sciences*, III, 330–334.
Evaluation of the factors affecting social change, especially in the institutional framework of society.

Parsons, Talcott, "Society," *Ency. of Social Sciences*, XIV, 225–232.
An able but rather difficult treatment of the evolution of the various theories concerning the relation of the individual to the group and the role played by underlying philosophical thought in the evolution of institutions and cultures. Valuable as background for understanding current theories of the state and other control institutions.

Peck, Harvey W., *Economic Thought; Its Institutional Backgrounds*, 1935, Farrar Rinehart.
Ch. 12. Institutional Economics, pp. 289–324.
A fair discussion of the institutional approach, some of its exponents, and comparison with other approaches.

Quinn, James A., "The Nature of Institutions," Ch. 16 in George A. Hedger (Ed.), *An Introduction to Western Civilization*, 1933, Doubleday, Doran, pp. 307–317.
An elementary treatment of the origins, distinguishing characteristics, forms, and functions of institutions.

Sombart, Werner, "Capitalism—The Concept," *Ency. of Social Sciences*, III, 195–201 (only).
Analysis of capitalism as a cultural concept; ideology, structure, and underlying technology of the system. An excellent background for understanding the enveloping framework of economic institutions.

Sumner, W. G., *Folkways*, 1906, Ginn.
One of the earliest and still one of the best treatments of folkways as functional units of culture.

Tawney, R. H. *The Acquisitive Society*, 1920, Harcourt Brace.
Ch. 1. Introductory, pp. 1–7.
The role of institutions and their organizing thought patterns in shaping and directing social change; by an eminent English philosopher.

Tylor, E. B., *Primitive Culture*, 1871, John Murray Co., London.
Chs. 1–4 (Nature, Development, and Survival of Culture), pp. 1–159.
One of the earliest discussions of the subject. Still worthy of careful study. The rest of this book (seven chapters) treats language, numbers, mythology, and animism.

VEBLEN, THORSTEIN, *The Theory of the Leisure Class*, 1899, Macmillan.
A penetrating economic study of the basic institutions of capitalism by one of the ablest critics of modern times.

WINSTON, SANFORD, *Culture and Human Behavior*, 1933, Ronald.
Ch. 8. Culture from the Functional Point of View, pp. 122–137.
The relation between the structure and functions of institutions and other parts of a culture. Bibliography on pp. 238–239.

WISSLER, CLARK, *Man and Culture*, 1923, Crowell.
A thoroughly scholarly work on the nature, function, and spread of culture. An excellent background for the study of institutions. Chapter 1, The Comparative Point of View (pp. 1–20), is especially recommended to the beginning student.

Part I · *The Institution of Property*

The institution of property constitutes the major framework of modern economic society. Certainly its strands are the strongest of all those in that intricate and multi-textured fabric called capitalism. Capitalism is perhaps best defined as a system of production and manipulation in which the instruments of production and physical resources are controlled by private persons for personal gain. Property rights are the agency by which the control of wealth and human energy by individuals or voluntarily associated groups becomes possible. In fact, every economic institution of industrialized society is but yarn in the giant fabric which has for its warp the strong threads of property rights.

Since property permeates nearly all human relationships from the child's discernment of "mine and thine" to the complex social pattern called government, it is often erroneously assumed that property rights are as "natural" to man as grasping or standing erect. The older an institution the more likely it is to be accepted as innate or inevitable. The institution of property has been a feature of all cultural patterns throughout the long period known as recorded history. With the possible exception of the family, it is perhaps the most venerable institution of society. No wonder that property has so often been accepted as a "natural" attribute of social organization. Only recently, as anthropologists have turned their attention to prehistoric cultures and to those living primitives who have escaped the influence of modern technology and its complex social forms, have social scientists come to question the soundness of reasoning which postulates this basic institution. Instead of accepting property as "natural" and "normal" anthropologists are coming to find that it is a product of man's attempt to solve problems, especially those concerned with bringing his material environment into closer conformity to his physical needs and his culturally conditioned wants.

Chapter 2

Origin and Development of Property

Far back in the dim recesses of prehistory, when the individual was but an insignificant member of the hunting pack, the products of his feeble efforts—the crude implements, the skins used as clothes, and the food gained in the hunt—were not property. Tools and weapons, if the practices of living primitives are at all indicative, belonged to individuals only in the sense that they were aids to that individual's efforts in gaining a livelihood for the group. A hunter used his spear, dart, or arrow only as a means to group survival. The products of the hunt were distributed on a basis of need since in the absence of an assured food supply any individual who attempted to acquire or retain more than his share brought the fury of deprived members upon him. Wealth, as the economist would call the meager material possessions of a hunting pack, belonged to the group in the same generic way as an individual belonged to the clan. Even when domesticated animals and plants greatly increased the wealth of the group, property rights in the institutionalized form did not appear. Herds, grain, houses, pottery, and woven fabrics merely increased the number of people who could survive in a given region but did not afford sufficient wealth to assure survival to the entire group. The family, totemic or biological, merely shared in the production and

use of wealth on a subsistence basis. To allow anyone more than his basic needs was to impair the slender reserves held for producing the herds and crops of the next season. The individual was still a mere item in a larger functional group. Property did not appear until a definite surplus over subsistence arose.

A. THE ECONOMIC SURPLUS

The economic surplus was the phenomenon that gave rise not only to property but to many of the most enduring elements of western culture. The conditions producing the economic surplus require some historical explanation. When a Neolithic village along the Danube or one of its tributaries grew too large for the resources of the region to support, small groups detached themselves and with their share of animals, seeds, and tools migrated to a new site. As a result Neolithic villages grew in number and spread westward to the Swiss lake-region and eastward toward Asia. All migrating groups, however, did not settle down in a new site and build a village. Some, it is believed, became pastoral nomads and drove their herds of domesticated animals from one grass area to another. Late in the Neolithic period other bands of nomads migrated into eastern Europe from Asia, bringing with them a new addition to the meager list of domesticated animals—the horse. These peoples apparently came upon the older Neolithic villages with their granaries, fattened herds, and the products of fixed abode such as pottery and fabrics. The products of many years and good harvests lay before them. A quick swoop and the moveable wealth of the village could enrich the life of the horse-riding nomads. Warfare is supposed to have thus arisen from the foraging and pillaging of Neolithic villages by nomadic groups. From this situation several essential elements of the property concept are believed to have evolved.

First, man developed a *dual morality* based upon the clash of self-sufficient groups. Morality is the code of

conduct considered to be essential to group welfare. Within the group, truth, honesty, and cooperation were conducive to group survival. If certain members lied or stole, the solidarity of the group was impaired. But with the clash of groups, morality took on a dual aspect. Acts that were immoral and dangerous when practiced by individuals within the group became moral and conducive to group welfare when practiced against individuals from other groups. To rob and kill one's kinsman was to violate the moral code of the group, but to rob and kill a person from another group was to enrich the perpetrator of the act and, if the booty were shared, others of the group to which he belonged. Morality, therefore, came to have one meaning within the group and another outside. Anthropologists refer to this as the emergence of an "in-group" and "out-group" concept of morality. This dual standard led to behavior which often increased the wealth of a group but which also made that wealth subject to attack by others. A new class emerged out of the necessity to protect the life and possessions of a self-sufficient group. Warfare made the soldier essential to physical safety and at the same time provided the group with a new agency for acquiring wealth. Whether this situation resulted in the recognition of distinct property rights is not known. Some authorities incline to the position that booty became the first subject of property rights for an individual. Probably such circumstances contributed to the rise of the concept, though the absence of a true economic surplus made such booty a precarious form of wealth. Until a group possessed wealth beyond that essential to its physical existence, it could be pillaged but not regularly exploited.

The first economic surplus was a result of the same forces that produced pillaging nomads. Some of the migrating groups from Neolithic villages came upon a combination of physiographic conditions which vastly increased their productive powers. In the rich valleys of the Tigris-Euphrates and the Nile, fertile soils and favorable climate enabled

the crop-producing techniques of man to produce yields far in excess of anything before experienced. Here the yield actually exceeded the requirements of the group for the physical essentials of life. After every member had received ample food, clothing, and shelter, and seed for the coming year had been stored, there remained a definite surplus. This was the economic surplus.

This economic surplus was not a true surplus, however. Rather it was unique in the sense that it consisted of more than the amount necessary to meet the basic needs of a group but less than that required to satisfy the wants of everyone. A need might be defined as something essential to the existence of an individual in a given society. Needs change as man's power to modify nature increases. Today the needs of a clerk in New York City are much greater in number and more complex in nature than those of a Montana farmer. Wants, however, consist of everything for which one feels a definite desire whether it is essential to existence or not. Wants, like needs, increase with advancing technology and the complexity of civilization. The broader one's experiences the larger and more difficult of satisfaction are his wants. Furthermore, wants are highly variable and constantly changing while needs are relatively fixed for a given person over a considerable period of time. Ordinarily the distinction is made by saying that man needs food, shelter, and clothing, but he wants all the luxuries of life. While no sharp dividing line can be drawn, needs ordinarily cover such goods and services as are necessary for the participation of a person in a given economic order. In prehistoric times needs were believed to be confined to the essentials of physical existence. With this distinction in mind we may better understand the economic surplus.

The economic surplus lies in a zone between absolute scarcity and true abundance. In the earliest stages of man's existence he lived in a condition of absolute scarcity. His ability to obtain food and clothing was so inefficient

that no one obtained a continuous satisfaction of basic needs. The gorging that followed a successful kill was succeeded by long periods of hunger and privation. But when domesticated animals and field crops appeared the population attained a status of continuous satisfaction of basic needs. Of course, wants grew much faster than man's output, so a true surplus did not appear. It is doubtful if even today with modern technology a true surplus in terms of even a single want has been attained. The significant thing to remember is that the economic surplus was a scarce surplus and not an economy of abundance. The problem of the distribution of this surplus gave rise to the need for group sanction of private property rights. Let us reduce the situation to a mathematical computation so that its significance can be more easily appreciated.

Suppose a Neolithic village consisted of 1,000 persons and that the total yearly physical needs of each person (including food, clothing, and shelter) consisted of two bushels of grain. Under the physiological conditions surrounding the village and with the best use of existing tools, the maximum efforts of the group produced a yearly yield of about eleven fold. Under such conditions a yearly yield of about 2,200 bushels would be required to maintain the group intact—2,000 for subsistence and 200 for seed. This seed is not a true surplus but merely the basis for next year's subsistence and seed. Even the setting aside of the excess over needs produced by a "bumper" crop would represent not a true surplus, but merely the thrifty use of the product under conditions of unpredictable variations in yield. If over a period of time the average actual yield was 2,200 bushels, then any temporary surpluses of good years would be used in meeting the counteracting deficits of lean years. Not until the average net yield regularly exceeded 2,000 bushels for a very considerable period of time would an economic surplus appear.

Let us suppose that the hypothetical group under consideration migrates into a rich river valley such as the Nile

where the combination of fertile soil and favorable climate so increases the productivity of the group's maximum exertions with the same tool equipment that the average yearly yield rises to sixteen fold. If the net yearly product of 3,200 bushels is an enduring condition, then a true economic surplus would exist. The 1,000 bushels would be in excess of the regular subsistence (including seed) requirements of the group but would not be adequate to satisfy all wants of the group. In fact, such a meager surplus would not even completely satisfy the desires of all members for food alone. The problem of how it could be distributed would be an economic one. Since primitive people living at the subsistence level almost always have collective possession of the essentials of life, it is believed that prehistoric peoples of the late Neolithic period in Europe had similar patterns. In our imagined group the prorata share of each member would be three bushels (after the required deduction for seed). Under conditions prevailing in the old village site each individual had received only the amount absolutely essential to his survival. No problem of distribution appeared. Anyone trying to improve his lot by getting more than his share was promptly repressed by the group under the simple moral code of group survival. But now in the Nile valley the 1,000 extra bushels represent a surplus which exists without depriving anyone of his essential share.

Suppose the past pattern of equal division made a similar disposition of the surplus most logical to all members. Now everyone would receive three bushels, or one beyond his physical requirements. If everyone used the additional bushel for food, the level of living would rise for all. Probably, after the lapse of time, three bushels would become the minimum for subsistence (now cultural rather than physical). But if one member used his extra bushel for seed and planted it upon land not used by others, very different results might ensue. At the end of the second year this member who had "saved" and "invested"

his surplus would receive a large increase in his income. In addition to the three bushels received from the collective effort of the group, he would get sixteen bushels from his own source. If the ideology of equal sharing prevailed, the possessor of the sixteen bushels would be forced to add it to the common product. Such dispossession would probably put an end to any use of the surplus other than in consumption. But human ingenuity would probably devise many productive uses for individuals' shares. One might use his extra bushel as wages for the "after work" services of a neighbor for aiding in the construction of a better house. Again the question of the use of the product would arise. Thus, sooner or later, the problem of control or use of products accruing from the possession of an economic surplus would give rise to an inequitable distribution of wealth and consequently to property rights in some form.

The hypothetical example of the economic surplus here used to explain the concept may easily lead one to believe that an economic surplus must be in some tangible form such as grain, tools, or buildings. The commonest form of the surplus is leisure, but the most conspicuous form is tangible property. As soon as a group can produce its subsistence in less than its full waketime an economic surplus does not immediately appear, however. The time necessary to produce material subsistence among any but the lowest forms of life is less than the total time not actually required for the rebuilding process called sleep. But in all human groups subsistence consists of more than food, clothing, and shelter. All men are confronted with problems not immediately concerned with animal needs. For instance, Paleolithic man devoted much of his energies to the rituals of mythology and magic. From a very early time the Shaman, who interpreted the will of the spirit world for his comrades, occupied a position that exempted him from many of the activities involved in food production (hunting and collecting). He received a share

of the food produced by the group for the services he performed in discovering the will or enlisting the aid of the spirits. This meant that those who hunted had to exert greater effort or do with less than would have been the case if they had had only themselves to feed. But the keep of the Shaman was just as necessary to hunting as weapons or time spent in tracking prey. By a single stroke the spirit world could create a drought which would drive animals from the region and render worthless the finest weapons or greatest skill. The keep of other individuals not immediately engaged in productive efforts was also a part of the material basis for group survival. The food given mothers and their infants represented such a deduction from that produced by the actual workers. When warfare arose, the keep of the warrior represented another deduction from the physical product of those who performed the tasks immediately connected with food gathering and preparation. These deductions did not represent a surplus, however. They represented "cost of survival." The services of such "specialists" as the mother, the Shaman, and finally the warrior were all considered to be vital to group survival. All were essential to cultural or patterned subsistence. Only products produced by time not essential to group survival were manifestations of a true economic surplus. The claim to any specific part of it represented the root of true property rights. Who were the first actual recipients of the economic surplus and upon what did they base their claims?

B. CLAIMANTS OF THE SURPLUS

Prehistoric artifacts suggest that the first successful claimant of the economic surplus was the Shaman or priest class. Probably they claimed it not for themselves but for the gods whom they represented and by whom it had been supposedly created. To us of the modern world the source of the earliest surplus was the conjuncture of favorable geographical conditions and a well-developed hoe tech-

nology. But to a Neolithic group of migrants who were familiar with the meager yields of their old homes, the bumper crops of the rich river valleys were easily interpreted as works of a pleased spirit world. Rain, sunshine, and soil fertility were the work of the gods. When the same effort and implements yielded larger crops, what could be more rational than to attribute the increase to the gods? With such an interpretation it is not surprising to find the temple as the first evidence of the economic surplus. At least much of the surplus must have been used by the priests in building material evidences of man's appreciation of the gods' cooperation. Such use did not give rise to true property rights, however. Perhaps in time the priest class, who controlled the temples, might have acquired socially recognized rights in their use for personal enjoyment had not another factor produced an even stronger claim on the surplus.

We have already described the rise of pillaging nomads and the organization of a warrior class for defense of the Neolithic village. With the rise of the true economic surplus, the raids of nomads assumed a new form and significance. Conquest replaced pillaging. With a surplus available the nomads could turn their attention from the exploitation of nature to the exploitation of men—from herds of cattle to herds of conquered subjects. The conquering warriors became the ruling class and collected tribute to the extent of the economic surplus produced by the group. As they became imbued with the ideology of the "in-group" they combined with the priests to form a well-entrenched ruling class. The priests protected the warriors against the wrath of the gods, and the warriors protected the priests from conquest by "out-groups." The priest and warrior classes sometimes merged so completely that the military leader became a god-king as was the case with the Pharaohs in Egypt. With the invention of writing the rulers constructed the earliest written laws as codes of personal and property rights. The earliest claim of the

ruling class to the economic surplus rested largely upon the fear and impotence of underlying populations. To become the basis for an institution a claim must rest on something more than this. Social sanction is necessary to an enduring institutional framework.

Once established as an exploiting class, the rulers sought to increase the amount of wealth they derived from the exploitation of the underlying population. To take all the economic surplus was to reduce subjects to subsistence. Such measures of exploitation could easily be carried beyond the actual subsistence level and could thereby destroy the wealth-producing lower classes. Furthermore, the practice of depriving conquered subjects of all they produced beyond that essential to existence not only reduced the efficiency of those engaged in production but also often led to actual revolt. The power of a conqueror depended upon his army, but the wealth of a ruler depended upon the efficient utilization of the human and natural resources of the region held. Exploitation of conquered subjects neither maximized the production of wealth nor secured the conquerors in its possession. Pillage had been a lucrative but short-lived means of increasing the wealth of a group. Conquest and exploitation of one group by another represented a longer lived method. Neither afforded an enduring solution to the quest of the ruling class for a steadily expanding stream of conscripted wealth. But a conjuncture of circumstances not only solved the problem but also laid the first socially secure cornerstone in the institution of property.

The close relation between effort and wealth when coupled with a dual concept of morality offered an enduring solution. To the victor belong the spoils—both human and innate. By capturing people outside the kingdom the warrior kings acquired the source of a much larger economic surplus. Slaves could create an economic surplus independent of the original "in-group" citizens. The ruling class had little difficulty in obtaining social sanction of this form

of property. The lower constituents of the ruling class (the priests and soldiers) gained wealth from the slaves allotted them. The ordinary citizens of the kingdom found their position elevated by the presence of an unfree class and their taxes lightened by the new and seemingly inexhaustible source of productive power (slaves). The native "in-group" became the middle class, with considerable freedom to devote their energies to the production of an economic surplus. The class structure of rulers, freemen, and slaves was erected upon the firm foundation of property rights as manifest in law and order within the confines of the Temple-town[1] civilizations.

C. HISTORICAL DEVELOPMENT

The emergence of property rights in the class-controlled culture of the Temple-town did not produce the institution of property as we know it today. But once the group accepted and sanctioned the idea that the individual should exercise exclusive control over specific items of his environment, the cornerstone of a new structure had been laid. Always the limits of control accorded an individual or group by the larger social entity were products of the cultural pattern of the age. Property rights grew, crystallized, and became meaningless vestiges as invention and diffusion injected new factors into the shimmering complex of persons, ideas, and artifacts called the social process. Always property consisted of a medley of duties, privileges, and mutualities. The control which the group permitted an individual to exercise over his environment became known as equities in things, persons, and social arrangements.

During the long span of history in which the Temple-town pattern of culture developed and spread over the

[1] Temple-town culture refers to the classical civilizations (Babylonia, Egypt, Assyria, Greece, and Rome) and derives its name from the fact that these civilizations were built around the temples as the center of their ideology and institutional framework. See Dixon and Eberhart, *Economics and Cultural Change* (1938, McGraw-Hill), for a description of its basic features.

Mediterranean area, property rights were steadily expanded and modified. The absolute right of the god-king to land, chattels, and slaves gradually but steadily changed until by the time of the Roman Empire control by the individual, from mighty Caesar to the humble freeman, was limited by law and restrained by the forces of custom.

In the Middle Ages the Roman pattern decayed under the impact of revolt and a new religious ideology. The collapse of a mighty and complex culture forced men of all classes nearer to the fundamental activities concerned with the production of tangible wealth, while the rise of Christianity produced an ideology of classless cooperation for salvation. The property rights of feudalism reflect the conflict between a workaday world of might and a world-to-come of right. In the continuous process of social action the ruthlessness of petty gangsters was curbed, the asceticism of the church became a working principle of social relations, custom became the basis for possession, and a new cultural pattern evolved. Property became a hierarchy of mutually responsible relationships. Land became a reward for service; a plot of ground without its attending services was unthinkable. The entire class structure became imbued with rights and obligations. The lord who held a manor and enjoyed the right to tax, judge, and use its inhabitants and resources was also a vassal to his overlord, to whom he owed services, fees, and pledges as a condition of his holding (tenure). The serf owed his lord a long list of services and a share of all he produced, but he had definite rights in the fields, the meadows, and the forests. The ideology of salvation tinctured property relations with the idea of temporary use in return for a service. The objective of all effort was not material wealth but heavenly salvation. Property became a means to that end. In the divine plan of society each had his place, his duties, and his goods. Man merely used what God had created.

But custom transformed the rights of possession into the privileges of ownership. When a person is protected in his possessions they become indistinguishable from property rights. Feudalism accustomed man to the idea of property in use and prepared the way for property rights defined by a central authority called government.

While the static ideology of feudalism was being demolished by the dynamic force called commerce, the institution of property became endowed with many of its elusive aspects. The market became the focus of the social process. Commerce and money brought man the products of far places and the means of commuting possessions into them. "To the market men brought, first their goods, then their services, and finally their estates."[1] Rights in possession became transferable equities; rights in an individual became consolidated in himself. In a great untanglement, personal rights were separated from property rights. Finally, as master or servant, investor or enterpriser, seller or buyer, a man was free to do as he willed with his person or his possessions. The new relationships required a force greater than the power of any person to defy. The new freedom of the market required a power to protect possession and to enforce obligation. The new force was "law and order" or the sanction of the group acting through its agency, government. Ownership became a matter of power to do; an interest in land or in things became wealth when it received legal definition and became transferable; a promise became potential performance under the compulsion of legal redress. Commercialism created governments; governments, acting through legislation and judicial review, transformed the custom of ownership into "specific rights, privileges, powers, and immunities vested in particular persons and validated in distinctive ways." The

[1] HAMILTON, W. H., "Property," *Ency. of Social Sciences*, XII, 534. This article affords the best brief treatments of the evolution of the institution, and the author has drawn heavily upon the ideas expressed there.

market became the new arena where men were free to manipulate their newly acquired interests in wealth, in men, and in the social pattern itself. No wonder individualism became the ideology of a society run by petty persons each exercising his alleged right to create his own interest, subject only to the guiding principle that his act deprive no other man of his apparent right to do likewise.

The Industrial Revolution not only produced a new cultural pattern—capitalism—but also vastly extended and modified the institution of property. The power-driven machine relentlessly displaced the craftsman and made capital the dominant element in economic organization. Petty businessmen gave way to large impersonal organizations employing thousands of workers. Ownership rights permeated all phases of the new productive pattern where natural power set the pace for labor and largely determined the rewards it received. As petty trade faded, an almost imperceptible gradation led from private firms to corporations and from personal services to vested interests. By the dawn of the present century the tempo of machine production and the size of industrial combinations had reached such proportions that property rights underwent rapid modifications and extensions. Large-scale capitalistic methods demanded new relationships of man to the impersonal forces of the market. The march of science, the development of trade, and the ingenuity of the courts all combined to enlarge the province and change the character of ownership. Marketable equities became recognized in the patterns of city life which gave one store an advantage over its competitors. Goodwill, trademarks and copyrights became the symbols of new type of delicate but valuable equities. As the corporation grew into an institution in its own right, legal distinctions of creditor and owner were confused, the realities which gave rise to equities were smothered beneath a hierarchy of legal claims, and even the courts had difficulty deciding what relation existed between one's pecuniary interests and his social

obligations. Finally, the holding company and investment trust gave individuals and predatory groups such powers over the productive life of society that even government became powerless to exercise its established prerogative of regulating property in the public interest. The interest of the individual became so interlocked in the system that his every act affected the conditions upon which the market values of property rights depended. Through wages, insurance, and taxes everyone became enmeshed in the threads of an institutional crazy-quilt which depended for its strength upon the perpetuation of the status quo. It is this which exists today and in terms of which we must study the nature and meaning of the institution called property.

Chapter 3

The Structure of Property

The modern institution of property is neither systematic nor logical. Like all institutions, it is at once static and dynamic. Many of its aspects such as constitutional guarantees and legal definitions are relatively fixed. But even here change can be observed in the way that the procession of lawyers and judges interpret the law in terms of a changing cultural pattern and context. Other aspects of this sprawling institution such as corporate equities, goodwill, and vested interests always have been and still are in a constant state of flux and change. As urban populations grow denser and the interstimulation becomes more intense, the elements of their culture, especially technology, become more varied and complex. Such changes affect the institutional framework in which they must necessarily live and have their being. The street car and the physical layout of city streets gave certain plots of ground a high value as store sites; the automobile and radiating highways are now transferring these values from the congested "downtown" to the suburbs where spacious buildings and ample parking space attract the shopper. The railroad brought new property into being; the highway and bus have largely destroyed it. The waterfalls along the fall line of the American eastern seaboard caused cities to be built and created manifold property

rights when the waterwheel was the chief source of power for factories. The steam engine moved the industrial city to the valleys where easily accessible coal seams and ample fresh water supplied the food for man's new slave. Property rights were extended to mineral deposits, and man's control of wealth was expressed in a new legal phraseology and practice. The institution was constantly enlarged and modified to cover the rapid march of technology.

Often the changes consisted of extending old concepts into new areas of activity. The landowner very early received protection against the trespasser, but the merchant only recently has received some degree of protection against the rival who invades his trade. The minority stockholders of a corporation could receive protection against the reorganization that injured their investment, but only recently has the concept been extended to the laborer who loses his vocation because machine technology has made his skill useless.

Similarly the institution consists of rights which are as broad as a freehold or as restricted as an easement, as intimate and personal as the ownership of clothes or as remote and impersonal as shares of stock in a holding company. But despite the apparent paradoxes of constitutional rigidity and practical flexibility and of broad application and hairline restrictions, the social basis of property has certain general aspects that give it form and meaning.

A. THE SOCIAL BASIS

No institution, however basic, can be isolated or studied apart from the fabric called society. The primary institutions of the culture called capitalism have their roots embedded in the pattern of arrangements and established relationships called property—the basis of modern economic society. In our current cultural fabric, most of the warp threads are property rights. These deftly woven threads are seldom seen unless some strain separates the

pattern-bearing threads of the weft. But some of the surface material itself is delicately woven with the drab and exceedingly strong yarn of property. To understand the structure and functions of modern property rights we must attempt the dangerous task of unraveling the larger social fabric, at least sufficiently to discern the form and function of these threads. Let us begin by examining the general context of the fabric and then proceed to see how the threads of property resist and transmit the strains of the dynamic and ever-present forces called social change.

1. Social Sanctions

Social sanctions are the reactions of a group to the behavior of its members. Sanctions depend upon the ideology of a group and find expression in approved modes of behavior. Custom and law are but formal expressions of that which the majority of people believe is conducive to their welfare. An institution depends in the last analysis upon social sanction.

The social sanction of property is founded upon the elementary human experience that the power of the group is greater than that of any member. In the absence of property rights, the possession of the economic surplus would be a mere matter of physical force. Even the individual or group which gained possession of wealth by such force would be constantly jeopardized by the appearance of a stronger rival or by the coalition of other individuals against him. While it is true that one of the earliest claims to the economic surplus did rest upon the might of a conquering group, the members of such a group controlled it internally by a system of social sanctions in the form of customs and laws. As against outsiders, might was the basis of an "in-group" control over the property of the region, but within the "in-group" a system of recognized claims prevailed.

Only when the individual is safeguarded in his possession of wealth by the willingness of at least the majority of the

group to restrain anyone who tries to dispossess him does physical possession become ownership. The sanction of property rights by the group resides in custom and law; the enforcement agency is the police force. The expression and administration of group sanctions constitute what is commonly meant by "law and order." Possession, of course, is not abolished by giving social sanction to property rights. Possession and ownership merely describe the conditions under which an individual or a group holds or controls property.

Possession is fundamentally a fact connoting the physical custody of some object by a person or a group. It may exist with or without ownership, with or without consent of the owner, and with or without legal rights. Possession without ownership is not necessarily without social sanction or legal approval. The appropriation of unclaimed objects is a form of possession without legal status. Usually such possession becomes ownership as against any other claimant. Historically, possession is important in this sense since it was usually accepted as the best evidence of ownership in the absence of established title. A title is merely a socially recognized statement of ownership which exists apart from the object itself.

Even illegal possession has often become a recognized ownership claim, especially after the lapse of time. "Squatters" were people who defied the government by taking possession of a plot of ground on the frontier before it was officially opened to settlement. When such action became common and had been established by the lapse of time, it was recognized as a legitimate basis for ownership. Such claims were even enforced against people who abided by the law and waited until the territory was thrown open for settlement. Such facts are excellent illustrations of how the law often conforms to established action rather than forcing individuals to conform to established dictum. Whenever the people concerned by a situation favor its maintenance and the majority of the total "in-group" are

indifferent, the action is likely to be protected by formal sanction.

Possession with consent of the owner is merely a transfer of all or part of the rights of the owner to another for a limited period of time. The terms and conditions of such possession are usually expressed legally in a lease which always has the primary element of time limitation. To transfer one's property rights without time limitation is to lose ownership. Possession then becomes ownership. Usually possession is restricted by lease. The owner exercises the same power to restrict use as the group exercises over him. When a house is rented, the tenant enjoys all the legal protection of an owner even to keeping the owner himself from trespassing on his own property. The tenant is subject to the owner only within the time and use limitations of the lease. Hence a legal possessor is entitled to all the agencies of "law and order" within the limits imposed by the owner. From an economic viewpoint, possession is important in connoting a use relationship.

Ownership is fundamentally a control relationship. Title is the device that enables one to extend his control far beyond his capacity to use. When ownership rests only on possession, as is the case with most personal property, it is limited very largely to one's ability to use. Such use is, of course, a broad concept. One's ownership of clothes is not restricted to those on his person, yet he does have to "use" all the clothes he owns to the extent of taking reasonable measures to protect them. But when title expresses social sanction for individual control of wealth, the range of control is vastly extended. When a person has formal written and recorded title to wealth he need make no effort to use or protect it. Society will forcefully exclude anyone who gains possession against his will. Time, of course, is a consideration. If a long period of time such as a generation elapses without the titleholder's making effort to gain or to control the possession of wealth, the established holder may be able to gain social sanction for his possession

and hence acquire ownership. The right of control over wealth conferred by title is, as we shall see, the basis for some of the most flagrant abuses and anti-social uses of property rights.

2. Exclusive Control

Exclusive control is the essential element of property rights conferred upon the owner by social sanction. Within the limits imposed by the group (the state), the individual is free to do as he pleases with his property. Usually the limits imposed upon property rights by the group are those considered essential to the fullest use and enjoyment of the object or right by its possessor. The cultural pattern sets the limits of tolerance for private use. In general the group limits individual control by physically restraining the owner or his agent from doing certain things with his property or by refusing to stop others from encroaching upon it. In the case of a city lot the owner is restricted by a vast array of codes regarding the use of the area. He must place the front wall of the building on a "building line," the structure must be smaller than á certain maximum in size and larger than a certain minimum in cost; he cannot mine coal from beneath the surface or keep chickens or cattle upon it; he must provide access to official appraisers who periodically determine the value of the land and buildings for tax purposes; and he must contribute regularly in taxes to the cost of protecting his possession, maintaining access to it (streets and highways), bringing water to and draining sewage from it, and providing regular inspection to see that all requirements imposed by the group are met.

The early legal concept of real property was free from this host of limitations. The sphere of control exercised by the owner of a lot 100 feet square was supposed to be pyramidal in shape. The apex touched the exact center of the earth, the four diverging sides extended through the four corners of the area on the earth's surface occupied

by the lot into the heavens where the vast inverted base rested in infinity. This is to say, the owner of real estate was given exclusive control over everything on the surface lying within the recognized boundaries, everything below that surface, and everything above it so far as these things lay within the power of man to use.

Such a concept of property was very logical but highly impractical. As technology advanced, property concepts were modified to conform to its products. Airlines could not exist if they were forced to fly along and exactly over existing highways. Highways themselves could not be built if an owner could prohibit a road from passing through his property. The control of the individual came from two directions. First, the power of the group became more clearly enunciated as the democratic state took form. The right of eminent domain and other powers gave the state prior right to any land for public (group) use. Secondly, the individual owner found his property values impaired by the uncontrolled behavior of his neighbors and asked for protection against certain uses of other plots. The steadily accelerating pace of technology aided these two forces by constantly making the logic of yesterday the absurdity of today. Technology, more than any other single factor, narrowed the freedom of the individual as it widened the power of the group.

Within the narrowing confines of private property rights the legally recognized owner has usually been given exclusive control. Such control not only enabled him to use his property in ways which he felt enhanced his personal satisfaction but also enabled him to exclude all others from its use. As Walton Hamilton has well said, "A system of property is an abridgement of the liberties of the persons excluded."[1] Such exclusive control is perhaps necessary to the wisest use of property rights by individuals, but it is not without its unsocial effects. If such exclusive control were limited only to property which the owner himself

[1] Hamilton, Walton H., "Property," *Ency. of Social Sciences*, XII, 535.

used the unsocial effect might bear an insignificant relation to the social satisfaction that the exclusion attained. But since one method of using property is permitting another to use it, the exclusive control may easily produce some definitely anti-social results.

One of the most discussed features of exclusive control is the right to alienate or dispose of one's property or one's interest (equity) in it. The right to dispose of property is considered to be a corollary of the right to acquire property. These rights have found almost universal sanction in countries where individualistic attitudes are strong (England and America). And since the right to dispose by gift during life is closely connected with the right to give at death, bequest is considered to be an inherent part of the exclusive control which property rights afford.[1] But the right of bequest, like the right of exclusive control during life, has undergone steady modification and restriction by the group.

Bequest is the right of an owner to control the use of his property after his demise. *Inheritance* refers to the rights conferred by the state upon certain individuals to share in the property rights of a deceased relative. From a social point of view the two can be most easily distinguished by saying that bequest is a matter of the individual's will, while inheritance is a matter of the group's will as expressed in laws. Contrary to popular belief, the two are not necessarily connected; each can exist without the other, and the institution of property could be maintained without either. Inheritance is socially more defensible although both are part of the institution of property in most civilized countries. Bequest if uncontrolled could easily result in the exclusion of all but a certain few of the future inhabitants from the control of the earth's land and resources. By present owners merely stipulating that their land and its

[1] MILL, JOHN STUART, *Principles of Political Economy* (Ashley. edition, 1929, Longmans), especially Book II, Ch. 2, has a good philosophical discussion of the social effects of bequest and inheritance.

resources shall hereafter be used only in certain ways by specified descendants and forbidding them to alienate it by gift or sale, the status quo could be maintained for generations.

An excellent example of the effects of permitting deceased persons to dictate the uses of property is afforded by some charitable institutions. More than a century ago a successful and wealthy ship owner who had observed the unhappy lot of many old sailors founded a home for them. It was built and endowed with ample funds to provide every comfort. Today the building is almost without inmates while aged seamen shuffle past its sturdy walls in search of food and shelter. The trustees are worried by the problem of spending the steadily mounting income upon the few inmates. They are aware of the needs of hundreds of old seafaring men who look longingly at the home whose doors are barred against them by the dead hand of a philanthropist who could not visualize the effects of technology upon the world he knew and loved. The trouble lies in the provision in his will which specifies that the comforts of the home are reserved for any man who is over sixty years of age and who has served ten years or more as an able-bodied sailor on a sailing ship. The assumption that the problems of his day were permanent thus led to the perversion of property rights. Technology abolished the sailing vessels. Social security for all aged people would also have negated the will of this philanthropist. Only the living can administer wealth in socially expedient ways. Of course, if bequest were used in such ways by a large number of owners its anti-social effects would become apparent so quickly that the group would probably take immediate action to restrict or abolish the right.

Even less apparent is the undemocratic effects of bequest. Since no one comes into the world by choice, and death is the fate of each irrespective of his physical, mental, or economic attainments, it seems reasonable that man's control of the earth should be strictly limited to his normal

sojourn on it. To permit one to dictate the future use of wealth is to reduce by that much the opportunity for the next generation. Except where the plan for one's dependents is disrupted by an untimely death, wealth should probably pass at death into the hands of a new generation on the basis of its ability to acquire it by socially desirable means. Inheritance laws can amply protect those who are too young or old to participate in the social process by their own abilities. That society is definitely moving in this direction is evidenced by the steadily increasing practice of levying inheritance taxes (which, of course, apply to property that is bequeathed) steeply graduated on the basis of the relationship of the heir and the size of the transmitted estate.

Often those who defend the right of bequest do so on the belief that its abolition would give the state such power as to undermine the institution of democratic government. They contend that if all property held by a person were to revert to the state at death, the state would soon own the bulk of wealth now in the hands of individuals and voluntary groups. Usually those who subscribe to this view point out that even if the state sold specific items of wealth to individuals such sales would be on the basis of gaining political control and power rather than the best use or highest return to the public treasury. Yet it is evident that the seizure of real estate by the state for non-payment of the basic support of the state (taxes) has not led to such results although this is very similar in practice. However, those who favor the restriction of the exercise of private property rights to the living do not advocate the outright escheat of property to the state. Rather they advocate the levy of a full-value inheritance tax upon those heirs designated by specific laws of inheritance. The easiest and most practical way the heirs could meet the obligation to the government would be by the sale of the property rights at market value or by the payment of the tax to gain legal title to the wealth. By this means

the rights would pass into the hands of living persons on the basis of their ability to use it in established ways. Under such conditions property rights would act as a stimulus to intelligent use. The administration of such a law would involve the establishment of a mechanism for arriving at the genuine social (market) values of property rights and would require years of experience and adjustment for smooth and satisfactory functioning. Such laws, it is claimed by their supporters, would not be a menace to but rather a safeguard of democracy.

3. Freedom of Contract

Freedom of contract or the right to bind oneself or one's property to certain conditions to be attained in the future is one of the social aspects of the fully developed institution of property. Contract constitutes a system of voluntary government for property rights. Social sanction is given to all agreements freely entered into by competent and supposedly equal persons. Contract is the agency by means of which social sanction is given to the multiplicity of possible relationships between man and man in the use of wealth. It is one of the most complex behavior patterns found in our highly specialized, interdependent, industrialized society. Law and government are related to the average man in the pursuit of a livelihood primarily through the medium of contract and its enforcement. From a legal viewpoint contract is the corollary of title. Even where it involves only the binding of oneself to the performance of a service it is essentially concerned with the title to the energy which the act demands. Freedom to bind oneself to the performance of a task implies that one has undisputed title to the physical and mental powers of his person. In fact, economic freedom is essentially the power to make contracts. Slaves and serfs did not possess such power. Freedom of contract thus gives flexibility to the control that society accords the individual over property rights and persons.

B. RELATIONSHIPS INVOLVED

As an institution, property is fundamentally a matter of the relationship of man to his environment. This relationship takes three principal forms: that of man to material wealth, to other men, and to the cultural pattern.

1. Man to Material Wealth

Perhaps the commonest property relationship today is that of individuals to material things or artifacts. An individual is permitted to use land and man-made wealth in any way he sees fit so long as the use is given group sanction. Sanction finds expression in laws of property and contract and consists of much negative freedom and a few definite restrictions. Ordinarily the group will support and protect the individual in any use of material wealth that does not obviously interfere with the normal and intelligent use of similar things by other persons. Action that does thus interfere is condemned by the group. If a person who owned a very old and dilapidated house in a densely populated part of a large city desired to replace it with a modern one and decided that burning the building was the quickest and cheapest method of disposal, he would find that the group through its agents, the fire department and courts, would not only promptly suppress his efforts but would also punish him with a jail sentence.

On what grounds can society keep an individual from disposing of his property in the most economic manner? The destruction of a worthless house by fire is in itself no different than the destruction of rubbish by the same means, yet the first is prohibited and punished while the second is permitted and condoned. The destruction of a worthless article by fire is clearly within the rights given property owners by group sanction. But when such destruction interferes with the proper use of similar goods by other persons it becomes anti-social and fails to receive group sanction. It may even be prohibited by law. To permit the

burning of a house in a congested city would give its owner a slight individual gain at a great potential or actual social cost. Exclusive control of material wealth by private persons is sanctioned by society on the theory that it increases the total utility of material wealth and thereby enhances the social welfare. Therefore, the freedom accorded an individual in the use of his property is and must be restricted to those acts that increase its utility without decreasing or even threatening to decrease the utility of similar wealth to others. All human rights depend upon group sanction, and such sanction must involve limits and restrictions upon each individual in order to afford all individuals the maximum personal freedom of action.

2. Man to Man

Although the relation between man and material wealth is the most obvious and most common one, the institution of property involves two other relationships. That of man to man is perhaps the second oldest in its origin. From Temple-town cultures onward the fact that material wealth could be increased by mixing the efforts of artisans and craftsmen with the materials of nature led the controlling groups to claim property rights in humans as slaves. From then until the invention of the power-driven machine, slavery was a dominant form of property. With the rise of capitalistic methods of production slavery declined, largely because the controlling classes found that the ownership of the instruments of production (engines, machines, materials, and land) enabled them to control labor energy effectively without the heavy maintenance costs that accompanied the ownership of human beings.

As technology advances it is becoming increasingly apparent that the much-lauded rights of man, such as life, liberty, and happiness, are empty phrases unless the owners of property grant men the means of utilizing them in everyday life. The great numbers of propertyless factory

workers in any advanced industrial culture are dependent upon wages for a livelihood. The right to life itself depends upon the willingness of material property owners to hire men to operate their plants. A propertyless worker must "get a job" in order to secure wages with which to buy the necessities of life. He must literally go to a property owner to seek permission to work. If business is not profitable and plants are closed down he may fail to secure this necessary permission, whereupon three undesirable alternatives stare him in the face. He must either starve, resort to illegal acts such as theft and robbery, or become a public charge. In former days slaveowners had an investment in their laborers. They were loath to see the slaves undernourished or exposed to illness because this reduced the slaves' value and jeopardized the owners' investment. Owners were also obligated to provide food, clothing, and shelter for their slaves even in periods of little work. But those who hire free laborers today have no investment in their workers and feel no definite obligation to provide the wages which mean food, clothing, and shelter unless their properties will yield a profit in the process.

Today the property right involving the relation of one man to another is *contract.* Although frequently used to control material wealth, contract always involves a direct man-to-man relationship. Under democratic government contract receives group sanction and becomes a property right only when it is freely entered into by all parties. This basic requirement of freedom from coercion seems in practice to mean freedom from coercion by persons. Coercion resulting from an impersonal situation or from an economic circumstance is not usually recognized by society. The primary assumption is that all men are born free and equal and that in the absence of coercion each will act to promote his own best interests. The unemployed head of a family living in a small, isolated town with only one factory may be forced by destitution to accept the sweatshop conditions and starvation wages offered. But

society does not ordinarily consider this a form of coercion. The fact that his only real choice is between prolonging existence under demoralizing conditions or starving outright may have sociological and humanitarian implications, but as yet it carries no legal (social) recognition. In the absence of physical violence, or threat of violence, one's expressed willingness to bind himself to the fulfillment of a task under the direction of another receives the same group sanction and the same legal protection as any other property right.

All contracts involve two or more persons. Both parties must agree before either can gain the power of society to enforce his control over the other person or his material wealth. Contract is perhaps best characterized by the time element involved. "Time is the essence of a contract" is a phrase almost invariably associated with the concept. All contracts are limited, and most of them involve the control of persons and material wealth only until some objective has been accomplished or until the parties exercise their expressed rights to withdraw.

Two of the most common and yet different types of contracts are wages and leases. The vast majority of income receivers now obtain their livelihood under the wage contract. The employer agrees to pay a sum of money for the expenditure of another's efforts during a certain period of time or for the accomplishment of a given task. The employee agrees to apply his energy and skill under the direction of his employer for a given sum of money. Both are bound; each must fulfill his part to obtain the benefits agreed upon. But, more important, each can force the other to complete his obligation or suffer a penalty imposed not by the individual but by the power of society acting through its appointed dispensers of justice. A lease is merely the transfer of all or part of one's property rights in material wealth to another for a limited time and for a consideration. As already stated, during the life of the lease and within the limits specified

the holder enjoys the social sanction of an owner even to the exclusion of the titleholder himself.

Many other forms of property rights grow out of the relation of man to man. *Patents* and *copyrights* are two excellent examples. A patent is merely a limited property right in an idea called an invention. A copyright is similar but applies only to thought patterns expressed in words or symbols. The owner enjoys exclusive control for a specified period,[1] after which the idea or pattern becomes the common property of society.

Patents afford an excellent illustration of the way in which property rights created by society for social betterment can often be used in anti-social ways. The fundamental idea underlying a patent is to encourage individuals to solve technical and social problems by giving them the exclusive power to exploit the value of their solutions for a reasonable period of time. Giving the inventor a property right in his idea supposedly enables him to make others pay him, in the form of a royalty, a part of the gain they receive from the use of his idea. Of course, patent holders, like other property owners, have the power to exclude others from the use of their property and possess the usual right to transfer title to another. Certainly, under early industrial conditions, patents did encourage individuals and groups to seek the rich rewards of serving society. The competition of many individuals in a gain-motivated, market-centered society tended to assure this result.

With the rise of corporations and large capital investments the situation changed. Today many patents are purchased and suppressed by interests whose investments are jeopardized by new ideas. Of course, it is difficult to prove that such practices persist, but the failure of certain companies to employ the patents purchased at high prices gives considerable weight to such a contention. For instance, the major oil companies have many millions of

[1] In the United States, a patent covers a term of seventeen years. A copyright runs twenty-eight years and is renewable.

dollars invested in wells, pipe lines, refineries, tank cars, and gas stations. The invention of a process whereby motor fuel could be made at low cost from weeds or some other plentiful material would certainly imperil the present gasoline industry. A modest contribution from each existing company to the central trade association would probably produce a sum larger than could be raised by a new company interested in putting the new process to use. The inventor could sell out to the established companies at a huge price and be free from the worries always associated with the launching of a new business or industry. The oil companies could thus "protect" their investments at a very low cost. Only society would suffer.

Numerous plans have been proposed to remedy this evil. One of the simplest solutions calls for a revision of the patent laws so that a patent would become void, that is, become public property, if it were not placed on the market in some practical form within a reasonable time after it was granted. A reasonable time would depend upon the nature of the invention and the technical difficulties attending its application. However, even the most complex inventions could be offered in a practical form within a few years. With this provision, suppressing patents would be very difficult and society would not be the victim of vested interests.

3. Man to the Cultural Pattern

The most subtle relationship involved in property is that of man to the cultural pattern. The value of a few extremely important property rights depends upon a given economic and social organization. The most common type is the *vested interest* which, in its simplest form, is merely a property right that depends for its economic value upon the status quo. Such interests are likely to suffer a decrease in monetary value as a result of social change. For instance, railroad presidents have a vested interest in the private ownership of railroads. An able and efficient

president of a large railroad system receives a salary of $100,000 a year. If the government were to take over the railroads and operate them as a single system, it is almost certain that this railroad president and many others, equally efficient, would lose their positions. Such loss would not be the result of inability or unwillingness on the part of this or any other president to function in the capacity for which he was trained. Social justice in a changing society demands that vested interests should be compensated. Railroad presidents should be pensioned or reimbursed, in part at least, for the loss of positions or income through deliberate social change. Likewise, property owners of distilleries and breweries should have their vested interests compensated when society suddenly changes their business from a legitimate into an illegal one. Of course, this principle applies to the most lowly worker and petty property holder as well as to the high and mighty. Workers dispossessed of their jobs by technological changes made in the interests of efficient production should receive the same type of compensation as railroad presidents or owners of distilleries.

Another common form of property right growing out of the relation of man to a given economic pattern is *goodwill.* A going concern, that is, a well-established business, almost invariably has a market value in excess of the sum of its physical assets. For instance, one could arrive at the value of a great department store such as R. H. Macy and Company in New York City by appraising the land, buildings, equipment, merchandise, and all other tangible forms of wealth owned by the company. But the market value of Macy's would be many millions in excess of any figure so determined. Why would anyone pay more than the cost of duplicating this famous store? Remember one could build and equip an identical store down to the smallest detail for the reproduction cost. But Macy's would have a market value greater than that of a new store of identical size manned by an equally efficient staff. The

new store could not sell as large a dollar volume of goods as Macy's. Why? Because Macy's, both as a physical unit and as a concept, occupies a place in the daily habits and attitudes of millions of people which no duplicate store under another name could possibly occupy. That intangible something in the minds and habits of the people of New York and its environs is called "goodwill" and is worth a vast sum of money. It has a value just as truly as does the substantial building which the store occupies. Its value depends upon a given social pattern. If Macy's became a mere branch of some gigantic national concern, if the shopping district moved away from Herald Square, or if any one or more of a thousand changes took place in the economic pattern of New York life, the value of Macy's "goodwill" would change.

C. SUPPORTING THEORIES

Ever since the first recognition of individual property rights by the group, theories have been offered to explain and justify the institution. In classical civilizations these probably were concerned with justifying the ruling classes in their exploitive position. The folklore doubtless contained ample explanations of how the god-king received his power and why he was justified in promulgating the codes or decrees regulating the use of wealth by tnose under his rule. In a sense, the chief element of the written tradition, which constitutes recorded history, centers around the ideology of the control classes. In the Middle Ages the Christian pattern of the world made property rights easy to explain and to justify. God created and hence rightly owned the earth. To man he entrusted its use. Acting through the hierarchy of the clergy, the land and its resources were apportioned among men in return for service to God and to their fellow men. Wealth was not owned but merely held (tenure). Of course, the holding amounted in practice to ownership; the underlying ideology rather than the material fact of man's control of wealth

was changed. Not until trade began to undermine the static world of feudalism did property rights become a subject for study and apology. As kings began to extend their sway over large groups and governments arose to dispute the universal reign of the Church, the merchant and craftsman began to extend property concepts into the give-and-take process called the market. Property rights, as we have seen, flowered in new forms and with astonishing universality. Then arose non-religious explanations of man's control of his environment. Science and technology turned men's attention from salvation to collectively increasing and individually acquiring the world's wealth. "A society-on-the-make found it easy to construct, not one, but a number of arguments in property's defense."[1] Today five have great currency.

The *occupation* theory is one of the justifications of the institution that found acceptance and amplification when rising national states were extending their power over newly discovered areas of the earth. This doctrine that property belongs to him who first seizes it is one that can apply, if at all, only to the occupation of uninhabited and unclaimed parts of the earth. Even today society awards wealth to the possessor if no previous owner can be found. Of course, the occupancy of unclaimed areas does not create property as an institution. Not until the area is held to the exclusion of another group is it true property. When occupation means conquest it becomes an explanation and not a defense or justification. This theory may explain how legal title to certain forms of wealth originated but, except in those rare cases of unappropriated wealth, it cannot justify property rights of a group or of an individual.

The *natural rights* theory attempted to justify property as a natural right of man. It was a product of the early modern school of natural philosophers who believed that everything which exists naturally is right and must prevail. We have already criticized the inadequacy of this

[1] HAMILTON, WALTON H., "Property," *Ency. of Social Sciences*, XII, 535.

idea. We need only add the comment that culture is created by man and not by nature and that property is one of the major institutions of man's work. This theory is a confusion of "natural" with "existing" and is in no sense a justification of property.

The *labor* theory arose from the obvious fact that wealth, the chief object of property rights, is increased by human effort. Slavery was the institution that gave owners of humans the claim to their product. The theory first gained prominence in an age when slavery was being openly challenged by the philosophers. John Locke was perhaps the first to defend property by proclaiming that whatsoever a person had "mixed his labor with becomes rightfully the property of that person." Other able formulators of the social sciences were quick to subscribe to the doctrine that the real title to private property is derived from the toil and sacrifice made in its creation. Adam Smith, the recognized father of that branch of social science dealing directly with the production, exchange, and distribution of wealth, affirmed that "the property which every man has in his own labor [was] . . . the original foundation of all other property."[1] But soon this theory was challenged by men like Henry George, who called attention to the fact that man did not produce land nor the resources of nature. As a result many thinkers came to feel that this theory could not justify property rights in land or resources although it might justify individual rights to wealth resulting from effort.

The *social welfare* theory more nearly than any of its predecessors justified property rights in their most useful forms. By this theory property rights are the result of society's attempt to increase the welfare of the greatest number of its members. By giving social sanction to private persons to use wealth within the broad limits imposed by government, property is supposed to maximize wealth and human welfare. Such a theory is a good justification

[1] SMITH, ADAM, *Wealth of Nations*, Vol. 1, Book I, Ch. X, Part II, Par. 12.

of the institution of property not as it does exist but rather as it should exist. Even then the theory rests upon the questionable assumption that the welfare of a group is proportional to the wealth produced by individuals. That there is a direct connection no thinking person can deny, but as property rights have increased and the wealth of the group has grown to unprecedented proportions, the number of people who have been relatively and positively pushed into the propertyless class has increased with alarming rapidity. Wealth is essential to the betterment of mankind, but its distribution rather than its volume is the more important consideration in determining welfare of individuals and of the group.

The theory of *social expediency* is the only one that can justify the institution of property as it now exists. This theory defends property rights on the ground that they are the best device that society has yet been able to develop as a means for relating the individual to wealth so as to increase its variety and amount. Of course, any institution should be judged not on the basis of a theory, however reasonable, logical, or expedient, but rather on the basis of the social results produced by its operation.

D. TYPES OF PROPERTY

Until the advent of capitalism, property rights dealt primarily with land, animals, slaves, and the products of man's efforts. With the rise of commerce, property rights were extended to a host of market values represented by contract obligations and conditional equities in goods as well as by commodities themselves. Under modern industrialism, the concept of property has been extended to include practically every type of relationship that the human mind can conceive. Although still primarily concerned with the use of those material things sought by man in his pursuit of happiness, the institution now embraces an elaborate hierarchy of ethereal values centering in the price system and the market. The chief determiner of the

powers conferred by the institution is not so much law as price. Its structure is not the product of government but rather of that largely unplanned and impersonal force called the market.

Most significant from the standpoint of social consequences has been the growth of property rights without attending social functions. A classification of the innumerable types of property now existing in our complex interdependent society is a Herculean task not essential to our purpose. But we must clearly distinguish the larger divisions of the institution if we are to understand its functions and limitations.

The clear discernment of broad general types of property is also essential to an evaluation of the institution. Undiscriminating critics often advocate its complete destruction because certain specific types produce such obviously anti-social effects. Likewise, those who ardently defend the institution often do so by the subterfuge of making us believe that those intimate types of property so essential to our personal lives are inseparable from the other kinds which give the defenders of property such economic advantage, or on the honest but mistaken claim that the institution's evils are the price society must pay for its virtues.[1]

1. Unit of Control

Fundamentally, property is the socially recognized and maintained right to control wealth. This control may consist of the active use and enjoyment of physical things, the delegation of all or part of the control to another, or the mere exclusion of all others from the use or enjoyment of scarce things. A basic classification of property rights can be made according to the unit exercising the control.

Individual property rights are those exercised by an

[1] Chase, Stuart, *The Economy of Abundance*, 1934, Macmillan, Ch. 11 (Essay on Property), especially pp. 175–178, discusses the fundamental differences among some basic forms of property rights.

individual. The term "private property," although clearly applicable to such rights, does not distinguish them, for this term merely expresses a fundamental feature of all forms of property rights, namely, exclusive control. All property is private property with respect to those excluded from its use. The house is the private property of the owner in the sense that he may exclude all others according to his personal will. The buildings of a corporation are private property in the sense that its custodians (who supposedly represent the will of the majority of the holders of ownership interests) may exclude anyone, even the workers, as they see fit. Even the land held by the state is private property in the sense that the group composing its citizenry may exclude all others from its use. Private property, therefore, is not a type of property but a feature. Individual property consists of all forms of wealth over which an individual exercises the right of exclusive control.

Group property includes all forms where the right of exclusive control is exercised by more than one person. Such forms range from the simple joint ownership exercised by husband and wife to the extremely complex hierarchy of interests exercised by the holders of corporate securities. An outstanding feature of the institution since the advent of industrialism has been the steady shift of property rights from the control by individuals to control by groups.

One form of group property requires special consideration. *Public* property consists of rights exercised by a group living in a given region and expressed through political representatives. Such property can exist only where the government is created by and amenable to the will of its citizens. Public property cannot exist in a region where the government is the prerogative of a hereditary king or small group. Under such circumstances property used by the citizens is the individual property of the ruler, who suffers his subjects to use it. Today the loose talk about government's being a competitor of private enterprise is a heritage of the time when the king's domain and king's charter were

individual property rights. Under dictatorship the practical situation may approximate these outmoded forms of property rights. Public property, then, is a form peculiar to a democratic government. The term is sometimes erroneously used as an antonym of private. Public property is merely wealth in which exclusive control is exercised by a group rather than by an individual. It is private as against outside or foreign individuals and groups. Within the group all individuals have equal rights of use. The highways or parks can be used by individuals only within prescribed limits. No individual can determine the limits or exclude another from use.

Corporate property is a hybrid type produced chiefly by the impact of industrial technology upon the social framework of individual property rights. The control of wealth under its aegis is subject to a complex hierarchy of impersonal interests rigidly defined by law but constantly modified by the forces of the market. To the extent that corporate property is divided into shares widely held by individuals, it resembles public property. Its chief supporters usually point to such specific situations and then generalize that a corporation is a form of financial and industrial democracy. But to the extent that the majority of its units of ownership control are held by one person, it resembles individual property. However, it lacks the clear-cut social value of individual property rights, for these segregate the wealth of one individual from that of another while corporate control permits the individual to control the wealth of other individuals without any responsibility to them or to the group. Often the physical wealth of a corporation, consisting of its lands, its buildings, its equipment, and its stock of goods, is supplied by bondholders who have no right to control the use of their wealth. The worst offenses against the institution of property lie within the sphere of corporate forms. And here too has occurred the most flagrant divorce of personal rights from social responsibilities. In fact, the corporation has so com-

pletely modified the concept of property within its sphere as to constitute a separate and distinct institution. "The corporation has, in fact, become both a method of property tenure and a means of organizing economic life . . . and has attained a degree of prominence entitling it to be dealt with as a major social institution."[1]

2. Legal Forms

From a legal standpoint the term "property" is applied to things as well as to rights. This dual application of the term has led to the often-expressed belief that property rights are opposed to human rights. When used in the sense of "things," property has no rights. All rights pertaining to property are human rights; things cannot have rights.

Legally property can be divided into two broad categories. *Real* property consists chiefly of land and the material objects imbedded therein or permanently erected thereon or attached thereto. Title rather than possession is the basis for vesting the control of real property in persons or groups. Since ordinarily such property cannot be moved, the title rather than the physical object is transferred. Such transfer requires written evidence witnessed by a disinterested party and usually recorded in some public place where anyone can determine the extent or degree of control vested in the owner. In addition, control of real property by owners rests upon government and is usually restricted by it. The title of the owner is always subject to the prior claim of the state as evidenced by its power to tax or to take all or part for public use under the right of eminent domain. The owner is also restricted in his use and disposal of such property. Use is restricted by the general common-law concept of normal and reasonable and by the specific laws governing mining, building, and surface uses. In general, the more people affected by

[1] Berle, A. A. Jr., and G. C. Means, *The Modern Corporation and Private Property*, 1932, Macmillan, p. 1.

the use of specific items of real property the greater and more minute are the regulations concerning its use by the owner. Likewise, the right of the owner to dispose of his property is limited during life by the laws governing contracts and gifts and after his death by laws of inheritance and taxes. The medieval basis of real property rights is clearly shown by the fact that when an owner dies without heirs or will, his property "escheats" to his overlord, the state. In fact, the ownership of real property is merely a modern form of medieval tenure. The owner holds such property under the terms imposed by an impersonal overlord, the state. Of course, as already explained, when the state is the creation of the group, as is true in democratic countries, ownership is by consent and support of an entity which is, theoretically at least, amenable to the will of the owner. Furthermore, the "due process" clauses of the Constitution (Article 14, Section 1, and the Fifth Amendment) remove the confiscation of private property of citizens from the caprice of individuals. Whenever the duly delegated authorities condemn property for public use under the right of eminent domain, the owner must be compensated, and when property is confiscated as a penalty for illegal (unsocial) use, the owner must first have been found guilty by due process of law.

Personal property consists of the tangible forms of wealth that are not permanently affixed to land or to the structures thereon and of the numerous forms of legal rights to or interests in material wealth and social arrangements. In general, such property consists of two broad types. *Tangible* personal property consists chiefly of movable objects such as furniture, utensils, clothing, office equipment, merchandise in stores or warehouses, automobiles, farm machinery, animals, and objects that are not an inherent part of a structure permanently affixed to land. Possession rather than title is usually the basis for ownership. The transfer of such property is physical rather than a matter of record. Of course, no sharp line divides those forms of wealth

where ownership rests upon written evidence from those depending upon physical possession. Usually the more intimate types, those used in the ordinary process of subsisting, are so quickly consumed or bear such evidence of their holder's personality as to require no elaborate technique for determining ownership. Others such as automobiles often require a recorded title and an elaborate system of rules regarding sale or transfer. Ownership of personal property, however established, tends to be absolute rather than conditional. The owner may use his personal property almost without restriction except where other types of property are involved.

Intangible personal property consists of the legally recognized rights to control evidences of interests or equities in wealth, such as bonds, stocks, mortgages and leases, and the evidences of interests in a given cultural or institutional pattern, such as copyrights, patents, licenses, options, and bank accounts. The chief characteristic of such property rights is that they depend upon the joint forces of government and business. In general, they are the products of the capitalistic effort to give legal recognition to anything that will command a price in the market. Perhaps the supreme example is a vested interest such as goodwill, already discussed. The material evidences of such property rights, the actual bonds, mortgages, or shares of stock, are not wealth but merely the legal forms which express the degree of control the holder may exercise over physical things and social relationships.

3. Social Forms

Property rights under industrialism can be classified most significantly upon the basis of the functions their holders render to society. Since property is a socially recognized and maintained control of wealth it seems only logical that society receives a *quid pro quo*. However, as property exists today large sectors of its domain consist essentially of rights exercised by individuals and groups who con-

tribute little or nothing to the process by which property is increased and upon which all society depends for its livelihood. Other sectors of the institution consist of rights enjoyed by persons who contribute more to production than their property claims ever yield in return. The vast array of property rights lie along a spectrum reaching from maximum social service in return for meager property rights to astonishing control of the whole social order with little or no personal service or responsibility.

Functional property rights are those in which ownership and use are so intimately connected that the holder enjoys the fruits of his material wealth in direct proportion to his intelligent use of it. Such property usually takes the material forms of land, resources, and tools used by the owner for production and of personal possessions necessary to a wholesome and cultured life. The specific forms of such functional property are wages, salaries, and other types of compensation paid for the personal service of the recipient; the land, equipment, materials, and processes used by their owners in the production of a socially desirable product; the patents and copyrights owned by inventors and authors; and, finally, the personal possessions necessary to health and comfort. Such forms of property are the bulwark of the institution and are the irrefutable evidences of its social efficacy.

Acquisitive property rights are those which are held by their owners not as a means of production or of consumption but as an instrument for the exercise of exploitive powers over others and as a means of acquiring wealth without service. Such property is called "passive property" by R. H. Tawney, who distinguishes it from "active property" or that "used by its owner for the conduct of his profession or the upkeep of his household."[1] The dis-

[1] TAWNEY, R. H., *The Acquisitive Society*, 1920, Harcourt Brace, p. 63.

For an able discussion of the effects of active and passive rights, the reader is referred to this little book by an eminent British philosopher. The first five chapters are indispensable to anyone wishing to understand modern property rights.

tinguishing characteristic of such property is that it yields its owners an income out of all proportion to their personal services. It acts neither as a stimulus to productive effort nor to intelligent consumption and creates a group to whom Thorstein Veblen has aptly applied the phrases "absentee owners" and "a leisure class."

Acquisitive property is not always distinguishable from functional types. Usually recipients of very large incomes own both types. Only in the case of an heir who lives off the return from property which he has never helped to create, manage, or direct can we isolate a form of property that is purely acquisitive. In general, the forms of property which tend to be of the acquisitive or passive type are urban ground rents, monopoly profits, fortuitous gains from speculation especially in corporate shares, and land held out of production or consumption. All forms of property that afford their owner a return independent of his use of them are clearly of this type. The most flagrant examples of such property rights are connected with the manipulation of corporate shares and the private control of natural resources. We shall explore this category more thoroughly as we examine the functions of property and evaluate it as an institution.

Chapter 4

Functions of Property

The social worth of an institution lies, not in the circumstances that called such an arrangement into being, the forces that controlled its development or modified its form, or in the structure or the pattern of relationships as it now exists, but rather in the functions that it actually does or possibly could perform. Only to the extent that an institution enables those living under its aegis more adequately to solve the recurring problems native to its sphere of the social process can that institution survive as a dynamic or functioning force in society. Its evaluation, likewise, must be a test of its adequacy in terms of its limitations and results. From an economic standpoint the primary function of property is to bring the resources of a region and the energies of its inhabitants into relationships that maximize the production and enjoyment of wealth. This major or primary function of the institution finds expression in numerous specific divisions. We shall consider only the more common economic functions. Later we shall evaluate the institution in terms of its social results.

A. PRODUCTION

The exclusive control of specific wealth by individuals and families is most commonly defended on the grounds that only under such conditions can the creative efforts

of man be stimulated and developed to the highest degree. When a man expresses his ideas and skill in material objects, these become an extension of his personality. We are all familiar with the diligence with which a man will maintain and improve that which he owns and the indifference of the person who rents or leases wealth. In the former instance the owner sees his property as an expression of himself. The idea of permanence gives him a feeling that any effort he expends will result in definite benefits to himself. This attitude, which the institution of private property often engenders, is the basis of its efficacy.

This function of property was characteristic of most forms prior to the rise of modern industrialism. Then property consisted largely of land and simple tools and of the necessities of a civilized life. The anti-social forms consisted chiefly of lands held by a decadent feudal aristocracy and incomes enjoyed by the retainers of a mercantilistic government. Industry meant the productive use of wealth by craftsmen and petty enterprisers. The ownership of lands and tools by those who used them was an apparent prerequisite to efficient work in the field and workshop. When property was widely held by the classes most vital to the production of the material basis for a higher standard of living, the moral justification of the institution seemed self-evident. Property was an aid to creative work, not an alternative to it. The inventor was granted a patent to secure him the fruits of his own brain; the master was protected in the use of materials and tools to assure him the fruits of his skill and efforts. Property was given social sanction and moral support because it apparently conduced to the production of wealth and the welfare of the group. The owner came to be respected by the community because such status was founded mainly upon industrial activity.

But the conditions under which property functioned as an aid to creative effort began to disappear with the rise of power-machine technology. Once firmly entrenched

as an institution, property rights gradually became divorced from the service basis which had been their mainstay. Society became more and more divided into those who own and those who work. Contract rather than ownership became the link relating man as owner to man as worker. Because machine technology was infinitely more productive and efficient than tool methods, large aggregates of property became essential to the productive process. Production came to consist of combinations of land, equipment (capital), and labor under the direction of large enterprisers. Such men gained control of the three essential factors through ownership and the wage contract. Still the claim that ownership aided creative effort had a semblance of truth. The enterpriser was often the inventor of the process in which he employed his own capital and the labor of others. Profits became the driving force.

But soon the size of the industrial unit assumed such proportions that a single enterpriser, however brilliant and able, could no longer manage all aspects of the productive process. Specialization began to invade the sphere of financing, producing, and marketing. Control of property became divorced from ownership. The corporation arose as a new device for supplying the capital necessary to large-scale manufacturing and elaborate marketing systems. Property rights gradually lost their significance as the basis of control. Enterprise passed from the hands of owners into those of promoters and managers. Promoters created business entities with hired land, hired capital, hired labor, and hired management. The direction of production came to rest in the hands of small groups whose contribution to the business consisted not of property but rather of a legal distortion of property rights as expressed in securities. Those most vital to the creation, maintenance, and operation of the physical plant retained little or no control over it. Furthermore, the suppliers of real land, real capital equipment, and actual creative energy in work and management received much less than the full fruits

of their property and efforts. The control of wealth, once the exclusive right of owners and a supposed prerequisite for private enterprise, came *pari passu* to reside in absentee holders of only one type of corporate equity—voting stock —or in the hands of management, who often made no investment whatever. Production came to be carried on by those who did not own but who worked under the fear of being removed by those who held the proprietary rights to the physical wealth.

Later, when we study the modern corporation, we shall consider in detail the methods by which control has been largely separated from ownership and placed in socially irresponsible hands. For the moment we can observe that many thoughtful students have come to the conclusion that the institution of property can no longer be socially justified on the claim that it is essential to creative effort or business enterprise. Even the role of inventor, they contend, has been largely absorbed by salaried technicians. Except in the spheres of agriculture, small trade, and consumption, property has largely ceased to function as an incentive to creative or productive effort.

B. UTILIZATION OF NATURAL RESOURCES

It will be remembered that one of the original and basic justifications of property is that it facilitates the intelligent use of material wealth. The division of the land and natural resources among the inhabitants of a region rests firmly upon this basic assumption. English common law evolved the logical but not entirely practicable concept that the owner of a piece of real estate had a prior and exclusive claim to everything above and below the area bounded by surface lines. As long as the manipulation of the surface in agricultural or building activities was the customary use of real estate this highly logical concept came into no noticeable conflict with the facts. But when advancing technology set men to digging and drilling in the earth for the resources essential to a power-machine civilization,

the theory began to produce definitely anti-social effects. Instead of conducing to a wise and efficient use of highly limited resources such as coal, oil, and gas, private property rights resulted in a wasteful type of exploitation which gave certain early owners large personal gains and levied the costs, multiplied many times, upon unborn generations.

Coal was the first sub-surface resource to attain importance with the rise of power technology. The earliest practical engines were produced as solutions to the problem of pumping water from English mines. Coal was demanded in the production of iron even before the Industrial Revolution was well under way. The anti-social effects of the application of private property rights to coal mining can be illustrated by the methods used in the rich bituminous fields of western Pennsylvania. To understand the situation more adequately, we must sketch the geological circumstances surrounding the mining of this valuable fuel.

Bituminous or "soft" coal is most commonly found in more or less horizontal seams having a fairly even thickness of from a few inches to as much as eleven feet. Of course, only the thicker, evener, and more chemically pure seams are mined. When thick seams are cut by river valleys, an ideal mining situation exists. A tunnel can be dug into the very face of the coal where it protrudes (outcrops) as a layer along a river valley, and the lumps can be easily passed down chutes into barges on the river below. In such cases a minimum of energy and expense are required to mine the coal and to bring it to a place where industry can use it. Furthermore, the physical circumstances making coal easy to dig and ship also conduce to the establishment of industries requiring it in large quantities. Iron production requires ore, limestone, coal, and water in unstinted amounts. In western Pennsylvania all ingredients but one are present in ideal combination. Thick, relatively pure layers of limestone frequently occur immediately above or below the coal seams, so it can be obtained with only

slight additional cost as the coal is mined. Relatively pure water for steam generation flows constantly in the deep river channels of the region. Only iron ore is lacking, but even this can be hauled at a minimum cost on barges or on easy grade railroads to mills along the river banks.

With such a natural coincidence of favorable factors, one might reasonably assume that owners of the coal lands would take every precaution to assure the extraction of their coal in the best known manner so that they might gain the maximum monetary return from the coal and from the rents accruing from surface utilization of land. Certainly owners of coal-bearing land knew that a wasteful method of mining, the recovery of only a part of the coal, and the early exhaustion of the supply would bring an inevitable drop in the value of the land and of buildings in an abandoned mining town and its environs. Yet the combination of greed, ignorance, and lack of social vision produced these very results for many of the early owners of this valuable resource.

The rich coal seams underlay great numbers of individually owned farms and forest areas. For each surface owner to mine his own coal was neither technically practical nor financially profitable. Such methods would have required a shaft to be sunk on each small tract with all the attending problems of ventilation and drainage. Such individualistic methods would be certain to offset the natural advantages of the region. Furthermore, the cost of even the simplest equipment was beyond the financial resources of the majority of owners just as the technical and physical requirements exceeded their personal ability. Profitable exploitation of coal required large-scale methods applied to large tracts. The usual procedure was for enterprising individuals to organize a company and acquire the specialized equipment and labor force necessary to mining. Such a person or company was interested in the pecuniary gain to be derived from his efforts. His profits would be greatest when the sum of the prices he paid for

the coal, equipment, and labor was lowest. Furthermore, his gain depended not upon how thoroughly and completely he removed the coal from a tract of land but upon how cheaply he brought each ton to the surface. By contracts entered into with the owners of the land these mining companies secured the property rights for the sub-surface coal deposits. The desire for profit guided their efforts and determined their methods.

Usually the mining company obtained the right to mine the coal underlying numerous adjacent tracts of land by obtaining leases from the several owners. Private property gave these owners the right to utilize or dispose of their coal in any manner they believed best as long as they did not infringe on the rights of other owners to use or dispose of their property. No consideration was given to the injury that individual use of property might do to contemporary society or to succeeding generations. The individualistic concept of property rights assumed that the welfare of the group was always a simple summation of the welfare of all individuals in the group. Property rights therefore permitted the individual to do with his property anything that did not directly and obviously injure other owners. Of course, the question of how the use of property rights might affect non-property owners seemed utterly irrelevant to those who formulated and supported the individualistic views of property.

To maximize its gain, the mining company usually agreed to pay the farmer or landowner a fixed sum (called a royalty) for each ton of coal taken from beneath his land. In addition the company usually agreed to mine the coal within a certain period of time such as three or five years. Probably the absence of any provision for assuring the complete removal of the coal beneath a given tract did not seem either strange or unfair to the owner. That the mining company would take out all the coal seemed obvious. Was the company not seeking maximum profits, and would these not depend upon the most efficient methods? Did

not competition force each company to do the best possible job in order to stay in business? The answers were apparently self-evident.

But the facts did not support the theory or the conclusions based upon such seemingly logical deductions. The operator agreed to pay for each ton mined and not for all the tons that could be mined from a given area. The simplest and most economical method was the room system. From each side of the tunnel and at frequent intervals the walls of coal were cut so as to form a rectangular room about twenty by forty feet. The floor and ceiling of such a room consisted of the underlying slate and overlying limestone or other rock stratum. Thick walls of coal supported the ceiling stratum and separated the room from the main tunnel as well as from other rooms as they were cut. Often as much as half the coal in an acre was left standing as supporting walls when the company abandoned an area as "worked out" and moved on to virgin seams. Such methods greatly increased the profits of the mining company for they eliminated the expenses for placing and pulling pit posts. Since the royalty was paid only on the coal actually brought to the surface, the vast network of supporting walls and pillars of coal cost the company nothing. To the owner they represented not a loss of coal but rather a gain in cash income since the company could easily point to the higher operating costs and consequent lower per-ton royalty of the pit-post method.

As time passed, the seepage of water usually filled the abandoned mine and reduced the moisture content of the surface soil so that its value for farming was impaired. Often, when the coal seam was relatively near the surface, the overlying shale would crumble into the many subterranean rooms and spot the surface with sink holes. Many thousands of acres in western Pennsylvania are today desolate waste lands because of the surface pock marks and excessive under-drainage. The private owners and a few stockholders in mining companies have made

their fortunes, but the consumer has been deprived of fine, cheap coal and saddled with higher taxes.

Of course, these walls of coal are not lost in the physical sense. They are still there beneath the ground. To get them now would mean that many tons of slate, shale, and other useless materials would have to be mined for every ton of such coal recovered. The cost would be prohibitive. It is usually cheaper to mine thin seams of inferior coal than to recover the thick walls and pillars of high-grade coal in abandoned mines. Over a period of fifty years man has been forced to work harder and harder (hence at a higher and higher cost) for inferior coal less advantageously situated both with respect to ease of mining and to the factories where the fuel is used because wanton wasting of a precious and definitely limited resource meant more immediate profits for the few who got there first.

To point out the mistakes of our ancestors would indeed be foolish if no alternative existed or if the problem had now been solved. From the standpoint of the social heritage the wastes of coal in America need never have occurred. From the standpoint of property rights most of the original faults still remain as an inherent feature of the institution. Almost from the beginning it was possible to recover practically all the coal in those thick, well-situated, bituminous seams. By the use of posts, walls and pillars of coal could be cut away. When the entire seam had been mined, the posts could be pulled and the overlying stratum of rock could settle firmly upon that originally beneath the coal with little or no damage to surface soil. Moisture again would assume its normal level, and a firm foundation would exist for homes and other surface structures. The added costs would have reduced the gains to the companies and slowed down the rate at which owners would have obtained royalties. But everyone, including these special-interest groups, would have ultimately gained. The quality of coal available to industry and to the homeowner would have remained much higher for a greater length of time.

Likewise, the price would have risen at a less rapid rate since much of the present cost is the result of transportation from remote regions. Towns having their economic foundations in the coal industry would have had a much longer life with the higher cultural attainments of a large, secure population. And, last but not least, the level of living would have been higher because of the greater productivity of advanced technology applied to the thicker seams of high-quality fuel.

The extraction of *oil* from the ground beneath privately owned plots results in staggering wastes of another of the most vital resources of an industrialized population. The recovery of petroleum is even less efficient than that of coal. For every ton of coal brought to the surface another ton is left in the mine; for every barrel of oil produced at least two are left underground. Less than a third of the oil ever reaches the pipe line.

Petroleum is formed in coarse sandstone strata of the earth's crust. Oil tends to collect in the pores of the sandstone and, since it gravitates to the lowest point of a stratum, forms what in the terminology of petroleum engineers is called a "pool." The oil does not occupy a cavity in the earth but is distributed in the pores between the rock particles composing the oil-bearing sandstone. Natural gas is a by-product of petroleum formation. Being lighter than oil the gas rises into the higher pores of an oil-bearing sandstone. Normally the gas is under great pressure and is confined to the oil-bearing stratum by reason of nonporous or impervious strata that usually occur above and below the porous layer. The overlying stratum keeps the gas from being lost through permeation of other rock layers. The hard underlying stratum keeps the oil from seeping or being forced downward and acts as a bottom for the "basin" or "pool."

Down into this oil pool long pipes are thrust through holes made by powerful punches or by the newer type rotary drills. When the pipe finally reaches the oil-bearing

sand, oil and gas rush upward, "often flooding the air with gas, the landscape with oil, and the owner with joy."[1] Unless efficiently handled as a geological unit, the percentage of the oil in the pool ultimately recovered will be small, the costs high, and the damage to the surface land shockingly great.

Usually what happens when a gusher "comes in" is exactly the opposite of what modern petroleum technology prescribes. Surface owners on all sides exercise their property rights by staking out lots and leasing each precious area to whoever will promise to drill the largest number of wells in the shortest time. Wells are placed without any consideration of the geological conditions surrounding the pool and with no thought of maximum recovery of a valuable fluid. The guiding principle is to maximize the diminishing flow through the wells located upon the surface area legally held as private property. The fundamental difficulty lies in trying to divide a pool of oil by the imaginary lines of property limits. Oil, unfortunately, behaves according to the physical laws of pressure, resistance, and gravity, not the laws of property. The pool of oil will rush to the well which reaches it first and then successively to those which reach it next or tap its lower levels. The surface owner knows these simple facts, with the result that he drills wells as fast as he can and as close to the successful neighbor's line as possible. Many owners on the margins of the pool sink large sums and much human energy in wells that produce only gas or turn out to be "dry holes." Meanwhile gas is wasted, water seeps into hastily drilled wells and emulsifies the oil so that large quantities are "drowned out," and the surface is covered with derricks and drenched with oil so as to render it unfit for agriculture or permanent building sites. The oil which society ultimately receives from such stupid applications of property laws and uncontrolled private enterprise is

[1] CHASE, STUART, *The Tragedy of Waste*, 1925, Macmillan, Ch. 12, p. 249.

needlessly reduced in volume while its price rises. Nor need any of these be tolerated.

The technology of petroleum production makes possible the recovery of practically all the oil in a pool. But the engineer who works with the laws of nature is defeated by an individualistic ideology and the attempts of lawmakers to "divide a pitcher of water with a cake knife." One ray of hope comes from recent efforts of large oil companies to acquire leases for an entire field before a single well is drilled. In the western oil fields modern technology has been given its first fair chance to save our oil resources. Likewise, the government has stepped in and applied intelligent methods to large areas deemed essential to national defense. These efforts have largely been met with cries of monopoly and government interference from thwarted individualists and property owners who believe they could have got more money from ruthless exploitation.

A similar wasteful result has been attained by property rights applied to surface resources, especially *timber*. Timber mining is the method of the pioneer and of the absentee owner; timber culture is the method of the engineer and of society or the socially intelligent individual. The former strips the cream of a virgin stand of timber and leaves the social costs to be paid years later in the form of higher taxes for raising city streets, building flood walls, and constructing dams. For every dollar gained by the practical men who find social approval for "having courage and getting things done," hundreds, often thousands, of dollars have been spent by later generations in cities and on farms along the valleys of streams turned into devastating forces by a timberless territory along their upper reaches. But here the indictment is more upon the use of property rights by ruthless individualists than of property as an institution. However, many observers believe that only by the group's modifying property rights and limiting

the use made of them by individual holders can natural resources be efficiently and wisely utilized.

C. DISTRIBUTION OF INCOME

Fundamentally, the income of the American people consists of the goods and services resulting from their productive activities during a given period of time. Income is therefore a flow of wealth. In a primitive community income is received largely in the form of goods and services, but in a complex capitalistic society such as the United States the major part of income is received first in the form of money or purchasing power. These claims on the goods and services that ultimately come into the market are received as payments for services or for property. The economists speak of these money claims as wages, profits, interest, and rent and point out that they tend to approximate the aggregate market values of all the goods and services which constitute the national income. The money incomes received as payments for effort or for the use of property become the purchasing power by which individuals and families acquire the commodities actually produced.

The important thing about the national income is that it is distributed according to claims made upon it by the money incomes received by human beings for their energy or their property. Since income is paid for the use of property, the owner has a distinct advantage over the propertyless wage earner. Such an owner receives a return independent of his personal efforts and hence enjoys a return upon past accumulations as well as present efforts (if any). Another significant fact about property in the distribution of income is that, in general, as the income of the individual or family increases the amount derived from property becomes a steadily larger proportion of the total. The amount of income derived from personal efforts can never approximate the incomes enjoyed by the small number of holders of numerous income-yielding property rights.

The studies made by the Brookings Institution of the distribution of income in the United States in 1929 indicate that property played a significant role in the distribution of income which prevailed in that admittedly prosperous year. About 80 per cent of the national income was claimed by those who received wages, salaries, and some profits. The investor class, in which those who receive incomes chiefly from property are usually placed, do not form a definite group of people distinct from those who receive income as wages, salaries, or profits from personal enterprise. A large proportion of income receivers belong to the investor class in some degree as owners of land and securities either directly or through the medium of bank deposits, insurance, and loans. The investor class is distinguished by the ownership of property which the owners themselves are not using in production under their direction or in consumption but which they place at the disposal of others. The total income from this property, amounting to about 14 billion dollars, consisted of rents, interests, dividends, and undistributed profits in the form of additions to corporate surpluses. The significance of the corporation as a source of property owners' income is indicated by the fact that the total paid out in 1929 to holders of corporate securities amounted to nearly 8 billion dollars or more than half of all income derived from property. This, of course, does not include the large sums retained as surpluses by industrial corporations and banks or the huge reserves held by insurance companies.

Another striking indication of how property rights condition the distribution of income is the distribution of savings. Under the ideology of individualism people save for one of two reasons. The great majority save to protect themselves against the hazards of life, such as sickness, accidents, unemployment, or old age. Usually the income of such persons is insufficient to permit savings that give adequate protection. A few people save to increase the proportion of their income derived from property rights or because

they are unable to spend their total income on consumer goods. Usually these people are among those who derive a high percentage of their incomes from past savings in the form of property rights. Thus the old saying that "wealth makes wealth" is literally true. Those in need of the protection which property income might give are unable to attain such security, while those who are secure from the hazards of industrialized life constantly build a larger reserve. According to the Brookings Institution reports, the richest 2.3 per cent of American families, those with incomes in excess of $10,000 a year, saved two-thirds of the total amount saved in 1929. The families with incomes of less than $3,000, constituting 80 per cent of the population, were able to accumulate only 2 per cent of the aggregate savings of that year. Another index of the concentration of wealth in the hands of property owners is the fact that in 1929 nearly half of the total of deposits in the member banks of the Federal Reserve System were in possession of the richest 1 per cent of the depositors.

D. DETERMINATION OF SOCIAL STATUS

Certainly one of the primary functions of individual property rights is to give social status to their holders. From the earliest times the owners of property have been largely relieved from the mundane activities connected with the production of tangible wealth. The class structure in the long series of Temple-town cultures was an institution in its own right, but its foundation rested firmly upon property rights. The rulers were those who owned the economic surplus and the means of its increase. The freemen were petty owners who enjoyed the protection of the ruling class in their use and enjoyment of wealth. The masses were slaves who had no property rights but who supplied the energy which converted the resources of their owners into wealth. The leisure classes of these civilizations laid the basis for literature, philosophy, and the fine arts

which have since been the outward signs of such classes and the basis for emulation by all the lesser attachés of the propertied classes. The pyramids of Egypt, the temples of Athens, and the triumphal arches and Colosseum of Rome were expressions of the propertied and hence upper classes. They are always regarded as the creations of those persons who stood at the apex of the class hierarchy and who thereby exercised the rights of property in commanding the resources and directing the energies of those slaves or freemen necessary to such work.

The Middle Ages merely shifted the focus of property rights. To some extent property became functional in the sense that wealth was controlled and serfs commanded in return for a service. The ideology of salvation tempered the degree of exploitation by the propertied classes. But even then they always enjoyed a standard of living most evidenced by leisure and conspicuous material possessions. Even the church, despite its primary function as a welfare institution, enjoyed a conspicuous array of wealth in the form of lands and richly adorned buildings.

Not until the rise of the market as the impersonal arbitrator of wealth did property come to occupy its present position as the primary determiner of social status, however. For some time after the rise of a gain-motivated bourgeoisie, the attributes of social status, especially in England, took the form of estates and ornate material possessions. Gradually the intangible forms of wealth began to overshadow the tangible ones in volume and variety. The corporation was the triumph of the divorce of ownership rights from tangible wealth.

The steady increase in mechanized production expanded the scope of material forms of wealth but reduced their span of life. Ostentatious display required regular and frequent replacement if its owner was to enjoy the leadership in a society with acquisition of wealth as an immediate goal of life. The struggle for wealth under the aegis of a price system and private enterprise transformed the norm

of ownership from use or physical possession to emulation. The ownership of wealth came to be what Thorstein Veblen calls "an invidious distinction." The status of those who commanded the respect and emulation of others came to rest upon a pecuniary evaluation of their property rights. A person's status in the new class hierarchy of early capitalism depended not upon who he was or what he was but rather upon how much he had. The position one commanded came to depend only superficially upon the ostentatious display of wealth. More basically his place or rank was determined by his financial rating, by his ability to "write a check of six or more digits."

In such an economic system, where pecuniary wealth is the basis of social status, property comes to be accepted as the true gauge of a person's worth. In general, society becomes divided into workers and owners. But within the ranks of these broad categories the place occupied by each individual rests upon the amount of wealth he owns. Thrift becomes not a way of using wealth wisely but rather a way of climbing to a higher berth in an acquisitive society. To save is eulogized as a virtue because it is the way to wealth. One's savings come to be looked upon not as security but rather as a source of income, however small. Property becomes the expression of one's ability in the competitive struggle for wealth. The social value, and to a considerable degree the market value of property becomes a matter of the rank its possession confers upon the holder. Even ordinary consumer goods such as food, clothes, houses, and motor cars are valued not only because they enable the owner to live fully or happily but also because they give him social caste by tangible evidence of the power to waste or control wealth. Property functions as the basis for an invidious comparison, that is, as the means for evaluating the social worth of its owner.[1]

[1] VEBLEN, THORSTEIN, *Theory of the Leisure Class*, 1899, Macmillan, is an able analysis of the social effects of passive property rights during the heyday of fortune building.

E. SECURITY

One fundamental requirement of man is security. The primary form of security consists of protection for the individual in the use and enjoyment of wealth which he has produced or which is essential to a meaningful and socially productive life. Such protection is the cornerstone of the institution of property as well as the primary function of government. In a simpler economy where the production of the means of life was a matter of the intelligent application of the combined energy of a family, sufficient land on which to employ the new members of an expanding group, the social maintenance of property rights, and enforcement of contract, sufficed to assure a high degree of social security to the vast majority. The working life of an individual in such a family began in childhood as a small but vital force in the productive activities of the home, grew to maximum proportions as an able-bodied adult on the farm or in the shop, declined to petty but helpful assistance in the family of one's children, and ended only at the grave. The individual began as a unit of a highly resourceful family and ended normally as a similar unit in a family of the next generation. The chief hazards of life were sickness or accident. These were provided for by pooling the resources of a large family in which the adults had access to land or opportunities to work for others. Likewise, the unproductive and dependent periods of childhood and very old age were bridged by the resources of the family. To supply the basis for meeting the emergencies of life, wealth beyond that entering into the immediate productive and consumptive activities of the family was required. Property in the form of a surplus was one way of organizing a family against the hazards of life. Property meant social security.

But in an interdependent society where productive activity is highly specialized and applied through large masses of capital in the form of power-driven machines,

social security becomes a more complex matter. The unproductive years of a person's life have been increased by many forces beyond his control. Long periods of training precede the time when an individual is qualified to enter a highly specialized profession. Compulsory schooling forbids even those willing to take machine-tending jobs from entering production until they are sixteen or eighteen years of age. The opportunities for childhood participation in character-building household chores have been reduced almost to zero by the diminution in the size of the average family and the shift of most productive activities from the home to the factory or specialized agency. When the "working life" of an individual finally begins it is subject to serious limitations and frequent interruptions. The earnings of the average individual employed in machine-dominated industry scarcely suffice to maintain a small family. The daily round of life in a modern city exposes an individual to the pressures of "keeping up with the Joneses," climbing the ladder of success, and enjoying the fruits of modern technology through the agency of credit. His income is always inadequate for the needs of social climbing, and saving, if done at all, is erratic and inadequate. An interruption in the flow of income jeopardizes the worker and all dependent upon him. Sickness and accidents mean real calamities in the lives of the vast majority of workers.

But even more ghastly are the hazards of unemployment and old age. Income consists primarily of money, and money can be earned only when the physical energy and acquired skills of the worker are demanded by a property owner. Unless machines contribute to the monetary profits of their owners, they are stopped, and the men essential to their operation are "laid off." This very act diminishes the demand for goods and results in shutting down more machines and laying off more workers. The vicious circle of depression eats into the vitals of an industrial society. But even though unemployment never touches a given

individual he has little protection against old age. Those who are most likely to retain their jobs during depression are those whose efficiency is greatest. Efficiency in modern industry is largely a matter of alertness and rapid reaction time. These are attributes of the young. The steady speed-up of power machines has long since passed the ability of all but youth to keep up with its demands. The "working life" has been steadily shortened by the demands of high-speed production. "Old at forty" is coming to be disturbingly true in an ever-widening area of industrial life.

Against such hazards property can offer little security for the masses. Even the possessors of large accumulations of property are far from secure against the devastating influences of a price system. Great wealth protects against the minor hazards of industrialism but not against that cyclone called depression. The family and property are no longer adequate sources of social security. The restricted family of industrialism divorced from land and other independent means of self-help is far too small to absorb the shock of accident or sickness. When each couple sets up an independent household at the time of marriage there is no provision for the old people who have been discarded by industry. If the father of the small family is not working, there is rarely a productive member to carry on during the illness, injury, or "lay off." The older type of family on the land supported its members out of the fairly regular product which the fields produced. Its ability to care for its non-productive members did not vary greatly over the span of a single generation. In the small industrial family, the full burden of children rests on the wage-earning father. In the brief period when the children earn an income and live at home the family may enjoy a "bumper income." When the children marry or seek employment in new places the parents face the specter of old age and unemployment with little reserves.

To the extent that the family is fortunate enough to accumulate a reserve of property its economic security is

slightly improved. But the only practical forms in which any substantial savings may now be held by the industrial worker are money, securities, or real estate. An industrial worker cannot accumulate a surplus in the form of food or tillable lands. If he saves money he may feel safe with it in banks or insurance policies. But fluctuations in purchasing power may greatly reduce the real income represented by whatever money he withdraws from banks or borrows from the insurance company. Property in the form of securities or real estate is subject to similar disturbing forces. Investments in stocks or bonds may "evaporate" in a stock market in which the great majority are striving to gain security by "getting out." Real estate, while not subject to evaporation, may become a worthless asset and a real liability in the form of taxes. Property is no longer an adequate protection against the hazards of civilization. Many believe that only social insurance can offer the type of security formerly obtained by the agrarian family from property in the form of usable surplus.

Evaluation of Property

The institution of property constitutes the supporting framework of the cultural pattern called capitalism. The price system, private enterprise, technology, consumption, the corporation, and government are other institutions comprising the economic aspects of industrialism. They are inextricably woven into the strong supporting threads of property and contract. To evaluate the institution of property is to pass judgment upon the most basic aspect of our economic environment. But, as we have seen, property is itself composed of so many varieties of relationships, social controls, and functions that no broad statements are applicable to even a majority of its component parts. Too often some particular part of its sprawling pattern is taken by its proponents or its enemies as the basis for unqualified support or condemnation of its entire structure. In many long arguments and heated debates waged over the social effects of property rights the debaters are not really talking about the same thing. Those who deplore the concentration of wealth and lack of social responsibility which certain forms of property confer upon their owners are often asked if they are willing to share those personal forms of property that are literally a part of their being. Socialists and communists, on the other hand, point to specific social ills obviously growing out of unregulated and misapplied property rights and promptly conclude that only by a major operation can society be saved from destruction at the hands of property owners.

The futility of either an unqualified status quo defense of property or the radical plea for complete destruction can be appreciated when we remember that an institution is both a process and an organization. As a process an institution is a constantly changing pattern of behavior. Its methods and actions are constantly being modified to meet the changing problems of a dynamic society. Old problems disappear and those parts of institutions which enabled men to cope with them are either sloughed off or relegated to a functionless ceremonial level. New problems arise which existing methods can only partially or inadequately solve.

Of course, men see these problems through the accepted patterns of established institutions and try to fit them into the usual ways of action, but inevitably the institution is modified to encompass the problem or new institutions

arise to meet the need. An institution is thus not a fixed structure which can be maintained intact but rather a constantly changing pattern of human action. The problem of how to adapt existing ways and means to the pressures and forces generated in the larger social processes of a culture is an ever-present one.

The radical's denunciation of an institution, however adequate to the problems of today, is socially foolish. Institutions find expression in the attitudes, beliefs, and daily habits of a people. Abolition of these is as impossible as the elimination of the population of a region. Only when a sufficient number of people become aware of the discrepancies between their beliefs and the actual day-to-day working of the social system can existing institutions be changed to meet the needs or new ones established. True, property rights can be drastically changed by a control group using military force, but not until the new ways become accepted as a way of life can an institutional change take place. The problem of changing the institution of property to meet the needs of our industrial civilization more adequately cannot be met by either blind support or even blinder destruction. Instead the institution must be modified by piecemeal changes.

To evaluate an institution requires some standard or norm, that is, some basis of comparison. The basis of modern capitalism is high-level consumption of goods and services. This requires the use of resources, artifacts, and services in such ways as to maximize social welfare. True, this is an elusive term, but it has sufficient meaning to serve as a guide. To the extent that property rights enable the greatest number of people to achieve the greatest satisfaction of their wants they are socially serviceable. All property rights that enable an individual to express his personality are of a high social order. Those that enable a few to withhold and destroy wealth are definitely of the anti-social type. The average man must distinguish between property rights in personal goods and those in intangible equities before he can intelligently judge the institution or participate in its reconstruction. The confusion of intimate types of property such as clothes, homes, and tools with those elusive types such as stocks and bonds is a bar to any intelligent modification of the institution. An adequate evaluation of this basic institution must await our analysis of the larger institutional fabric of capitalism.

BIBLIOGRAPHY

ARNOLD, THURMAN W., *The Folklore of Capitalism*, 1937, Yale University Press.

Ch. 5. The Language of Private Property, pp. 118–135.

An able study of the results of applying established words and their associated concepts to new institutional arrangements having very different social implications.

ATKINS, WILLARD E., et al., *Economic Behavior*, 2 vols., 1931, Houghton Mifflin.

Vol. II, Ch. 47. Protecting Property, pp. 298–308.

Nature of modern property rights; roles of government and the courts in extending, limiting, and applying rights especially in business. Elementary.

BARNES, HARRY E., *An Economic History of the Western World*, 1937, Harcourt Brace.

Property rights and the Supreme Court, pp. 595–602.

The social and economic effects of the application of eighteenth century concepts to modern conditions, especially property rights.

BEARD, CHARLES A., *An Economic Interpretation of the Constitution*, 1913, Macmillan.

A critical evaluation of the economic interests (especially property rights) underlying the writing and adoption of the Constitution. See especially pp. 19, 156, 164, 176, and 213.

BELLOC, HILAIRE, "Monopoly, Communism, and Property," *The Sign Magazine*, February, 1939 (Vol. 18, No. 7), pp. 431–432.

An able analysis of the social inadequacies of private property and of two opposing remedial tendencies—corporate (monopolistic) and state (communistic) control.

BERLE, ADOLF A., JR., and GARDINER C. MEANS, *The Modern Corporation and Private Property*, 1932, Macmillan.

A study of the effects of the giant corporation upon the legal and social structure of property rights. Excellent abstract in *Reader's Digest*, August, 1932, pp. 25–28.

BERLE, ADOLF A., JR., and VICTORIA J. PEDERSON, *Liquid Claims and National Wealth*, 1934, Macmillan.

Part II, Ch. 1. The Hazards of Emphasized Liquidity, pp. 179–183.

Part II, Ch. 4. Liquidity and Property, pp. 194–198.

This book is a scholarly analysis of social effects of capitalistic ideology on the form and distribution of wealth. These chapters summarize the authors' conclusions with respect to property.

BLACKMAR, FRANK W., and JOHN L. GILLIN, *Outlines of Sociology*, rev. ed., 1923, Macmillan.

Ch. 13. Social Results of Economic Activities, pp. 222–229 (only).

Social *vs.* unsocial effects of property rights upon the distribution of wealth in industrial nations. Evaluation of means of property acquisition.

BRAILSFORD, HENRY N., *Property or Peace*, 1934, Covici, Friede.
Part III. Property and Order, pp. 95–133.
The role of property rights under power technology.

CARVER, THOMAS N., *Principles of National Economy*, 1921, Ginn.
Ch. 6. Economic Institutions, pp. 101–122.
Brief discussion of economic significance of contract, property, and the family. Lists and evaluates means of acquiring and holding property rights.

CHASE, STUART, *The Economy of Abundance*, 1934, Macmillan.
Ch. 11. Essay on Property, pp. 175–194.
An analysis of the differences in meaning and social effects of the property concept when applied to goods in use and to abstract equities in market value.

CHASE, STUART, "Property in the Power Age," *Scribner's Magazine*, March, 1934 (Vol. 95, No. 3), pp. 161–167.
Critical evaluation of the effects of corporate capitalism and machine technology upon the forms and functions of property rights.

CHASE, STUART, *The Tragedy of Waste*, 1925, Macmillan.
Ch. 12. Natural Resources—the Gutting of a Continent, pp. 233–264.
Explanation of how property rights often cause waste of resources, especially oil, gas, and coal.

CLARK, JOHN M., *Social Control of Business*, 1926, University of Chicago Press.
Ch. 7. Some Fundamental Legal Institutions, pp. 109–127.
Social evaluation of the institutions of property and contract, especially with regard to personal liberty and security; bankruptcy and police power as modifications of property rights.

COLE, GEORGE D. H., "Inheritance," *Ency. of Social Sciences*, VIII, 35–43.
Relation of inheritance to institution of property; social effects in old and new societies; its effect on equality and opportunity.

COOK, WALTER W., "Ownership and Possession," *Ency. of Social Sciences*, XI, 521–525.
Legal history of the concepts; social implications of each. Rather difficult for beginning students.

CUSHMAN, ROBERT E., "Due Process of Law," *Ency. of Social Sciences*, V, 264–268.
Nature of due process; use by courts; relation to contract and property; a social analysis.

EDDY, ARTHUR J., *Property*, 1921, McClurg.
A critical study of nature and functions of property under industrialism, Fortunes of Sage, Field, and Carnegie as examples of social effects.

ELY, RICHARD T., *Property and Contract in Their Relations to the Distribution of Wealth*, 2 vols., 1914, Macmillan.
A much-neglected treatment of an important aspect of modern property rights.

FRANKFURTER, FELIX, "Property and Society," in Jesse E. Thornton (Ed.), *Science and Social Change*, 1939, Brookings Institution.
A scholarly analysis of some important social effects of property rights by an eminent jurist.

GEORGE, HENRY, *Progress and Poverty*, 50th ed., 1929, Schalkenback Foundation.
Book 7, Ch. 1. Injustice of Private Property in Land, pp. 333–346.
Labor as the basis of all just property rights; the inapplicability of such concept to land and resources; other bases for property in land considered and discarded.
Book 7, Ch. 4. Property in Land Historically Considered, pp. 368–384.
An interesting but not too accurate account of the rise and development of property rights in land from primitive to modern times.
Book 7, Ch. 5. Property in Land in the United States, pp. 385–394.
Effects of frontier and resources upon American attitude toward property rights; critical analysis of the consequences.

GIDE, CHARLES, and CHARLES A. RIST, *History of Economic Doctrines* (trans. by R. Richards), 1913, Heath.
Book II, Ch. 5. Sec. 1. Criticism of Private Property and Socialism, pp. 291–300.
An evaluation of the socialist attack on private property, especially as expressed in the works of Proudhon.

GLOVER, KATHERINE, *America Begins Again*, 1939, McGraw-Hill.
Effects of frontier attitudes, industrialization, and war upon our natural resources; the conservation movement and national planning as remedial actions.

HAMILTON, WALTON H., "Freedom of Contract," *Ency. of Social Sciences*, VI, 450–455.
An excellent critical study of the social effects of a legal concept under changing economic conditions.

HAMILTON, WALTON H., "Property," *Ency. of Social Sciences*, XII, 528–538.
The evolution of property rights from primordialism to industrialism; a critical analysis of the forces in each culture producing changes in the scope, functions, and legal structure of the institution.

HERSKOVITS, MELVILLE J., *The Economic Life of Primitive Peoples*, 1940, Knopf.
Part IV. Property, pp. 271–351.
Concerned primarily with the structure and functioning of property rights among living primitives; excellent sociological background for the understanding of the modern institution; somewhat advanced.
Part V. The Economic Surplus, pp. 355–443.
Nature of the economic surplus, its relation to warrior and priest classes, and its expressions in wealth and status of individuals and groups. Excellent for students with some knowledge of anthropology.

HOBHOUSE, L. T., "Historical Evolution of Property in Fact and in Idea," in Charles Gore (Ed.), *Property: Its Duties and Rights*, 1915, Macmillan.

Analysis of the different effects of cultural change upon property rights and their tangible expressions.

HOBSON, JOHN A., *The Social Problem*, 1901, James Pott & Co.
Book 2, Ch. 2. Natural Rights of Individual Property, pp. 95–111.
Basis of natural rights and their application to property rights as a limitation rather than a justification.

LARKIN, RASCHAL, *Property in the Eighteenth Century*, 1930, Longmans.
A Ph.D thesis, University of London.

LEIGHTON, GEORGE R., "Seattle, Washington," *Harpers' Magazine*, Pt. I, February, 1939, pp. 306–328; Pt. II, March, 1939, pp. 422–440.
An interesting account of the economic factors conditioning the settlement and growth of the region. Especially fine treatment of the effects of private property rights upon resources and labor.

MARSHALL, LEON C., *The Coordination of Specialists*, 1930, University of Chicago Press.
Ch. 7, Part B. Does Private Property Mean Harmful Inequality?, pp. 1584–1610.
A series of excerpts and quotations concerning the effects of modern property rights on the distribution of wealth and some proposed remedies.

MARSHALL, LEON C., *Production in the Modern Order*, 1929, University of Chicago Press.
Ch. 3, Part D. The Institution of Private Property, pp. 377–396.
A series of excerpts from standard works dealing with the attributes, forms, content, theories, legal status, and development of property; somewhat disjointed, but good basic material.

MILL, JOHN STUART, *Principles of Political Economy*, Ashley edition, 1929, Longmans.
Book II. Chs. 1, 2. Of Property, pp. 199–237.
Origins of property rights; basis and types of socialistic criticisms; elements of modern institution; bequest *vs.* inheritance; their consequences; property in land and its social effects. No bibliography.

PLUMMER, JOHN, "Limitations of Private Property in the United States," *Annals of the American Academy of Political and Social Sciences*, March, 1930 (Vol. CXLVIII, No. 237), pp. 56–60.
The social basis of property rights, especially in land, compared with that of mere possession.

POUND, ROSCOE, "Contract," *Ency. of Social Sciences*, IV, 323–329.
Changing basis for enforcement of contract under evolving capitalism. Rather difficult reading.

ROBERTSON, EDWARD, "Inheritance," *Encyclopaedia Britannica*, 9th ed., XIII, 77–78.
Excellent summary comparison of English and American laws governing inheritance.

STAMP, SIR JOSIAH C., "Inheritance; Economic Aspects," *Encyclopaedia Britannica*, 14th ed., XII, 356–357.

A brief but good summary of the limits to bequest imposed by inheritance laws of England, France, and the United States.

STOCKING, GEORGE W., *The Oil Industry and the Competitive System*, 1925, Houghton Mifflin.

Ch. 8. The Production of Petroleum: Waste by Duplication, pp. 140–164.
How property lines rather than technology influence spacing or location of wells.

Ch. 9. Waste of Gas, pp. 165–175 (only).
How inefficient use of gas reduces the recovery of oil from a pool.

Ch. 10. Waste by Flooding Oil Lands, pp. 187–210.
How small holdings result in wasteful seepage and ultimate loss of much oil.

TATE, ALLEN, "Notes on Liberty and Property," Ch. 6 in Agar and Tate, *Who Owns America?*, 1936, Houghton Mifflin, pp. 80–93.
A comparison of the nature, functions, and social effects of the two types of property rights—individual and corporate.

TAWNEY, R. H., *The Acquisitive Society*, 1920, Harcourt Brace.

Ch. 5. Property and Creative Work, pp. 52–83.
Effects of transition from simple industry to corporate capitalism upon the social effects of property rights. A terse criticism of the usual defenses of the institution.

VEBLEN, THORSTEIN, *Absentee Ownership*, 1923, Huebsch.

Ch. 3, Sec. 2. The Natural Right of Investment, pp. 50–68.
Traces the changing concept of property rights under the impact of modern business and technology.

Ch. 7, Sec. 5. Timber Lands and Oil Fields, pp. 186–201.
The social effects of absentee ownership of natural resources.

VEBLEN, THORSTEIN, *Theory of Business Enterprise*, 1904, Scribner.

Ch. 4. Business Principles, pp. 66–91.
Origins of property concepts of modern business; factors causing conversion; social results of modern property concepts in business.

WARE, CAROLINE F., and GARDINER C. MEANS, *The Modern Economy in Action*, 1936, Harcourt Brace.

Ch. 6. Balancing Savings, pp. 113–128.
The inability of savings (property) to provide security for industrial families.

WESTERMAN, WILLIAM L., "Ancient Slavery," *Ency. of Social Sciences*, XIV, 74–77 (only).
Types, numbers, and functions of slaves in Temple-town civilizations; growth of property rights based on slavery.

WHITTAKER, EDMUND, *A History of Economic Ideas*, 1940, Longmans.

Ch. 4. Property and the Distribution of Wealth, pp. 175–241.
A scholarly study of the changing concept of property rights and of their social functions as expressed in the writings of leading social thinkers. Recommended for advanced students only.

Part II · *The Institution of the Price System*

The price system is the institutional arrangement whereby society evaluates the contributions and claims of individuals to wealth. Such an institution is a fundamental part of a culture in which private property, specialization, private enterprise, and machine technology are important patterns. Whenever one person depends upon others for the satisfaction of his wants and is free to choose among the products and services of others, some method for relating the efforts of some to the wants of others is essential. Exchange becomes a vital aspect of the economic system. Money and markets form the structure of an interdependent economy where the cash nexus plays the leading role in the distribution of human effort and physical products.

But price is more than a measure of wealth and an expression of market forces. To an increasing extent the price system has become the medium for the manipulation and control of social forces. It has created a pattern of thought in which debt is often confused with wealth and much human effort is expended in an attempt to increase claims to wealth rather than wealth itself. Furthermore, property rights in wealth have been increasingly threatened by the productivity of machine technology. Property values depend upon scarcity and are expressed by price. The price system is a measure of market values rather than use values. It has been built around an ideology alien to an economy of abundant output and rapid change. The growing conflict between technology and property values finds expression in the price system. Its sprawling pattern has become one expression of a potent aspect of cultural change.

Chapter 5

The Development and Structure of the Price System

A. ORIGIN

The period of the Crusades (twelfth to fourteenth centuries) initiated the rise and spread of pecuniary attitudes. Levantine routes were established, new markets were created by the introduction of Saracen commodities and behavior patterns, manufacturing was stimulated in the cities of northern Italy and those in the Levant, and the basis for many modern financial institutions was laid. The new trade required a market technique of its own. Bills of exchange offered safety in settling balances of trade between Venice and her eastern sources of supply and her northern markets (Champagne fairs and Flemish towns). The participation of the nobility in the Crusades stimulated the growth of private property and contract. Mortgages on feudal holdings resulted in the transfer of land on a price rather than tenure or seizure basis. The Italian merchants became the chief bankers of the period and were responsible for the introduction into European cities of Arabic mercantile customs and the decimal system. New systems of taxation arose when money became common. Nobles borrowed large sums from the wealthy merchants and collected increased dues from their vassals to repay them. Commerce along the fringes of feudalism grew to

startling proportions as Hanseatic merchants and Venetian fleets supplied the basis for new standards of living among the feudal aristocracy. Fairs brought the fruits of commerce to the very doorstep of feudal strongholds and turned the attention of lords from warfare to the production of a saleable surplus.

The Commercial Revolution itself was but an extension of the forces that the Crusades set in motion. Explorations were initiated by the merchants excluded from Levantine trade by Venetian military power. These explorations not only opened new and vastly more profitable trade routes to the Orient (Vasco da Gama made 6,000 per cent profit on his first trip to India) but soon flooded Europe with undreamed-of quantities of gold and silver from the New World. As these metals found their way into trade they became the basis for a more satisfactory monetary system.

The creation of a monetary system in Europe marked the spread of money economy from the specialized areas of medieval interregional trade into the channels of local trade where the great mass of petty transactions were still on a barter basis. As long as markets were local and restricted, the number of commodities exchanged was relatively small. Productive activities were carried on by town craftsmen for the citizens of a given town, and economic organization continued to function on the basis of barter supplemented with only small amounts of trade transactions of a monetary sort. But when the market expanded in area, when the forces operating in the market became more numerous and covered a wider scope, when trade broke down the self-sufficiency of towns, and when the volume and kinds of goods exchanged increased, a less cumbersome method than barter became vitally necessary. A money system evolved. The ratio of exchange which one commodity bore to another came to be expressed in terms of money. This expression in terms of money is known as price. The vast number of specific and continually changing prices

together with the factors and forces conditioning them make up a great complex which in spite of its largely unsystematic character comprises the price system.

The widening of the market, the alteration in production methods, and the introduction of money economy resulted in continually increasing specialization by individuals and groups. The more specialized an individual, a group, or a region became the more it depended upon other individuals, groups, and regions for the necessities and comforts of life. A villein on the English manor was far more self-sufficient than a worker in a modern automobile factory. Although an automobile could never have been produced on any English manor, almost every villein did produce the overwhelming majority of those items which were necessary for the maintenance of his family. The assembly-line worker, on the contrary, although adding his minor bit to the complicated operations necessary to the production of a modern automobile, probably does not produce a single item necessary to the maintenance of himself or his family. His food is produced by a large group of specialists such as wheat farmers, hog raisers, dairymen, and fruit growers. He is dependent for his clothing upon the cotton growers of the South, the sheep ranchers of the West, the rayon spinners of the East, and many other specialists. His house was constructed by specialists. His children are educated by specialists. His very existence is dependent upon the continued functioning of this myriad of specialists and their coordination to supply his particular needs and wants. This all-important function of coordination required and resulted in the evolution of a price system.

The process of specialization and integration in terms of pecuniary standards extended, of course, to the worker himself. When his relation to his work and to his employer was removed from the personal and intimate basis of the small town and placed on a purely price basis in the maelstrom of the impersonal market, the wage system was

born. The worker found that he could command the services and goods supplied by other specialists only to the extent that he was able to dispose of his own time and efforts in the impersonal market and thus comply with the arbitrary dictates of a price system. Human relationships, both those involving persons and things, were thus reduced to the common market denominator—price. Production became separated from consumption, and the market became the center to which most effort was directed and from which most satisfaction was derived. Money became the measure of value, and the market became the center of economic life. The impersonal price system became the director of that economic life.

B. STRUCTURE

The price system consists of those patterns of thought and action that govern the behavior of individuals in the market. Price is merely one measure of man's attitude toward wealth. It is expressed either in terms of some one commodity such as gold, silver, wampum, tobacco, or rice or in an established system of calculation. Money is the term applied to the commodity or the system of measurement. Usually such a system represents a highly developed form of money and consists of the mathematical expressions of some original amount of the commodity called the basic monetary unit. But irrespective of the form or complexity of a given money, the relationship it bears to all the various commodities produced by the industrial system is determined by the activity of people in the market.

The structure of the price system is greatly conditioned by the attitudes of people in the market where exchange of goods and services takes place. The long and roundabout methods by which modern goods are produced often obscure the nature of exchange. Instead of goods for goods, most modern participants exchange money or claims for goods. Furthermore, the bargaining or choosing process is conditioned not so much by the comparison of goods as by the

comparison of prices. Buyers and sellers think in terms of a common denominator—money. The fundamental difference between this process and the older barter trade of preindustrial civilizations can be appreciated when we examine the thought patterns involved.

A barter economy exists when people think in terms of the use or functional value of actual commodities. A money economy exists when people think in terms of purchasing power. The difference is one of thought patterns. The two are often erroneously distinguished by the presence or absence of money in a transaction. When goods are exchanged directly for goods, the action is termed barter; when goods are sold or bought for money, the action is termed money economy. But this is a very superficial analysis. Goods may be exchanged directly for goods and the action may still be in terms of money. The real difference is not in the outward action but rather in the mental processes of the participants. Examples of the two types of economy may serve to make the real difference more evident.

An excellent example of barter is the activity of very young children when they trade toys. A child may gladly exchange an elaborate and complex toy truck for a simple wooden top because he has grown tired of the mechanical truck or found it too difficult to wind and operate. The child with the top may trade with equal eagerness because he has exhausted the possibilities of the top and is lured by the new and greater possibilities of the truck. Neither child considers costs or market values; in fact, such concepts are foreign to their patterns of thought. Rather, they consider the use value or pleasure derived from the newly acquired possession. This is barter in its purest form.

It is interesting to note how the concept of price or money economy is instilled in the minds of children by parents who think in terms of money. The mother of the child who traded his truck for the top may view the action as a foolish type of behavior and endeavor to correct it by

calling the child's attention to the money values of the two items. She may tell the child that he was cheated by trading a truck costing $2 for a top costing ten cents. This she may try to bring home to the child by telling him that he could buy twenty tops with the money his dad spent on the truck. By such paternal discipline the thought patterns of the child are changed from those that characterize barter to those that characterize money economy. Money or market values are slowly substituted for use values as the child grows from infancy to youth.

But barter is neither childish nor confined to children. Two farmers may barter their respective surpluses. In remote sections or where a ready market for small quantities of produce does not exist, farmers may trade their goods directly. One may have too much pork, the other too many potatoes. If they trade in terms of the use value of these things, the transaction is barter. But the mere fact that no money changes hands is not conclusive proof of barter. If farmer Jones who has one pig more than he can use trades it for ten bushels of Smith's bumper crop of potatoes, he may still think in terms of money. He may reason that a pig brings $10, whereas potatoes sell for only $1 a bushel. Here we have a transaction in terms of the price system. The important difference is the frame of reference in terms of which the trade takes place.

1. Money

The price system could not exist without a system of money calculus. Money is merely a device which serves as the common denominator of all goods and services. In an elementary form money is a commodity which has a nearly universal use-value and hence is generally acceptable. But as an economic system grows in complexity, money may come to consist of a mathematical system of calculation. When money is held by a person for a long time he often appraises it in terms of its use. Thus gold and silver

were the chief bases of monetary systems when the volume of trade was relatively small. But even at that stage of development the chief medium of exchange was not actual metal but intrinsically worthless coins or pieces of paper that were convertible into the useful metals. For a long time these counters circulated freely and performed the services of money because people thought in terms of barter. Gold and silver were the commodities that people were willing to accept in exchange for their services or wealth. They gradually came to think of these basic metals as something stable in value and hence different from all other commodities. Because people thought of money as a commodity of fixed value, it came to be used in a variety of special ways.

a. FUNCTIONS: The assumed functions of money reflect the attitude of people toward a special commodity. Among the merchants, the original users of money, it served as a *medium of exchange.* In this capacity it served well. To the extent that money enabled the holders of one type of wealth to exchange it expeditiously for other forms of wealth, it marked a great advance over barter.

Money came to be used as a *store of value* when gold and silver were actually used as coins and when people still thought of these metals as useful commodities. Furthermore, the general acceptance of such coins in the market, together with the general stability of prices, led to the widespread belief that money was the most stable form of market value. The prices of specific goods changed, but in general the gold unit commanded about the same amount of goods at one time as at another.

Closely associated with this use of money as a store of value was its use as a *standard of value.* Of course, the primary function of money is to serve as a measure of market value or the relative worth of all other commodities. The idea of a standard reflected the thinking of its users about its constancy. A standard should be as nearly fixed or constant as practicable. This imputation of fixed value

to money was largely a result of the use of counters.[1] These commanded more in the market as money than as metals. Furthermore, they were fixed in size and composition. Hence the idea that money is a fixed measure or standard of value was the result of a confusion of ends and means. To this day the average person is prone to judge the value of two identical commodities on the basis of the prices paid at two different times. Though no difference is evident, the fact that one cost more than the other is taken as *prima facie* evidence that one is better than the other.

This idea is again expressed in the use of money as a *standard for deferred payments*. The loan of money came to be dissociated from the wealth it commanded in exchange. Contracts came to be written in terms of money rather than the actual wealth concerned. When a loan was made, the repayment of a fixed sum of money at the termination of the stated period was assumed to restore the parties to their original relationship. The fact that the prices of goods might have risen or fallen in the meantime found no recognition in the law of contract where debt was fixed in money rather than purchasing power.

Finally, money is supposed to serve as the *basis for credit*. This is merely an extension of the idea of the fixed value of money apart from the value of the counters used in exchange. The heart of the matter centers in the value of money. Unless money is stable in value it can never serve adequately in any capacity save that of a medium of immediate exchange where the time element is reduced to a minimum.

b. EXPRESSIONS: The functions of money have varied with the nature of money and with the complexity of economic organization. Today, all the functions described above are performed by money but not with equal efficiency. To understand more adequately the functions of money in our modern industrial civilization, we must first

[1] Counters are coins whose stated face value exceeds the market value of their metallic content.

understand the nature and characteristics of modern money.

Money has an infinite variety of meanings. If a man who wished to make a will asked his lawyer how much he is worth, he might be told $40,000. If the same man were to ask his banker how much money he had, the reply might be $2,000. Again, if the man's wife were to suggest an evening at a night club and asked her husband how much money he had, he might truthfully reply $25. Yet all these expressions of money have one thing in common. They all are concepts of certain claims which one man has upon society. Let us examine the content of the concept as expressed in the three answers.

The broadest concept of money is a system of calculation. The unit used is the one common to the region; in the United States it is the dollar. We need not inquire what a dollar is, as such, but merely remember that it is a unit of measurement. When so used it is thought of in the same sense as a foot, a gallon, or a centimeter. In our pecuniary society each individual relates himself to the economic system through price. He thinks in terms of money values. The money value of his wealth is not a mere tagging of each of his possessions with a price. Very little of an individual's wealth is so simple or concrete as to permit such procedure. Indeed, most tangible forms of wealth consist of equities or rights. The man in our example may own his home in the sense that he has a deed to it, but his right to use it is subject to maintaining the equities of others. An insurance company may hold a mortgage against it for $5,000. An individual may hold a second mortgage for $1,000, and another individual or corporation may hold claims against our friend that would have to be paid before the house could be sold. Our friend's car may be similarly covered by claims. Even the money he has in the bank may not be his unconditional wealth. His deposit of $2,000 may rest upon a loan from the bank which requires a minimum balance of $1,000 to be maintained at all times. How then did the

lawyer arrive at the sum of $40,000 as the money value of the man's wealth? Certainly some system of calculation was required in which money was the common denominator.

1. *Accounting:* Accounting is the term applied to the system of calculating the money value of a given organization of wealth. Although first developed by businessmen to determine the condition of an enterprise, the idea is not only applicable but actually used to a degree in arriving at the money value of an individual's wealth. The most highly developed form is used by corporations, which are considered both by law and by accountants as entities quite apart from the people who own or operate them. We shall examine the finer aspects of this system of calculation when we study the corporation as an institution. Of course, the corporation has its life and being embedded in the institutions of property, the price system, and enterprise; but the details of accounting can be best understood as a feature of the corporation.

The worth of an individual in terms of money is a matter of the relation of his assets and liabilities. The balance sheet or financial statement is merely a picture of his place in modern economy reduced to dollars and cents. Assets are those items which add to or increase his wealth; liabilities are those which detract from or reduce his money worth. In general, his assets are those money values which he holds or to which he has legal claim, while liabilities are those which he owes or upon which others hold a claim. Of course, in arriving at the money value of any item certain basic assumptions are made. One of these is that the market is the final arbitrator of money values. This in turn rests upon the assumption that competition is active in the market and that price is automatically kept to a minimum by its force. Another assumption is that all wealth depreciates, that is, diminishes in money value by reason of use or obsolescence. Another is that market value, in the form of an actual sale, is the best approximation of society's judgment of the worth of any item. On the basis of these

and other underlying assumptions, the balance sheet of our friend might appear as follows:

FINANCIAL STATEMENT
JOHN ROE
Dec. 30, 1940

Assets		*Liabilities*	
Real estate:		Mortgages:	
Home	$15,000	Home—first	$ 5,000
Other	5,000	Home—second	2,000
Tangibles:		Others	2,000
Furniture	5,000	Car	575
Automobile	1,000		
Securities:		Loans (on basis of collateral pledged)	
Bonds	10,000	Bonds	5,000
Stocks	9,000	Stocks	2,000
Current:		Insurance	1,000
Deposits	2,000		
Savings	5,000	Bills due	550
Notes receivable	1,100		$18,125
Insurance (cash value)	5,000		
Cash on hand	25	Net worth	40,000
	$58,125		$58,125

Such a concept of money is a highly advanced one. It reduces all forms of wealth and all forms of obligations or claims to a single uniform value. Here the man in question believes that he has a general claim on society for $40,000. Of course, this does not mean that he is in the same position as one who has $40,000 in currency, for his wealth consists of many forms which could not be easily or quickly converted into cash or its equivalent. But, nevertheless, in our society money finds its highest expression as a system of calculation.

The second estimate of the man's money worth suggests another very important aspect of money. His banker says he is worth $2,000 as far as his checking account is concerned. Banking is an inherent part of our monetary system. To understand its relation to money and the price system we must study the primary functions of banks. Many people believe that banks are mere depositories of cash and are at a loss to understand why all depositors

cannot withdraw their money at the same time. A sketch of the evolution of commercial banks will disclose the reason for this situation.

2. *Banking:* In the late Middle Ages, when money economy was beginning to appear in the coastal cities of Europe, the chief forms of money were coins and bars of gold and silver. Merchants found the keeping of gold and silver a distinct hazard. Among those ordinarily handling large quantities of precious metals were goldsmiths who made all types of bric-a-brac for the wealthy lords and ladies of the day. Such craftsmen usually had strongboxes or vaults as a part of their equipment. To these men the other craftsmen and merchants brought their surplus cash for safekeeping just as the wealthy nobles often stored their gold plate and jewels. In both cases the goldsmith gave a receipt for the material left with him. In the case of personal possessions these receipts called for specific items. But merchants cared little for gold as a useful commodity. To them it represented purchasing power. They cared little whether they received the identical coins or plate when they turned in their receipt. All they wanted was a given amount of gold of a given or known degree of purity. The result was that goldsmiths soon found their vaults filled with a mass of gold and silver against which many merchants held claims in the form of deposit receipts. In fact, it soon became customary to issue such receipts for standardized quantities of gold such as grams, ounces, etc. When a merchant came to the goldsmith for the return of his deposit he cared little what form it was in as long as it met the requirements for weight and purity (fineness).

When this practice became firmly established, two other complementary ones grew up. The goldsmith found that during the course of a year he paid out and received many pounds of gold, but only on rare occasions was he obliged to open his cumbersome vault. As one merchant deposited gold another withdrew it, so the total receipts for one day about balanced the payments. Furthermore, he found that

instead of withdrawing all or part of his deposit a merchant usually asked for an exchange of receipts. Suppose a weaver had ten pounds of gold on deposit with a goldsmith. When he bought a new supply of yarn he merely brought the spinner to the goldsmith's shop and asked for five pounds of gold and a new receipt for the balance. The spinner, not wishing to take the gold out of safekeeping, merely asked for a receipt. Thus a new depositor was added to the goldsmith's list. The gold did not change in amount or place. The paper claims merely changed hands. This gave rise to the practice of writing orders on one's deposit. These orders were the first checks. Since most merchants in a town had gold on deposit with the goldsmith an important function of the goldsmith came to be the transferring of claims against the hoard of gold in his safe. This practice further diminished the flow of gold into or out of the vault.

As the profit motive became the established basis for productive activity and the old medieval laws against usury relaxed, the goldsmiths hit upon a most profitable device. At one stroke they increased their own fortunes and augmented the purchasing power of the community. Since only about 10 per cent of the gold ever passed in or out of the vault, most of it was idle money. No one knew how much a goldsmith had in his vault and no one cared as long as he could receive his deposit on demand. Since ten pounds of gold would normally enable a goldsmith to pay all demands made on a hundred pounds of deposits, he reasoned that he could safely expand the claims on the gold in the form of loans. A merchant wishing to take advantage of the low price of a commodity, but lacking gold, would borrow the required amount from the local goldsmith, for a specified period of time and at a given rate of interest. This interest charge was merely a deduction from the profit which the merchant would make. He shared his profit with the goldsmith who made possible the whole transaction. If the commodity in question was at some distant point, such as a town down the coast, the merchant would actually draw

out the gold and take it thence for payment. To protect the goldsmith the merchant usually gave him a mortgage, note, or some other claim on his stock of goods or other form of tangible wealth. If the merchant failed to repay the loan at the specified time, the goldsmith could sell the pledged wealth to satisfy his claim and to replace the gold that he had paid out.

Of course, most loans were made to petty merchants in the town who used the claim to negotiate a local deal. No gold flowed in or out; merely more claims against the stock of gold changed hands. Thus the goldsmith expanded the amount of purchasing power in the community. Instead of all deposits being backed by gold, deposits came to be backed by claims on the tangible wealth of the community. The gold acted as a means of settling such balances as the ordinary transfer of claims failed to satisfy. Instead of nine out of ten pounds of gold lying idle in the vault, the full ten pounds came into use to support and give confidence to borrowers whose wealth became the real security behind loans expressed as a hundred pounds of gold. The goldsmith received interest on this expansion of credit. To encourage the depositing of all gold with him (so that loans could be expanded) he offered to pay interest on the deposit of gold. But he paid a low rate on a small base while he received a high rate on a much larger amount of loans. If we use the rates that prevailed in eastern United States just before the depression we can easily see how lucrative banking became and why the credit of modern times has been swelled to such proportions. Many people believe that when bankers paid 4 per cent on deposits they received 6 per cent on loans, and thus realized a 2 per cent margin of profit. An examination of the facts discloses a very different picture. Let us suppose the goldsmith operated on such rates (in truth they were much higher). For every dollar of gold he received on deposit he paid four cents interest each year. But each dollar of gold enabled him to loan many dollars of credit. In normal times $1 in gold supported

$10 in loans. Under such circumstances the alert banker received 6 per cent on $10 while he paid the lower rate of interest on only $1 of deposits. Thus at a cost of four cents he obtained sixty cents interest. To be sure he served the community by converting a large part of its real wealth into money and its equivalent. People continued to think in terms of the gold and silver coins which still circulated, but to an ever-increasing extent bank credit and bank accounting served the needs of business and constituted the larger element in the now complex concept of money. The creation of deposits through loans was not, however, the final device of bankers to augment the supply of money.

Many transactions involving the transfer of gold were far removed from the office of the goldsmith-banker. Holders of receipts often ordered the sum paid to another by writing a statement to that effect across the back of the receipt. A receipt might contain a dozen or more such assignments of the gold before it was presented at the goldsmith's for cashing or for credit to the account of another. This practice grew into the checking system of today where the mere writing of one's name across the back of a check is all that is necessary to transfer the face amount to another.

The goldsmith developed another lucrative device from this practice. Instead of a deposit receipt he came to issue his personal notes in payment of claims. These notes bore no interest and could pass from one holder to another without the formality of endorsement. Furthermore, they came to be issued for standardized amounts of gold such as a pound or shilling. By making them payable in gold on demand the goldsmith made them the equivalent of gold. Since few holders ever bothered to exchange them for the metal, they passed freely from hand to hand and became an important part of the currency of the country. To the goldsmith they represented a further expansion of his gold reserve and a means of expanding his loans without increasing his cost.

Thus the monetary system of western countries grew from the simple practices of the goldsmith. The function of receiving deposits gave rise to the much more important functions of making loans and issuing currency. Of course, our modern banking system represents a long step from the early practices here described, but that important supporting institution of the price system is still built around these three basic functions. In fact, under the Federal Reserve System today, gold has been completely demonetized and is the basis for the entire monetary system as expressed through the banking structure. Our monetary system has almost reached the stage where it is an abstract system of calculation.

3. *Currency:* The third use of the term "money" in our original example—where the man said he had $25 in money—brings us to still another and simpler form. If he had been asked to check his estimate he would doubtless have drawn from his pocket a variety of paper and coins. Paper dollars, as they are called, constitute the major form of hand money in circulation today. There are four forms in common use: government notes (greenbacks), silver certificates, Federal Reserve notes, and national bank notes. All of these pass freely from hand to hand and are legal tender or convertible into a form having such designation.[1] None are convertible into gold and with the exception of the silver certificates none are backed by a 100 per cent reserve in metal. The coins are all token money. This means that their value as coins exceeds their value as metal. A silver dollar contains less silver than it will buy in the open market. The minor coins—half dollars, quarters, and dimes—all contain much less silver than their face value. Nickels and pennies are practically worthless as metals and are mere small change conveniences. All coins could easily be made of copper or aluminum, but the historical precedent accounts for the traditional forms.

[1] Legal tender means that money so designated is certified by law to be valid in the payment of any legally enforceable debt.

At one time governments tried to keep coins at or near their market value in metal. In fact, coins originated as pieces of metal certified as to weight and fineness (purity) by some authority in whom the users had confidence. Today, while this is still true of coins, it has lost its original significance. The value of coins, like the value of all currency, rests upon the faith of people in their social and economic organization, especially as expressed by government. How far we have departed from the concept of money as a commodity was vividly demonstrated when the President exercised the power given him by Congress to change the gold content of the dollar. The theory offered by his advisers was that by decreasing the gold content more dollars would be required to relate gold to other commodities. But the dollar was a mere symbol in the minds of the vast majority of people, and, although the official content of the dollar was decreased nearly 50 per cent, the price level did not respond. People still accepted the paper currency and coins as mere tokens of an abstract concept. A dollar remained as unity in a mathematical hierarchy of prices.

Thus money is a vast pattern of ideas. Its outward expressions—accounting, bank credit, and currency—are mere symbols and tokens of a thought process. Money is, as one author so aptly expresses it, "essentially a sort of ticket. Its peculiar quality is that it is a ticket to no specific thing, but rather a generalized ticket to anything."[1] Money is a legally recognized claim of an individual to wealth and services as these are offered in the market. It makes little difference whether gold, silver, paper, or a mere bookkeeping entry is used. The important thing is that it is a valid claim to wealth which gives its owner command over that which he acquires through purchase. One of the major problems of money is that of maintaining it as a unit of measure. Modern technology could never accomplish its wonders in Golden Gate Bridges and Empire State Build-

[1] WARE, C. F., and G. C. MEANS, *Modern Economy in Action*, 1936, Harcourt Brace, p. 83.

ings if its units of measurement—the inch, the pound, and the acre—were constantly changing like a rubber ruler in the hands of an infant. Modern economy has failed to use the fruits of modern technology largely because its units are a shimmering uncertainty.

2. The Market

The price system operates in that elusive but ever-present entity called "the market." Exchange is the distinguishing characteristic of the market, and wherever a transaction involving price takes place a market may be said to exist. Exchange covers much more than the mere buying and selling of commodities. It implies specialization and cooperation. It embraces the whole mechanism of price determination. When a landlord sells the services of his land for rent, when the capitalist sells the services of his purchasing power or property for interest, or when the laborer sells his personal services for wages, exchange takes place. We speak of the labor market, the money market, the stock market, and a host of other markets. The central idea is always an exchange transaction in terms of price. In other words, the exchange and market functions of our interdependent society are one and the same. Exchange refers to the limitless price transactions that occur in the numerous markets of capitalism.

The market is the focal point of a pecuniary society. It can be defined as the area within which the forces affecting price operate. The market affords a measure of the pecuniary worth of property and services by establishing a running series of prices. The price established in the market is the gauge which gives owners of similar goods or services a basis for measuring their wealth or worth. Market prices are the concrete evidence of the impact of gain-motivated individuals and groups acting in the capacity of buyers and sellers. The process by which the actual prices are determined is involved and intricate. It permeates the entire economic structure and embraces every productive

and consumptive activity of specialized and hence interdependent persons. Today prices are the bases upon which the whole economic system rests and in terms of which it operates. Changes in technology, business organization, or wage rates affect the intricate price structure through the market. They impose upon the web-like price system a strain to which it must accommodate itself. The shock of a fundamental technical change sends out its disturbing influence until it meets prices flexible enough to absorb it or rigid enough to withstand it. A price is a monetary summation of all the forces conditioning the value of a commodity. The price system is pecuniary shorthand for an economic system in operation. As a result, prices are as pervasive and varied as the industries and social arrangements whose structures, patterns, and functions they reflect. Prices bear the mark of policy, custom, exigency, and accident. The market is merely the area of human activity where interests and efforts of mankind find expression in terms of money calculation. Sometimes this area is well defined and well organized as in the stock exchange; sometimes it is vague and only erratically expressed as in the case of real estate; and not infrequently it is a shimmering and short-lived expression of the impact of conflicting interests. But always the market is an expression of social activity. The whole complex social system as we know it today in America is knit together into a functioning entity by the phenomenon of price relationships. Price, as expressed in the market, largely determines the amount and kinds of goods produced, the channels of distribution through which they move, and whom they ultimately serve or satisfy.

Income is a function of the price system. Money determines the relative income of individuals in the first instance, but prices determine the more important aspect of income by regulating the amount of actual goods and services which an individual finally enjoys. Income refers primarily to a flow of wealth during a period of time rather than to

the amount of wealth existing at a given time. Socially, income consists of the goods and services resulting from the productive activities of a group such as a nation. Individually, income consists of purchasing power or money. This dual aspect of income is the result of the separation of those who produce specific items of wealth from those who consume them. In a primitive community practically all income is received directly by the inhabitants in the form of goods and services. Usually the family produces the major part of the goods and services that they enjoy as consumers. But in a complex pecuniary society, income is received, in the first instance, as money paid for contributions made by its members or their property in the production of actual wealth. When the individual converts his money income through the medium of the market into actual goods or services he receives his *real income.* Money income is thus a primary factor in determining the amount of real income that an individual may enjoy.

Money incomes are themselves a function of markets. Wages, or the return to workers, are determined in the labor market; the rate of interest, or the return to those who loan or apply their purchasing power (capital) to production, is determined in the financial market; profits, or the return to those who successfully produce a product that sells for more than its total costs of production, are determined in the general market for goods; and even rent, which accrues to owners of real estate, is a differential determined by the market for building sites and the products of the soil.

Wages, interest, profits, and rent are often referred to as the returns to the factors of production. But, in the final analysis, income is paid to individuals who contribute their energy, ingenuity, purchasing power, or real property to the intricate process called "production." As individuals, their share is largely determined by the rate of return on the factors they control. Some individuals receive their money

income from more than one source. Workers may receive interest on investments as well as wages for their services. Enterprisers often own land and buildings used in their business and receive rent and interest as well as profits. But, no matter what the source of an individual's income, its amount is conditioned by the prices paid for the factors he controls. The market for productive factors thus determines the apportionment of money income among individuals as well as factors.

What any given individual or group receives is not necessarily proportionate to his contribution, however. The share of the goods and services going to any person depends not so much upon his contribution as upon his bargaining power. Basically, his share depends upon the amount of money income he is able to obtain for his services or property. The control of a scarce but much demanded good or service will result in a high price and a large monetary return to its owner. This large income becomes his claim on the total product of society and enables him to enjoy a very large share of the goods offered for sale in the market. A vitally needed but abundant good or service yields its owner a small money income. His claim on the total goods and services produced will, therefore, be small. Anything that enables an individual or group to control the market for goods or services increases money income. To this end we find producers using advertising to control the conditions under which their branded products are sold on the market. If they can persuade the consumer that no other product can yield him so much or such unique satisfaction, they can remove their products from the influences of competition and charge all the traffic will bear.

Likewise, it is primarily for the purpose of affecting the market conditions surrounding the determination of price for labor services and goods that employees and employers form organizations. Trade associations endeavor to maximize the money incomes of their members by fixing prices, by allocating the supply which can be sold at these

most profitable prices, and by regulations in the form of trade agreements. Labor organizations likewise attempt to maximize the money income of members by collective bargaining, setting of standards (by which output is usually restricted), and regulating the conditions under which newcomers can enter the trade. Always the object is to remove a given group of income receivers from the effects of the impersonal forces of the market where price is a function of numerous competing buyers or sellers. We are not here concerned with the process by which specific prices are determined. Rather we are concerned with the operation of the price system as a whole. The activity of the market is carried on in terms of price, but it is more basically an expression of people acting in the capacity of producers and consumers. We shall, therefore, find its operation an important feature of the institutions of enterprise and consumption.

Chapter 6

Operation of the Price System

The price system is an extremely complex and pervasive institution. Its ideology is gain; its structure resides in money values and exchange mechanisms; its functions embrace the valuation of all human activity and property rights, the guidance of production and consumption, and the mobility of wealth. Its effects touch all persons who receive their share of the world's goods and services in return for a specialized service or the use of their wealth. To explore all its ramifications would be to penetrate into every nook and cranny of capitalism. Our problem is of necessity one of selection. How can we discern the scope, functions, operations, and effects of this institution without discussing the whole of economic society? Certainly no institution can be studied apart from the social fabric in which it resides and has its being. We can only hope to trace a few of the threads which form the pattern called the price system and discern how these contribute to the larger pattern called capitalism. Often a few threads form a pattern of their own, often they lead into the details of other patterns, but always they are an integral part of the whole cloth. Let us explore the institution of price as it operates in certain spheres of our everyday life.

A. PRICE LEVELS

One of the most important spheres in which the price system operates is that of the general price level. The price of any specific commodity may fluctuate without greatly affecting the welfare of any person or group. Of course, if that commodity is the basic one in some manufacturing process, fluctuations in its price may possibly spell success or failure for certain enterprisers. This is unlikely, however, since even in the simplest fabricating processes, such as brickmaking, the price of clay is a relatively small part of the total costs of production. The prices of other materials, labor, transportation, advertising, and a host of goods essential to the finished product form the bulk of costs. Usually the rise of a single price or of those for a certain type of commodity, such as raw materials, agricultural products, or basic iron and steel, is offset by the decline of other types which fall in response to the constant pressure of technical improvements. The fluctuations of specific prices are indeed significant to the operation of our interdependent, market-centered, industrial system, but they are not a major sphere of price behavior. Rather they are the reflections of the deeper processes that are ever at work in our society.

The general price level refers to the whole price structure. Its movements, while influenced by the behavior of individual prices, are largely the result of the relation between money, in the broadest sense, and the industrial system. If money were constant in value, the price of a given commodity would vary only in terms of market forces, called by economists "supply and demand." In general, the prices of freely reproducible goods would reflect interruptions in supply or changes in demand. Over a period of time, advancing technology would gradually lower the prices of most goods. And although the prices of commodities affected by climatic factors might rise or fall in a given season the prices of most goods would maintain a

fairly constant relationship. This relationship among the maze of individual prices is called the price level and is the best measure of the value of money.

Several features of our current economic order help to maintain the knitting together of prices into an intricate system. In the first place, the threat of substitution prevents any given price from moving far away from the prevailing level. This is particularly true when a number of commodities serve essentially the same purpose. Secondly, prices are related through the costs of the basic resources from which various products are made and the costs of the various types of capital and labor required to produce them. The price of a finished good tends to be a summation of all the prices of goods and services essential to its production. Furthermore, the prices of materials, like those for finished goods, maintain considerable stability since the threat of substitution is present at all levels of production. Wood, leather, and iron compete with each other as the basis for many products. Interest rates and wage levels maintain a fairly constant relationship since profit-seeking employers substitute machines for men on the basis of the relation of interest rates to wage scales. The general price level is fairly constant, therefore, and changes in it are largely the result of changes in the value of money, which in the broad sense includes all forms of cash and credit.

As the general price level rises a unit of money will buy less. Its value, therefore, falls. We say, then, that the purchasing power of money falls when the general price level rises, which is the same as saying that the value of money varies inversely with the general price level. It seems obvious that this is true since we know that it takes more units of money to buy the same articles after a price rise than it did before. That is to say, each unit of money is less valuable than it formerly was. The reverse is also true. When the price level falls the purchasing power of money rises and we may say that its value has increased.

A completely satisfactory standard of value would be nearly stable; its generalized market value would be almost a constant at all times. Our present money is far from satisfactory in this respect. For instance, between the years 1913 and 1920 the price level more than doubled, which means that the value of money fell by more than half. The study of business cycles (booms and depressions) exhibits many examples of this type. If all individuals received proportionately more money as its value fell there would be no cause for complaint, but this unfortunately is not the case. Most personal incomes are fixed in terms of the monetary unit, not in terms of purchasing power. Individuals find themselves worse off when the value of their money falls with a rising price level and better off when the value of their money increases with a fall in the general price level. Because of this changing value of money, debtors may find that they are required to pay back either more or less purchasing power than they borrowed. We shall discuss this aspect of the price system when we consider its social consequences. Our immediate problem is to determine how changes in the price level, and hence in the value of money, can be measured.

1. Measurement

Index numbers enable us to reduce widely varying prices to a uniform and more nearly comparable basis. Without the use of this statistical device it is impossible to compare the relative changes in the value of even two articles having prices of widely varying magnitudes. For example, we may know that the price of a loaf of bread rose from 9 to 11 cents and that of an automobile rose from $790 to $865. But we cannot easily tell which price rose relatively more. By the simple device of index numbers which express the higher price as a percentage of the lower, we can tell at a glance that the 2 cent rise in the price of bread is relatively greater than the $75 increase in the price of the automobile.

Year	*Bread price*	*Bread index*	*Auto price*	*Auto index*
1936	$0.09	100	$790	100
1937	0.11	122+	865	109+

Index numbers are constructed by simply assigning a value of 100 to the first or base price and then determining what number bears the same relation to the second price as 100 bears to the first. It is a simple problem of proportion. Any price can be taken as the base price and given the index number of 100. By multiplying any other price by 100 and dividing the product by the base price we get an index number which bears the same relation to 100 as the chosen price bears to the base price. Furthermore, two non-comparable prices are transmuted into somewhat more comparable terms. Although the price of the auto in the above example is nearly 9,000 times larger than the price of bread, both are transmuted into the same base value of 100. They are made equal for comparative purposes.

When changes in the prices of a number of commodities are to be compared, the technique of index numbers is even more necessary and valuable. The following table shows the price changes in five different commodities. By looking at the figures, it is difficult to determine whether the net price change was upward or downward. Even if we

Year	*Auto*	*Man's suit*	*Radio tube*	*Steak, per lb.*	*Bread*	*Total*	*Average*	*%*
1936	$790	$22.50	$0.55	$0.49	$0.09	$813.63	$162.73	100
1937	865	29.50	0.25	0.39	0.11	895.25	179.05	110+

go to the trouble of computing the total of the five selected prices we shall not be enlightened—in fact, we shall be misled. The total shows an increase of $81.62. If we compute the arithmetic average of these five prices, we will find that there has been an increase of $16.32. If we use only the price figures we might reach the conclusion that the price level

had risen, since three out of five commodity prices rose. If simple totals or averages are used they appear to bear out the impression of a cursory examination. Even when the average prices are compared, the increase is over 10 per cent. Only by computing index numbers will it be possible for us to determine what actually happened to the general price level as exemplified by the five selected commodities. The following table shows the prices of the five commodities reduced to index numbers on the basis of 1936 being equal to 100.

Year	*Auto*	*Man's suit*	*Radio tube*	*Steak, per lb.*	*Bread*	*Total*	*Average*
1936	100	100	100	100	100	500	100
1937	109	131	45	79	122	486	97

When the index numbers are computed for each commodity and averaged, it is found that the price level has actually dropped by almost 3 per cent. The simple arithmetic average of the prices themselves was misleading largely because of the inclusion in the series of the large actual dollar increase in the price of the automobile. It is because the use of index numbers removes this bias that they are so valuable in the computation of the direction of price trends and in the comparison of price levels over a period of years.

One might easily object to the comparison of the price of a loaf of bread which is purchased hundreds of times in a year to that of an automobile which may be purchased only once in four or five years. This objection is valid from both the statistical and social point of view. Of course, five commodities, however typical, are far too few to serve as the basis for determining the price level in any modern community. All current index numbers of price levels are made up of the prices of hundreds of commodities.[1] Nevertheless,

[1] The index number regularly compiled by the United States Bureau of Labor Statistics is based upon the prices of nearly 800 commodities ranging

the objection raised above still has validity. While the inclusion of the prices of numerous items will lessen the effect of any single price, such as that of an automobile, on the total, it will not overcome the non-comparability of certain prices because of the frequency with which they enter the usual expenditures over a period of time. To overcome this difficulty statisticians resort to weighting.

Weighting consists of assigning a number to the price of each commodity which expresses its relation to that of other items during a period of time under study. The effect of this device can be shown by applying it to our over-simplified series. Among the five items in our series the automobile has the longest life and is the one least frequently purchased. We can therefore assign a weight of 1 or unity to it. A suit of clothes has a relatively shorter life (either from a use or style standpoint) than the car. If we assume that the life of the car is five years (and hence will be purchased only once in five years), we can assume the suit has a life of one year so that five suits will ordinarily be purchased during the life of the car. Hence we shall assign it a weight of 5. A radio tube, on the other hand, probably has a life of two and a half years, so it will take a weight of 2 as compared with the car. Meat is a fairly common item in the American diet; probably the average person consumes about two pounds a week. This means that he would buy 100 pounds a year, or about 500 pounds to one automobile. The weight for meat, therefore, would be 500 since we are using the price per pound. On the same basis of reasoning, bread would take the highest weight of all, probably 800. In actual practice, the weights are determined on a great number of bases; sometimes the actual statistics on the consumption of certain commodities are used to find the per capita average; sometimes production in pounds or dollar value is used; and other times the rela-

from food to raw materials such as copper and coal. Other index numbers such as those compiled by Barron's, Irving Fisher Service, and International Statistics Bureau are based upon 200 to 500 specific items.

tion of a year's production of one commodity to that of the total national production is used. In all cases, however, social insight and judgment are needed if the statistics are to be reliable. However, we are not concerned with the elaborate and highly technical science of statistics but rather with gaining an appreciation of the difficulty of measuring changes in the great complex of prices prevailing in the market and known as the price level.

If we now apply the weights to our series, we find a somewhat different result in the final average index number. The index number for each item is multiplied by its relative weight and the sum divided by the sum of the weights (in this case, 1,308). Of course, since each index number for the base year is 100 (or unity), weights will have no effect upon the average. The following table shows the results (each index number in the last table above has been multiplied by its respective weight).

Year	*Auto*	*Man's suit*	*Radio tube*	*Steak*	*Bread*	*Total*	*Average*
Weight	1	5	2	500	800	1,308	
1936	100	500	200	50,000	80,000	130,800	100
1937	109	655	90	39,500	97,600	137,954	105+

Here we find that the results are reversed. The price level has risen about 5 per cent instead of fallen 3 per cent. The cause is obvious. Bread, which rose two-ninths or about 22 per cent, had more influence than the other four commodities combined since its weight number was greater than the sum of all others.

From these results it is evident that index numbers do not accurately measure changes in the price level, although they do indicate changes much more reliably than mere price-average comparisons. As we have suggested, the greater the number of items used in the compilation of the index numbers the more reliable the results. If all commodities were examined at regular intervals in representative

markets of the United States, an index number of the price level could be compiled that would approach a high degree of reliability. Perhaps even the weights could be assigned with considerable accuracy after a few years' research into the producing and consuming habits of Americans. Of course, only a world service could ever approach the greatest possible accuracy since the prices of many commodities are influenced by conditions beyond the borders and control of any one nation.

The effects of sudden changes in the prices of a certain sector of the price level were rather dramatically demonstrated by the index numbers compiled by the United States Bureau of Labor Statistics when the outbreak of totalitarian war in Europe caused wheat and other grains to rise drastically in a few short weeks. Despite the fact that the commodities responding in price to the war scare constituted only a very small number of the 780 used by the Bureau, the resulting index number rose slightly. The vast majority of prices were actually declining during the period. Only by studying the sub-categories of commodities and their index numbers could the cause of the rise be seen. Index numbers are offered by statisticians not to guide the actions of individual buyers in the market but rather to determine trends of the price level so that devices at the command of any country can be used to control price changes and maintain the best possible relationship of long-run obligations (debts) to current prices. With a stabilized price level individual price changes would reflect changes in available resources, technology of production, and consuming habits. The disastrous results of upward and downward swings of the general price level would be largely avoided.

B. PRICE FLUCTUATIONS

Changes in prices, particularly in the general price level, produce important social and economic effects. Since most people think in terms of fixed value money, they are only

vaguely aware of the long-term swings in general prices. In recent years variations in the general price level have produced rather obvious economic effects in the form of unemployment and increased government activity in relief, public works, and regulation. These, of course, have centered the attention of more people upon the price system, but still the average individual is seldom conscious of changes. Several modern developments have tended to make people indifferent to such changes. First, the vast majority of income receivers live in terms of weekly or monthly pay checks. They simply adjust a given money income to prevailing prices for regularly purchased goods such as food, clothing, lodging, and recreation. Secondly, the rapidly growing practice of installment buying has largely obliterated the prices of durable goods by reducing them to a percentage of weekly money income. The cost of financing is cleverly hidden in the easy and apparently small payments. The general result is that a larger and larger part of the wage earner's income is pledged in the form of payments. Such durable goods as refrigerators, radios, furniture, vacuum cleaners, and even clothes are enjoyed by the payers without a very conscious realization of their total costs or of changes in their prices. More and more, successful selling depends upon small down payments and easy installments rather than upon low total prices. To a person committed to a given weekly payment for a period of twelve or even twenty-four months, price changes mean little. He is in no position to take advantage of them. Price fluctuations in goods purchased daily are met by varying the quantity which the customary amount of money will buy or shifting to one of the substitutes which exist for practically every commodity. The fluctuation in the price level means adjustment in spending habits and sometimes definite increases or decreases in general welfare, but the price level changes so slowly that the gradual accomodation to it makes it much less obvious to the vast majority of people who live close to the bare necessity level.

To many people, however, changes in specific prices are frequently felt with considerable sharpness, especially when they concern luxuries which one buys infrequently. From a standpoint of realizing a real income the fluctuations of prices may amount to marked decreases or increases in actual goods or services. This can be readily seen from the predicament of a teacher. In 1935 a teacher in a Midwestern town decided to use $1,000 of her savings for a trip to Europe. After a careful survey of accommodations and itineraries she chose an escorted tour through England and France costing $1,000. She was about to make reservations when she was given an opportunity to teach summer school. Since the opportunity to earn $250 during the summer was rare and since her trip to Europe was really the culmination of many years of saving, she readily accepted the summer work. By postponing her trip one year she would gain the $250 extra pay, plus the $20 interest on the $1,000 in her savings account. With $270 additional money she anticipated a more enjoyable trip; with it she could avail herself of several side trips into Ireland and Italy which the steamship company's literature had listed at $250. The $20 interest would enable her to buy some interesting souvenirs by which to remember her long-planned venture. With such thoughts in mind, the teacher conducted her summer classes with vigor and vitality. As the ensuing year passed she counted the days until her enlarged plan would become a reality. Early the next spring she entered the travel bureau's headquarters to make definite reservations. What she found there, however, was not the means for carrying out her plans and enjoying the rewards of postponed pleasure, but a bitter awakening to the fact that a price change can actually rob one. The same trip cost $1,250 in 1936, so the teacher found that in terms of a European trip she had taught a summer for nothing. Furthermore, the feeling of frustration which the change in price induced detracted from her satisfaction and made her resolve to live in the immediate present with

less thought of the future. The fluctuations of price thus can destroy confidence by literally robbing people of the real wealth they have earned.

Very different economic effects accrue to businessmen from price fluctuations. Changes in the value of money as well as changes in the prices of specific commodities are sometimes viewed most favorably by businessmen. Such changes constitute a gain opportunity for thousands of small enterprisers who think in terms of money. As the price level rises and falls, the shrewd speculator finds opportunity for personal gain. Furthermore, a rising price level has a tonic effect upon business in general. It produces what is called "confidence." Since all prices do not rise evenly, large differentials often develop between certain selling prices and costs. Many of a businessman's costs are fixed over long periods by contract. Market prices tend to rise most rapidly. When a businessman finds the market prices of his product increasing more rapidly than the prices he pays for operating his factory or store, he experiences a definite stimulus to production. He pushes output or stocks up beyond current demand because of his anticipation of rising prices. Consumption, too, responds to the admonition to buy in order to save (before the price rises further). Such upswings are encouraged by businessmen.

But all changes are not a blessing. Price declines have a toxic effect upon production. Prices fixed by contract loom as a millstone around the neck of business. "Confidence" evaporates, and production is minimized so that the least time will elapse between the outlays for materials and the sale of the finished commodity. All businessmen do not look upon price declines as a curse, however. Some "sell short" and try to capitalize on the decline. This simply means that a speculator sells some standard commodity at a prevailing price for future delivery and hopes to buy the required amount at a lower price before the date for delivery arrives. Such short sales are common on the stock and grain exchanges where there is a continuous posting

(public listing) of prices. During the depression, some of the stock market speculators turned apparent ruin into success and fortune by selling the market short. Of course, such practice involves a serious risk since the price may rise rather than fall. If the price of a commodity sold short rises during the interim between sale and delivery the speculator must make good his contract at whatever price prevails and pocket the loss. A speculator may sell 1,000 shares of General Motors today at $50 per share although he does not own a single share at the time of the transaction. He merely agrees to deliver the specified number of shares at the specified price one week in the future. He has, therefore, one week in which to buy the required stock. If in a few days the price of this stock declines to $45 and the speculator feels that it will not go lower within the remaining time, he can buy the required number of shares for $5,000 less than he sold them. This is his profit. But if he should hesitate or the price should rise rather than fall he may be forced to buy the required amount of stock for whatever price prevails on the last day of the week. If this is $55, he suffers a $5,000 loss. Speculation is a phenomenon associated with price changes. It is not necessary that the whole price level change. The prices of specific articles can vary quite independently of the general price level. Any change is a gain opportunity for a speculator. General price rises or declines merely offer increased opportunities for profit from speculation.

1. Inflation

The social effects of prolonged general price movements are very serious. Such movements of the general price level are called inflation when the trend is upward and deflation when it is downward. These are often difficult to detect. Inflation is the term applied to a rising price level caused by changes in the relation of money and goods. The difficulty lies in determining the nature and cause of general price changes. If all prices rose more or less evenly, one would

have little difficulty in recognizing a period of inflation. However, in our complex price structure this is seldom the case. Always some prices rise more rapidly than others. Almost always some prices fail to follow the trend or actually fall. However, the term has come to be associated with the activity of government. The huge cost of modern warfare has forced government to resort to several devices to raise the necessary means for prosecuting a war. Taxation is the basic device. But no modern war has been financed to any great extent by this means. Taxation, furthermore, has the least effect upon the price level since money raised by taxes and spent by the government does not add to the general purchasing power. In such cases the government merely buys more because its citizens buy less. The only exception is where money derived from taxes represents wealth not put to productive uses by its former private owners. In our gain-motivated society few people hoard wealth or otherwise withhold it from productive use (investment). In consequence government expenditures financed by taxation have little or no inflationary effect.

The second device for financing a war is borrowing. This may at first seem to be similar to taxation since one might reason that money borrowed from citizens represents no additional purchasing power for the nation as a whole. However, because of the nature of modern banking, government borrowing represents a great increase in total purchasing power. We cannot describe the intricacies of modern banking, but we can indicate the basic cause for the increase. When the government borrows, it issues interest-bearing notes called bonds. These are considered to be a primary claim on the total real wealth of the nation. Because of this, and of their firmly entrenched position in the thought pattern of modern peoples, they are used as securities for the expansion of bank credit. In the United States, the system of national banks resulted from experience during the Civil War. In order to encourage private bankers to buy bonds the government made its obligations

(bonds) the basis for bank security. By buying the bonds the banks were able to expand their deposits and their note issues. Later, as the banking structure was modernized under the Federal Reserve System, government securities became a major element in creating the reserves which enabled banks to expand the purchasing power of the nation. Government bonds have come to constitute an important means of expanding bank reserves which are the basis for the extension of bank credit in the form of loans. Because of this relationship, government borrowing increases the general purchasing power and produces inflation.

Most serious of all is the issue of currency by a government to finance its activities. The issue of money has long been a prerogative of government. But the even older idea of specie[1] as a commodity, with uses other than as money, has caused governments to keep some definite ratio between the amount of currency and the amount of gold or silver held in its vaults. When each dollar bill was "backed" by a specified amount of gold or silver the paper was believed to be "safe." The idea was that any holder of a piece of paper money could convert it into a given amount of metal. The gold or silver was looked upon as something fairly constant in value. At least its amount could not be changed by government (which has always been somewhat distrusted by businessmen). However, few people ever bothered to convert government notes into gold. If those few who put the paper to such a test could always secure the metal, the confidence of people in the currency was sustained. Consequently, the practice grew up of issuing paper money in excess of a dollar-for-dollar metal reserve. Only a partial reserve was held by the government against the paper issues. A gold reserve of 100 million dollars was found to be adequate to support the confidence of citizens in ten times that amount of paper

[1] Specie is the collective term applied to metals used in the early coinage systems. Today it means gold and silver.

money. As long as the paper was freely convertible few, if any, wanted to be bothered with the gold. This, of course, was similar to the banks which issued credit in excess of their reserves. As long as the money on hand was sufficient to meet all demands, the ratio between total obligations and cash did not greatly matter. Only in times of crisis, when great numbers of people lost "confidence" and attempted to get their money, did either banks or the government find their reserves inadequate. Furthermore, the government had power to give its notes a feature which made them even more readily acceptable than bank notes.

To stimulate confidence further the government endowed its notes and coins with a special feature called "legal tender." This meant that any citizen could legally offer such money at face value in payment for any private debt. In fact, the paper money of government came to depend more upon confidence in the government than in the amount of metal held as a reserve. It was therefore called "fiat money," meaning that its value depended upon the fiat or dictate of the government. Today the term would apply in some degree to most money in circulation.

With this sketch of the relation of government to money we can now understand the effects of government issues upon inflation. When a government buys war materials or other goods with the product of its printing presses, the effects of such action upon the price level are soon felt. These government purchases are largely in addition to those of its citizens, and the price level rises. If the issue is great a dual price system sometimes grows up. During the Civil War many commodities had two prices; one in gold dollars, the other in greenbacks (government notes). But whether the issue is great enough to undermine the confidence of the average man or not, government spending by note issue has a stimulating effect upon the price level. As the ratio of purchasing power to goods increases, prices rise and business feels the stimulus of increased spending.

Inflation has mixed social consequences. Some people gain greatly while others lose heavily. In general, those in debt find their burdens lightened, for their debts, fixed in dollars, come to represent an ever smaller part of their rising money income. Those living from rents, annuities, and pensions suffer greatly. Their fixed money income buys an ever smaller amount of the goods and services upon which their welfare depends. But it is not "the meek and the halt" who alone suffer from inflation. Many of the wealthy classes are reduced to poverty. In our civilization surplus wealth is seldom in the form which yields its owner goods and services directly. A medieval baron had little fear of price changes. He received the fruits of his manor in the form of goods and services from his tenants. Only when he attempted to trade the surplus of his manor for the goods manufactured by craftsmen in the near-by town did he find prices a factor in determining his income. Even there the policy of "just price" protected him against price changes.

In our society, wealth is in very different forms. Those with surplus invest it in land, buildings, and industries. Their investment takes the form of bonds and mortgages. Such securities have definite time and interest limitations. The wealthy man looks to the return in dollars. In times of inflation such wealth literally evaporates, for while the payment in dollars continues undiminished, the purchasing power of those dollars steadily falls. Even the principal diminishes. A mortgage of $100,000 which yields but $5,000 a year drops rapidly in market value. Interest rates on new loans are rising and the investment of a like sum at the new and higher rate will yield a much larger number of dollars in interest each year. As a result the mortgage will bring only such a sum as will enable its fixed yearly interest to return a higher rate. If one buys a mortgage yielding $5,000 a year in interest for $50,000, he will obtain a 10 per cent return on his investment. To regain his principal the original lender must accept only a fraction of his money.

And even if the mortgage falls due and the total amount in dollars is paid, the lender suffers greatly in purchasing power. When he loaned the $100,000, that sum may have represented ten substantial homes. Now at higher building costs it represents but five. Half his wealth has evaporated. During the period of inflation in postwar Germany, millionaires were reduced to utter poverty. Holders of mortgages on giant buildings were unable to buy a single meal with the proceeds. In one case the marks received on the payment of a mortgage, which represented 90 per cent of the value of the building before the inflation began, were insufficient to buy a meal at the restaurant in that building.

Of course all do not suffer. Those who hold wealth covered by debt gain greatly. A 90 per cent mortgage may shrink to 10 per cent of the market value of the underlying property. The owner's equity rises to huge proportions as the debtor's equity diminishes. Speculators find wonderful opportunities for gain. Goods bought in the morning sometimes double in price before evening. But the whole economy is shaken to its core by wild inflation. Although prices rise rapidly, real wealth does not increase materially. Few people can resist the temptation to sell real wealth as prices soar and no one wants to hold money which diminishes in value as the prices rise. The result is a state of frenzied and frustrated economic activity. Real wealth soars in money value but money has decreasing value. To hold wealth is to forego the monetary gain of high prices. To sell is to become poor in goods. Wild inflation is a social catastrophe. Usually such a debacle ends by repudiation of the old money and the issue of new, commensurate with use values.

2. Deflation

Deflation is an even more disastrous process. With a rapidly falling price level the frenzied activity of inflation is transformed into the slow and uncertain movements of

deflation. Debt, the siren whose wiles created the basis for inflation, now appears as the insatiable monster which devours wealth. Creditors may momentarily gain, as their wealth as expressed in dollars grows more valuable, but soon the gains are counteracted by the growing unemployment and increasing costs of public relief. All debtors suffer acutely. Their obligations, expressed in a fixed number of dollars, become an ever larger part of a diminishing income. As prices fall each dollar becomes more valuable. It will buy more goods and more hours of human service. A man who buys a home for $10,000 when he is earning $5,000 a year agrees to work two years in order to pay for the house. Of course, he cannot stop all other activities and turn over his full income for two years to the contractor. Instead he agrees to pay one-tenth of his income ($500) each year for twenty years, plus the interest on the unpaid balance. If during deflation his salary is cut to $3,000 the price of the house, while still fixed in dollars, rises to three and a third years of his effort. He must decrease his living expenses or suffer the loss of what he had already paid. This very fact accounts for the rapid and disastrous downward spiral of deflation. In the effort to maintain the payment of fixed obligations, such as mortgages, insurance premiums, and installments on time purchases, the average family is forced to cut the other items in its budget to such an extent that the production of all but the barest necessities comes to a standstill. And each worker discharged to meet a diminishing demand for a manufacturer's product undermines the income of other workers and producers by further decreasing the flow of life-giving purchasing power. Many prices decline to undreamed-of lows. Farmers and other basic producers work harder and longer for an ever smaller dollar income. Debts remain fixed, however, and disrupt the efforts of flexible prices to absorb the shock of readjustment.

Until the depression of the thirties, deflation was looked upon by many as a purge which cleansed the economic

system of its speculative poisons. But by 1930 the debt structure of America had risen to such heights and had become so intertwined with the whole economic life of the nation that deflation could no longer be relied upon to restore the system to a condition of healthy vitality. As a result the government stepped in to support the sagging price level with loans and spending. A relatively new term —"reflation"—came into common use. This merely meant that the efforts of the government to bolster prices had a definite goal. Instead of merely encouraging inflation, the policy was to encourage inflation to a degree. Furthermore, the idea was developed into a plan to inflate various sectors of the price structure so that a degree of parity among all sectors could be restored. For instance, the prices of agricultural products had declined much more than those for manufactured products. The plan called for raising the former much more than the latter so that the purchasing power of people in each income group would be restored to a position of relative equality. However, the basic idea centered around debt. Here the plan was to raise the price level to that which had prevailed when the debts necessary to the expansion of agriculture, industry, and homes had been incurred. The difficulties of such a plan are evident to all. Since debt is always being renewed and enlarged no attempt to raise the price level to the 1925 or any other level could produce complete social justice. The whole plan was an expedient born of the social dangers accompanying an uncontrolled period of deflation in a debt-burdened society. Until a means of maintaining the price level on an even keel has been devised, inflation and deflation will be cancers in our economic organism, and operations such as reflation can do little more than relieve the patient.

C. MANIPULATION

Another sphere in which the price system plays a major role is that of manipulation of market values. In a gain-motivated, market-centered economy, the opportunities for

an individual to increase his claims on the wealth of the group without contributing to the actual increase of goods or services not only exist in great numbers but may actually be created. Manipulation is a broad term applied to the efforts of individuals or small groups to increase their pecuniary wealth as a result of price fluctuations. Such efforts may consist of attempts to take advantage of price changes or both to induce and to gain from price movements. From the social point of view, manipulation is an individualistic technique. It is distinguished from an economic service, such as the production and distribution of wealth, by its purpose rather than its form. A manipulator is interested in price changes alone. From these he hopes to gain a larger personal claim on existing wealth. He is an individualist in the sense that his methods depend for success upon the vast majority doing the opposite. Furthermore, his methods are largely anti-social in that they conduce to individual gain at social cost, and, even more important, they cannot be widely practiced without serious social impairment. The only social aspect of his efforts is the dubious educational function of teaching people the folly of their ways. The questionable value of manipulation is shown by its being widely practiced in the very area of economic activity where conditions are such that its educational function should be most pronounced.

The stock exchange is perhaps the nearest approach to a perfect market. According to those who believe that competition can automatically regulate our economic system by turning self-interest and the gain spirit to the service and welfare of society, a perfect market is one where price is a true indicator of the wants of a free people. To secure such conditions the commodities offered for sale must be graded, that is, every item in a given class must conform exactly to the standard unit; both buyers and sellers must have complete knowledge regarding the quality and amount of the commodity available and desired; all must act strictly in terms of rational self-interest; and everyone must be on

an absolute parity with respect to opportunities to buy and sell. Under such conditions competition would be strictly a price matter, and sales would precisely record the interests of all participants. The stock market most nearly complies with these basic requirements. Its commodities are perfectly graded. Common and preferred stock and bonds are definite classes of goods collectively referred to as securities. Furthermore, every share of a given type of stock in a given company is absolutely identical in its powers, claims, and returns. The exact offers to sell and to buy are instantly and continually recorded by disinterested specialists, and every transaction is immediately recorded not only on the floor of the exchange but by means of the ticker system in every office where buyers and sellers meet to transact business.

Yet despite the ideal conditions under which security markets operate they are subject to a wider range of manipulatory techniques than almost any other market with the possible exception of the grain exchange. A stock market manipulator can often produce changes in the price of a corporation's securities when there is no change in the value of the underlying wealth, the profits, or the relative position of the corporation. Furthermore, he can accomplish this feat without even owning the actual securities. By offering a large block of shares which he does not own or even possess, a manipulator can often drive down the prices of such stock to a point where he can buy in at a low price the actual shares he had previously contracted to sell at a higher price. The price system is the medium through which such profitable (or often unprofitable) activity may be carried on. The profits and losses established by the fluctuating exchange values of the stock market are removed from the material realities of the world of production by one or more stages. Between the stock exchange and the actual producing factories stands a hierarchy of property rights which compose the legal fiction called the corporation. And there may be not only this intermediary

stage of the corporate structure but a colossal pyramiding of incorporated holding companies as well. It is easy to recall the inverted Insull pyramid, and its collapse. It is quite possible for a minor catastrophe to take place in the securities of a company without affecting in any way the actual operation of the physical properties that are the material basis and foundation upon which the whole security structure rests. It will be remembered that, without changing in any way the factories and plants of the country, the stock market debacle in 1929 wiped out 70 billion dollars worth of security values.

The nature and social effects of manipulating security values will be more fully treated when we examine the corporation as an institution. Like other aspects of our economic life, manipulation permeates many institutional patterns. Although expressed in terms of the price system, manipulation operates within the framework of property rights and the corporation.

D. INVESTMENT VALUATION

One of the most important spheres in which the price system operates as a dominant factor is that of investment. The term "investment" is itself a product of the rise of the price system as an institution. Wealth has two primary uses: to satisfy human wants and to aid in the production of more wealth. Wealth used for the direct satisfaction of wants, as for instance a chair, is called "consumption goods." Wealth used for production, such as a loom, does not directly satisfy any want but is rather a means to an end. Such goods are called "production goods." When production was carried on by the family, the close connection of one with the other was apparent, and efforts were divided between them in such a way as to maximize the satisfactions of the family over a considerable period of time. But, in our specialized civilization, the connection is not so clear. Those who use production goods are not those who enjoy their products. The relation of one to the other

became abstracted into money values as the institutions of technology and the price system grew up. Gradually, all wealth came to be expressed in prices. "Capital" was the new term used to describe wealth in production. Soon the term came to mean any form of wealth that yielded a monetary return. Investment meant the employment of purchasing power in ways that yielded its owner a money income. A monetary return became the distinguishing feature of a vast new category of wealth. Professor William Ashley very aptly states this fact when, speaking of the rise of modern technology, he says, "The primary force that was at work was Capital, and the capitalistic spirit—the desire for Investment for the sake of gain—which was bound up with it."[1] At first actual investment of tangible wealth was necessary to a monetary return. Gradually, the real wealth invested came to be thought of as a fund and came to derive its value from the amount of return it paid.

Soon any right that gave its owner a return in money became indistinguishable from the actual ownership of tangible wealth. The basis for receiving a monetary return, whether it represented real wealth or merely a legal claim, became impersonalized as capital. The monetary return from capital became the basis for arriving at the value of the property rights upon which it was paid. Today this process of valuing investments is called "capitalization." In fact, the value of capital assets has come to depend much more upon the monetary return that they yield than any other factor in modern industrialism. The result is an inversion of original values. Instead of wealth being valued in terms of the contribution it makes to the volume of goods available for enjoyment, the monetary return from property rights determines the value of the tangible wealth upon which they rest. Monetary return is a function of scarcity, not of abundance. A factory may have great power to increase the goods man needs for his well-being, but,

[1] Ashley, Sir William, *The Economic Organization of England; An Outline History*, 1914, Longmans, p. 141.

under the price system, its value depends not upon its productivity in goods but rather upon its return in money.

1. The Process

The primary factor in determining the market value (price) of an income-yielding property right (investment) is the "going rate." This is merely the percentage yield which investors can obtain in the market at a given time. This rate is the market expression of the attitude of buyers and sellers toward investments. Such forces as the amount of securities offered by corporations and by government units, the attitude (confidence) of individuals and groups with surplus wealth, the liquidity or saleability of existing investments, and the established rates of return on institutionalized savings (savings accounts, insurance dividends, and interest on insurance reserves) all condition the going rate of return.

Furthermore, anything which affects the power of the property right or investment to maintain a given return in dollars will affect the going rate demanded on that specific type of investment. "Risk" is the term applied to the conditions affecting the power of a property right to maintain its yield (and, of course, its market value as a productive agent). Ordinarily the percentage rate of return is proportional to the risk involved. If the income is the result of such a productive activity as that of a radio factory, which may suddenly be abolished by some change in the technology of production, then the risk of losing the return, as well as the capital invested, is great. On the other hand, if the return accrues in the form of rent from a well-situated plot of ground fronting on Broadway in New York City and occupied by a sixty-story office building, the risk is low. The going rate of return on such an industrial organization as the radio factory would be high, probably 20 per cent, while that on the Broadway lot would be very low, perhaps only 5 per cent. One wishing to invest his money in a share of stock in the corporation making radios

would pay only up to five times the amount of the yearly dividend. In the second instance the investor would pay as much as twenty times the amount received as ground rent. If the dividend on the stock were $5 per year, a price of $25 would yield its purchaser 20 per cent on his investment. If he could buy the share for $20, the $5 dividend would be a 25 per cent return. Thus, the higher the rate at which a given income is capitalized the lower is the market price of the property right which yields it.

Although the process can be applied to all forms of property incomes, it is most commonly used to determine the market values of securities, especially common stocks and real estate. An illustration may help to clarify the method. Suppose that a furniture manufacturing concern is corporately represented by 100,000 shares of common stock. In 1930 the "going rate of return" on investments in similar ventures was 8 per cent. If the amount paid out in dividends in 1930 was $12 per share, the capitalized value of each share would be equal to the amount of money which at 8 per cent would yield $12 per year, or $150. If the next year the dividends fell to $8 a share the capitalized value of each share would fall to $100. However, if during the course of the depression this particular concern were able to maintain a uniform rate of say $10 per year but the prevailing or average rate on similar types of investments fell from 8 per cent to 7 per cent and then to 6 per cent, how would this affect the value of the stock? The first year a share would be worth $125; the next $142; and the third $166. Theoretically the total value of the concern would rise from $12,500,000 through $14,200,000 to $16,600,000, although the physical plant might from a standpoint of use be worth the same or less.

The process of arriving at the value of property on the basis of the capitalized value of its money return can be applied to tangible as well as to intangible forms. However, since many forms of tangible property are used by consumers rather than by investors the process is less fre-

quently applied to these forms. A more basic understanding of the process as a price phenomenon can be gained from a comparison of the two primary methods of arriving at the market value of such an item as a dwelling. Basically and from the standpoint of consumers the value of a dwelling depends upon the satisfaction derived from using it. Its location, plan, and equipment have a direct bearing upon this basic type of subjective or personal valuation. Furthermore, the attitudes of the person or family, built up as a result of cultural conditioning, determine one's power to appreciate or to arrive at the use-value of a dwelling. But in a money economy this basic type of value is only vaguely related to market value. The two main factors that stand between its realization by a person and its expression in the market are the inequitable distribution of wealth and the scarcity of the material means of satisfaction. To the average person the problem is a matter of translating his use-value considerations into the prices prevailing in the market. Usually the problem assumes the practical aspect of relating one's purchasing power to the opportunities afforded in the market. From the standpoint of a consumer the objective expression of the value of a home is influenced by costs of reproduction and what the market will bring (market price). Although these two are interdependent, we may better appreciate them by approaching each separately.

The cost of reconstruction is most effective as a means of determining the value of a house when it is of recent construction and in a newly developed and partially built neighborhood. Here the opportunity to acquire a lot having similar advantages in location and to build a house affording similar conveniences of structure and plan gives the home seeker a basis for transmuting his subjective valuation and ability to pay into reality. The cost of a near-by lot plus the cost of constructing an identical house afford the prospective purchaser one basis for arriving at the value of the existing property.

Market values are but a variation of the above basis for the determination of price. In a sense the cost of reproduction is merely the summation of the current prices for all the component parts and specialized skills essential to the reproduction of a house. But where a house is situated in an old established neighborhood where no vacant lots are available and where the house is of such design and construction as to make its duplication disproportionately costly because it is out of line with current building practices, the market value or the price it will fetch in the market becomes a function of the way its structure and location conform to the desires and incomes of those seeking a home. Market price will give a rough measure of the degree to which location features such as nearness to schools, stores, churches, and transportation facilities affect the subjective valuation of home seekers. In either case the objective price is viewed from the standpoint of use-value to the prospective owner. We are not here concerned with a complete analysis of all the forces that impinge upon the actual sale of houses in the market. Rather, we are interested in appreciating the fact that users approach the prevailing price of a tangible form of wealth from the standpoint of how nearly the object itself conforms to their concept of what they want and their ability to pay. Such values may rise and fall with changing concepts of what a house should or can be and with changes in the general or specific income of home buyers, but always the basis of value will be use.

But when the house is purchased as an investment its value is approached from a very different point of view. Of course, the condition and durability of the house will be considered, but only as they affect the money expense of maintaining the house as a rent-producing unit.[1] After all expenses of maintenance such as taxes and repairs have been deducted from the total yearly rent, the net return

[1] As here used, rent refers to the contractual type ordinarily paid for the occupancy of a house rather than to the return on a factor of production.

becomes the basis for determining value. The cost of reproduction or the market value will be of little significance. The prospective purchaser cares little about the plan of the house, the convenience of living in it, the type of neighbors or its relation to schools, churches, stores, or transportation, except as these are reflected in the size or regularity of the monetary return called rent. Instead he will look upon the house in the same light as an investor looks upon a stock or bond. Its value to him will be a capitalization of its net monetary return. The price becomes a measure of the value of the house in terms of yielding a monetary income and not in terms of rendering services or satisfaction.

2. Social Results

One might question the fundamental difference of these two methods of valuing tangible wealth, especially in view of the fact that the same basic factors, namely, use-value and ability to pay, condition the amount paid for rent which in turn fixes the base upon which capitalized values are determined. There is certainly a definite relationship between the two methods of approaching value since they both are expressed in price, but a fundamental difference nevertheless exists. The price system may indeed be the basic factor in determining the conditions under which a house is purchased or rented, that is, the conditions under which it is put to use. But a very different set of institutionalized patterns governs the control of the two types of property. Price may determine the time when the home owner acquires ownership, but it will have only a remote effect upon the enjoyment he derives from its use. Its market value may drop to half, but the satisfaction derived from living in the house will be impaired little if at all. On the other hand, the owner of an investment in a house finds his satisfaction limited to the size of the monetary return, its purchasing power, or the goods which the asset as a unit will command in exchange. Furthermore,

the owner of a rented house will find his real wealth subject to the fluctuations of a price system over which he can exert little control. Only if the investor controls a sufficient number of houses in a given community can he exert an influence upon their value as investments. If he owns much of the land and houses in a community he may find his interests as investor directly opposed to those of owners as users. By withholding available lots from use he may be able to obtain a rent out of all proportion to costs of reproduction or market values in terms of use. Such quasi-monopolistic powers do not affect use-values but merely enable those who exercise them to divert a larger share of the real wealth of the community into their hands. The social effects of shifting valuation from a use to a purely price basis are most pronounced when the monetary return (for use) is from the exercise of ownership rights in real property such as factories or businesses which cannot be used directly in the satisfaction of wants but only in the production of goods and services for sale.

The social aspects of capitalization of a monetary return are threefold. First, the process focuses the attention of owners upon the price system which confuses wealth with its measure. Secondly, the process results in shifting the efforts of owners from the use of wealth to produce greater abundance of goods and services to its use to produce changes in the market value (price) of existing wealth. Thirdly, the process increases the vast hierarchy of marketable claims on wealth (securities), for only to the extent that real property can be expressed in negotiable rights can capitalized values be fully realized.

Even more important are the effects of such methods of value determination upon the entire structure of capitalism. Property values which are held for their monetary return or the prices they command in a gain-motivated market are called liquid wealth. Such property is "irresponsible" property since it does not depend upon the performance of any service on the part of its owner in return for the claim

upon the national income which it affords him. The theory concerning the social value of liquid wealth is that it enables speculators to serve the social good. A speculator is one who attempts to gain wealth from changes in the prices of goods. His interest in wealth is not that of a user or even of an investor but rather that of a trader. When prices are rising he buys; when they are near the peak he sells. By such activity the money value of income-yielding property is supposed to be kept in line with the underlying activity of the productive system. The management of productive wealth is supposed to pass into the hands of the shrewd or of those who have faith in recovery. When only a small part of wealth was in a liquid form the theory fitted the facts tolerably well. But when the percentage of the total wealth that is covered by liquid claims becomes large, the effect of the shrewd "getting out" and letting the ignorant or indolent suffer the consequences is to undermine the entire productive wealth of the country.

In the book *Liquid Claims and National Wealth,* the authors have shown the social effects of the increasing liquidity of capitalism.[1] The percentage of liquid wealth in the United States rose from 16 per cent in 1880 to nearly 40 per cent in 1929. The amount of wealth that can be liquidated, that is, thrown upon the market for conversion into money, has grown to such proportions that the whole economic system operates with its eyes upon the ticker tape and other market barometers. The fluctuations by which traders normally "get in" and "get out" at a profit are only a disturbing influence when the economic system is functioning with high output of goods and the wide distribution of purchasing power. But when the pointer flutters steadily downward the holders of liquid wealth consider it time to sell out. Once started, the liquidation grows from a little stream to a major flood which sweeps all before it. Everyone wants to sell; no one wants to buy.

[1] Berle, A. A., Jr., and V. J. Pederson, *Liquid Claims and National Wealth,* 1934, Macmillan.

The result is that prices toboggan with ever-increasing speed toward the mythical zero. It was under such conditions that prices of shares in the leading corporations of the United States fell from fantastically high to absurdly low levels.

A few examples of variations in the prices of the common stock of leading corporations under a wave of liquidation will suffice to illustrate the point.

Stock	1929 *high*	1932 *low*
Anaconda Copper	174⅞	3
Atlantic Refining	77⅞	8⅝
Bendix Aviation	104⅜	4½
Bethlehem Steel	140⅜	7¼
Chrysler Motors	135	5
General Motors	91¾	7⅝
Goodrich Rubber	105¾	2¼
N. Y. Central Railroad	256½	8¾
Radio Corporation	114¾	2½
Sears, Roebuck	181	9⅞
U. S. Steel	261¾	21¼

The falling barometer of stock prices indicates merely the penalty which speculators had to pay for their folly in promoting a paper-value boom during the roaring twenties. Our system had become too interdependent and sensitive for the effects of a tidal wave to be confined to those who ventured in frail crafts upon the sea of finance. The widespread ownership of liquid wealth imperiled the entire economic structure. Not just a few speculators held the transferable interests in the great American system of production. Banks, insurance companies, investment trusts, and institutions had their resources invested in these "gilt-edged" securities. The wealth of the entire country had become so interwoven that no part was immune to the devastating influences of liquidation.

Under such conditions there could be no automatic adjustment through the operation of the so-called "natural

laws" of our economic system. The purge of liquidation wiped out the innocent with the guilty. The weak could not be separated from the strong. Economic strength no longer depended upon a well-managed and socially essential business. All or none are the alternatives of an industry governed by the fragile threads of financial control. Capitalism is in grave danger of drowning "in its own fluidity." Meanwhile the whole trend of capitalism is toward greater dependence upon price for its operation. Daily our bank deposits swell, life insurance reserves rise, stocks and bonds multiply, and everyone hurries to invest his wealth not in use-property but in rights instantly negotiable and hence wholly dependent upon the price system.

Chapter 7

Expressions and Effects of the Price System

A. THOUGHT PATTERNS

The price system finds its most subtle expression in the thought patterns of those whose lives are molded and shaped by its operation. In our market-centered economy the child very early learns to think in terms of money. "How much does it cost?" becomes the mode of inquiry almost as soon as the expressions "What is it?" and "How does it work?" which are survivals of a handicraft past. As the child grows to participating adulthood most of his knowledge concerning his immediate environment is learned as a preliminary to earning a money income. Even the few remaining activities of the home are appraised in terms of their cost. Gradually the yardstick of price becomes the measure for everything. The machine age furthers this pecuniary attitude by supplying almost every commodity in a form which defies duplication in the home. The child learns to value goods and services not in terms of the amount of skill or energy essential to their production but only in terms of their cost in the market. Even use loses its meaning in terms of satisfaction and comes to be conditioned by the money involved. The capacity of a good to satisfy its user comes to be determined less by the quality of the service rendered and more by the relation its cost

bears to that of other goods. A very young child will find pleasure in playing with clothespins which he uses as animals, soldiers, or logs in his imaginative world. But soon fond parents and the wondrous creations of a large-scale toy industry combine to destroy his childish joy. He is supplied, for instance, with toy soldiers. Then he plays with other children who also have the miniature creations of adults. He observes a difference between his toys and those of his playmates. Some are more realistic in form; others are finer in finish; still others are mechanical soldiers that march about. His requests for similar ones are usually answered with the statement that they cost too much. Gradually he learns that price is the answer to most differences in worldly goods, and he comes to associate satisfaction with money. He finds that what he wants most costs more, and all too soon he comes to value his possessions in terms of their money costs. He compares his toys with those of others in terms of price and comes to think in terms of the amount of money something he particularly enjoys has cost. Gradually the price system becomes his standard of value, and the knowledge that something has cost much brings him increased satisfaction from its use. From an early age he is taught to save so that the good things of life can be his. Small wonder that he so easily confuses price with quality. Market values become his measure of utility. He finds joy in telling how much a thing costs or how much he expects to pay for his next acquisition. By the time he reaches adulthood he is hopelessly imbued with a price ideology. As a man, he tolerates abuse of a sturdy but low-cost chair because it is worth so little, but deplores the slightest scratch on a rickety antique possessing no use-value but commanding a high price.

Interesting illustrations are afforded in the case of jewelry. It is possible to manufacture and sell imitation diamonds of a quality and workmanship that make it impossible for any but a specialist with minutest scrutiny to detect the imitation from the genuine article. If a

diamond were prized for its function as an article of adornment or because it is a thing of beauty, the imitation stone would serve the average person as well as the genuine jewel. But the mind of the individual in a pecuniary society has been so conditioned by the habit of thinking about articles in terms of their market value that the indistinguishable imitation is scorned although its only observable defect is its deficiency in market price. Contrary to the jewelers' advertisements, most individuals buy diamonds not as a financial investment but as a means of establishing social status and reputability through conspicuous consumption. This is only one of the more obvious examples of how the price system conditions the thought patterns of the individual.

Pecuniary standards have so thoroughly permeated our thinking that social status has come to depend upon money income and the type of expenditures given amounts permit. If we take stock of our friends we will observe that their most common characteristic is that they are members of families enjoying a money income not far above or below our own. Of course, we may appreciate them as individuals for their interests, hobbies, or personalities, but when we consider how we came to acquire them as friends we usually find that their income was a very significant though perhaps inconspicuous factor. Income determines the type of people we meet. Many of our friends are fellow workers, which simply means that we are thrown together by those activities by which we earn our income. But of the many with whom we are associated in work only a few are counted among our companions in "off hours." Here the pecuniary standards are a strong determinant. We may associate with our "boss" in the office or factory but not in leisure activities. He belongs to clubs whose dues are many times what we spend for all forms of recreation. He dresses, travels, lives, and entertains in ways we cannot afford. Hence we find our friends among those with comparable incomes so that we can participate in common activities.

Our interests themselves are price-determined. We may have dilettante knowledge of yachts, polo, or foreign travel but we have no functional interest because these activities involve expenditures beyond our means. On the other hand we may enjoy common (or to us vulgar) pleasures such as chewing tobacco or dancing in public halls, but we refrain from them because they will lower our social status. The lowering will come from the disdain with which those we associate with or imitate display toward these activities. And almost invariably these forms of recreation are practiced by those with lower incomes.

The social stratum on which we live is thus marked by class lines based not upon birth and title but upon income and expenditures. Social standards are pecuniary standards and while we may find consolation in the much-lauded opportunity to rise in the economic and hence social scale we find that such movements are becoming increasingly difficult as those forms of wealth which yield large income pass into the hands of a relatively few families who find further restrictions necessary for the protection of their social leadership. The hierarchy of income-defined social classes in America is fortunately far from that rigid status which marks hereditary classes, but an examination of the distribution of money incomes will disclose the statistically small chance for the "average" family to climb far up the pecuniary ladder whose rungs support social status. At the top of the American hierarchy stands the leisure class whose pattern of consumption sets the pace for all those below to imitate and strive for. The goods and manners of those whose abstinence from participation in productive activities enables them to devote their entire time to spending and enjoying their unearned incomes become the norm to which many in a price-minded civilization aspire.

Many years ago Thorstein Veblen produced an institutional study of our pecuniary civilization.[1] In this pioneering work he pointed out numerous ways in which the attitude

[1] VEBLEN, THORSTEIN, *The Theory of the Leisure Class*, 1899, Macmillan.

of the wealthier classes toward consumer goods were conditioned by the price paid rather than the satisfaction enjoyed. Hand-wrought goods are considered superior to the machine-made product, not because they are more durable, useful, or nicely adjusted to the needs of the possessor, but almost entirely because they are made less efficiently and hence at a higher cost. Machine-made goods are much more uniform and more nearly perfect, but since they are cheap they possess little of the quality essential to "pecuniary reputability." The ostensible basis for the superiority of hand-wrought goods is a certain margin of crudeness which is dignified by the term "craftsmanship." As Veblen well says, "This margin must never be so wide as to show bungling workmanship, since that would be evidence of low cost, nor so narrow as to suggest the ideal precision attained only by the machine, for that (also) would be evidence of low cost."[1] Price must be evident without being conspicuous. Our entire social structure is permeated with this pecuniary basis of value. We shall reserve further discussion of it until we consider the institution of consumption.

B. SOCIAL CONTROL

Power to control others may be gained and exercised in various ways. In modern society personal power often rests upon the accumulation of wealth and is exercised by using wealth to manipulate the forces of the market in such a way as to bring about certain desired results. Wealth enables an individual or a corporation to direct and control the disposition and use of goods. Since the institution of private property gives the owner the right of exclusive control within wide limits, the wealthy may withhold goods and land from use no matter how great the social need for them may be. For example, it has long been common practice for private owners to withhold urban land from use precisely at the time when its scarcity was causing rising

[1] VEBLEN, *op. cit.*, Ch. 6.

values and rents. This was done, of course, in the hope of rigging the market and reaping the personal benefits of higher prices or rents.

Wealth gives power not only over property but also over persons. In a society characterized by specialization, competition, and money economy, the great mass of individuals must depend for livelihood upon the sale of their services in the labor market. The money income that the efforts of an individual will command in this market is conditioned partly by such personal factors as aptitude, training, and alertness, but mostly by the impersonal powers of property and the price system. The freedom of life, liberty, and the pursuit of happiness is largely of the negative type and can scarcely be enjoyed without the ownership of property or the consent of property owners. Within the factory the technical aspects of the process are the prime determinants of the conditions of work, but when the plant closes down the impersonal force of the price system is a cruel master. The ownership of the means of production imposes little or no social obligation under corporate organization and the price system. When the giant Ford plants were shut down in 1927 during the shift from Model T to Model A, many thousands of dealers and workers were ruined by being deprived of their means of income. They were able and willing to perform their specialized duties, but since they were without access to the means of production financial ruin was imminent. To the company they were merely labor units for which it had no use and which it could not maintain without financially ruining itself. To the economic system they were liabilities. The impersonal price system was a major factor in their ruin.

The price system permeates the whole social process and guides human actions in terms of pecuniary rather than use or moral values. The attitudes which guide individual behavior are strongly colored by the price system. Attitudes are perhaps the most powerful agency of social control in

any society. The price system is a powerful and often sinister force in the building of attitudes. Its effects upon young people can be appreciated from the following example. A young couple who had saved a few thousand dollars decided to marry. Believing that the quality of family life is conditioned mainly by the type of home in which it is carried on, they decided to begin the purchase of a house. They believed that the feeling of permanence which ownership conveys conduced to an intelligent expression of thrift and of greater effort in converting a house into a home. To minimize the risks of losing their property through heavy interest charges and maintenance costs they decided to buy a small well-built house in which their $2,000 savings would represent a substantial equity. Accordingly they bought a house costing but $5,000. In view of the husband's salary of $2,500 and the interest charges of $180 per year, they decided to pay $50 a month on the principal. The interest would diminish rapidly as their equity increased. The Smiths thus got off to a good start as serious and substantial young citizens in the year of 1929.

Another couple, the Joneses, decided to buy a house at about the same time. They had married after a few evenings in a night club where soft music and stimulating beverages minimized sober thinking about the responsibilities of a home. They decided to buy a house not because either believed ownership essential to a well-developed home life but because it would permit them to use a house as they pleased and to create an impression of wealth. Their procedure indicated their attitudes. With the $1,000 that they had recently gained by a lucky tip on the stock market they set out to buy the largest and flashiest house that eager real estate promoters would sell on a "shoestring" down payment. The result was a large, ill-built but impressive house costing $10,000. With another windfall they furnished the house with the gaudy furniture which impressed price-minded friends with the success of its owners. Neither worried much about the fact that the husband's

meager salary of $1,200 from a brokerage office would never cover the interest charges of $540 a year, the installments of $50 per month on the principal, and the taxes. "We'll make it in a 'killing' on the stock market," expressed their attitude toward their new obligations.

Two years later the flood of liquidation had brought the whole economic system near collapse. Both the Smiths and Joneses had been severely hit by the retrenchment policies of an unprofitable business structure. We see them in the office of the company which holds the mortgages on their homes. John Smith explains that his salary has been cut in half and that a child is about to increase the problem of subsistence. He can pay this year only the taxes and part of the interest. The principal must wait. The manager of the company has known him and his wife since childhood and has every confidence in their honesty and ability. But he explains that his recommendations have been rejected at the home office of the company in New York. Smith's case is only one of thousands, and big business cannot be conducted on a personal basis. He must foreclose. To defy the orders from above would not help his friend but would merely add another family to the list of unemployed. John Smith and his wife see the home on which they have lavished so much personal labor taken from them by the impersonal forces of a price system.

Joe Jones finds very different treatment at the hands of the same mortgage company. The manager has known him and his wife since childhood and has confidence in neither their word nor their ability. Yet the orders from the home office are to urge Jones to pay the taxes but under no circumstance to let him give up the property and move out of the house. What causes such obvious injustice to be meted out by an impersonal business concern? Are not the Smiths the very bedrock of a sound economic system and the Joneses the speculating type who jeopardize the entire structure?

The price system often dictates the ruin of the thrifty and the salvation of the indifferent. Within the confines

of business operating under the impersonal dictates of pecuniary profit lie the answers to this apparent paradox. The value of both houses had fallen drastically. Smith's house had a market value of only $3,000 while Jones' had fallen to $5,000. But the former was in fine condition and represented a home which many could still afford while the latter required repairs that made its purchase, even at half its original price, a poor investment. In Smith's house the mortgage company had only $2,500, since the principal had been reduced by nearly a year of regular payments. The Joneses' house represented a hopeless situation. The $9,000 mortgage far exceeded the market value, so foreclosure could only increase the investment of the company through taxes and necessary repairs. Any payment Jones might make on taxes represented a clear gain to the company, and his living in the house kept it in fair repair and protected it from the rapid depreciation of vacancy. Smith's house represented a profit opportunity. By gaining ownership through foreclosure the company could sell the house for a profit of $500 and thereby realize a return upon its rapidly declining business. The dictates of a price system gave the company no alternative. But it produced pecuniary gain at terrific social cost. The Smiths would no longer believe in the system that had so ruthlessly destroyed the work of years. The Joneses found that debt was an asset and protection; their philosophy of life proved good in times of stress. The price system can thus build attitudes that may ultimately destroy it.

C. CAPITAL ACCUMULATION

One of the most common manifestations of the price system is interest, or the price of capital. According to the widely accepted theory, the interest rate automatically determines the proportions of the annual production of wealth which flows into savings and that which flows into consumption. As an aspect of the institution of the price system, interest is merely that part of wealth received by

the owners of legally recognized claims on the national income. To understand adequately the nature, functions, and social implications of interest it is necessary to answer five questions: What is interest? Why is interest possible? What determines its rate? How does the rate affect the division of income between savings and consumption? What institutionalized forces influence the amount of savings under industrialized capitalism?

1. Interest as a Regulator

The nature of interest is difficult to explain. In general, interest is the price paid for the use of man-made wealth, especially those forms used in production of wealth by roundabout (capitalistic) methods. Interest is technically the money value of that part of the increased physical product which is paid to those whose surplus wealth is loaned to an enterpriser to make possible the increase in wealth by reason of a superior technology of production. Such a payment is supposed to be socially justified on the theory that the only way production goods (capital) can be secured in sufficient quantities is to induce consumers to save and loan part of their income or wealth. The fact that immediate pleasures are usually more intensely desired than postponed or future ones is supposed to make the payment of interest necessary as an inducement to save and as a compensation for the pain of abstinence. Usually interest appears as a sum of money paid at stated intervals for the use of purchasing power in the form of either money or credit. The amount is determined by the rate. Six per cent interest means that for every hundred units of purchasing power (dollars, marks, or francs) the borrower pays six units per year. Interest is a function of time and percentage.

Interest is possible because capital is productive. This statement requires explanation and qualification. The productivity of capital refers to the increased efficiency of roundabout or capitalistic methods of producing physical

goods. All production is the result of the application of human energy to the materials of nature. The amount and variety of want-satisfying goods that man can produce without tools or other aids is definitely and distressingly limited. Prehistoric man with his meager equipment never got much beyond the stage of satisfying his most vital needs. But even in those early times the increased efficiency of hunting with well-designed weapons, over that with crude clubs or sticks, was apparent. Labor applied, first, to the production of tools and machines and then, with these, to the production of want-satisfying goods produces a much larger output than the same amount of energy applied directly. The larger volume of goods affords the material basis out of which interest can be paid.

The rate of interest is merely the market price of capital. In a pecuniary society it is supposedly determined by the opportunities for profit which the use of increased capital affords businessmen and by the relative values placed by possessors of wealth upon present and future satisfactions. Many economists believe that unless the average man receives a reward in the form of an increased future income he will not forego immediate consumption of his whole income. The differences in the abilities of producers and the variations in the vividness with which consumers view the future are focused upon the market in such a way that the amount paid by the least efficient, or marginal, producer coincides with the amount that just compensates the most reluctant saver to forego the pleasures of consumption. The rate, therefore, is an amount which is assumed to adjust automatically the division of income between consumer goods and production goods (capital). A falling rate indicates that there is less demand for new productive equipment and at the same time reduces the incentive to save with the result that people spend more for consumer goods. The increased demand for goods creates new profit opportunities at the same time that it reduces the flow of income into savings. Businessmen enter

the field of production or expand existing facilities. The result is that the rate of interest rises and consumers are induced to divert a larger share of their income into savings. Thus, the price of capital, the interest rate, is supposed to adjust the volume of saving to the social need for capital.

But instead of obeying the impersonal dictates of the market, in reality a very large amount of saving has become institutionalized quite apart from the rate of interest or the needs of industry. Industrial corporations and insurance companies have arisen outside the compass of accepted economic theory and have come to exert influences as institutions of major proportions. We cannot examine these spheres of the price system as thoroughly as they deserve, but we can roughly sketch their main outlines.

2. Corporate Saving

Corporate surpluses and reserves compiled out of the monetary earnings of the corporation represent one type of saving. Instead of all earnings being paid to stockholders, a large part are withheld by the corporation as the common and undivided wealth of the concern. Corporate surpluses often consist of funds available for payment of dividends but retained by the company for expansion of its plant or for investment in other gain opportunities outside the plant. During the late twenties the surplus funds of many large corporations were sent to New York and used to finance much of the socially disastrous stock market boom. Corporate surpluses are supposed to be similar to individual or personal savings in that the directors of a corporation build up reserves for much the same social reason as individuals. This is sometimes true. However, the important fact about corporate saving is that it is done independently of the rate of interest and of the will of the majority of the legal claimants (the stockholders).

In addition, a corporation regularly sets aside from its income sums called reserves. These are for the purpose of maintaining and improving the physical equipment of the

corporation. During the operative life of a machine, for instance, a sum is set aside each year which will equal the cost of a new machine when the current one is no longer serviceable. Some of these reserves are part of the so-called operating costs; others represent deductions from earnings; all constitute a means by which the corporation can maintain, improve, or expand its productive wealth. The Brookings Institution reports conclude that the amount saved in corporate surpluses exceeds that which would be saved if the total earnings of corporations were paid to individual stockholders.[1] The amount placed in the surplus by the directors is normally a matter of convention or established policy. Usually it bears no relation to changes in the interest rate. When the rate is declining the savings of corporations may move in direct opposition to theory. As the stream of profits diminishes, the flow to stockholders often stops while surpluses increase. This is a matter of judgment not by the stockholders but rather by the corporation management. The only choice open to the vast majority of stockholders is to endure this policy or "get out" by selling their shares. The forces conditioning the savings of corporations are thus often very different from those conditioning the individual. To talk of a corporation's saving in terms of how the interest rate corresponds with its comparison of present pleasures and future gains is to impute to the corporation the rationality of the individual.

The complete divorce of some of the largest corporations from the influences of the interest rate was vividly brought out in the investigation of big business by the Temporary National Economic Committee. One purpose of the investigation was to discover why a steady decline in interest rates did not produce any material increase in the borrowing by large businesses. Despite a steady fall in rates and a marked increase in productive modernization and capacity, the flotation of new securities (stocks and bonds) by the largest corporations was conspicuously small. The investi-

[1] LEVEN, MAURICE, et al., *America's Capacity to Consume*, 1934, Brookings Institution, p. 98.

gation brought out the fact that the larger companies had set up surpluses and reserves more than ample to modernize and expand their vast plants. The interest rate had little to do with borrowing and stimulation of the capital goods industry. As Stuart Chase reported the findings of the committee, the United States Steel Corporation from 1921 to 1938 went through a technical revolution by modernization and additions to its vast steel producing plants at a cost of $1,222,000,000. Yet only a meager part of this came from borrowing. From depreciation reserves came $938,000,000, from profits retained, $192,000,000, leaving less than $100,000,000 from all other sources.[1] A similar record was revealed for General Motors Corporation, General Electric Company, and Class I railroads. In the last instance, of the more than 10 billion dollars spent for plant and equipment from 1921 through 1937, nearly three-fourths (73 per cent) came from internal sources, while less than a fifth (19 per cent) came from the capital markets, the balance of 8 per cent being accounted for by a decrease in working capital.[2] To an ever-increasing extent big business in America is becoming independent of the operation of the interest rate to secure the funds for its productive health.

Furthermore, during the speculative orgy of the late twenties the surplus reserves of many large corporations were used to supply the speculative bubble with its life blood. Much of the effort of the government to control the stock market boom through the operation of the Federal Reserve System was canceled by the action of many large corporations in loaning their surplus funds as "call money."[3]

[1] CHASE, STUART, "Capital Not Wanted," *Harper's Magazine*, February, 1940, pp. 225–234. This account of the findings of the TNEC should be compared with Raymond Moley's "Business in the Woodshed," in *The Saturday Evening Post*, Apr. 6, 1940.

[2] CHASE, *op. cit.*, p. 232.

[3] "Call money" is the technical term applied to loans which are made without a definite time limit. Such a loan can be terminated (called) by the lender or borrower at any time. The chief market for such loans is the stock market. Speculators are willing to pay high rates of interest when funds are

Such use of surpluses increased the money profits of the lending corporation, but they did not contribute to the productive wealth of the nation.

3. Insurance Reserves

The other important institutional hindrance to the automatic adjustment of savings to industrial needs is life insurance. The vast majority of insurance policies combine savings with insurance. The cash value of a policy represents the equity of the policyholder in the investments of the company. Each year a large part of his premium is put into a reserve which becomes one of the largest sources of capital available today. This reserve mounts steadily throughout the life of the policy and goes to swell a giant fund for which the management is always seeking investment. Interest rates and industrial needs have nothing to do with the steady flow of savings into the huge insurance reserves. These are even more independent of the will of the saver than are the profits withheld from stockholders. Few payers of insurance premiums know that a large part of their money goes to finance government, railroads, office buildings, farms, and factories. Once entered into, an insurance policy places such a heavy penalty upon cessation of payments as to force the regular compilation of savings. Since it is in the form of a long-term contract expressed in dollars, it is an inseparable part of the price system. In the last decade the rate of interest has sunk to new lows, but savings continue to mount with alarming rapidity. The division of the national income between consumption and savings is no longer a function of the market price of capital (interest) and business opportunities, but has become an institutionalized practice.

D. INCENTIVE TO PRODUCTION

The acquisition of pecuniary wealth has long been assumed to be the only effective incentive for productive effort in a free, democratic society. The whole literature of

economics is colored by this assumption which was, of course, logically consistent with the laissez-faire philosophy of the late eighteenth century. The United States was founded by men who not only accepted this idea but also held to the doctrine that in the process of seeking personal gain the social welfare would automatically be increased. The rich rewards which a bountiful frontier showered upon individual exploiters blinded them to the fact that the social welfare often increased in spite of the pecuniary incentive, not because of it.

The cultural pattern was shaped by its "core of beliefs." In addition to the fundamental belief that money was the only effective incentive to effort, this ideological core contained other closely allied and supporting beliefs, such as that the chief satisfactions of life are those which money alone can buy and that work, or the effort involved in making a living, is always irksome and can be induced only by the promise of those rewards that a money income can secure. No allowance was made for the fact that man may derive great satisfaction from actual work itself, from the social recognition which others may accord a skillful or dexterous worker, or from the feeling of being an essential element in the great productive process. Under such a pattern the vast majority of people acquired a gain-motivated attitude and tended to adjust their efforts in terms of actual or expected rewards. The greater productivity which usually accompanies an increase in money wages, especially when hours are shortened, is even now cited as evidence that the pecuniary incentive is the only real one under capitalism.

Most modern economists either dismiss non-pecuniary motives as applying to abnormal persons or ignore them entirely. Thorstein Veblen, John A. Hobson, and Paul H. Douglas are among the few economists who have troubled themselves to examine non-pecuniary incentives. Their researches are worthy of careful study. Paul H. Douglas studied the incentives of numerous scientists, businessmen,

and wage earners in an effort to test the validity of the claim that a money reward is the chief if not the only incentive which impels an individual to put forth his best efforts and thus to contribute to the material advancement of mankind.[1]

The field of science affords many examples of men who gave their best for glory, esteem, and even the mere joy of doing. Newton, Darwin, Pasteur, Faraday, and Huxley are but a few of the great contributors to modern science who lacked pecuniary motives. In fact, the quality of some scientists' work was impaired by financial gains. Sir Isaac Newton invented differential calculus and evolved the law of gravitation while a university fellow at Cambridge, but during the last twenty years of his life while director of the British mint at a handsome salary his accomplishments were negligible.

In the field of industry Henry Ford is an outstanding example of a producer motivated by the passion for creative accomplishment. His career is a series of unwise business moves. Again and again he opposed the trend, to attain a product which served the needs of the consumer rather than the profits of the maker. When the prize of "first place" was in his hands he cast it aside and refused to release Model A until it satisfied his craftsmanship and conformed to his ideal of service. In his own words, "business as a mere money-making game was not worth giving much thought to and was distinctly no place for a man who wanted to accomplish anything." The effort to demonstrate the practicability of an ideal and to feel the joy of exercising great power accounts for the actions of many other men. James J. Hill, the empire builder of the West, and the elder J. P. Morgan, the architect of modern corporate capitalism, were often motivated by such non-pecuniary drives as

[1] Douglas, Paul H., "The Reality of Non-commercial Incentives," Ch. 5. in R. G. Tugwell (Ed.), *The Trend of Economics*, 1924, Knopf, pp. 153–188. The writer is indebted to this article for many of the ideas and facts presented in this section.

social power and personal distinction for outstanding accomplishments.

Among the chief non-pecuniary incentives which induce men at all levels to put forth their best efforts in production are: satisfaction of doing creative work that expresses the personality, the widespread urge to tinker and experiment, the desire to gain the esteem of fellow workers, the feeling of mastery which results from the solution of problems, and interest in seeing one's ideas and work live on in the lives of disciples or pupils. Even common industrial workers give their best efforts in production for other than reasons of acquisition. The experience of the Columbia Conserve Company of Indianapolis showed that the efficiency of every worker increased when management and its responsibilities were shared with him in the face of decreased wages. Consumer cooperatives offer other excellent examples. The gain motive, so carefully nurtured by the price system, is certainly not the only driving force in our society, and other motives might be far more effective if given an opportunity to operate. The possibilities of these non-pecuniary motives to bring forth even greater efforts and tangible social accomplishments in the workaday world under a more favorable ideology are well expressed by Professor Douglas. "The motives of working for the sake of work, for altruism, or for non-financial recognition, find themselves swimming against the swift-flowing stream of financial pressure. If, therefore, they manifest themselves even here, it is certain that in societies that are organized to promote such qualities, they would appear oftener and more powerfully."[1]

[1] DOUGLAS, *op. cit.*, p. 156.

Chapter 8

Forces Modifying the Price System

The price system as it operates in the market has been subject to many modifying influences during its brief reign as an institution. Anything which keeps price from relating the production of goods and services to the demand of consumers for such products constitutes a modifying influence. Of course, a price system could and probably would exist apart from a free market, but the pattern of such a system would be different from that we know today. The primary function of the price system is the expression of values and the control of specialized and interdependent economic activities. Competition would be impossible without a price system operating in a free market, but a price system could be imperative even in the absence of competition. Enterprise, on the other hand, would be impossible without a price system. Competition is the pattern under which enterprisers operate in the price-controlled market. To the extent that market conditions are modified the price system loses its efficacy as a regulator and competition disappears. The chief pressures on the free market come from three sources: corporate control of output, labor organizations, and price maintenance laws. These have largely destroyed the original flexibility of the price system and impaired its function as a regulating device in a free and open market. To appreciate more fully

the nature and significance of these modifying influences, let us examine the nature and functions of the old flexible price system.

Under conditions of early industrialism the market was the central if not the only mechanism for price determination. Furthermore, the market mechanism worked automatically. Its function was to correlate the efforts of millions of people each of whom produced only a small part of the goods that society wanted and each of whom depended upon the efforts of others for the satisfaction of his wants. These myriad adjustments were made through the mechanism of market price. Each producer decided what and how much he would make according to the prices he expected to receive in the market. Each buyer decided how he would spend his money income by comparing prices of similar products made by many competing producers. If producers offered more suits or shoes than buyers were willing or able to buy market prices dropped. Buyers who would or could not purchase the suits at $20 or the shoes at $5 bought a large part of the remaining suits at $15 and shoes at $3. Prices, moving up and down, equated what economists call supply and demand. When too much was offered, or when the demand decreased, prices fell; when too little was offered, or the demand increased, prices rose. Lower prices brought more people into the market as consumers at the same time that they put the inefficient or high-cost producers out of business. Higher prices restricted purchases and at the same time increased the supply of goods by the expansion of existing plants or the entry of new producers into the field. The result was a constant adjustment of production to consumption through the medium of price. Flexible prices moved back and forth until the market was cleared of a given supply of goods or until the demand of consumers was met with a larger supply of goods.

If any individual market price got out of line, forces automatically developed to correct it. If any resource or

specialized ability was inefficiently used, prices readjusted themselves until a more efficient use was found. If labor could be employed more efficiently in cloth making or tailoring than in shoe manufacturing, wages would rise in the clothing and fall in the shoe industry until enough workers shifted from shoemaking to clothing production to equalize the productivity in the two employments. If capital became more valuable in weaving than in tanning, the rate of interest offered by weaving establishments would rise until the production or efficiency of capital in the two industries was equalized. Land, likewise, was diverted from less to more efficient uses through the rents offered by competing enterprisers. Thus millions of detailed interrelationships took care of themselves without any centralized plan, and the whole complex economic system expanded and shifted its emphasis by the automatic operation of a flexible and sensitive system of market prices.

A. CORPORATE ADMINISTRATION

Industrial technology has been the chief factor in producing corporate organization and in limiting the market as an impersonal and automatic regulator of the economic system. The development of power technology has required large industrial units and a comprehensive business organization. The new techniques involved in steel and automobile production or in providing telephone or electric power service necessitate a business organization capable of raising large capital, organizing a complex system of machines and workers, and directing the entire financial and physical structure for the production of a marketable commodity or service at prices which will yield a profit. Modern technology, with the corporate organization which it requires, has thus substituted large concentrated units for the myriad small enterprises of early industrialism. These units have introduced a large measure of administrative control in place of the impersonal price relationships of the market. In many industries the corporate units have

grown so large in size and small in number that they can exert a very effective influence upon market conditions. Instead of many small and individually weak concerns, related to demand through the automatic forces of a price system, a few powerful corporations can often relate market conditions to their price structure by control of production. Wherever such situations occur the new industrial units have substituted human judgment for automatic, impersonal processes. Where corporate administration has a hand in price determination it modifies and sometimes destroys the market mechanism of flexible prices.

In those industries where power technology imposes capital requirements that make easy entrance of new organizations impossible, the few large corporations maintain a relatively rigid price structure. Such prices are relatively insensitive to the forces of the market. Prices of services rendered by public utilities, for example, do not respond to changes in market conditions but are fixed in relation to costs and maintained with the approval of public authority (commissions). The industrial field is rapidly developing situations where a few companies maintain prices. A corporation can control market conditions when it produces a large enough part of the total output of the industry to condition the supply. A single wheat grower cannot affect market prices because his output is only an infinitesimal part of the total amount thrown upon the market. Chrysler or General Motors, however, can exercise a very appreciable effect on the market because each produces about one-third of the total yearly output of cars. Such a giant organization cannot, of course, sell any volume it desires at a price determined by its officers. But it can adjust production so that given prices will be maintained. It can also influence demand considerably through advertising. The result is that a reduction in demand brings not a prompt decline in price, but rather a decrease in output. Furthermore, the large producer is not at the mercy of a falling price level for he

can restrict production and wait until the flexible parts of the price system restore a more favorable situation.

The power of large producers to resist the general trend of prices in the market is clearly shown by the following table. The automobile and agricultural implement indus-

DECLINE IN PRODUCTION AND PRICES, 1929–1933[1]

Industry	*Output, %*	*Prices, %*
Agricultural implements	80	6
Automobiles	80	16
Iron and steel	83	20
Textiles	30	45
Food products	14	49
Agricultural commodities	6	63

[1] MEANS, GARDINER C., "Industrial Prices and Their Relative Inflexibility," *Senate Document* 13, 74th Congress, 1st Session, 1935.

tries consisting of a few giant producers stand in sharp contrast to agriculture with its thousands of small producers. In both these industries a few large corporations, each with sufficient capacity to produce the total output in 1932, controlled prices and divided a restricted business. From 1929–1933 the price level declined rapidly and production fell off in all lines. But in the case of automobiles and implements an 80 per cent restriction of output enabled the producers to hold their prices within 16 per cent of the prosperity level. In agriculture, where thousands of producers made a voluntary program of restricted output and price control impossible, a very different situation prevailed. The decline of 63 per cent in the price of agricultural products resulted in only a 6 per cent decrease in output. The impersonal forces of the market forced prices down to a point where the consumers could and would buy the volume of food produced. But in the case of automobiles the forces of the market merely determined the number of cars that could be sold at a price which covered costs. Price did not clear the market of all the cars which would have been produced by many small firms but merely determined

which specific consumers would be able to enjoy the products of America's leading industry.

Where changes in demand are made through production rather than through price, there is often a strong tendency for prices to rise in the face of conditions which in the impersonal market send prices down. The unit costs of production in large plants usually rise as output decreases. This tendency is especially noticeable in railroad and utility rates where the public service commissions usually control prices in terms of costs of the service. The railroads have repeatedly applied for and have often been granted higher freight rates to meet the diminished volume of business caused by the depression and by truck competition. These and other attempts of giant concerns to meet a decline in business with decreased production rather than reductions in price seriously affect the market as a price-determining mechanism.

B. LABOR ORGANIZATION

The price system as an automatic regulator has also been seriously modified by the rise of labor organization. Under the conditions of a free market each laborer sold his energy or specialized skills at the best price he could obtain. The important fact was that he sold a very perishable product under exactly the same conditions as owners of land or capital offered the use of their property in the market. Freedom of contract, the theoretic right to choose one's employer and to quit at will, together with freedom of movement (mobility), made labor a commodity in the impersonal market. No worker was ever supposed to withhold his efforts from the market. Wages were a price set by the supply and demand for labor. Under such conditions unemployment on any appreciable scale was impossible. No person would refuse to work at the best wages obtainable, however low these might be. No employer would refuse to add another worker when he could sell the resulting increase in output for more than the costs of production.

To any rational individual something was always preferable to nothing. Labor fared like all other factors of production: the price of its energy was governed by the impersonal relations of the market.

Labor organization changed the powers of labor in much the same way that the large corporation and trade association changed the powers of producers. The control of the supply of certain types of labor through united action and collective bargaining turned the flexible wage system into a relatively rigid structure. We are not here concerned with the fact that organization enabled the individual worker to bargain on more nearly equal terms with the large industrial units made necessary by the new technology. Unions are but one of the social reactions to the forces of technology. We are merely interested in the fact that unions have been a modifying influence in the market. By controlling the supply of labor the union is able to set prices apart from the forces of a free market. Trade associations endeavor to maximize the money incomes of their members by fixing prices, by allocating the supply which can be sold at the most profitable prices, and by regulations in the form of trade agreements. Labor organizations likewise attempt to maximize the money incomes of workers by collective bargaining, setting standards (by which output is usually restricted), and regulating the conditions under which newcomers can enter the trade. Always the object is to remove a given group of income receivers from the effects of the impersonal forces of the market where price is a function of numerous competing buyers and sellers.

But, like giant corporations, unions are not entirely independent of the market. They can set the price of specific forms of labor over considerable periods of time, but they cannot determine the number employed at such rates. Market forces and industrial organization determine the units of specialized labor employed; unions fix the price at which employers can hire such quantities of labor as their

price policies dictate. And similarly again, the higher prices obtained by organized labor are often secured at the expense of the unorganized workers. The policy of price maintenance by a few giant automobile manufacturers is in part successful because of the lower depths to which non-controlled prices sink. The users of automobiles in the middle income brackets can continue to buy cars at prices which represent a larger percentage of their income only because the forces of a free market have driven prices of food, clothing, and other products to such low points (in order to clear the market) that a smaller percentage of their income is required to maintain this sector of their living standards. The policy of price restriction by unions is often quite successful because a thoroughly organized plant can frequently make up the increased cost of labor from the savings effected in purchasing on the open market goods made by sweated and unorganized labor. The flexible parts of the price system thereby make possible considerable price rigidity in the controlled parts.

C. FAIR-TRADE LAWS

Another of the forces modifying the price system is the new attitude toward property rights in the market. Instead of the old laissez-faire concept of price as a social measure of property rights the newer concept views property rights as a vested interest. Although this attitude is closely associated with collective efforts of manufacturers and workers to maximize income by control of conditions affecting price, already discussed, the attitude is finding formal expression in fair-trade laws.

According to the old common-law concept, title to property passed from one person to another at the time of sale. When a retailer purchased a gross of goods from a wholesaler or manufacturer, the title to them passed into the hands of the retailer. He was free to use or dispose of these goods as he saw fit subject only to the broad restrictions governing property in general. He could sell them at any

price he chose, give them away, or destroy them if he so desired. The assumption was, of course, that as a merchant he would sell them at the highest possible price for this would best serve his self-interest as a profit-motivated enterpriser. When the common-law principle was established, the theory fitted the facts tolerably well. Industry and commerce were in the hands of numerous individuals, each of whom was powerless to affect market conditions or price. Furthermore, the range of commodities in each field was small, and merchants were usually quite specialized and relatively free from heavy overhead costs. Each merchant found his personal interests promoted by selling his small stock of goods at the highest available price. True, competition tended to drive prices down to the level where only the most efficient could derive a profit, but even at this lower level price represented an increase over cost. Each merchant tried to adjust his sales so as to maximize money profit. Since market prices were beyond his control, he endeavored to gain an advantage by buying shrewdly, that is, at lower than prevailing prices.

Today the situation is quite different. The small, independent merchant still survives in most retail fields, but the chain store and supermarket are gradually taking an increased share of total business.[1] In 1935 chains controlled from 35 to 90 per cent of sales. Their greater buying power, efficient methods, and noticeably lower prices threaten the existence of the older and smaller retailer. Between them there is a constant antagonism. Furthermore, multiplicity of brands gives wide choice to the consumer who is more influenced by the national advertising of the manufacturer than by the services of a single store or chain. Complexity multiplies strains and stresses. Each merchant carries a wide range of merchandise. Cutting the price of one commodity, even below costs, may bring trade into his store where he can influence the customer to buy something on

[1] DALLAS, HELEN, *Chain Stores—Pro and Con*, 1940, Public Affairs Committee (*Pamphlet* 40), p. 6.

which his margin of profit is greater. Price cuts are most effective when they are made on nationally advertised merchandise which the buyer has come to use because of supposedly unique qualities. When advertising has built a habit of use, price can attract the customer to a specific store by offering him at the lowest cost the thing he has been accustomed to buy.

But here the interests and property rights of the manufacturer come into conflict with those of the individual retailer. Effective demand rests upon advertising which removes the specific product from the general field and endows it with properties not possessed by any similar product. Brand names and advertising slogans impart unique qualities to a product. One brand of tea has the magical power to awaken the emotions, another carries the exotic aroma of far-away Ceylon gardens. A bar in a carton ceases to be soap and becomes the only means of removing body odor. Another enables one to turn a mere bathtub of water into a beauty bath which even famed Cleopatra could not command. Thus advertising creates a demand for specific products on the basis of allegedly unique qualities. This goodwill becomes a vested interest of the advertiser which can be protected only by price maintenance.

At first thought we may wonder why the manufacturer cares at what price his product is sold as long as the price he realizes at wholesale is maintained. If retailers are foolish enough to cut their margin of profit, this merely widens the market for the product by bringing it within the means of more people who are persuaded of its unique powers by the advertisements. Indeed this would appear to enhance the income of the manufacturer at the expense of the price-cutting merchant. This is frequently true, especially when a product is new, protected by basic patents, or produced by very large manufacturers who can keep newcomers from the field. But in the case of many products a very different condition results. Briefly, this is how price cutting operates to diminish the demand for a specific product.

A product advertised at $1 and carrying a 40 per cent discount is offered by a merchant at seventy-nine cents to attract trade. Soon other merchants feel the effects and cut to this or a lower price to lure the customers into their stores. If the article is an antiseptic or other drug item which enjoys widespread radio, billboard, and newspaper advertising it is likely to be an excellent item to attract customers, and the price may be forced down to fifty-nine cents or even lower. It becomes a "loss leader" and hence an expensive way to attract trade to a given merchant. As the item becomes widely sold at fifty-nine cents, it comes to be accepted by the public not as a $1 article at a "cut price" but rather as a standard fifty-nine cent article. To attract more trade, a given merchant may run a special on the item at forty-nine cents. Soon people wait for sales to buy. When merchants find that this particular item is losing its power to attract patronage, some of them will seek a substitute article which can be sold profitably at or below the now established price for the nationally advertised item. The national advertising may cause many people to refuse the substitute, but others will have faith in the recommendation of the merchant and will try the substitute, especially if they can get a larger amount at the same price. Gradually the sales of the national product fall off and the manufacturer finds himself unable to counteract the forces operating at the retail level. Usually the manufacturer of the original product has reduced his margin of profit at the old established wholesale price because of the ever-increasing outlays for advertising. The net result is that the property right he has built up through advertising has been impaired by those on whom he is dependent for its sale. To avoid this, manufacturers often attempt to consolidate so that the merchants will be forced to buy from them. But much more effective as a price-fixing device have been the fair-trade laws. By recognizing the property right of the manufacturer in the product until it ultimately falls into the hands of the consumer, these laws support

the manufacturer in setting a fixed retail price. Although the state courts have sometimes declared price fixing to be unconstitutional, the majority of courts have upheld the laws on the same theory that they were passed. The Miller-Tydings Act of 1937 merely gave Federal sanction to many state laws then in existence. Since then the trend has been toward increased price fixing.

This most recent and all other price-maintaining devices such as trade associations have the effect of adding rigidity to the price system. To the extent that individuals and voluntary groups (corporations and trade associations) can fix prices, the price system fails in its original capitalistic function of adjusting supply to demand. Rather, price becomes the means for adjusting production to the most profitable level. Instead of clearing the market, price merely determines the amount that will be produced. Rigidity of prices from whatever cause destroys the flexibility of the market. Control, whether by government or giant corporations, is another step away from a self-regulating system of free private enterprise and an impersonal, price-controlled market.

Evaluation of the Price System

The price system stands at the very apex of modern industrial capitalism. Its function is one of relating all the parts of man's economic activities. Money and markets make possible a vast increase in specialization but they tend to focus the attention of all producers on price rather than use-values. The monetary unit is a fluctuating standard and consequently a poor measure of wealth. Market prices are poor measures of either individual or social needs and wants. For this reason the price system frequently misdirects the entire economic organization of capitalism. Money is confused with wealth. Liquid assets rather than wealth for the satisfaction of wants often become the aim and purpose of whole sectors of our economic life. Property loses its significance as a source of satisfaction and becomes merely the means for gaining an increased share of pecuniary wealth. The price system is necessary to any economic system operating under the institutions of private property, private enterprise, and power technology, but unless it is controlled to serve human needs it might so pervert the aims and so misdirect the efforts of mankind as to cause the collapse of the whole cultural pattern in which it is only a single but highly significant part.

BIBLIOGRAPHY

ATKINS, WILLARD E., et al., *Economic Behavior*, 1931, Houghton Mifflin.
Vol. I, Ch. 27. The Complex of Prices, pp. 483–498.
Vol. I, Ch. 28. Changing Prices, pp. 499–514.
Form and function of index numbers; effect of changing prices upon gain opportunities. Good elementary treatment.

BERGLUND, ABRAHAM, "The United States Steel Corporation and Price Stabilization," *Quarterly Journal of Economics*, November, 1923 (Vol. XXXVIII), pp. 1–30.
A study of the economic effects of the maintenance of basic steel prices over long periods. An excellent analysis of rigid prices.

BERLE, ADOLF A., JR., and VICTORIA J. PEDERSON, *Liquid Claims and National Wealth*, 1934, Macmillan.
Part I, Ch. 2. Place of Liquidity in Modern System of Economics, pp. 15–32.
Part I, Ch. 3. Structure Underlying Liquidity, pp. 33–47.
Part I, Ch. 5. Liquid Claims and National Wealth, pp. 70–83.
A scholarly analysis of the meaning, types, forces promoting, and social consequences of liquidity in modern economic society. Somewhat difficult for the elementary student. The chapters cited most directly bear on the relation of the price system to liquidity of wealth.

BURNS, ARTHUR R., *The Decline of Competition*, 1936, McGraw-Hill.
Ch. 5. The Stabilization of Industrial Prices, pp. 195–272.
Meaning, forms, and economic consequences of price controls. Excellent but somewhat advanced analysis of an important modification of the price system.

BYE, RAYMOND T., and WILLIAM W. HEWETT, *Applied Economics*, 3d ed., rev., 1938, Crofts.
Ch. 12. The Price System and Its Control, pp. 235–260.
Nature of market prices; obstacles to the satisfactory working of a price system; comparison of methods used to control competitive and monopoly prices. Some theory, but a good general discussion.

CHASE, STUART, *Government in Business*, 1935, Macmillan.
Ch. 6. Six Studies of Capitalist Decay, pp. 93–117.
An excellent summary of six works by eminent authorities on the factors causing decay—buying power, liquidity, overhead, obsolescence, debt, and rigid prices—and a critical analysis of modern capitalism.

COPELAND, MORRIS A., "Communities of Economic Interests and the Price System," Ch. 4 in R. G. Tugwell (Ed.), *The Trend of Economics*, 1924, Knopf, pp. 105–150.
A very scholarly analysis of the price system as a directive institution, the factors preventing self-interest from coinciding with social welfare, the attempts of social thinkers to find an alternative directing force, and ways of improving the price system as a social force.

DAVIS, JEROME, *Capitalism and Its Culture*, 1935, Farrar & Rinehart.
Ch. 9. Debt, pp. 132–147.
The sources and social consequences of debt as a fixed pecuniary concept. Rather sketchy.
Ch. 13. A Capitalistic Culture, pp. 247–260.
The role of money and price concepts in the American pattern of everyday life.

DOUGLAS, PAUL H., "The Reality of Non-commercial Incentives in Economic Life," Ch. 5 in R. G. Tugwell (Ed.), *The Trend of Economics*, 1924, Knopf, pp. 153–188.
A critical study of pecuniary gain as the assumed basis of enterprise and progress; analysis of the motives of famous scientists, captains of industry, and manual workers; a list of effective non-pecuniary incentives motivating people today.

FETTER, FRANK A., "Price Economics vs. Welfare Economics," *American Economic Review*, (Vol. X), September, 1920, pp. 467–487; December, 1920, pp. 719–737.
A critical comparison of the price system and social welfare.

FLYNN, JOHN T., *Security Speculation*, 1934, Harcourt Brace.
An excellent treatment of the social effects of dealing in securities; analysis of the means by which prices become something quite apart from the underlying wealth which they supposedly represent.

GLAESER, M. G., "Capitalization," *Ency. of Social Sciences*, III, 208–211.
Nature, scope, and significance of the process in the corporate development and control.

GREGORY, T. E., "Money," *Ency. of Social Sciences*, X, 601–613.
Nature of money; origins; theories; types of monetary systems; purchasing power; problems today. Bibliography. Excellent general treatment.

HAMILTON, WALTON H., "Accumulation," *Ency. of Social Sciences*, I, 415–418.
Nature and meaning in pre-capitalistic cultures; forms today; social significance of savings expressed in money values.

HAMILTON, WALTON H., "Organization, Economic," *Ency. of Social Sciences*, XI, 484–490.
Excellent analysis of institutional aspects of economic system. Emphasizes the role of price concepts and controls.

HAMILTON, WALTON H., et al., *Price and Price Policies*, 1938, McGraw-Hill.
The structure, habits, and patterns of control which underlie prices in seven industries: automobiles, tires, gasoline, cottonseed, clothing, liquor, and milk. An introductory chapter deals with the rise of modern industry as the institutional framework within which price is an important element. A concluding chapter deals with the issues in the general pricing problem of modern economic society.

HAMILTON, WALTON H., and STACY MAY, *The Control of Wages*, 1923, Doubleday, Doran.

Ch. 8. The Control of Prices, pp. 91–96.
The effect of price changes upon the real income of labor and some possible means of controlling the value of money.

HANDMAN, MAX S., "Boom," *Ency. of Social Sciences*, II, 638–641.
A brief treatment of the forces producing a speculative boom in the prices of land or securities.

HARDY, CHARLES O., "Market," *Ency. of Social Sciences*, X, 131–132.
A brief analysis of the function of price in the market and of the forces conditioning price and price policies.

HARDY, CHARLES O., "Speculation," *Ency. of Social Sciences*, XIV, 288–293.
Forms and social effects of individual efforts to gain from changes in prices.

HAYEK, FRIEDRICH A., "The Paradox of Saving," *Economica*, May, 1931 (Vol. XI), pp. 125–169.
A scholarly analysis of the social effects of saving as means for gaining individual security against economic forces.

HAYEK, FRIEDRICH A., "Saving," *Ency. of Social Sciences*, XIII, 548–552.
Forms; relation to distribution of wealth, capital formation, and consumption; social evaluation. Good bibliography.

JONES, BASSETT, *Debt and Production*, 1933, Day.
A study of the relation between physical production and pecuniary debt and of the economic consequences of our modern debt structure. Reviewed in Chase, *Government in Business*, Ch. 6 (above).

KNIGHT, FRANK H., "Interest," *Ency. of Social Sciences*, VIII, 138–143 (only).
Historical, economic, and sociological aspects of the concept.

KNIGHT, FRANK H., "Value and Price," *Ency. of Social Sciences*, XV, 218–225.
Historical analysis of the relation of value and price in economic theory and of the factors conditioning the concepts. Rather difficult for beginning students.

MARSHALL, LEON C., *Coordination of Specialists*, 1930, University of Chicago Press.
Ch. 1, Part B. Money at Work, pp. 988–1019.
Nature and functions of money; types of money and credit; role of money in economic organization. A series of excerpts from standard sources.

MEANS, GARDINER C., "Industrial Prices and Their Relative Inflexibility," *Senate Document* 13, 74th Congress, 1st Session, 1935.
A classic document comparing the behavior of prices in various sectors of our economic order.

NADLER, MARCUS, "Financial Organization," *Ency. of Social Sciences*, VI, 241–247.
Brief treatment of origins of financial system; analysis of component parts of current financial structure, especially investment banking.

NADLER, MARCUS, "Stock Exchange," *Ency. of Social Sciences*, XIV, 397–402.

An excellent general description of the organization and functioning of the stock exchange; definitions of many specialized terms; role of exchanges in capitalism.

NOURSE, EDWIN G., and H. B. DRURY, *Industrial Price Policies and Economic Progress*, 1938, Brookings Institution.

A research study of the impact of large corporations upon the old price-controlled market; large-scale production *vs.* low prices; nature and social effects of administered prices. Summarized in Maxwell Stewart, *Industrial Price Policies*, 1938, Public Affairs Committee (Pamphlet No. 23).

PATTERSON, S. H., and KARL SCHOLZ, *Economic Problems of Modern Life*, 1931, McGraw-Hill.

Ch 4. Middlemen and Organized Markets, pp. 71–94.

Excellent description of nature, organization, and function of specialized markets, particularly New York Stock Exchange.

RADIN, MAX, "Debt," *Ency. of Social Sciences*, V, 32–39.

Nature of debt; historical survey of factors conditioning debt in pre-capitalistic cultures; changes in the legal and social concept of debt produced by the rise of money economy and intangible property rights under capitalism. Good bibliography.

ROBERTSON, DENNIS H., *Money*, rev. ed., 1922, Harcourt Brace.

Ch. 1. Merits and Drawbacks of Money, pp. 1–16.

Nature and effects of money upon economic society.

Ch. 2. The Value of Money, pp. 17–38.

Meaning; methods of determining; difficulties. An elementary but competent treatment.

ROGERS, JAMES H., and LESTER V. CHANDLER, "Inflation and Deflation," *Ency. of Social Sciences*, VIII, 28–33.

Meaning and scope of terms as employed by leading authorities; type cases in the United States and abroad; social effects.

SCHULTZ, BIRL E., *Stock Market Procedure*, 1936, New York Stock Exchange Institute.

A brief but thorough analysis of the history and functions of the New York Stock Exchange. An official textbook for employees of the exchange. Numerous pictures and diagrams. Technical but easy to read.

SLICHTER, SUMNER H., *Modern Economic Society*, 1928, Holt.

Ch. 21. Determination of the Price Level, pp. 492–538.

Significance of changes in price level; measurement; relation of prices to money; international relationship of price levels; means of stabilizing the price level; social evaluation.

TAYLOR, HORACE, et al., *Contemporary Economic Problems and Trends*, 1938, Harcourt Brace.

Ch. 15. Money, pp. 163–174.

Functions and types of money in the United States. Good general treatment.

THORP, WILLARD L., "Bubbles, Speculative," *Ency. of Social Sciences*, III, 24–27.

Nature, causes, and consequences of the Tulip Mania, the Mississippi land scheme, the South Sea Company, and some minor recent speculative booms.

VEBLEN, THORSTEIN, *Engineers and the Price System*, 1921, Huebsch (1932, Viking).

Ch. 1. Nature and Uses of Sabotage, pp. 1–26.

A critical analysis of the forms of industrial sabotage practiced by businessmen to maintain pecuniary profits.

Ch. 3. Captains of Finance and the Engineers, pp. 52–82.

How bankers and businessmen control technicians and industry in the interests of market values as expressed in prices.

VEBLEN, THORSTEIN, *Theory of the Leisure Class*, 1899, Macmillan.

Excellent study of the effects of pecuniary culture.

WARBURTON, CLARK, "The Trend of Savings, 1900–1929," *Journal of Political Economy*, February, 1935 (Vol. XLIII), pp. 84–101.

WARE, CAROLINE F., and GARDINER C. MEANS, *The Modern Economy in Action*, 1936, Harcourt Brace.

Chs. 1–3. The Old and New Economy, pp. 3–62.

A non-technical comparison of flexible and rigid prices and of their economic effects.

Ch. 5. Supplying the Right Amount of Money, pp. 79–112.

Functions and forms of money; factors affecting the amount of money available; means of controlling the relation of money and prices.

Ch. 6. Balancing Savings with Demand for New Capital, pp. 113–128.

Factors affecting savings, investment, and capital goods; means of balancing. These chapters are especially recommended for beginners as well as for advanced students.

WATKINS, MYRON W., "Prices—The Price System," *Ency. of Social Sciences*, XII, 366–375.

Nature, structure, functions, and social effects of the price system; theories of prices compared; modern tendencies.

Part III · *The Institution of Free Enterprise*

Enterprise is the institution or pattern under which individuals and voluntary groups manipulate the physical and social environment for private gain. The production of goods and services is one result of enterprise. Property rights supply the social sanctions necessary for private control of the agents of production. By exercising the rights of ownership and by contract the enterpriser brings together the resources, equipment, and human effort necessary for the exploitation of a gain opportunity in the market. Under the legal sanction of property rights an enterpriser can exploit resources as owner or lessor, hire others to work them for him, lease them to others, or withhold them from use entirely. Contract and the price system enable him to secure funds and to convert them into buildings, machinery, equipment, and materials; to hire talent and labor of all types and grades and to direct them in the process of production, exchange, or manipulation; and, often, to control the wants and purchases of those who ultimately use the product or service. Pecuniary profit with its command of real wealth is the bait that lures enterprisers to assume the risks of production. Competition, like an "invisible hand," pits each enterpriser against others and converts profit seeking into social service. Profits supply the power while competition directs and controls the industrial pattern called enterprise. Enterprise is the institution which organizes and coordinates those parts of the social organization called industry and business.

Chapter 9

Origin and Development of Enterprise

The institution of free enterprise is a product of the evolution of commerce and specialized production. Over a period of several centuries, enterprise evolved from the gain-motivated individual who coordinated the services of craftsmen into a pattern of business organization so broad and complex that no individual could manage or direct it. Gradually the functions of the enterpriser were assumed by specialists such as the technician, the manager, and the banker. Early in the nineteenth century the sphere of coordination passed from the individual plant to the price system. Business rather than industry became the narrowing sphere of enterprise. Price maintenance rather than productive efficiency became the primary concern of the enterpriser. As power technology developed and the industrial unit required the coordination of a complex array of specialized men and machines, the corporation arose as the form of organization best fitted to adapt the industrial process to the requirements of pecuniary management and profit seeking. But the enterpriser persisted. Wherever the movement of goods along the lengthening lines of mechanized production involved exchange, price became the bridging element. The enterpriser became a price manipulator who devoted his attention to what Veblen has aptly called the "interstitial relationships" of modern

industry. The price system penetrated every industrial relationship, and costs became the "guiding hand" of industry. Technical processes came to be directed by the conditions of a controlled money market rather than by the needs of the consumer or the welfare of society. Today enterprise is largely a business function. As an institution its social value is being seriously questioned.

A. THE DOMESTIC SYSTEM

The domestic or "putting-out" system afforded the first large-scale opportunity for individuals to become enterprisers. Overseas trade enabled small groups of merchants to dominate the market for certain types of goods, mostly luxuries, but, except in a few Hanseatic towns where the merchants controlled the craft guilds and restricted production to a few exportable commodities, the overseas trade did little or nothing to disturb the entrenched guild production of basic commodities. The market for such goods as could stand the enormous costs of hazardous transport was relatively so small that only a handful of merchants could engage in trade. It is true that many important elements in modern business organization were developed by merchants engaging in overseas ventures, but the supervision of such groups by political powers closed this area of activity to the vast majority of petty merchants who confined their efforts to peddling and distributing imported luxury goods. Enterprise could not become a social force until the means for engaging in trade were open to a considerable number of people. Furthermore, the domination of local trade by medieval guilds had to be broken, and the idea of "just price" and other medieval concepts had to give way to free prices and business concepts.

Conditions favorable to private enterprise developed early in the English textile industry. The rise of modern farming in the seventeenth century displaced thousands of feudal tenants who were driven to the towns in search of work. Here they were met by the entrenched guilds which

held a virtual monopoly of production and trade. However, the jurisdiction of guilds did not extend beyond the town limits. On the fields just beyond the incorporated limits many of these dispossessed families built huts and sought any type of available work. Often they were joined by disgruntled guildsmen who found the costs of mastership beyond their means. The result was that many households became centers of carding, spinning, dying, weaving, and other activities associated with the production of woolens. These humble homes where the family derived its main income from garden plots appropriated from the open fields (often as squatters) offered specialized services quite independent of guild control. Any cash income helped to secure the goods that gardens could not produce. Specialized services could be bought for a mere fraction of established guild rates. Here was a golden opportunity for gain-seeking individuals.

The early enterpriser appeared as the owner of wool purchased from the new owners of grazing lands. He sought the low-priced services of craftsmen outside the guilds. These he found in the suburban huts. He hired one family to card the wool, another to spin it, and still another to weave it. As his property passed from hut to hut it was transformed from wool into cloth. And his investment grew by the amount of wages he paid for the specialized services. What he hoped for was a substantial cash difference between his total outlays and the price at which he could sell the finished bolts of cloth. The market was his master for there the final reckoning occurred. His profit came from his ability to turn out a good product at a lower price. The enterpriser assumed the functions of buyer of material, hirer of labor, and seller of finished products. The amount and kind of cloth he managed to have made from the raw wool depended not upon guild rules but upon his own estimate of what could be sold to the best advantage in the market. What he ultimately made on each lot of cloth depended not upon the principle of "just price" but upon

his own ability to buy materials and labor cheaply and to sell quickly and at a relatively high price. The result was a good product at a much lower than usual price. With the rise of numerous enterprisers, the guild system declined. One by one its members lost their clientele and were forced to seek the new employing class of enterprisers.

As the domestic system replaced the guild system in a trade, one craftsman after another sank from the status of independent master to that of free wage-paid laborer. As a master he had been his own employer working upon materials which he owned and disposing of his product to his own advantage. His guild assisted him to maintain a customary price for his product and a customary standard of living for his family. As a free laborer, however, he worked upon materials belonging to others in producing a product to which he had no property right. He had no friendly guild organization to assist him in maintaining the price of his labor. This intangible and perishable product he now sold in the market for whatever it would bring in competition with that offered by a steadily increasing number of fellow workmen. If the price of the product which his labor produced rose in the market he could expect little benefit since profit belonged to the enterpriser. Profit was the compensation received by the enterpriser for the risk he assumed in the final sale of his property. The risk involved in the regular day-to-day sale of perishable labor energy, which the laborer bore, did not appear to require any compensating reward. The economic conditions favored the enterpriser, and it is not surprising that many grew wealthy and powerful.

B. EARLY INDUSTRIALISM

The Industrial Revolution placed new powers and techniques under the control of the enterpriser. As the domestic system gave way to the factory system the worker's last two remnants of independence vanished. He no longer owned his own tools or worked in his own home or work-

shop. Labor became a mere commodity. The rapid expansion of the market with its attendant requirements of large capital and close attention to price fluctuations made the industrial enterprisers increasingly conscious of costs of production, especially wages. Under the English policy of laissez faire and individualism, the employer came to regard his employees as labor units—the human being remained significant only to the extent that life was essential to the maintenance of energy output. Partly as a result of the competition among propertyless wage earners for the means of subsistence (wages) and partly as a consequence of the organization of the market in which the relation between wages and effective demand for finished goods was not apparent or clearly understood, labor units came to be merely an accounting item in cost determination. Wages, like the price of any commodity, were considered "normal" when they assured an adequate supply of energy units. Ricardo merely expressed the commonplace concept in his "natural rate of wages" theory. Karl Marx made it the nucleus of his attack upon the capitalistic system in the "surplus value" theory. In short, the early English enterpriser viewed labor in much the same way that an American farmer regards his draft animals. To talk of a standard of living for horses is considered foolish since horses are energy-producing units, not beings capable of purpose or aspirations. Likewise, workers in the eighteenth century factories came to be regarded as a necessary expense item in production rather than as the ultimate consumers for whom the goods were being produced.

The relation between wages and purchasing power was not clearly perceived by early enterprisers. The concept of the laboring class as a market was late in origin and developed very slowly. Its extremely slow growth can be explained in part by the rapid colonization of the world and the increasing cost of the almost incessant wars which accompanied the rise of bourgeois nationalism. The relation between wages and market demand was obscured by the

relative insignificance of local as compared with national and overseas demands. Throughout the first phase of the Industrial Revolution, when markets for manufactured goods expanded more rapidly than productive capacity, the concept found little expression. Only in the second phase, when industrial output had increased to a point where distant markets had been fully exploited and further opportunities for expansion could only be found among the workers of industrialized regions, did it find expression in the high-wage theories. Even then the concept of labor as a market was more likely to be held by the merchant than by the manufacturer. The former was close to the ultimate end of the distributive process while the latter was obsessed with costs of production. In America, where the frontier supplied an alternative to wage dependency and afforded an expanding market for manufactured goods, this concept suffered complete neglect until the twentieth century. Only with the disappearance of the frontier has the concept gained headway.

During the period of early industrialism in England the enterpriser gained control of all the factors of production (land, labor, capital, and management) and the socially recognized right to manipulate them for the sole purpose of his personal gain. The capital outlays necessary to machine methods placed the new technology beyond the means of workers and gave to the English enterprisers the control of a new production technique of unbelievable efficiency capable of operating at amazingly low costs. By means of this technique they supplied the increasing English population with better and cheaper goods and in addition invaded the markets of the world, gaining for England the position of leading industrial nation and for themselves fabulous fortunes.

Small-scale industry of early industrialism provided scope for the enterpriser to take a personal interest and an active part in the management of the plant and its industrial functions. Such improvements and advancements as

he made not only provided a competitive advantage for him but also resulted in a social gain in the form of large quantity or better quality at the same or lower price. Only when the scale of operation is small is it possible for the enterpriser to maintain personal relations with the labor force and give direct supervision to the detailed and technical aspects of the industrial process. While these conditions prevailed the enterpriser sought new methods, improved techniques, and made valuable innovations. The individual enterpriser was often an inventor, an engineer, a capitalist, a commercial genius. He invented new processes and adapted them to industry; he invested his own funds and those derived from his family or borrowed from friends; he expanded the market for his product by making business connections in many centers. In addition, he hired labor on a highly personal basis and actively managed the factory. It was during this period that enterprise came to be regarded as a fourth factor in production on a par with or even more important than land (natural resources), labor, and capital.

In England during this period, not only did the population increase but its distribution shifted as the urban centers grew steadily larger and the rural population was coming to constitute a smaller part of the total population. The English industrialist enjoyed a steadily and rapidly expanding market, owing to an expanding population and increasing urbanization at home and the founding of new colonies abroad. Because of the increasing volume of goods absorbed by these expanding markets, the individual plants and the entire industrial organization were enlarged.

It was during this period that the transportation facilities of England were being rapidly improved. The country entered an era of canal building and river dredging. By 1834, England and Wales had nearly 4,000 miles of canals and navigable rivers. Roads were also greatly improved. From an unimproved and scarcely discernible right-of-way, suitable only for pack animals, the macadam roadway

emerged. These improvements in transportation facilities aided the growth of specialization and interdependence and helped widen the market for the products of the now rapidly expanding industries of England.

C. TRANSITIONAL PERIOD

As industrialization reached new fields and new industries, and as its techniques and processes were elaborated, the complexity of the economic organization became steadily greater. The industrial processes were divided and subdivided, specialization became more minute, and interdependence increased greatly. When articles are made by hand each one differs in greater or less degree from all others, but when machine methods are used all units have standard characteristics. One of the prerequisites for large-scale production is the subdivision of a productive process into a series of operations each of which consists essentially of the repetition of the same movement and hence is subject to machine methods. Another is the making of standardized and hence interchangeable parts which can be assembled with the minimum of skilled labor. The beginnings of this procedure are found in this transitional period. Furthermore, the efficiency of the new industrial technology began to threaten the traditional economy of scarcity. Since market values depend upon scarcity, this impending economic revolution gave the enterprisers real cause for alarm. The productive capacity of industry tended to exceed the ability of the market to absorb the products at a sufficiently profitable price. The effort to dispose of the rapidly increasing consumption goods produced an intense struggle for markets. Colonial empires were built and the less "advanced" portions of the world were subjected to imperialistic ventures through "economic penetration."

The increased size and complexity of business, the greatly extended scope of operations, and the increased magnitude of the risks involved demanded a new form of business organization in which the liability of participants would be

limited, the organization permanent, and the sources of capital funds more adequate. The corporation, originally developed in the large-scale overseas ventures, supplied the form of business organization especially suited to the needs of large-scale, power-machine industry.

The changed conditions in industry placed the enterpriser in a position where more and more of his time and efforts were required in the solution of the problems of business management as distinguished from industrial management. The rapid development of large-scale machine methods increased the actual time which elapsed between the procuring of raw materials and the offering of a finished commodity on the market. Furthermore, the complexity of products and processes greatly increased the number of basic raw materials combined into a finished product and also increased the number of products made from each basic raw material. A steamship requires a much greater range of raw materials than a sailboat, and each component part is made by factories producing numerous related products. The steel mills necessary to the production of the basic material used in boilers, cylinders, and actuating mechanism of a steamship can and do also turn out material which ultimately enters into bridges, locomotives, and numerous other products. The machine shop essential to the actual fabrication of the boilers and engines of a ship can and does produce engines for trains, derricks, and other power equipment of modern society. The net result is that around each of the numerous specialized products and services there grows up an industry composed of many small enterprisers, each competitively offering a specialized product. These become related to each other through the price system in exchange. Every time a material or semi-finished product changes hands the institutions of price and property are involved.

Furthermore, each one of the "sales" along the multi-linked chain of specialized production represents a gain opportunity. These "interstitial relationships," as Pro-

fessor Veblen calls the numerous points in our industrial system where price rather than technology governs the movement of goods from one process or stage to another, became both more numerous and more important as industrialism grew more specialized and became permeated with small competing enterprisers. They came to assume even greater importance because they afforded increased opportunities for monetary gain. The problem of production became complicated by the opportunities that price relationships afforded individuals to cut costs and maximize money gains. It is obvious that an enterpriser who gives his primary attention to the financial problems of business management can give only sporadic and occasional attention to the detailed and specialized problems of the technical operations of industry. However, the specialized enterpriser was able to find and to hire technical foremen who were trained in the rapidly developing physical sciences and were thus especially well qualified for the task of promoting industrial efficiency and ensuring the smooth and continuous operation of the industrial plants and equipment. These engineers and technicians came to occupy a position of increasing importance in the management and operation of industry, but were always a mere adjunct to the pecuniary aspects of business.

D. MODERN INDUSTRIALISM

As industrialism attained its modern form its processes became more and more capitalistic and therefore increasingly roundabout and interdependent. The continuous and successful operation of the industrial system came to rest upon a very delicate balance of its interdependent parts. The processes involved in the standardization of parts and their assembly into finished articles reached such perfection that the industrial system developed tremendous excess capacities in terms of the quantities that the market would absorb at a profit. The inordinate productivity of industrial technology which had been imminent in the transitional

period now became a fact, and caused the business enterpriser many new and perplexing problems. The new power-machine technology gave a competitive advantage to a concern only when a large output could be sold. The populous parts of the earth had by this time come under the direct control of industrialized nations; few profitable new markets remained to be opened. Furthermore, industrialization of former backward areas such as the Orient had removed many previously profitable markets. Finally, the new technology required large capital investments which only the corporate form of business organization could supply. The rapid increase in variety and volume of capital-raising securities issued by corporations made the services of financial specialists, the investment bankers, an important link in industrial organization. Partly as a protection to their customers—wealthy individuals, insurance companies, savings banks, and other agencies which mobilized the funds of many thousands of small savers—and partly to prevent the impairment of investments by too much competition, the investment bankers demanded representation in the expanding large-scale enterprises. Adequate financing required the services of these specialists and often gave them a controlling voice in the management of many industries.

Having given a large measure of control to the investment bankers and being confronted with severe competition in the market, the enterpriser found his position one of limited possibilities. On the one hand the technical aspects of industry had long since passed beyond his understanding and into the hands of trained technicians. Furthermore, the rapid advances in technology and ever-greater volume of output lowered the value of existing investments and threatened price differentials. On the other hand, the financial aspects of industry had passed into the hands of investment specialists who controlled the flow of life-giving credit and constantly threatened the value of ownership rights by prior claims on earnings and assets. Two solutions

were possible: a steady reduction of costs below declining market prices or the maintenance of market prices. The enterpriser had already abdicated his position as captain of industry to assume the more lucrative rank of captain of business. He had delegated the entire task of maintaining a smooth and continuous flow of products under maximum efficiency to the technicians but reserved the right to limit the effectiveness of their control whenever the exigencies of the market demanded curtailed production. Industrial efficiency had long been held subordinate to business strategy. Furthermore, costs lowered by the technicians proved to offer only temporary advantage to an enterpriser since competitors quickly developed equally or even more efficient machines and productive methods. An effective and businesslike sabotage upon industrial output was the enterpriser's most practical solution. This businesslike sabotage upon production was necessary to maintain profitable prices with which to meet ever-mounting fixed charges caused by more complex mechanical processes.

The limitation of output through combination offered ever greater possibilities. The activities of competitive business interests were distasteful and dangerous. Each enterpriser used every means at his command to eliminate his competitors. When this procedure succeeded, a monopoly resulted. When it failed, the competitors reached agreements, entered into mergers, or formed holding companies. The result was to reduce competition and stabilize prices. These activities required capital and brought the business interests further under the dominance of the investment bankers. They also afforded ample opportunity for the exercise of pecuniary ingenuity by promoters. Mergers, holding companies, and monopolies are the decadent enterpriser's methods of maintaining scarcity values and profitable conditions. The community whose welfare is best served by a large and uninterrupted supply of useful goods often finds itself at odds with business enterprisers whose interests are best served by limita-

tion of output and frequent stoppages in the industrial process.[1]

[1] One of the first economists to trace the effects of advancing industrialism and finance capitalism upon the institution of private enterprise as outlined in this section was Thorstein Veblen in his *Theory of Business Enterprise* (1904). Nearly thirty years later Professors Berle and Means in *The Modern Corporation and Private Property* (1932) offered an imposing compilation of evidence which supported the theory. More recently (1940) the Temporary National Economic Committee has marshalled a vast amount of evidence that private enterprise and its prerequisite competition have ceased to be effective control factors in many spheres of American industrialism.

Chapter 10

The Ideology of Enterprise

The institutional pattern of enterprise evolved as one of the economic changes which accompanied the decay of the feudal ideology and the emergence of a new interpretation of life. To understand fully the tenacity of the institution we must analyze the patterns of thought in terms of which it arose and by which it is related to many other parts of the culture called capitalism. Enterprise is founded upon a body of widespread beliefs and attitudes. Chief among the basic supporting beliefs is that deep-rooted one called individualism. Around this philosophical core is grouped an array of more specifically economic beliefs and attitudes such as laissez faire, self-interest, the gain motive, and freedom from restraint.

A. INDIVIDUALISM

Individualism is a philosophy of life in which man is both the source and the end of all knowledge and activity. It stands in sharp contrast to the core ideology of feudalism in which man was but the helpless actor in a drama played according to rules he could neither change nor even fully understand, but which, if followed, ushered him ultimately into an idealistic and eternal world to come. It is the direct product of matter-of-fact individuals who cared more about the morrow than eternity. The bourgeoisie created the

material basis for a social order in which the individual became at once the source of all effort and the judge of its effects. The intellectuals created the explanation in terms of which such activity became meaningful and purposeful. The bourgeoisie created the trappings of modern institutions; philosophers supplied them with an ideology.

1. Development

At the time when American political and economic life was becoming established as a system apart from that of Europe, individualism had developed into an articulate philosophy. As expressed at that time it was colored by the writings of the natural-rights philosophers and the free traders. These groups found dynamic expression in France and England. The first group was merely applying the Newtonian concept[1] of natural law to the social problem of government. Chiefly under the leadership of Rousseau (1712–1778), the philosophy of individualism flowered into the doctrine of natural rights and equality. Although the French expressions tended toward advocating the rights of man in the sphere of government, they were not without important economic implications. "Defying divine right, advocates of natural right laid emphasis on man as an enjoying, producing, and consuming animal, thus lending sanction and rationality to the creation and use of goods."[2] The English vein of individualism sprang from the efforts of the rising industrial bourgeoisie to abolish the mercantilistic restrictions under which the older generation of empire-building bourgeoisie and landed feudal aristocracy had gained personal fortunes and political power. The newly emerging group of profit-seeking enterprisers found the military power of the state a serious obstacle to their exploitation of markets created by the application of the

[1] Cf. Ch. 13, Science as the Basis of Technology, especially pp. 279–281 for the origin and nature of Newton's work.

[2] Beard, Charles A., "Individualism and Capitalism," *Ency. of Social Sciences*, I, 150.

Newtonian methodology to the modification of the physical environment. The control of economic life by the state might develop self-sufficiency and military might, but these were directly opposed to the needs of the new technology. With the earth well partitioned among the European nations, the profit opportunities from exploitation of gold hoards and backward peoples gave way to new ones arising from the modification of resources into want-satisfying but scarce goods. Only when each man was free to act in such a way as most completely to satisfy his wants could the resources of nature be exploited through the production and exchange of goods.

The English merchant and industrialist sought freedom of trade for personal gain, but their cause was championed on higher grounds. In England, Hobbes, Locke, and Hume developed magnificent rational justifications for the new order which the bourgeoisie were building. But it remained for Jeremy Bentham to give English materialism its most powerful philosophical support. In his *Introduction to the Principles of Morals and Legislation* (1789) he declared: "Nature has placed mankind under the governance of two sovereign masters, *pain* and *pleasure*. . . . They govern us in all we do, in all we say, in all we think; every effort we can make to throw off our subjection will serve but to demonstrate and confirm it." Here was the supreme example of natural law applied to the economic efforts of man. By endeavoring to increase wealth, the rising industrial capitalists were working with the forces of nature. Bentham went even further in his "scientific" confirmation of economic individualism when he continued: "The community is a fictitious body, composed of the individual persons who are considered as constituting as it were its members. The interest of the community then is, what?—the sum of the interests of the several members who compose it." Individualism had been championed on the basis of utility and the promotion of human welfare. The English vein of individualism waxed strong under the rising factories of

the bourgeoisie and the able writings of such individualists as Adam Smith, Thomas Malthus, and David Ricardo. Free private enterprise seemed to be in keeping with the laws of nature. Under its guidance the new technology could produce an economic world as beautifully balanced as Newton's conception of the universe.

But as the English economic reaction against government monopolies and restrictions upon industry gained headway, the French stream of individualistic philosophy, the political, caused a rapid change in the structure and policy of government itself. Partly through revolution and partly through the growth of new political institutions, governments became more representative of an increased number of their citizens, and the promotion of conditions favorable to individual enterprise became one of their major concerns.

The United States was born amid the European turmoil caused by the breakdown of mercantilism and the rise of individualism in business and government. In the colonies the two veins of the new ideology were expressed by two powerful groups. The New England merchants found the English mercantile restrictions on colonial trade a constant source of irritation and a definite hindrance to the fullest utilization of profitable opportunities. Smuggling and interloping were rife since many goods could not have been imported had the British mercantile requirements for passage through English ports and the payment of high duties been met. The merchants were joined by a number of small but active industrial enterprisers who found the mercantile prohibitions of manufacturing in the colonies a serious problem. The New England enterprisers were eager to gain independence from England on economic grounds. They supported laissez faire, the economic expression of individualism which was beginning to find formal expression in the writings of Adam Smith and other philosophic spokesmen for the rising English industrialists.

The second group supporting individualism lived in a less commercial sphere. The Southern colonies were founded

upon agriculture and were dominated by aristocratic landlords, rather than by commercial and industrial bourgeoisie. The plantation system, using slave labor, enabled the owning families to live in rural splendor. The custom was to send the sons of such families to Europe for higher education. Consequently, the rising philosophy of natural rights and freedom of the individual became current topics of conversation. The philosophy of individualism found strong support, especially among the Virginian aristocrats who looked more to France than to England for intellectual leadership. This group manifested an interest in the political rights of free men rather than the economic rights of merchants. The two groups united in their opposition to an autocratic British government when it attempted to use military force to maintain its mercantilistic policy.

After the Revolution won independence for the states, these groups became active in the construction of the Constitution. The resulting document strongly reflects the philosophy of natural rights and of freedom of trade (laissez faire) which had served to unite the political and economic groups in the formative period. The United States became the world model for economic and political individualism.

As the United States expanded westward, individualism found new and even more fertile ground for growth. Here the frontier offered an unparalleled opportunity for its application to economic gain without producing the social misery that accompanied it in thickly settled countries, especially England. Its strongest supporting concept, natural rights, became the core of our Constitution and around it grew up a host of supporting institutions. The peculiar American conditions were ideally suited to the application of both economic and political individualism. A social system therefore ensued which apparently offered irrefutable evidence of the efficacy and beneficial social effects of the philosophy.

It was not until the passing of the frontier that the social shortcomings of individualism were detectable. As long as

opportunity to exploit nature for private gain existed for the great majority, individualism did not produce the social results that are inevitable when man turns from exploiting nature to exploiting his fellow men. It is not surprising that in America individualism is one of the major factors in conditioning the attitudes of most people on a host of widely varying but interrelated subjects.

2. Expressions

An institution finds its most basic expression in patterns of thought and action. Its more material evidences such as buildings, factories, streets, and other physical products of man's efforts are secondary since they are the results of past thought and activity and merely serve to maintain the established pattern. The more immediate expressions of an institution are the attitudes and beliefs held by people. These guide their thoughts and actions to a high degree. Attitudes and beliefs not only guide action but also serve as an editing device in the accumulation of knowledge and patterns of behavior. This is evident to anyone who considers what part of his past experience guides his present actions. Only that part which produced habits, beliefs, and attitudes can be focused on present problems. The history of a people means little unless its study produces a point of view for approaching new experiences. The institution of enterprise is built around a core of beliefs and attitudes concerning the role of the individual in economic organization. Certain basic beliefs and attitudes express the ideology of individualism and form the framework of the economic pattern of behavior called "competition."

a. Freedom: One of the most common expressions of individualism is the attitude that freedom is good and restraint is evil. Usually freedom is a vague concept. Many people feel that controls exercised by groups or individuals are limitations on personal freedom. Some go to the extreme of denouncing all social controls and even demand the abolition of government. Such people are called anarchists.

Fortunately their numbers are small. Most Americans believe that some restriction is essential to the preservation of individual freedom. If everyone were free to do as he pleased the strong would quickly crush the weak in our acquisitive society. If everyone were free to express his emotions, many would commit acts when angry, excited, or jealous for which they would be sorry when the emotion subsided. The same persons would also demand social control of such action when manifested by others. As a result of these and numerous other anti-social consequences of unlimited freedom, the average person believes in "law and order."

The question of the type and extent of controls that should be included in this phrase constitutes the major problem for adherents of modern freedom. The problem is approached from two points of view. One holds that a person should be free to do anything that does not directly interfere with others. This view is most commonly applied to the acts or laws of government and is expressed in the saying, "that government is best that governs least." It is obviously a survival of the eighteenth century reaction against the mercantilistic policy of European monarchies. The practice of an aristocratic ruling class directing the lives of the underlying population so as to maximize the military power and affluence of the state produced the belief that any act of government meant restrictions on personal freedom. Even when governments became increasingly representative of their citizens and laws were enacted by elected legislatures this attitude toward government persisted. Today it is sometimes supported by business interests which find the popular belief in freedom from social restraint a powerful weapon in combating legislation designed to control business.

The second point of view regarding the proper nature and content of "law and order" does not consider social controls as necessary evils which must be tolerated in order to increase the scope of effective personal freedom. Those who

approach the problem from this view hold that freedom is a function of group action. Freedom is not the absence of restraint but rather the presence of opportunity and power to accomplish objectives. They believe that the freedom of the individual grows out of and depends upon the group. The individual is at best a poor match for the powers of nature. The type of civilization, if that term could be used, produced by individuals or even families or clans living in isolation would be very low indeed. If every such individual possessed all the knowledge of our culture, the results would still be very disappointing to one accustomed to our civilization today. Modern science and technology are products of cooperative action and demand a highly organized society for their enjoyment.

The modern automobile offers an excellent illustration of freedom through group action. No family, however large, could produce the modern car or the roads so necessary to its use. To get such complex products the untrained freedom of the individual must be modified and controlled to gain the much greater freedom of travel and social intercourse afforded by the automobile. The automobile factory is an outstanding example of what would be called regimentation by those who believe freedom consists of absence of restraint. Not one of the thousands of workers in such a factory is free to act as he wishes. His wishes must be modified to conform to the rhythm and pattern of action imposed by modern technology. Similarly, the user of an automobile is not free to drive it as he pleases. He can travel only on established roads and within prescribed limits of speed.

The untrained (often called "natural" or "inherent") freedom of the individual is indeed insignificant when compared with that created by social organization and control. The early American settlers were free to roam the unchartered wilderness of the frontier. To travel from coast to coast required neither license nor permit. Roads were not lined with speed signs or patrolled by police. Today we must obtain a long list of permits before we can even drive our

car. We must secure a driver's license and a state car license. We must have our car inspected and put in excellent running condition. We must obey traffic lights and attending conditions along our route. Throughout the journey we must conform to speed and traffic laws we had no part in making. Everywhere our actions must be controlled to comply with countless rules and requirements. Yet millions of our citizens ride comfortably across thousands of miles of excellent roads and see areas not open to the mightiest pioneer of the past. The freedom of our forefathers was unrestrained but ineffective; ours affords the individual vast powers to act within socially conditioned limits. With no social controls to stop them, few pioneers ever ventured far into the hinterland. Of those who exercised their freedom, only a few ever reached their goals. The trails of yesteryear were strewn with the bones of many individuals whose negative freedom to act failed because of the lack of positive freedom which only cooperative action can produce. Who would relinquish the socially conditioned powers of modern technology for the empty freedom of unrestrained personal action? The one confers the ability to enjoy the great powers of an organized society; the other gives the right to struggle valiantly but often in vain.

The freedom conferred by science and technology is not an unmixed blessing, however. Many people who take the products and powers of modern society for granted often denounce the controls imposed upon them by certain spheres of our society. Seldom do they realize that the one cannot be enjoyed without the other. If we could enjoy the products of power machines without the patterned round of life which such methods and their products impose, we might possibly be happier as individuals. But the condition could never become a social reality. We could only enjoy such a unique position because others found less respite from the regimentation imposed. In a democratic society the problem of freedom is social and not individual. The choice lies in whether we want greater power to modify our

environment or more opportunity to guide our own immediate life. Modern technology affords a greater range of standardized actions; individualism affords greater opportunity to choose among a much smaller number of possibilities. We shall presently see how the institution of enterprise has been modified by the economic organization necessary to the application of modern industrial technology. Here we shall turn to some of the other ways in which the ideology of individualism finds economic expression.

b. DIFFERENTIAL GAINS: Individualism finds an important economic expression in the attitude of enterprisers toward the nature and social significance of personal gain. Businessmen are accustomed to reckoning personal success on a comparative rather than positive basis. They are interested in maximizing the wealth they own or control, but they are wont to estimate their position in the business hierarchy by the differences between their wealth and that of competitors. This often leads them to confuse wealth with welfare. To be sure, most businessmen consume at a high level, but they value such wealth not so much for the satisfaction it affords but more as a means for increasing their total wealth. Furthermore, they are constantly seeking to increase the difference between their wealth and that of less successful rivals and to reduce the difference between their own and that of their more successful competitors. This emphasis upon differential rather than positive measures of wealth together with the constant necessity of thinking in money values causes most enterprisers to judge all actions in terms of their effects upon this differential.

The fact that the price of some goods tends to vary directly with their scarcity also causes businessmen to place a high value upon any action that enables them to increase their control over supply. Restricted output at high unit prices enables an enterpriser to realize maximum monetary return and to increase his differential over his rivals. All this tends to blind businessmen to the social fact that they

are but a single item in a complex social system and that their welfare is inseparable from that of the group. High-level consumption depends more upon the quantity and quality of goods cooperatively produced by society than upon the differential advantage of any given individual. Furthermore, such individualistic attitudes cause businessmen to pursue a course of action which can bring success only when it is followed by very few persons. The slower but surer methods of increasing the general welfare, upon which the well-being of any individual must ultimately depend, are often abandoned for methods which aim to exploit the social actions of the majority. If the only social consequence of such differential activity were the ultimate failure of those who practice it, we might socially tolerate it as an educational and self-corrective phenomenon. But the increasing frequency and duration of economic depressions, with mass unemployment and huge socially borne costs of relief, testify to more serious consequences. Periodic paralysis of an economic system employing the most efficient productive technology ever devised by man cannot be attributed to individualistic attitudes and actions alone, but they are unquestionably a large factor. Much more serious is the confusion of economic reasoning as a result of using the spectacular successes of certain individuals in the past as the inspirational example of what to strive for in the future. The effects produced by the conflicting individualistic and social points of view in our educational system are worthy of more detailed analysis.

Individualistic activity results in personal gain only when the majority pursue a different course. Such action produces a differential rather than a cumulative gain. Shrewd business will bring success to a few individuals as long as the majority follow the opposite course of honesty and consideration for others. Whenever a large number try the "success formula" of individualism the economic order is impaired. A social action, on the other hand, is one which can be widely practiced with gain to all individuals and to

the group as a whole. As a child one is told that honesty is the best policy, that sympathy and consideration for others bring one the greatest happiness, that only through effort can one acquire the good things of life, and that something for nothing is impossible. The Sunday school reaffirms such teaching. It is in the public school that the seeds of individualism are sown. Although the school teaches the value of social action, it introduces an extremely discordant note when it holds up to the child such examples of success as frontier leaders, great industrialists, and modern capitalists. Despite the school's emphasis upon social action, the child comes to see that many of the eulogized leaders attained their positions in society not because they practiced such action but because they didn't.

The study of the spectacular successes of many earlier enterprisers without consideration of the role played by a vast frontier of virgin resources often leads to a misunderstanding of the social costs of individualistic success. It is true that society gained from the conquest of the frontier but not because of what the individualist had done. Rather, the group gained despite the heavy toll levied by these few. The natural wealth was so great that the wanton wastes of competitive conquest and the heavy tolls of rising land values and rents for those who seized the choice sites, the best veins, and the easiest right of ways passed unnoticed among men engrossed in their own efforts to exploit the natural resources of the frontier. What did it matter if Jones made a fortune from skimming the choice timber, coal, or other resources and destroying much of the remainder, when there were limitless resources? What did it matter if Smith accumulated a fortune in land rents by simply seizing the best site and then waiting for town expansion, caused by growing population, to make it pay ever-increasing returns without effort? Anyone could duplicate his fortune a little farther on! Only when the last free land and resources were gone did the cost of individualism show itself in the rapid division of society into owners and workers.

The toll of priority created a propertied class who found individualism good. Small wonder that the rising generations refused to believe that the welfare of the individual depended upon the welfare of the group.

c. BUSINESS: The ideology of individualism finds expression in many types of freedom that exist in the absence of political restraints rather than in positive economic opportunities. One of the deep-rooted beliefs is that everyone is free to engage in whatever business he wishes. Neither race, color, nor creed stands as a barrier to the entry of any energetic person into the world of business. His ability to bargain and manage are supposed to be the limiting factors. The impersonal price system is the assumed judge of personal ability which rewards the able and eliminates the unfit. This belief sprang from the period of free trade in the eighteenth century when the shackles of a mercantilistic system were removed and when most industry was still in the handicraft stage. Power-machine production and giant business organization were unheard of. The surprising fact is that, despite the revolutionary changes in the nature and organization of business, the belief still lingers.

In a recent national essay contest first place was awarded to a boy who based his claim for the superiority of America upon his admiration for the little merchants of his town.[1] The picture he draws is of the conditions characteristic of trade a generation ago. Independent merchants performed services for the people of a community who were not merely customers but friends and neighbors. The owners of a shoe repair shop, a delicatessen store, a laundry, a bakery, and a grocery are vividly described as examples of the American way where freedom of trade is the natural right of all. To be sure the remnants of such once widespread conditions still linger in many small towns and even along the byways of

[1] *The American Observer*, Feb. 12, 1940, p. 8. This fine essay probably deserved the high award it received. Its theme merely indicates how a belief will linger on long after the conditions necessary to its realization have changed or even completely disappeared.

huge cities. But they are by no means typical, nor does the future point to their survival.

Most freedom of trade exists in a negative sense. Since there is little legal control of individual commercial activity, equality of opportunity in trade is assumed. To an increasing extent freedom of trade in the positive sense of reasonable opportunity to become an enterpriser is disappearing because of the enormous capital required to engage in certain lines of production and because of the power of large business organizations to create market conditions under which no newcomer could hope to survive. But the belief that absence of legal restraints (government) gives each individual an opportunity to enter any business his ability permits still finds widespread acceptance. Such stories as that of how an office boy rose to the presidency (and assumed ownership) of a business; of how a poor but honest and determined lad built a great food processing plant from the simple beginning of peddling a superior product from door to door; or how a poor mechanic built one of the world's largest motor car businesses from the simple beginnings of constructing a durable horseless carriage in his spare time while less able and determined workers whiled away their time in vulgar amusements—all are a part of what might be properly called "the folklore of individualism." To be sure, such examples are legion and are certainly inspiring studies, but the inferences drawn from them by people who lack social perspective are not only unwarranted but definitely anti-social. To hold up these examples as illustrations of what any able and determined boy can do, without giving him the proper institutional setting, is to misinform and misguide youth. Several important factors must be considered if the success stories of American business pioneers are to be valid.

The first factor is the state of the industrial arts that prevailed in an industry when its pioneer businesses were established. Generally the production methods were on a small scale and easily mastered by an individual. The

product was usually so simple that crude manufacturing methods sufficed. Secondly, the industry was in its infancy. No great organization employing advanced technology and the integration of many specialized types of labor existed. The small machine shop or the kitchen stove and a wheelbarrow, when combined with unstinted effort and great skill, sufficed to produce a product on a commercial scale. Thirdly, the resources and materials essential to the product existed in abundance and were free from monopolistic property rights. Materials could be purchased from small, actively competing producers no one of which had a sufficient supply to control the market. Fourthly, the amount of investment required in order to begin the actual production of a saleable product was not great and could be acquired in a reasonably short time either through wages or through borrowing from a small number of acquaintances having knowledge of and faith in the ability of the enterpriser. Finally, social and economic organization was sufficiently simple to permit the average buyer to be a fairly competent judge of the quality of a commodity. As long as families still made a goodly number of commodities in the home, the child grew up with a "sense of values." In making, caring for, and using a limited number of fairly simple and vitally necessary items he acquired a "feeling" for honest workmanship and durability which served as a fairly reliable guide in judging the superiority of factory-made goods. Furthermore, the simplicity and relative paucity of goods offered on the market enabled buyers to recognize the differences among manufactured goods and to choose those which combined high quality with low price. Able and efficient enterprisers depended upon the judgment of consumers rather than resorting to clever advertising or sales methods. How different all this is from conditions surrounding the freedom of trade today!

d. Personal Freedom: The changing economic environment is rapidly affecting the whole range of personal freedom which is the most intimate expression of individualism.

We can justly acclaim superiority of a government which guarantees to individuals life, liberty, and the pursuit of happiness. But such very important and basic guarantees are only the first step in attaining genuine economic freedom. The economic rather than the political environment determines the extent of one's real freedom.

As far as government is concerned, an individual can engage in any occupation, travel to any part of the country, or organize any type of business he wishes. Of course, even at this level where the Constitution guarantees these fundamental liberties to the individual some restraint is necessary. One cannot engage in burglary, nor can he organize a business to "bump off" a citizen for a price. Negative freedom itself is limited to socially acceptable pursuits. However, such negative freedom is an empty privilege unless society affords the individual the means necessary to attain a goal open to him. For freedom of occupation to be a reality rather than an empty privilege, the group, acting through its agent the government, must provide the individual all the means necessary to actual engagement in an occupation.

This concept can be carried even further in the sense that positive (functional) freedom requires not only the means of entering an occupation but also an opportunity to do so. The acquisition of the training and equipment necessary to execute a certain type of work is not enough in our modern large-scale, industrialized society. The acquisition of training essential to a specialized task is little better than the empty opportunity to use one's talents in actual life. When jobs depend upon the will of gain-motivated property owners, ability and training afford little economic security. Unless a reasonable chance of employment exists, one cannot be truly free. His very existence, as well as his economic security, depends upon the will of those individuals having the social sanction of property rights.

One can, of course, argue that the responsibility of choosing a profession or specialized skill rests with the

individual. If he is foolish enough to prepare himself for a job in an over-crowded industry or profession then he should reap his reward in unemployment or failure. But upon second thought it is equally evident that unless he is afforded the opportunity of knowing the situation in all positions where his ability could be put to good use and can obtain frequently revised statistics concerning the number of individuals preparing for such jobs, the nature and social effects of technological advances, and the effects of depression upon the industry, he is in no position to exercise judgment. Without access to these facts we cannot ethically hold the individual accountable for the consequences of events beyond his control. Of course, the furnishing of such a maze of information to all neophytes of industrialism is well-nigh impracticable. Perhaps the group could make economic security—the real test and end product of economic freedom—more certain by guiding the individual into such channels as offer reasonable opportunity for the exercise of his ability and for his ultimate participation in society. Only by limiting choice to such alternatives as offer reasonable chance of success can even a modicum of positive personal freedom really exist.

B. LAISSEZ FAIRE

Individualism finds its most complete economic justification in the doctrine of laissez faire, which emerged and flourished, first, as a reaction against the eighteenth century mercantile regulation and, secondly, as a policy for the guidance of the new industrialism produced by the revolution in the technology of production. The basic assumption of the doctrine is that the maximum production of wealth and the greatest social welfare will be achieved when men are free from all forms of control. The core idea is that under conditions of complete freedom the economic system will be self-regulating and will automatically produce the maximum economic welfare. The doctrine has undergone numerous modifications since its inception in the eighteenth

century. But its basic premises, which enabled it to attain a position of almost universal acceptance among economic writers and which still give it such a prominent place as the supporting ideology of the institution of enterprise, have remained essentially unchanged.

There are five premises on which the doctrine is built. The first is that government and business are separate and distinct spheres of human activity. The economic activities of man must be free of all political control beyond that necessary to enforce contract and to protect property rights. The second premise holds that man is a rational being and that therefore each individual is more competent than any group to determine his own best interests and to act in such a way as to promote them. This competency of the individual is assumed to be expressed both as a consumer and as a producer. The third premise is that men are naturally selfish and in consequence only the gain motive will induce each individual to put forth his greatest efforts in his endeavor to promote his own welfare. The fourth premise is that price is the best measure of utility and social need. Changes in prices supposedly express changes in the wants of consumers or in the conditions of supply, and automatically direct the efforts of producers to increase the output of the goods most wanted and most scarce. The fifth premise, which grows out of the fourth, is that social welfare is the summation of individual welfare. The aim of man is pleasure, and the greatest pleasure for the greatest number will ensue when each strives for his own self-interest. These premises constitute the foundations of the doctrine and require further consideration.

1. Government

Laissez faire assumes that the maximum of social welfare can be achieved only with the minimum of government interference. Adam Smith, in *The Wealth of Nations*, which he published in 1776, claimed that that government is best which governs least. According to this classic expression,

the only duties of government are to protect the nation from foreign invasion, to maintain a system of justice for the protection of property rights, the enforcement of contract, and the prevention of crime, and to erect and maintain certain public works and institutions "which it can never be to the advantage of any individual or small number of individuals to erect and maintain because the profit could never repay the expense to any individual or small number of individuals, though it may frequently do much more than repay it to a great society."[1] The government is conceived of as a referee who maintains the rules of a game in which each individual struggles for economic advantage. Such non-interference, it was claimed, would automatically produce a much greater degree of social well-being than any government agency, however able, could induce.

2. Rationality

The assumption that man is a rational being is the second major premise of laissez faire. When each individual is free of coercion or restraint he will conduct himself in such a manner as to further his personal interests and those of his dependents. To the advocate of laissez faire, rationality meant the careful non-emotional consideration of all factors surrounding a problem and the ability to focus past experience on present situations. It also seemed axiomatic that an individual was able to determine his personal interests and to act in accord with them better than any other person or group. In a simple, non-specialized economy where the productive technology was not highly developed and the range of products offered in the market was not great, this premise was both realistic and practical. The free play of individual ability in the market would develop an ever-higher degree of rationality, it was believed. In the market, rational self-interest expressed itself as shrewd bargaining. Each individual would develop his special abilities so as to

[1] Smith, Adam, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776, Book 5, Ch. 1, Part 3.

be most efficient in his productive activities. He would always survey the market to find where his efforts and property could be sold at the highest prices. In consumption, rational self-interest induced the individual to acquire the maximum knowledge of quality and prices so that he could obtain the largest possible amount of the very best goods that his income would permit.

This premise has several very interesting minor supporting beliefs. Chief among these is the belief that the self-interest of each individual is in conflict with that of all others and that it can be maximized only when the individual acts independently of all others. To combine with another is to compromise one's self-interest and thus reduce the possible gains that might be realized from a situation. Secondly, rationality supports the idea that something is better than nothing. Each person would strive to exact the greatest possible price for his labor or wealth, but to withhold them rather than accept the most the market afforded, no matter how little this might be, seems both irrational and contrary to self-interest. Price supposedly reflected the bargaining ability of free men in the market. No sane man would prefer nothing to the price which the market afforded. Hence, self-interest dictated the full utilization of labor, capital, and resources under all conditions.

3. Gain Motive

In an acquisitive society, where satisfaction of human wants depends upon the market, the supposed inherent selfishness of man takes the form of gain. Men are induced to undergo the irksomeness and pain of labor by the hope of increasing their wealth and hence their welfare. In the absence of government interference, self-interest impels men to sell their labor and the use of their wealth (for rent or interest) to the highest bidder. By watching the market price the individual can withdraw his efforts or wealth from one employment and apply them to another whenever such change would prove profitable. No rational person

engages in activities that reduce his personal gains. Furthermore, in a specialized system of production where the individual produces only an infinitesimal part of the goods and services which he desires as a consumer, the individual always endeavors to produce that which is most scarce and highest in price. By endeavoring to increase the supply of that which brings the highest price he simultaneously serves his interests and those of society. Personal gain thus induces each to put forth his best efforts as producer and as consumer and results in the maximum amount of quality goods.

Closely associated with the idea of the gain motive is a minor premise. The gain motive can operate only when an individual is free to act in accord with his judgment. In a dynamic society the conditions governing the best interests of every person are constantly changing. To take advantage of such changes one must be free to withdraw his efforts or his property from one employment and place it in a more advantageous one. This means that all factors of production (land, labor, and capital) must be mobile. When the price of one's special skill rises in another place the gain motive dictates that he should leave his present employment and seek that offering a higher remuneration. This means that every worker must be prepared to move from one job to another on the basis of pay, every owner must be willing to cease one use of his property and employ another. If property takes the form of land devoted to agriculture, the change may merely involve the use of ground for the growing of potatoes rather than wheat. But if the property takes the form of highly specialized equipment the shift may well be impossible. Of course, in this case the doctrine applies to the flow of new capital rather than the physical withdrawal of existing types. New savings will flow into those material forms that offer the highest monetary return.

4. Market Price

A market free from restraints of government and private monopolies is another essential premise of laissez faire. In

fact, the whole doctrine is often expressed by the phrase "freedom of trade." A free market permits everyone to enter as buyer and seller on equal terms. Price is the measure of utility and the force which equalizes supply and demand. A commodity is scarce when its supply falls below the demand. Utility, or the satisfaction derived from the use or possession of a commodity, is the basic arbitrator of value. But since utility varies with time, place, and persons it cannot serve directly as a guide to production. Price is the assumed market expression of utility. When a person wants a thing very intensely, that is, when he expects to derive great utility from its use, he exerts great effort to acquire a supply. But in a specialized economic system, effort produces a money income rather than the goods desired. Hence the amount of money the purchaser is willing to pay is the market expression of utility. Furthermore, the human effort necessary to the production of goods is assumed to be distasteful to all normal human beings and to be expended only in return for some utility or satisfaction. Goods and services can be produced only by giving the participants a claim on the ultimate products. Money relates effort to satisfaction. The market is the focal point of the system. Wages, rent, and interest are the prices which induce free individuals to exert effort, to permit the use of their land by others, and to suffer the "pain of abstinence" involved in saving capital. Prices determine how large a claim on the social product each individual can exert with the money received from the use of his services, his property, or his capital. The efforts of individuals to sell their services or wealth at the highest prices and to buy the maximum amount of goods and services results in the establishment of market prices. The market is thus assumed to serve as the focal point of a laissez-faire economy.

5. Public Welfare

The concept of social welfare as a summation of individual self-interest constitutes the fifth basic premise of

laissez faire. The welfare of a democratic state and of the individual are assumed to be one and the same. Profits will be greatest where goods are most scarce and most needed. Consequently an individual seeking profits will produce those commodities most socially desirable. Of course, social welfare, like everything in a society ruled by a free market, finds expression in the price system. A nation is assumed to be prosperous when goods are scarce, prices high, and everyone engaged in a united effort to gain the maximum pecuniary profit from the opportunities of a free price-directed market. Competition is the "guiding hand" which turns the self-interest and gain seeking of individuals into the production of the maximum goods and services and hence the greatest social welfare. Laissez faire finds expression in the process called competition.

Chapter 11

The Competitive Organization of Enterprise

Competition is the market expression of business conducted on the basis of free enterprise. Under its organizing influence the seeking of private gain automatically produces the greatest social welfare and material wealth. It is the governing force of a free economic society.

A. NATURE AND SCOPE

Competition is the pattern of arrangements by which the individual efforts of numerous enterprisers are related to the demands of consumers as expressed by market prices. The system is assumed to assure automatically the most efficient combination of resources, machines, and specialized effort in the production of wealth. Through the medium of market prices, the efforts of enterprisers are constantly being evaluated. Under their tutelage, the enterpriser who can create the greatest differential between the costs of production and the ultimate selling price of his product supposedly serves society most ably and is rewarded with the largest pecuniary profit. Competition is not a natural force, such as the struggle for existence among animals to which it is often incorrectly compared, but an elaborate social pattern forming an integral part of capitalism and depending upon many supporting institutions. Its structure and operation are inseparable from private property, the

price system, enterprise, technology, and many other institutions. Its structure is a product of the industrial battleground—the market. Here goods and services are tagged with prices, which become the impersonal arbitrators of human behavior. Under its procedure, which forever effects a neat adjustment between the wants of people and the productive capacity of industry, competition becomes the guiding force of a market-centered economic system.

B. FORMS

Competition as a market phenomenon takes many forms. Persons struggle for the disposition of their services or property. Groups struggle as firms or corporations for advantage in buying materials and in selling their products. A whole industry sometimes unites to gain competitive advantage over rival industries. Technology competes with human energy, and even nations compete for resources and markets.

1. Individual

In the market many forms of competition are found among individuals functioning as buyers or sellers. These compete for either the disposal or acquisition of property rights in persons and things. Market values (or prices) are the resultant of the competitive activity of buyers against buyers, sellers against sellers, or buyers against sellers. A special form of competition among propertyless persons is found in the labor market. The labor surplus, created by mechanization and business depression, intensifies the competition between individuals for existing jobs, and gives the employer a great advantage in the market since it enables him to obtain efficient workers at very low costs. Another form is that among farmers who still offer their products according to the prevailing price and without concerted attempt to influence prices. The small retailer engages in direct competition by offering goods at lower prices to attract a larger share of business. To an ever-increasing

extent this type of competition is being narrowed and eliminated by the action of large producers in setting uniform wholesale or factory prices and, under the fair-trade laws, fixing the retail price of nationally distributed goods.

2. Industrial

The most evident type of competition among groups acting as units (under business organization) may be termed intra-industrial. Here one manufacturer, such as the Philco Corporation, competes with all the other radio manufacturers for domination of the market. This is the chief type of competition in young industries or where the nature of the work makes corporate control difficult. Coal mining and agriculture are still subject to considerable intra-industrial competition. The government has attempted to put these industries on a less competitive basis through regulation and payment for restriction of output.

Although less evident, inter-industrial competition is more pervasive. Competition for the surplus of the consumer's income above that required for necessities is chiefly between industries. Candy manufacturers compete as an industry with tobacco manufacturers, buses with railroads, and even movies with publishers. Sometimes intra- and inter-industrial forms of competition will appear in the same industry. For example, manufacturers in the mechanical refrigerator industry unite in acclaiming mechanical refrigeration preferable to ice refrigeration. This inter-industrial competition takes the form of cooperative advertising by the trade association or other central agency in each of many industries. The intra-industrial form is expressed in the advertising by each specific manufacturer in the industry. The general claims for the superiority of electric refrigeration are usually paid for on a prorata basis by all the manufacturers of such refrigerators who belong to the trade association. Sometimes the electric companies also contribute since their profits depend upon the widespread use of current-using devices. The intra-industrial form

appears as claims for the superiority of the product of a specific manufacturer. Thus, while Westinghouse, General Electric, and Norge may contribute to the fund for the ads proclaiming the superiority of electric over ice refrigerators, each of these spends large sums to convince the consumer that its product is the best available.

All advertising of specific firms in a given industry is not necessarily competitive, however. Many times the few large producers in an industry will spend millions on seemingly competitive advertising. When the corporate structures of these few dominating producers are analyzed, the control will be found to rest in the hands of an investment trust, a bank, or a holding company. Such unified control indicates that the advertising by the specific producing units must have some other purpose. The argument that it is done to conceal the unity of control so as to escape the anti-trust legislation has little merit since only the general public rather than informed government lawyers would be misled. The argument that it is used to make consumers believe the prices of the products are competitively, rather than monopolistically, determined may have some basis, but the very existence of specific firms with trade names would suffice to give the appearance of competition. Businessmen are not in the habit of spending millions on advertising unless the resulting profits are thereby increased. Pseudo-competitive advertising does pay since it greatly increases the consumption of the product. Cigarettes offer an excellent example. By clever slogans, testimonials, and scientific tests, cigarette advertising keeps the smoker conscious of brands. Instead of smoking a pack a week of some one brand, the smoker is led to change his brand frequently and to increase his consumption to possibly a pack a day. Those who control the industry care little what brand a consumer buys; they are interested only in the total number of packs purchased over a period of time. The intra-industrial competition among mechanical refrigerators is similarly, but to a less extent, superficial. Although all such

manufacturers are probably not controlled by the same financial interests, their advertising keeps the consumer aware of general, rather than specific, improvements in mechanism or cabinet. Comparison of any year's models will disclose little or no difference in features or prices among the several makers' products.

3. Technological

Under modern industrialism the competition between human and mechanical energy is highly impersonal, proceeds largely upon a price basis, and is under the direction of large well-organized business organizations. The level of wages in relation to the rate of interest and to the general price level determines the rate of profits accruing from the alternate uses of human or mechanical means. As technology advances, the sphere of this type of competition is restricted to those processes in which human energy can still be substituted for machines or in which machine methods can be extended. Unionization of labor has done much to increase the bargaining power of the worker but has been largely futile in reducing the competition between men and machines. The maintenance of wage levels by union agreements merely determines what men shall work; it has little to do with the total paid in wages by a concern or an industry. Business managers are indifferent to wages or interest as costs of production. They pay whichever promises the higher return in productivity and sales.

4. Regional

Regional competition is geographic specialization viewed from the standpoint of the market. Nature has endowed certain regions with the peculiar attributes which give them definite economic advantages in production. Some regions have abundant grass which makes them especially favorable to the raising of cattle; other regions with rich, deep soil are best suited to the raising of cotton, corn, or specialized agricultural products; still others have abundant and

accessible deposits of coal or minerals. Sometimes man creates artificial advantages. Special freight rates, tax concessions, and "basing points" are the means by which special-interest groups in a less favorably situated region often gain an exploitive economic advantage over the better endowed regions.

C. FUNCTIONS OF COMPETITION

As the central process in an interdependent economic system operating under private property and free private enterprise, competition performs many and diverse functions. All its functions are, however, subsidiary to the primary one of organizing industry in terms of consumer demands.

1. Regulation of Industry

The major problem in an interdependent society is the organization and direction of a complex and specialized productive system for the maximum satisfaction of people's wants. Under free private enterprise, competition is "the invisible hand" which holds profit making within prescribed limits and directs it to the services of the community. The wants of people in a pecuniary society express themselves through purchases in the market. The prices they pay become the guides to production. A profit-seeking enterpriser who believes he can produce the goods and services demanded, for less than the prevailing market price, organizes a business. In the market he hires labor, rents land, and borrows capital. Soon other enterprisers, seeing the gain opportunity, also coordinate the factors of production into business organizations for the production of the goods. The efforts of these several producers to sell their goods result in the rivalry known as economic competition. The consumers will then have an opportunity to choose among the similar products offered by the several producers. The individual thus has a choice of type as well as of brand. Furthermore, he is free to buy whatever he chooses, when-

ever, wherever, and from whomsoever he pleases. He constantly votes in the impersonal market for those producers whose products he buys. The enterpriser receiving the largest number of dollar votes will receive the largest profit as evidence of his services to the consumer electorate.

By the impersonal and automatic force of price the right type, quality, and amount of goods are supplied by profit-seeking enterprisers to meet the demands of satisfaction-seeking consumers. If a producer offers something not in accord with the consumer's wishes, higher in price than similar goods, or below the prevailing standards, he will find buyers making purchases elsewhere. If he offers more than demanded, he will find himself with a surplus which can be sold only at a loss. If all producers offer less than the market demands, price will rise, making it profitable for certain efficient producers to expand their factories or for new ones to enter the field. Thus under conditions assumed in its basic premises competition automatically and unerringly organizes industry for the production of exactly the kind, quality, and quantity of goods and services that the consumer demands and at the lowest costs which prevailing technology and business can devise.

2. Promotion of Efficiency

Under the regime of competition each of the units which compose an industry must constantly improve its productive efficiency and reduce waste to a minimum. Failure to adopt the more efficient machines and methods means higher costs, higher prices, and inability to compete with those efficient enterprisers who have reduced operating costs to a minimum. Competition grants survival only to the most efficient plants and unrelentingly eliminates those which are wastefully operated. The occasional presence of more or less than the most efficient number of units in an industry, or of a surplus or dearth of workers, is only evidence of the inevitable friction incident to the adjustment of an industry to the changing demands placed upon it.

Competition thus promotes efficiency by bringing success to the efficient enterpriser and failure to the inefficient. When the demand for a product falls off, enterprisers who misjudge demand or who are poorly equipped or unable to adjust their organizations to new conditions are eliminated. Their output is thus removed from the market, so the reduced demand means sufficient or even increased business for the low-cost, efficient producers. This process is painful to the enterprisers who suffer bankruptcy and to the workers who are temporarily thrown out of work, but it is the chief way by which inefficient enterprisers are eliminated and industry kept in the hands of the efficient.

3. Technical Progress

The profits of a successful enterpriser are determined by the differences between the prices he receives for his total output and his total costs of production. Under conditions assumed by competition where there are many small units in an industry, the individual enterpriser can do little or nothing to influence market prices. His chief functions are to forecast demand accurately, to produce at the lowest possible costs, and to remove his product as far as possible from a pure price comparison. When an enterpriser employs more efficient production methods or offers a superior product he enjoys a differential profit. Better methods will lower his costs and enable him to gain a larger per-unit profit on goods sold at the same price as those of competitors. Superior performance of a product such as a radio will enable the enterpriser to charge a higher price and thus gain a larger per-unit as well as total profit. Such differential profits are a constant spur to innovations and technical progress in an industry. No one can study the early history of any American industry without being impressed by the rapid strides made both in the technology of production and in the improvement of the product.

The differential profit accruing from improvements in productive technology or the quality of the product is a

spur to continued technical progress in all industries. For a time at least, under patent rights or by secret processes, the enterpriser responsible for the improvement reaps his reward in profits. But not for long. Shortly he will expand the capacity and output of his plant. The increased supply will, sooner or later, cause prices to fall. The inefficient or marginal units will pass from the industry and the consumer will enjoy a steadily better product at a declining price. Always aggressive enterprisers will seek more efficient production methods or improvement of their product. And always the market will pass from the less to the more efficient. Such differential profits are a good investment for the community. They enable the profit motive to work as an efficient force for improvements without profits themselves reaching excessive heights. Differential profits lure newcomers into the field and spur old concerns to improvement and change. With competition as the watch dog, the profit motive serves as a socially inexpensive way to assure the constant improvement of goods and services.

D. MODIFICATION

Competition is economic rivalry subdued into organization by patterns of action. It first appeared in the petty trade at a time when custom still ruled the vast domains of the feudal system. It grew into an institution with the rise of individualism, the spread of bourgeois-controlled governments, and development of free (laissez-faire) trade. Commerce and industry grew to modern proportions under its dictates but not without effects upon its structure. Although conceived of as a pattern of adjustment in a dynamic society, competition has from the beginning been inapplicable to certain spheres of economic society. As the basic institutions of property and contract, the price system, and free enterprise have developed, the form and scope of competition have changed.

Its arrangements have been modified from within. Businessmen through trade associations and industrial combines

have restricted its sphere in the setting of prices. Farmers and consumers have organized cooperatives to lessen the effects of competition in selling and in buying. Trade associations and professional societies have greatly modified the conditions under which an individual may enter a business or profession. Labor unions have imposed restrictions upon entry into the various trades, limited the opportunities of the skilled worker to find employment, and introduced considerable rigidity in the price of labor by long-term wage agreements. The individual is no longer relatively free to organize a business, enter a profession, or work for whom he chooses at such return or rate of pay as he is willing to accept. The state has also steadily expanded its original duty as referee by passing rules with which all contestants must comply. Unfair competition became outlawed and thereby distinguished from types considered socially defensible. Under the new rules and with a more alert umpire the market is no longer a free, price-ruled affair where each is for himself and the devil takes the hindmost. The ordeal of the market has given way to a body of customs and legal arrangements.[1] Quality of food is limited not by the judgment of the unwary consumer but by the food and drug laws; hours and rates of pay are no longer set by market prices but are controlled by the collective bargaining of unions and associations of employers as well as by the setting of minimum pay and maximum hours by government; accidents are no longer a hazard of labor but a cost of production under the laws of compensation.

In its dependence upon property and contract, competition has undergone great modification. Each competitor is free to contract for the sale of his labor or his property but not to contract for the conduct of business in such a way as to restrict the normal working of a price system. Freedom of contract became dichotomous. Between buyer and seller contract supported competition, but between seller and

[1] *Cf.* Walton Hamilton, *The Pattern of Competition*, 1940, Columbia University Press, especially Ch. 2, for an able treatment of this subject.

seller or between buyer and buyer it afforded large control of production and price. The former has long been held legal by the courts while the latter has not only been held illegal but definitely outlawed by anti-trust legislation. The situation at first appeared as a triumph for competition, but through corporate organization large sectors of a productive process are administered in almost complete legal immunity. Producers cannot agree to limit competition, but corporations can acquire the control of whole hierarchies of price-conditioning factors through the simple device of owning voting stock in the dominant companies.

Corporate competition thus surrounds the enterpriser with a very different structure than was provided by competition among a great number of small firms. Instead of being governed by an impersonal market where price was a reflection of countless small competitors, the giant corporation is now guided by its own administrative calculation of what a few specific competitors will do and how its own decisions will affect the market. This new corporate or administered competition cannot function as did the old market type.

E. APPRAISEMENT

In the appraisement of any economic process there must be a clear discernment of its limitations and an estimate of the forces impinging upon it. The efficacy of competition seems to be greatest in those spheres of our economic structure where conditions are still much the same as when it emerged as a control device. Among petty tradesmen it is unquestionably an effective way to maintain considerable efficiency and aggressiveness at a low social cost. Even in the early stages of modern machine industry, while a product was undergoing rapid technical improvements and before the standardization required for large-scale production had evolved, competition performed its functions well. The radio and airplane industries are two recent examples of the breathtaking technical progress induced by compe-

tition. Today the radio set which can be purchased for less than $10 will outperform sets costing more than $500 ten years ago. The modern transport plane is a beautiful example of technical efficiency produced by enterprise under the guiding hand of competition.

But as an industry reaches a certain stage of maturity and its processes pass under the dictates of large-scale methods, competition fails in its functions and brings only superficial gadgets used as "talking points" by the salesmen who are victims of a system which forces them to shout louder and longer in order to keep the customer from discovering the obvious fact that vital and primary parts of the supposedly competing products are all essentially the same. Mechanical refrigeration for the home is an industry that grew rapidly under competitive enterprise until it became a large-scale standardized product. Today competition lies in advertising which amplifies the shape of door handles and grid design of shelves into major considerations as yearly styles replace technically improved models.

Furthermore, competition fails in many sectors of economic activity where corporate controls and high technology do not dominate. Its failure here can be laid to certain limitations. First are the changed conditions of our general economy which make unrealistic the assumptions upon which competition rests. Under modern conditions many commodities are sold to highly unrational buyers. Even a cursory examination of the advertisements in any one of the popular magazines will indicate the strong emotional appeals set forth. Shame, cupidity, emulation, curiosity, and a host of other human frailties are appealed to in the efforts of numerous competing brands to capture the market. But even if non-rational pressures were not employed, other obstacles to the working of competition are inherent in modern life. In a complex pecuniary economy it becomes difficult to express one's self-interest intelligently in the market. The intelligent purchase of such a simple commodity as a bakelite cup involves a knowledge of

industrial techniques beyond that possessed by the vast majority of buyers. Where ignorance prevails, price is taken as the index of quality. Yet when scientific tests are employed, low- or medium-priced articles are frequently found to be definitely superior to high-priced ones on a service or use basis. Even in those rare instances where price is an index of quality, the consumer has little opportunity to find what quality will most adequately meet his needs. Again, the laissez-faire assumption that price is a rough but reliable index of utility is without foundation. The high price paid by a large income receiver for a super-luxury, such as a yacht, often means less in terms of satisfaction that the $10 paid for a radio by a low-salaried family. As long as a maldistribution of wealth prevails price can do no more than indicate demand. Competition must conduce to a wasting of productive effort upon the inane luxuries of those who can pay rather than to the production of those things which raise the level of living and truly enrich the nation. As R. H. Tawney has well said, "As long as a minority has so large an income that part of it, if spent at all, must be spent on trivialities, so long will part of the human energy and mechanical equipment of the nation be diverted from serious work, which enriches the nation, to making trivialities, which impoverishes it . . . "[1]

Secondly, competition has certain inherent limitations which make it impotent as a regulator of economic activity even under the conditions of a free and perfect market. We have already referred to the fact that even the original proponents of laissez faire, such as Adam Smith and John Stuart Mill, admitted that many socially desirable and necessary functions would never be performed by private enterprisers. The building and maintenance of such works as harbors, canals, and roads and the instruction of the young were among those socially necessary services that would not be adequately supplied by the free private enterprisers.[2]

[1] TAWNEY, R. H., *The Acquisitive Society*, 1920, Harcourt Brace, p. 38.
[2] SMITH, ADAM, *op. cit.*, Book 5, Ch. 1, Part 3.

Furthermore, railways, telephones, water systems, fire protection, and a host of other services which now are called public utilities cannot be operated on a competitive basis. Monopoly is inherent in their nature, and public regulation or ownership is essential to their successful operation. Another inherent limitation of competition is that the objective of each competitor is monopoly. The elimination of all competition is the goal of every enterpriser, but its complete realization would destroy the institution of enterprise as well as the process of competition.

A host of minor indictments against competition are possible when its results are measured against the obvious efficiency of a well-directed monopoly. Duplication and multiplication of plants and equipment in many industries greatly increase the per-unit costs of production. The contrast between the planless distribution of milk by a score of competing dealers serving a single street and the systematic and reliable distribution of mail by the post office is apparent to everyone. What is not so obvious is the competitive selling costs which become established costs of production. This is most evident in modern advertising. To some extent advertising is informative and helpful to the most intelligent satisfaction of our wants. But to an ever-increasing extent it is purely competitive. Vast amounts of human energy are devoted to persuading the consumer to buy one brand of flour rather than another when the real need is for lower cost flour and a more abundant production of goods for which no advertising is necessary. The crosshauls and wasted overhead in a nation-wide network of offices and sales forces are other examples of purely competitive wastes which are hidden in the market price of commodities.

The failure of competition as a regulatory device is nowhere more evident than in large industry. According to the basic premises of the theory there can be no unemployment of men, capital, or resources beyond that caused by the friction entailed in the adjustment of industry to changes in prices. Under perfect competition the unemployment of one

machine tender would immediately affect wages so that they would fall to a point where employers would find it profitable to hire him. Likewise, the shutdown of a single machine would affect prices until they fell to a point where it was again profitable to resume operation. The existence of a single dollar seeking investment would cause the decline of interest rates until it was profitable for enterprisers to borrow it. Today the economic system has become so rigid that unemployment of men, capital, and resources has little effect upon prices. Competition determines which men, machines, and resources shall be employed, not the price at which all will be employed. Price is no longer an arbitrator of a free economic system but a function of a controlled economy.[1]

To the engineer whose attitude toward problems is that of scientific procedure the competitive system is an example of the halt leading the blind. Production is planless and wasteful. Widely scattered producers organize the resources and energies of a nation to supply the guessed-at demand of world-wide consumers. The adjustment never approximates the exactness essential to the most elementary engineering project.

But much more important than such minor indictments, which after all rest upon the assumption that scientific method could organize a superior system, is the conflict between technology and the competitive system. Modern machine technology requires great standardization and precision if it is to bestow its blessing of low cost upon mankind. Furthermore, high-speed mechanized production requires large capital investments and a scientific coordination of all the complex and interdependent parts of an industry. "The industrial system," said Thorstein Veblen, "runs on as an inclusive organization of many and diverse

[1] MEANS, GARDINER C., "Industrial Prices and Their Relative Inflexibility," *Senate Document* 13, 74th Congress, 1st Session, 1935. This report presents convincing evidence of the nature and scope of the forces in modern economy impairing the efficacy of competition.

interlocking mechanical processes, interdependent and balanced among themselves in such a way that the due working of any part of it is conditioned on the due working of all the rest."[1] Such specialization of functions and interdependence requires centralized control and planning rather than the haphazard and piecemeal adjustments of competition working through the price system. In short, technology holds the key to an economy of abundance while competition, based on prices, has geared our industrial system to an economy of scarcity.

[1] VEBLEN, THORSTEIN, *Engineers and the Price System*, 1921, Huebsch, pp. 52–53.

Chapter 12

The Scope of Free Enterprise

Modern enterprise operates in the market partly under the guiding hand of competition but mostly under the dictates of corporate administration. As we have already seen, the enterpriser is no longer the captain of industry. Today business relations are the primary sphere of enterprise. The businessman is the modern successor to the enterpriser of old. Only a few fields still remain subject to private enterprise in the original sense. Agriculture and petty retailing are spheres in which the enterprising individual may still enter the market as an organizer of the factors of production. Promotion, finance, and business manipulation also afford considerable scope for enterprise. Even these are usually corporately organized and definitely specialized.

A. AGRICULTURE

Agriculture remains the bulwark of private enterprise. Here the conditions attending the rise of enterprise as an institution still largely prevail. The means necessary to enter farming are within the scope of most energetic individuals. Large capital investments for an elaborate and complex technology, a huge stock of materials, the funds to pay highly trained and varied personnel, or a costly sales department are not required. No one controls the supply of raw materials, holds basic patents on

methods of production, or influences the consumer to shun any product lacking the unique qualities of some brand. A family of average means can acquire the land and capital equipment necessary to the production of a saleable crop. Farming is predominantly small scale; mechanization has so far failed to increase productivity to a point where the individual working with crude equipment cannot compete. Entry into farming is still within the range of possibility for most of those who desire to pit their energy and a little capital against the impersonal forces of the market. No one farmer or organized group produces enough of any agricultural product to give him power over market conditions. Instead, the market price is still a function of unorganized supply and demand.

B. PETTY TRADE

Enterprise still flourishes among small merchants, especially in retail trade. The effects of highly organized and administratively controlled production of the goods sold at retail have both limited and expanded the scope of enterprise at this level. The merchant must work within the prices nationally advertised by producers. His opportunity to buy cheaply has been largely eliminated. But the tendency for large producers to stimulate trade by new methods and frequent changes in design has increased the risks of the retailer. He must anticipate changes not only in demand but also in a controlled supply. Enterprise at this level has little effect upon the economic system. Gradually, the independent retailer is being ground between the millstones of controlled supply and demand. Freedom of enterprise is becoming more apparent than real.

C. PROMOTION

Promotion is primarily the discovery of profit opportunities and their conversion into organized business concerns. The functions of a promoter are the assembly of a proposition that offers opportunities for pecuniary profit, the

acquisition of all the property rights necessary to control, and the construction of the business structure for profitable manipulation. A promoter is alert to the discovery and creation of new opportunities for pecuniary profit which arise from time to time through changes in the business structure and through inventions. He is neither a businessman nor a manager. He is akin to the old inventor who tried to devise new ways by which problems could be solved more easily. He is not interested in operating an organization as a proprietor or as a manager. Once the concern is ready to grind out a product for the public and profit for its owners, the promoter turns from his creation to the discovery of a new business possibility. Such a man usually invests very little of his own capital. Nor does he receive wages for the expenditure of his energy. After months of effort the whole project may collapse and the promoter receive nothing for his work. If his project develops into a feasible business and he is successful in launching it, he may receive a large monetary return. In any event his efforts involve a great risk, and his gains are in the nature of speculative profits.

Modern promoters are of four types. First are those professional individuals who make the discernment of gain opportunities their sole business. Such men are the business cousins of the tinkers who spend their lives trying to assemble mechanical parts into going machines. They are as rare today as the enterpriser of early industrialism. The second class consists of lawyers and bankers in the smaller communities who, by reason of their positions, have unusual opportunities to inform themselves of local conditions. They frequently acquire control of a number of local businesses, such as gas companies or electric plants, and after drawing up a plan for coordination sell the proposition to one of the large public utility systems. The third class of promoter is the great investment banker who usually confines his activities to large mergers which have been built up to a considerable degree by smaller promoters. The promotion of the United States Steel Corporation by J. P. Morgan

and his associates at the turn of the century is a classic example. Many of the great railroad and public utility mergers were products of the investment bankers who derived lucrative commissions in cash or more commonly in the common stock of the newly organized corporate giant. The fourth type of promoter is the manipulator who assembles new business schemes through stock control. Such men as Samuel Insull and the Van Sweringen brothers are notorious examples of promoters who used the corporation as the basis for their lucrative business empires. The gain from the large-scale application of modern technology and from the control of output makes promotion in the stratosphere of security manipulation an ever-expanding field. This we shall examine in greater detail when we analyze the modern corporation.

D. FINANCE

Bankers have taken over many of the old functions of the enterpriser because of their control over the flow of the life blood of industry. The primary function of a banker is that of a dealer in credit. Bankers are of two types: commercial and investment. The organization and function of each is distinctly different, but both exercise considerable control over business and industry. The *commercial banker* exercises control over the flow of short-term credit through his power to exchange his widely accepted promises to pay for those of the local merchant or manufacturer. The large commercial bank not only has acquired the command of the purchasing power of others but also has built such confidence in its ability to pay its obligations that its mere endorsement makes an individual's note a negotiable instrument which can perform the same services as cash. By his power to confer or withhold credit the banker can decide whether a given business shall succeed or fail. In a growing community the direction and size of business expansion rests to an ever-increasing degree in the hands of the commercial banker.

The *investment banker* is in reality a dealer in securities rather than an accumulator of funds and a dispenser of credit. The power of such bankers over industry, especially over those sectors of industry where giant corporate organizations predominate, is even greater than that of the commercial banker. Funds for the expansion of industry accumulate through such agencies as life insurance societies, savings banks, trust companies, and investment trusts. These agencies mobilize the savings of thousands of individual policyholders, depositors, clients, or share purchasers. The investment banker controls a large part of the supply of securities on which these agencies depend for investment of their funds. He supplies most of the stocks and bonds in which they invest the cash reserves of policyholders, the savings of depositors, the trust funds of clients, and the revenue from the sale of their shares.

The power of the investment banker rests upon his practice of *underwriting*. After careful analysis of the financial soundness of a corporation and of its money-making ability, the investment banker guarantees to obtain a given price for an issue of its stocks or bonds within a specified period of time, usually a few weeks. This guarantee of the yield and time of complete payment is called underwriting. The difference between the price paid the issuing corporation and that obtained from the banker's clients is the profit that the investment banker receives for the risks he has assumed. But the fact that the larger investment bankers are few in number and usually cooperate, by each taking a certain proportion of a large issue, gives them great power over industry. Any firm not receiving their aid suffers a certain stigma. Investors hesitate to take an issue which has not had the approval of these captains of finance. Thus the investment banker exercises his power over industry. His word determines to a great extent which industries shall expand and which shall fade and die. The financial enterpriser, therefore, controls not the destiny of one producing unit of an industry but whole industries and

even the major part of our modern economic structure. Decisions regarding the profitableness of a corporation are thus removed from the impersonal market and from the actual owners, workers, or managers whose income and livelihood depend upon its smooth operation. The actual industrial plant may make something vital to the health and welfare of the great mass of people but, unless it can show a profit comparable to that derived from other industries, its life may be taken by the decisions of a group of financial enterprisers whose only criterion is pecuniary profit.

E. BUSINESS

Enterprise still pervades the area of modern industrialism called business. Here the private enterpriser remains a powerful figure in those interstices of modern economy where exchange takes place and a price is determined. In general the businessman exercises control over the productive activities of the actual industrial unit, which is operated by a hierarchy of technicians, and over the coordination of the processes in terms of a marketable product. But his chief function is the relation of the concern to the conditions of the market. Much of his effort is expended in restricting the output of an inordinately productive technological process to such levels as will bring the greatest pecuniary return in the market. He is price-minded and operates the industrial unit in terms of cost accounting rather than in terms of industrial efficiency.

The sources of business profits determine the scope of the businessman's activity. Profits are internal and external in origin. Internal profits flow from technical efficiency and the coordination of all departments. The knowledge required for increasing productivity and decreasing wastes falls within the field of technology and outside the scope of the businessman's training. In so far as he takes an interest in industrial operation it is usually to regulate output and to control the activities of the technicians. External sources

of profit lie in bargaining for the raw materials, advertising, salesmanship, merchandising, the manipulation of corporate securities, and the capitalization of earnings. The market is the center of the business whirlpool. It is here that profits are established and losses suffered. The businessman's every act is in relation to market price. The effort to manipulate the market occupies an increasing amount of his time and energy, and the cost of his effort to condition the market in his favor has of late years accounted for an increasing proportion of the total selling price. Merchandising is vitally important to the business group, and it is a field of operation in which they annually expend vast sums.

Evaluation of Free Enterprise

Enterprise is still an important institution but it has undergone considerable modification since the time it emerged as the organizing force of a new cultural pattern. Under free enterprise society has made its most significant advances in the production of wealth. It has produced vast quantities of goods for the satisfaction of human wants and has evolved modern machine technology. But private enterprise operates efficiently only where competition prevails. Competition can flourish only when the means of engaging in production are available to any reasonably competent individual or voluntary group. Technology has been the chief force in destroying the conditions under which competition can flourish. Technology demands huge investments and a controlled market. Free enterprise requires numerous small producers competing in an impersonal market. The superiority of large-scale technology has created an economic condition where in many industries a few giant concerns have attained a position of dominance. This situation has been promoted by the rise and spread of the corporation which supplied both the financial structure necessary to mass production and the legal structure necessary to the control of resources, men, and markets. The spread of large-scale technology and corporate organization of industry is producing a controlled economy in which free enterprise can no longer function in its original capacity. If free enterprise is to survive it must become reoriented in terms of these new forces in a changing cultural pattern.

BIBLIOGRAPHY

ARNOLD, THURMAN W., *The Bottlenecks of Business*, 1940, Reynal & Hitchcock.

An evaluation of the government's efforts to implement competition through the enforcement of anti-trust legislation.

ARNOLD, THURMAN W., "How Far Should Government Control Business?" *Vital Speeches Magazine*, March, 1939 (Vol. V, No. 290), pp. 290–293.

A good discussion of the role of competition as a regulator of business and of the need for government control to avoid monopolistic destruction of enterprise.

BEARD, CHARLES A., "Individualism and Capitalism," *Ency. of Social Sciences*, I, 145–163.

A broad analysis of the forces conditioning the rise of capitalism and its core ideology—individualism. Especially valuable as a general background for modern business enterprise. No bibliography.

BEARD, CHARLES A., "The Myth of Rugged American Individualism," *Harper's Magazine*, 1931 (Vol. CLXIV), pp. 13–22.

A critical analysis of individualism in terms of the early stages of the depression.

BURNS, ARTHUR R., *The Decline of Competition*, 1936, McGraw-Hill.

Ch. 1. Competition in Transition, pp. 1–42.

Causes and influences of monopoly elements in American industry. The balance of the book is an able analysis which supports the thesis set forth in the first chapter and is rather difficult for the beginning student.

CHASE, STUART, *Government in Business*, 1935, Macmillan.

Ch. 6. Six Studies in Capitalist Decay, pp. 93–117.

Excellent summary of six authoritative studies concerning the effects of trends in purchasing-power, liquidity, overhead costs, obsolescence, debt, and rigid prices on modern enterprise and capitalism.

CHASE, STUART, *A New Deal*, 1932, Macmillan.

Ch. 1. What Is an Economic System For?, pp. 1–24.

A provocative and stimulating discussion of the difference between business as a money-making technique and as a means of satisfying human needs.

Chs. 2 and 3. Rise and Fall of Laissez Faire, pp. 25–65.

The origins, meaning, scope, and underlying assumptions of laissez faire analyzed in terms of eighteenth century conditions and those of today, with a survey of the fields assumed by government because of its failure.

CHASE, STUART, *Rich Land, Poor Land*, 1936, McGraw-Hill.

A vivid appraisal of the havoc wrought in America's natural resources by an uncontrolled laissez-faire economy; the social costs of a continuation of the policy; and ways in which our social wealth can be conserved by government aid and controls.

CHASE, STUART, *The Tragedy of Waste*, 1925, Macmillan.
Ch. 10. Industrial Coordination, pp. 175–208.
Critical analysis of the forces promoting unused capacity and other forms of waste in modern industry. Very elementary.

CHASE, STUART, and F. J. SCHLINK, *Your Money's Worth*, 1928, Macmillan.
Ch. 2. The New Competition, pp. 27–44.
A graphic description of the rise of inter-industrial competition and its effects upon enterprise; the role of trade associations in suppressing individual initiative; social evaluation of advertising and salesmanship as necessary adjuncts of the new order.

CHENEY, ORION H., "The New Competition," *Nation's Business*, June, 1926 (Vol. XIV, No. 6).
A businessman's interpretation of competition under large-scale technology and corporate business organization.

CLARK, JOHN MAURICE, *Social Control of Business*, 1926, University of Chicago Press.
Ch. 9. What Is Competition?, pp. 146–169.
Nature; grades; forces and effects; relation to production and industrial efficiency. A scholarly treatment.

CLAY, HENRY, *Economics for the General Reader*, 1926, Macmillan.
Ch. 3, Part 4. Merits and Defects of Free Enterprise, pp. 58–63.
Excellent evaluation of business enterprise.
Ch. 6, Part 1. Pervasive Influence of Competition, pp. 107–111.
Theoretical aspects of competition judged in light of practical operation.

COLE, G. D. H., "Laissez Faire," *Ency. of Social Sciences*, IX, 15–20.
Origin, evolution, and application of the concept. Effects of industrial technology and corporate controls upon the concept. Modern status as a philosophical concept rather than industrial theory. Good bibliography.

Committee on Elimination of Waste in Industry of the Federated American Engineering Societies, *Waste in Industry*, 1921, McGraw-Hill.
A technical analysis of wastes in modern industrial production.

DAVIS, JEROME, *Capitalism and Its Culture*, 1935, Farrar & Rinehart.
Ch. 3. Its Philosophy Examined, pp. 30–39.
A critical analysis of laissez faire and its underlying assumptions.

DOBB, MAURICE, "Entrepreneur," *Ency. of Social Sciences*, V, 558–560.
Excellent discussion of nature and functions. Compares and distinguishes enterpriser and capitalist; profits and interest. Rather advanced.

HACKER, LOUIS M., *American Problems of Today*, 1938, Crofts.
Ch. 4. Capital and Labor, pp. 69–98.
An excellent over-all view of the chief changes in the structure and functioning of industry during the first third of the twentieth century. Good background material.

HAMILTON, WALTON H., "Competition," *Ency. of Social Sciences*, IV, 141–147.

Sociological forms; economic structure; underlying institutions; theoretical treatment and its limitations; practical shortcomings; regulation and control. A scholarly evaluation especially valuable to an institutional analysis.

HAMILTON, WALTON H., *The Pattern of Competition*, 1940, Columbia University Press.

A series of lectures on the theoretical basis of competition; the pattern of operation in modern industry; the efforts of government to formulate and enforce anti-trust legislation; the means of modifying the structure and functions of the enforcement body for a more realistic control of industry. This little book is basic to the understanding of the institution of enterprise.

HOBSON, JOHN A., *The Evolution of Modern Capitalism*, rev. ed., 1917, Scribner.

Ch. 10. The Financier, pp. 235–272.

The changes in business enterprise caused by the rise of a passive capitalist class and its agents, the investment bankers and financiers.

HOOVER, HERBERT, *American Individualism*, 1935, Doubleday, Doran.

Ch. 1. American Individualism, pp. 1–13.

The American system of the twenties compared in theory and practice to early ruthless forms of laissez faire.

Ch. 2. Philosophic Grounds, pp. 14–25.

The philosophic, political, and economic bases of modern individualism analyzed and compared.

KEEZER, DEXTER M., "Business," *Ency. of Social Sciences*, III, 80–87.

Meaning, prerequisites, scope, and limitations of the concept in modern society.

KLEIN, JULIUS, "Business," Ch. 4 in Charles A. Beard (Ed.), *Whither Mankind?*, 1928, Longmans, pp. 83–109.

Survey of the contributions of business enterprise to social progress; effects of machine technology upon business and social responsibilities which it imposes on business.

LASKI, HAROLD J., "Liberty," *Ency. of Social Sciences*, IX, 442–446.

Meaning and origins of the concept; effects of the Reformation upon it; conditions under which liberty becomes a reality in a laissez-faire society; modern phases and conditioning factors.

LINDSAY, ALEXANDER D., "Individualism," *Ency. of Social Sciences*, VII, 674–680.

Origins, development, and applications of the concept; religious, political, and economic expressions; economic implications and limitations. Excellent bibliography.

LIPPMAN, WALTER, *The Method of Freedom*, 1934, Macmillan.

Ch. 4. End of Laissez Faire, pp. 24–28.

Brief discussion of meaning and limitations of the doctrine.

Ch. 6. Obligation of the Modern State, pp. 35–36.

Summary and evaluation of arguments concerning the role of the government.

MARSHALL, LEON C., *The Coordination of Specialists*, 1930, University of Chicago Press.

Ch. 7, Part C. Individual Initiative and the Gain Spirit, pp. 1611–1656.

A series of excerpts from the works of leading authors. Presents indictments of competition; nature of self-interest and gain spirit; difficulties in operation of competition; criticisms of individualism; and some suggestions for improvements.

MOORE, JUSTIN, et al., *Modern Economics*, 1940, Nelson.

Ch. 12. Monopolistic Competition, pp. 172–180.

An excellent elementary statement of this newer theoretical analysis of modern market organization. Pages 140 to 145 should be read as part of this analysis.

OTTO, M. C., "Hedonism," *Ency. of Social Sciences*, VII, 307–310.

A brief but adequate treatment of the Greek origins, English revival, and economic consequences of the concept.

PAGE, KIRBY, *Individualism and Socialism*, 1933, Farrar & Rinehart.

A comparison of free private enterprise with the organization of industrial production under socialism. Popular and elementary in treatment.

RANDALL, JOHN H., JR., *The Making of the Modern Mind*, 1926, Houghton Mifflin.

Ch. 11. The Newtonian World Machine, pp. 253–281.

An excellent study of the development of the concept of nature as a rational and orderly scheme which could only operate under conditions of laissez faire. Pages 273 to 279 bear most directly upon the relation of Newton's concept to bourgeois ideology.

RAUTENSTRAUCH, WALTER, *The Economics of Business Enterprise*, 1939, Wiley.

Ch. 6. Economic Characteristics of Business Enterprise, pp. 228–291.

Principles of business enterprise as they affect the operation of the business unit in modern industry from the accounting and engineering viewpoint. Rather technical.

SLICHTER, SUMNER H., *Modern Economic Society*, 1928, Holt.

Ch. 3. Free Private Enterprise, pp. 35–58.

A scholarly treatment of the forms, functions, underlying assumptions, and significance of free private enterprise as it operated in pre-depression America.

SOMBART, WERNER, "The Capitalistic Entrepreneur," *Ency. of Social Sciences*, III, 201–206 only.

An institutional survey of the changing nature, functions, and scope of influence of the enterpriser in evolving capitalism.

SPIETHOFF, ARTHUR, "Overproduction," *Ency. of Social Sciences*, XI, 513–517.

Social and economic aspects of the phenomenon; critical evaluation of some leading theories; its relation to competitive organization of business enterprise.

TAWNEY, R. H., *The Acquisitive Society*, 1920, Harcourt Brace.

Ch. 3. The Acquisitive Society, pp. 20–32.

Ch. 4. The Nemesis of Industrialism, pp. 33–51.

Ch. 7. Industry as a Profession, pp. 91–122.

Perhaps the ablest analysis and evaluation of the conflict between modern industry and the ideology of business enterprise. A basic reading for an adequate understanding of individualism and competition.

TUGWELL, REXFORD G., THOMAS MUNRO, and ROY E. STRYKER, *American Economic Life*, 3d ed., 1930, Harcourt Brace.

Ch. 15. Business Organization and Ownership, pp. 305–325.

Ch. 17. The Technique of Business, pp. 343–353.

Chs. 18 and 19. Industrial Coordination and Control, pp. 354–388.

Ch. 39. Individualism, pp. 637–647.

An elementary analysis of the basis, forms, functions, and ideology of private enterprise.

VEBLEN, THORSTEIN, *Absentee Ownership*, 1923, Huebsch.

Ch. 6. The Captain of Industry, pp. 101–118.

A critical evaluation of the functions performed by the enterpriser from his origins during the Industrial Revolution until the advent of finance capitalism. Rather difficult for beginners.

Ch. 8. The New Order of Business, pp. 205–228.

A critical analysis of the effects of the corporation and other control devices upon individual initiative, business enterprise, and the prevailing ideology.

VEBLEN, THORSTEIN, *Engineers and the Price System*, 1921, Huebsch.

Ch. 1. On the Nature and Use of Sabotage, pp. 1–26.

Sabotage ("the conscientious withdrawal of efficiency") as a characteristic and necessary part of modern business; it forms, uses, and social consequences.

Ch. 2. The Industrial System and Captains of Industry, pp. 27–51.

The role of the enterpriser as a fourth factor in production; loss of original functions to specialists; modern impasse.

VEBLEN, THORSTEIN, *The Place of Science in Modern Civilization*, 1919, Huebsch.

Industrial and Pecuniary Employments, pp. 279–323.

A critical comparison of technology and business.

VEBLEN, THORSTEIN, *Theory of Business Enterprise*, 1904, Scribner.

Ch. 3. Business Enterprise, pp. 20–65.

Evaluation of the role of the enterpriser in modern business; means and social costs of competition. Rather difficult. No bibliography.

Part IV · *The Institution of Technology*

As a culture, capitalism developed in the bourgeois centers of late medieval Europe. The trickle of trade begun by a handful of merchants grew into a flood which ultimately washed away the deep-rooted foundations of feudalism. Individualism and the profit motive formed the core ideology of the emerging cultural pattern. The commercial beginnings of capitalism were significant, but far more important to its modern form was the shift of man's efforts from the attainment of salvation to an exploration of this world and to his material betterment during his brief sojourn here. This new attitude toward life found expression in the rise of science. It is not to be wondered that the early beginnings, made by the Greeks and nurtured and enriched by the Saracens, should have played an important part in guiding the efforts of the early modern investigators. The natural and physical sciences as we know them today still show the effects of this heritage. But, once begun, science developed under the favorable environment of rising capitalism, and after the early exploratory stage modern science found not only a favorable environment but also unparalleled opportunities for application. This was especially true of those sciences which underlay the widening spheres of bourgeois activity. The application of organized knowledge and scientific method to the problems of the rising bourgeoisie took the form of inventions and discoveries. Technology became an institution when man applied his intelligence to the systematic solution of human problems.

Chapter 13

Science as the Basis of Technology

Technology is merely the application of science and scientific methods to the solution of human problems. Science creates the fund of knowledge that technology utilizes in modifying the physical world to man's desires. Science discovers and explains the forces of nature which technology harnesses and controls. But science as well as technology is a product of the fundamentally human activity called problem solving.

A. PROBLEMS

Any maladjustment between a person and his environment constitutes a problem for that individual. A maladjustment is any sense of disharmony or dissatisfaction. Problems therefore arise either from organic changes within the individual or from external stimuli. Hunger produces a sensation which turns the attention of the person to the problem of acquiring food. Cold likewise produces pain and causes a person to seek relief through protection from it or by the acquisition of warmth-producing agencies. Animals solve problems chiefly by passive adaptation, that is, by removing themselves from the source of disturbance or by becoming adjusted to it by evolutionary changes. Man solves them chiefly by modifying his environment to satisfy his wants. This is called active adaptation and has resulted

in the development of knowledge and techniques which are passed on and augmented by each successive generation. This knowledge consists of tried and tested explanations of problem-producing phenomena and constitutes an important part of the social heritage.

Techniques consist of patterns of man's inherent abilities such as grasping, standing erect, and coordination of muscular reaction in terms of cutaneous and visual stimuli. A relatively few abilities are combined into numerous techniques. For instance, the abilities to grasp, to maintain an erect posture, and to control muscular actions are combined into the techniques of sawing, spading, chopping, hurling, and a host of other patterned activities. Most techniques involve the manipulation of physical objects and give rise to the use of tools. Tools and the patterns of behavior associated with their use constituted the beginnings of what today is called the technological basis of our culture. Primitive man developed the first material aspects of the social heritage when he fashioned crude stone tools for more efficient food gathering. The social significance of problems is that they stimulate man to thought and action. Knowledge is a product of such fundamental activity.

B. SCIENCE

In its most elementary form, science consists of a body of knowledge organized in such a way as to aid man in his solution of problems. Knowledge is a mental attitude which organizes and integrates the behavior of the possessor. Systems of knowledge (sciences) serve to connect and give meaning to a variety of actions and events; they carry over the results of past experience into current efforts to explain, adapt, and change the environment. Through knowledge man is able to coordinate and integrate his behavior. The pattern of a person's knowledge as reflected in his attitudes is more important than the amount or kind of knowledge he possesses. Mere acquisition of knowledge does not necessarily lead to a more intelligent life. Only when

knowledge is acquired as a function of genuine problem solving can it serve as a guide to conduct. Under such circumstances it builds attitudes and forms a pattern of behavior.

1. Nature

Science, therefore, resides in knowledge, but not all knowledge is science. Science is a pattern of knowledge organized on the basis of class or function. A body of classified and tested knowledge organized around some sphere of nature such as the plant world, the animal kingdom, or the innate physical aspects of the world is called taxonomy. It is the result of an attempt to classify or explain every object or force encountered by man. A body of knowledge organized around the behavior of related phenomena is functional knowledge. Its goal is the understanding of changing relationships and is more dynamic. The earliest body of knowledge that can be called science grew up around the practical, everyday behavior of man in his economic pursuits. The manufacture of implements, hunting, fire making, clothing production, and shelter construction as carried on by prehistoric man required the collecting, testing, and organizing of a body of knowledge which can be called practical science just as the tools, implements, and behavior patterns associated with the execution of these tasks can be called technology. Such knowledge did not, however, possess the completeness, methods, or attitudes associated with the term "science" today. Primitive man did not develop science beyond its most rudimentary form because his bitter struggle for existence made experiments a hazard to group survival. When the economic surplus made experiments socially possible and afforded the means for accumulating a fund of knowledge (writing), the attitudes of a slave-owning control class toward matter-of-fact knowledge retarded the development of science. Until the rise of the bourgeoisie the development of science was painfully slow.

2. Development

Certain abilities and techniques are essential to the development of science. First, man had to evolve powers of accurate and precise observation. The early Paleolithic hunters possessed this ability, for the drawings of animals that they made in caves and rock shelters exhibit a clear discernment of muscular development and bodily proportions. The rich and varied artifacts associated with primitive peoples indicate that they have a highly developed power of observation. Secondly, a means of perpetuating the knowledge gained in one generation for succeeding generations is essential. Language was the first vehicle developed for the transmission of the social heritage. Most anthropologists believe that the power of speech, developing into a system of meaningful sounds called language, marked the beginning of man's differentiation from his fellow creatures. Certainly language is essential to science. Writing, of course, greatly increased and extended the scope and accuracy of the social heritage. Knowledge could be given an enduring form. Furthermore, writing increased accuracy by lessening the tendency of individual variation and by largely removing the limitations of memory. Writing so greatly conditioned the form of knowledge that until comparatively recent times human history was believed to have begun with its invention. Thirdly, science requires a technique for discerning magnitudes. Enumeration laid the foundations for measurement and calculation. In his own body man found the first aids to enumeration. Even our present measuring systems bear evidence of the time when man counted on his fingers and toes and used his appendages as convenient standards. The foot, pace, and hand (still used in measuring the height of horses) are typical examples. With these three aids man could build a system of knowledge, but much more was required for the rise of the theoretical aspects of science.

The emphasis on theory is the characteristic of modern science which distinguishes it most readily from the practi-

cal knowledge gained from the manipulation of material things. Theory provides for a wider and different application of knowledge. "Rule of thumb" knowledge gained from the trial and error of solving real and vital problems is handicapped by the associated circumstances. Not until man had learned to express relationships in abstract terms could he solve problems by the manipulation of ideas. One method of science is manipulation of abstractions and testing by reference to experience. Benjamin Ginzburg says, "Science may be defined as a far flung system of knowledge couched in terms which allow it to serve as a theoretical basis for practical techniques." In ancient Babylonia and Egypt the priest class developed the number and line concepts into a science of mathematics which compared favorably with anything done before the Renaissance. But aside from a well-developed technique of surveying, probably made necessary for relocating the property lines of the land-owning classes after the periodic inundation of the Nile, these early excursions into the science of numbers and figures produced no practical changes in the culture. This fact is significant of the prevailing ideology of the control classes in all Temple-town cultures.

The immunity of the upper classes from all mundane activity, and the strong position of mythology and magic in the social heritage, explain the aloofness of formal science from the problems of everyday life. A civilization founded upon the institution of slavery always assigns practical problems to a level corresponding to the class status of the people most concerned with them. Even the Greeks, who made some outstanding contributions to the methodology of formal science, lacked the scientific attitude. The attitude of those few leading citizens of Athens toward knowledge was metaphysical rather than scientific. The great philosophers often pressed into service the accumulated common knowledge produced by the progress in the practical arts, but seldom, if ever, did they correlate inquiry with the prevailing technology. Practical activity was openly despised as representing an inferior level of human endeavor

which had no relation to disinterested knowledge. The Greek disdain for the practical still colors scientific method and survives today in the myth of pure science. The fundamental obstacle to the development of an integrated system of science and technology, prior to the rise of the bourgeoisie, was the reliance of the control classes upon mythology and magic, not only to explain the larger aspects of the physical environment, but also to control the underlying population which served them in the capacity of lowly craftsmen and merchants or as despised slaves.

The Middle Ages abolished the slave basis of civilization but did little to create an atmosphere in which science could thrive. The development of a dynamic religion turned man's eyes from the practical problems of improving his environment to that of saving his soul. Other-worldliness was the prevailing ideology of a culture built around salvation. This world was regarded as a temporary abode where the individual proved his worth to be admitted into an eternal and idealistic world to come. Furthermore, medieval society emphasized fixed and unchanging relationships. Society was composed of classes. Every individual had a place which imposed upon him definite duties and privileges. Authority, rather than reason, was the predominating social force. Every person, from the mightiest to the most lowly, was expected to follow God's will as revealed by the church and to obey secular authority as enforced by the king and overlords. "It was not worthwhile to master and economize the resources of this earth, to utilize the goods and ameliorate the evils of this life, while everyone agreed, in theory at any rate, that the present was but a bad prelude to an infinitely worse or infinitely better future."[1]

The rise of the bourgeoisie, a matter-of-fact, gain-seeking group, created the first opportunity for the emergence of an intellectual atmosphere in which science could rise from a

[1] Symonds, J. A., "Renaissance," *Encyclopaedia Britannica*, 9th ed., Vol. XX, p. 383. The article is a classic and should be read by every student interested in the backgrounds of modern science.

dilettante to a functional status. The bourgeoisie began their activity by sponsoring a more abundant life. As early as the time of the Crusades, they nurtured the satisfaction which a few individuals derived from the goods and services of the Levant. Fairs and markets brought those who returned a periodic supply of luxury goods that the self-sufficient pattern of feudalism could not supply. As trade grew, the bourgeoisie gained power which they used to increase the flow of trade and to remove the obstacles to its spread. Explorations and discoveries opened new trade routes and sources of new materials. Military force and contract created nations which served at once to destroy the medieval restraints on trade and to open the newly discovered earth to the techniques of exploitation.

Science was merely the intellectual counterpart of the increasing power of the bourgeoisie over the social life of the emerging modern world. The earliest evidence of the impact of bourgeois activity upon medieval ideology came with the rise of the alchemists. Although they showed the effects of medieval ideology by attempting to find an elixir of life by which to make man immortal, they also evidenced their interest in the newer point of view by trying to turn base metals into gold. Most alchemists were practical men who by trade were glassmakers, dyemakers, or metalworkers. They expressed the first modern scientific spirit and were largely responsible for the early fund of knowledge concerning the behavior of physical matter. The second evidence of the new point of view was the rise of skepticism. This attitude was engendered by the conflict of the rediscovered literature of classical Greece with the dogma of the Christian church and by the rapid expansion of man's knowledge of the physical world.

The third step in the rise of the scientific point of view developed from the emphasis placed upon nature by the modified literature of the ancients. The classical literature that percolated into Europe during the early Renaissance had undergone considerable modification during its long

sojourn among the Saracens. The works of the Greek and Roman philosophers, mathematicians, and historians had been translated into the Arabic by the scholars of a civilization noted for its ability to adapt and integrate the learning of many peoples. The literature of the last great Templetown cultures in Europe had been mingled with that of the Orientals and Hindus. When the scholars of Constantinople moved into the bourgeois centers of Italy, during the late fifteenth century, they brought with them a knowledge of this mixture of ancient and oriental learning. The bourgeoisie had already found the practical applications of Saracen science of great service in their attempts to extend and regularize trade. Now the literature of the Renaissance turned the attention of scholars to the fascinating world of nature. This interest in man and the world in which he lived, called "humanism," stood in sharp contrast to the narrow religious controversies of the medieval schoolmen. Humanism served science by stimulating a widespread study of non-religious literature.

The Reformation was but a phase of the new attitude growing in Europe. Like the other aspects of the evolving culture, the Reformation bore the marks of the bourgeoisie. It was essentially a product of the social problems created by this emerging class. The aim of the reformists was to make religion more capable of dealing with the new social problems. From the standpoint of science, the Reformation destroyed the unity and completeness of the medieval synthesis, relegated scholasticism, which endeavored to reconcile Greek literature with Christian dogma, to the background, and transferred intellectual interests from Divine authority to the reason and experience of the individual.

The invention of printing could not have occurred at a more propitious time than the middle of the fifteenth century. The influx of classical literature, the Reformation, and the rise of humanism gave the new agency for the spread of knowledge a whole new context. Instead of per-

petuating the ideology of feudalism, printing served to disseminate the spirit of skepticism, to interest man in his material surroundings, and to spread the knowledge of the expanding world disclosed by the bourgeois discoveries and explorations. Science was inestimably aided by Gutenburg's invention.

The development of rationalism marked the fifth stage in the rise of modern science. Rationalism welded the elements of the past into a new method for discovering the laws of nature. By discovering natural law man came to acquire the power to control nature. Rationalism emerged into a full-fledged system of science through two great intellectual movements that revolutionized man's interpretation of nature.

The Copernican revolution laid the groundwork for the ultimate mathematical interpretation of nature. The work of four men stands out in the history of its development. Nikolaus Copernicus (1473–1543) began his work as a student of Greek astronomy as taught in the Italian universities of Bologna and Padua. From his study of the Greek authorities he probably acquired his faith in the simplicity of nature and his belief in mathematics as a means for discovering its laws. After a lifetime of study and mathematical calculation, Copernicus was able to formulate the hypothesis that the world was not the center of the universe but rather a mere planet which rotated on its own axis and moved through an orbit around the sun. These conclusions were not his most important contribution, however. This consisted of the startling thoughts that old authorities were in error, that even observation and common sense were fallible, and that only reason supported by mathematical calculation could be trusted.

The work started by Copernicus was carried forward by Tycho Brahe (1546–1601), a Danish astronomer and his pupil, Johannes Kepler (1571–1630). From the vast fund of astronomical data that Brahe compiled, Kepler was

able to disprove the classical concepts of Ptolemy. By observation and by mathematical calculation he corrected the original Copernican hypothesis so that all known facts could be fitted into it. But it was Galileo (1564–1642) who supplied the experimental proof for this hypothesis. With the aid of a crude telescope, which he invented, Galileo not only confirmed the theory but discovered Jupiter's moons, measured the height of mountains on the earth's moon, observed sunspots, and calculated the rate of rotation of the sun itself. The foundation for universal natural law was laid, but another intellectual revolution had to occur before natural law could become a tool of man and a factor in his control of the environment.

René Descartes (1596–1650) developed the mathematical basis for the mechanical interpretation of the universe. He brought analytical geometry to a practical stage and in his *Discourse on Methods,* in 1637, laid the basis for a new physics. The Cartesian revolution carried the work of Copernicus, Kepler, and Galileo one stage further and introduced into the evolving concept of science the idea of a universe governed throughout by natural laws of mechanical precision. In his writings, Descartes suggested the futility of seeking divine authority and approbation, and the wisdom of making accurate observations of natural phenomena. Thus both Galileo and Descartes, the guiding spirits of the two stages in the revolutions of ideas, conceived of the universe as a mechanical system subjected to analysis by mathematical concepts. But the inadequacy of mathematics and the means of astronomical observation kept either from carrying his work to its ultimate conclusion.

It was Sir Isaac Newton (1642–1727) who forged the last link in the new scientific method by his invention of the calculus. In essence, this was a mathematical method for describing any form of mechanical motion. This invention was the inevitable culmination of the work begun by Copernicus and carried forward by a host of scholars. In fact,

the cultural conditioning of invention was never more vividly demonstrated, for Newton was the first by a very short time in arriving at a solution to a problem which the social process of a new cultural pattern had set up and which the social heritage had defined and directed. Leibnitz invented the calculus independently at about the same time, and Pascal was on the verge of inventing it. Furthermore, the calculus was an almost inevitable resultant of Descartes' analytical geometry. But the calculus was not Newton's most significant work. His greatest contribution to the evolving concept of science was his realization that his method held the key to the entire system of natural law. With this final addition, the whole universe could be investigated by man's experimentation upon this planet.

The new method necessitated the investigation of natural phenomena to discover the principles or laws of nature involved. Mathematical expression of these principles served to reduce them to terms which could be compared with the principles involved in other phenomena. By this method a complete category of natural law could be compiled.

C. BASIC ASSUMPTIONS

The compilation of natural law could have little practical significance unless it could serve as a guide to man's behavior and to his manipulation of the physical environment. Three basic assumptions were implicit in the formulation of the new interpretation of nature. The first of these was that nature is regular in her variations, that order and system are inherent in her behavior. This assumption of *regularity* had much to support it. The regular succession of days and nights, the steady recurrence of the seasons, the cycle of plant growth, maturity, and decay, together with a host of other natural phenomena, must have impressed man with the concept of order. If nature behaved according to some definite pattern, then man could study and discover the laws which apparently controlled the actions of nature.

Closely associated with the idea of a natural order was the assumption of *permanence.* The seeming complexity of the universe could be reduced to a hierarchy of cycles which endlessly repeated themselves. Not only was nature orderly and governed by discoverable laws, but its pattern was permanent and its laws immutable. With these two basic assumptions, the observation and recording of every physical phenomenon would lead ultimately to a complete catalogue of nature's secrets. These assumptions became the cornerstones of the taxonomic endeavors of the early students of nature as well as of the natural-order philosophers. The Newtonian conception of a mechanistic universe, where the same basic laws acted as compelling forces and governed the behavior of all matter, was another direct result of the wide acceptance of these two postulates of order and permanence.

A third assumption, and one much more important to the rise of technology, was that of *causation.* The first two conduced to it. Regularity and permanence imply a certain sequential relationship. Every action of nature has an antecedent upon which it depends. To control the first is to control the second. The idea of cause and effect gave man his key to the control of nature's mighty forces. By removing the causes of undesirable results, man could reduce his unpleasant experiences. But much more important as a control device was the positive aspect of directing the cause to produce an effect where desired. In the control and direction of the forces of nature lay man's opportunity for improving the material aspects of his environment. Science could discover the laws of nature; technology could harness them for the satisfaction of man's wants.[1]

D. THE SCIENTIFIC METHOD

In a broad sense the scientific method is any rational, matter-of-fact solution of a problem. Technology itself is an

[1] BENJAMIN, HAROLD, *An Introduction to Human Problems,* 1930, Houghton Mifflin. Ch. 2, Part I. The Assumptions of Science, pp. 8–9. The writer is indebted to Professor Benjamin for the ideas expressed here.

institution built upon the application of the scientific method to the basic economic problem of modifying nature to the will of man. But the term "scientific method" is often applied to the formal process by which man systematically accumulates knowledge and reduces it to a form that can be used in the control of his environment. The body of ordered and tested knowledge called "science" is the product of the scientific method. The essence of science so far as the solution of human problems is concerned lies not in the knowledge it produces but in the method whereby its findings are made and constantly corrected. The aim of all science is prediction, and prediction depends upon the validity of the generalizations or laws which science formulates. Scientific laws are merely descriptions of the relationship of facts.

The scientific method involves the study of phenomena for the purpose of building and testing hypotheses, theories, and laws. Observation and description of phenomena constitute the first step in the accumulation of knowledge. Science deals not with objects themselves but with their relationships. Classification, by an arrangement of facts in groups or series, furnishes a convenient method for recognizing and understanding their relationships. Language itself is a widely accepted system of classification. Objects are given names only for ease in describing their relationships, that is, their behavior. Because of its descriptive powers, language is a fundamental adjunct of the scientific method. In attempt to increase the exactness of description man has modified language and adapted it to the needs of science in two ways. First, he has added new systems of nomenclature or terminology to his vocabulary for specific application to certain sectors of his experience. Secondly, he has developed a special system of symbolism for a more exact expression of all relationships. To describe concepts of number, space, and time he very early invented the special language of mathematics. Measurement is essential to any exact expression of relationships and, as we have seen, the first units of meas-

urement were the fingers, the span of the hand, and the pace. Measurement is essentially description by reference to standards. In his study of facts and phenomena man soon reaches a limit. He soon finds it necessary to pass from a description of the facts under observation to a description of the probable relationship among the larger body of facts from which those he studied are mere samples. This led to generalization.

The second step in scientific method consists of the construction and testing of generalizations. The most elementary form of a generalization is the *hypothesis* which is merely an attempted explanation of the facts examined. Hypotheses serve one or more of several functions. Often a hypothesis serves to organize a mass of data for clear and accurate description. Other hypotheses are constructed not so much for giving unity or pattern to observed facts as for an explanation of their origin and development. The various accounts of the development of our universe such as the Copernican hypothesis are essentially concerned with the origin and causes of known facts. Again a hypothesis may serve merely as a test for the accumulation of further relative facts. All hypotheses are constructed with a view to accounting for as many facts as possible. Sometimes every known fact fits neatly into the hypothesis. But often it is impossible to construct a hypothesis that will explain all the known facts pertaining to the situation. Under such circumstances a hypothesis may merely serve until sufficient facts are compiled to permit the development of a more adequate one. Kepler, the great astronomer who did much to develop the background for Newton's law of gravitation, is reputed to have formulated, tested, and discarded no less than nineteen hypotheses before he arrived at one that explained all the facts he knew concerning the behavior of the heavenly bodies.

It is by testing and reconstructing that hypotheses become theories and laws. When a hypothesis gains wide acceptance by qualified students of the science in which it

has its foundations, it becomes known as a *theory*. Usually this acceptance is the result of numerous experiments and observations. By maintaining its ability to explain and to relate new facts as they are discovered, a hypothesis becomes a theory. Again after a period of further investigation and testing the theory may become accepted as a *scientific law*. Scientific law differs from hypothesis and theory only in degree. Usually it applies to a wider range of facts and consistently explains new facts as they come to light. A scientific law retains its status only as long as it does not fail in prediction. With every advance in the methods and scope of man's observations the laws composing science are subject to more rigid testing and verification.

All scientific law is not of the same order of comprehensiveness and application. Some so-called "laws" are merely valid conclusions in terms of certain premises or conditions. Such laws are applicable only when the supporting conditions appear in real life. Occasionally scientific laws rest upon such unrealistic premises that they have no significance in fact. They amount to mental excursions and are merely logical consistent conclusions resting upon assumed conditions.

Scientific laws are often used as a synonym for "truth." In this sense they are assumed to be the ultimate objective of scholarship and research. However, truth may or may not be the end product of science since truth is relative and the scientific method is the tool for changing the relativity of facts. Truth may be absolute in one sense of the term, however. Truth by experiment is always relative to the underlying beliefs and social heritage of a group. Truth by definition, while relative to the cultural context, is absolute in the sense that it is not susceptible to experimental proof. The statement that fire will burn and destroy the flesh is truth based upon experience. Anyone doubting the statement can prove it by experience. The statement that one plus one equals two is truth by definition. It is not susceptible to proof by experiment since it is a mental abstrac-

tion. In fact, if a person attempted to verify the statement by using any tangible objects he would find it not true. In the world of reality one orange plus another orange is never two oranges but rather two plus or minus since the second differs from the first and is either more or less but never exactly the same. They are two only when the comparison is limited to likeness imputed to them. Unity is a mere mental concept, and much of the so-called science of mathematics is a hierarchy of truths by definition. Its "laws" are those of reason and rest solely upon social agreement.

Scientific laws, even when they are expressed as natural laws, are never forces to which man and things must conform. Such an attitude toward scientific law ignores the human basis of all laws. A scientific law is a man-made description in man-made language of natural events as they appear to human eyes. To impute metaphysical force to "man's résumés of physical facts is to be at once irreligious and unscientific." Natural laws have much in common with other man-made laws such as statute or civil laws. Both attempt to describe or prescribe the behavior of observed phenomena. To the extent that natural processes are observed to occur as described by the natural laws these statements come to be accepted as accurate descriptions. On the assumption of regularity and permanence man comes to believe that such descriptive statements apply to future as well as to past natural phenomena. Some natural laws, such as gravitation, have been checked by the experiences of so many people for such a length of time without a single exception appearing that they have come to be looked upon as compelling forces and people say that all matter is amenable to or must "obey" these laws of nature. In fact, no such force is present in the law. Rather the law is merely a description of effects produced by whatever forces cause them in nature.

Statute laws are also man-made and are similar to natural laws in that they usually describe the actions of most

people to them. However, they differ in that they prescribe behavior and are enforceable by man through the police force. A good statute law is one which not only prescribes but which also describes the behavior of rational people and hence requires little effort to enforce. To the extent that statute laws are widely broken they are poor ones since they fail to describe the action of most people. Likewise, a natural law which fails to describe the behavior of the vast majority of actual events is unrealistic or a poor statement of the facts. Of course most natural laws, unlike the law of gravitation and like statute laws, apply only to large numbers of events or objects. Mendel's laws of heredity do not apply to the single brood of a rabbit any more than the law of contract applies to the behavior of every single person.

The essential thing about scientific method is that like legislation it gives rise to laws which guide human conduct. Government is the institution founded upon statute law; technology is the institution founded upon scientific or natural laws. The cultural pattern called capitalism receives its most striking and obvious features from the institution of technology. Science finds its most spectacular expression in the mechanical processes which largely determine the pattern of all human activities and institutions. Science created technology, and technology is transforming the world.

Chapter 14

The Structure of Technology

Technology as an institution embraces the whole pattern of modern, large-scale, power-driven industrial organization. The dominant force around which and from which this pattern takes shape and grows is the power-driven machine. Technology as a process is the application of science to the solution of human problems. As such it embraces the whole sphere of life where rational, matter-of-fact methods are employed in adjusting the environment to the wants and desires of man. Mechanical methods most typically express this type of adjustment. Science is the intellectual counterpart of the mechanical process. From it come the thought patterns essential to technology. The power-driven machine is by no means the only concrete manifestation of the essentially rational process involved in modern technology, but it is, by all odds, the most conspicuous and powerful element in the framework of this institution. Any adequate treatment must begin with the nature and meaning of machines.

A. MACHINES

A machine is a device for the repetition of a specific and controlled movement. From very early times man has possessed tools and machines. The first tool probably appeared when a prehistoric hunter used a stout piece of

wood as a club or a sharp-edged stone as a knife or saw. A *tool* is any material device that increases the range or effectiveness of man's efforts. The distinguishing characteristic of a tool is the fact that the quality of the work done is directly proportional to the abilities and skill of the user. The condition of a tool does affect the product made with its aid, but is a passive factor. A sharp knife will always cut more rapidly and accurately than a dull one; but the sharpest knife in the hands of an unskilled, weak, or indifferent user will not produce well-cut products. Tools merely limit the application of man's skill. From earliest times man endeavored to increase the range and accuracy of his abilities by the quality of his tools. In basic form a tool enables man to extend his range or more deftly to apply his physical efforts. A hammer extends the leverage of the arm and permits the application of great force on a relatively small area. There is a limit to the force that can be applied to a given space by means of a hammer. But there is an infinite variety of ways in which that force can be applied and directed. The weight of the head and length of the handle can be varied both individually and in combination. But more important, the face of the hammer, that is, the surface through which the force is applied, can be modified in almost endless ways. A flat surface can vary from square through a series of oblongs and polygons to oval or circle. And the surface itself can be made either concave or convex with any one of an almost infinite variety of curvatures. The adaptation of tools to specific functions greatly increased the quality of man's efforts but did not improve the quality of the product beyond the skill applied by the operator. Tools thus remained a means of expressing and applying skill.

Machines, on the other hand, are characterized by the fact that the quality of the product is more or less independent of the operator. A machine is essentially a device for applying power to a tool under conditions controlled by the arrangement of its parts. The wheel is perhaps the

simplest machine. It is merely a device which maintains an axle in constant relation to a circular rim. A wheelbarrow may be pushed fast or slow, up hill or down, with a heavy or light load, but always the wheel on it will maintain the axle in constant relation to the surface over which the rim passes. A better illustration is the water wheel used in irrigation, which is believed to have been one of the earliest applications of the wheel. The buckets or scoops placed around the rim of the wheel and the placement of the wheel with respect to the water to be raised and the outlet through which it is discharged determine the skill with which water can be raised. The operator may turn the crank attached to the wheel or its axle at varying rates of speed, but the relation of the buckets to the water cannot be varied. The skill with which the parts of the machine were constructed and assembled determines the effectiveness of its operation. The operator can do nothing beyond varying the rate at which power is applied. The wheel can move the buckets only through a circle inscribed by the rotation of its rim. It is a long step from the wheel to a modern printing press or railroad locomotive, but the basic principles are identical. Machines can only repeat a pattern of exact movements.

Once the machine appeared, even in the simple form of the wheel, it opened the possibility of applying some force other than man's muscles. In fact, the two are so intimately related that some anthropologists believe that the first machines were the result of man's acquisition of domesticated animals. There is little doubt that animal and even natural power were applied to early machines. But in a slave civilization there was perhaps little incentive to apply other power than man's muscles. Furthermore, the direct application of natural power in the form of wind and falling water was not very practical with crude machines. The early basis of machine technology remained in a crude and undeveloped state throughout the thousands of years that human labor was degraded and ample energy was a by-product of the elite military activity of the control

classes. The power-driven machine is literally a product of the modern age.

B. POWER

The pattern of modern industrial civilization is largely a product of the types of power applied to the machines employed in production. The factory system is the chief expression of modern technology. Its origin was the direct result of the development of a system of power production where the power-driven machine set the pace to which man must conform as a mere supplement. The factory appeared when the energy-converting engine and the machine reached a stage of development where they could be coordinated in the production process. The harnessing of natural power had been possible since ancient times; but aside from the rare cases where machines were driven by the rotating axles of water- or wind-driven wheels, no application of natural power was ever made in the productive process. Furthermore, such devices were dependent upon the vagaries of nature. The flow of streams varied, and wind was even more uncertain. Power that could be generated in abundance and controlled by man was a primary requisite for the factory system.

The search for a regular and controllable source of power appeared as one expression of the spirit of inquiry which burst forth under the cultural stimulus of the Renaissance and the economic drive of capitalism. The expansive force of boiling water was not the first source of natural power applied to the crude machines of the new order. The discovery of atmospheric pressure fascinated the early investigators, and for many years the problems of creating a partial vacuum so that natural air pressure could supply power engaged the best efforts of technicians. In fact, the breakdown of a Newcomen engine employing atmospheric pressure gave James Watt the opportunity for directing his inventive bent to the problem of power production. It was years after Watt included in his patent the idea of applying

steam pressure as a motive force that the steam engine drove the wheels of industry. Like all great inventions, the steam engine was not the product of a single mind. Many men, such as Papin with his safety valve and his tube-boiler, contributed small but essential elements to the development of what ultimately appeared as a revolutionary invention. James Watt did much to correlate the efforts of others and to adapt them to the problems of his day. His greatest personal contribution was not the steam engine but the crankshaft and the centrifugal governor (1784) which made possible the conversion of the reciprocating action of a piston-type engine into continuous and automatically controlled rotary motion so essential to driving the batteries of whirling spindles in the first factories.[1] Not until the late eighteenth century did the steam engine make serious inroads upon the tool methods of production and establish the factory as the dominant form of the industrial unit. Before considering the important role played by machine tools in the development of industrial technology, we might profitably review the expansion of power sources in the United States.

The application of natural power involves two separate but interrelated parts—the conversion of natural sources of energy into useful mechanical motion, and the transmission of this motion to the machines employed in the processes of production. In the United States the elements of transmission remained largely undeveloped until the beginning of the present century.[2] The period from the beginning of our national existence to the Civil War marks the first stage in the development of power. Water power was so plentiful as

[1] *Cf.* Ch. 10, The Industrial Revolution, in Dixon and Eberhart, *Economics and Cultural Change* (1938, McGraw-Hill), especially Part B, Technical Origins (pp. 422–441) for a discussion of the origins, development, and application of the engines and machines that made the Industrial Revolution a practical reality.

[2] The facts in this section are based upon C. R. Daugherty, *Development of Horsepower Equipment in the United States*, 1928, U. S. Dept. of Interior, pp. 13–112.

a result of the numerous falls in the rivers of the Atlantic seaboard that water wheels persisted as the dominant form of energy converter during most of this period. Furthermore, little effort was made to improve the crude wooden wheels which utilized only a small fraction of the natural power so abundantly supplied. About 1830 a few experiments were made with the hydraulic turbine, which had reached a practical stage of development some years before in France, but not until about 1850 did this more efficient converter find significant application. The turbine had great technological significance because it represented the first practical step in the development of the modern hydroelectric plant.

Steam engines came into use very slowly in America. In fact, their application on railroads came more rapidly than in factories. The low-pressure type built by Watt and Boulton in England found little favor or application here. The high-pressure or true steam type was first developed for factory use by Oliver Evans in Philadelphia. The second great advance in steam power for factory use came in 1849 with the Corliss engine. This engine employed a sensitive governor which enabled the inexperienced attendant to regulate its speed to the exact requirements of the type of load it drove. The chief hindrance to the growth of power technology during this period was the difficulty of working metal to the exact dimensions required for smoothly operating pistons, shafts, and gears. The machine tool had not been sufficiently developed.

Since 1860 power technology has moved forward more and more rapidly. The steam turbine was the major development during the last quarter of the nineteenth century. The invention of the high-speed electric dynamo in the eighties afforded the first opportunity for its extensive application. A very recent development in power generation is the use of mercury instead of steam to operate turbines. The internal-combustion engine, originating as far back as 1678 when a Frenchman used the explosive force of gun-

powder to drive a piston in a cylinder,[1] began to take practical form. The widely used four-cycle engine was invented in 1862 and placed on the market in 1878. The chief use of the internal-combustion engine has, of course, been in personal transportation, where its superiority over all other forms was early demonstrated. Since the invention of the four-cycle engine, only one major improvement has been made in engines of this type. The Diesel utilizes the four-cycle principle, but differs from the gasoline-using type in the kind of fuel burned and the method of ignition. Instead of an electric spark used to ignite the fuel compressed by the upward movement of the piston in the gasoline engine, injected air is so greatly compressed in the cylinder of the Diesel that it fires the heavy oil that is injected into the cylinder at the completion of compression. The Diesel engine at first found little use, but it is rapidly becoming an important source of power for heavy trucks and for some types of streamlined trains.

The second major improvement in power during the last quarter of the nineteenth century was the development of one of the most efficient agencies of power transmission ever devised. The dynamo and electric motor make possible the conversion of coal, oil, and water into the marvelous form of energy called electricity. The improvements in electric power generation have even exceeded those in transmission. Such projects as Boulder Dam and the Grand Coulee Dam convert the formerly wasted and often devastating forces of two mighty rivers into the energy required for the newer type of mechanical civilization in vast areas of our country. Today the conversion of natural power into industrial energy exceeds the ability of our economic system to utilize it intelligently.

C. MACHINE TOOLS

The most important factor in the rise of the factory system to a position of dominance in capitalism was neither

[1] *Cf.* Dixon and Eberhart, *op. cit.*, pp. 428–429.

the machine nor the engine but the machine tool. Both machines and fairly satisfactory sources of power, such as the water wheel, existed for many years before the factory system became established in a single industry. The chief reason resided in the methods and means of fabricating machines and engines. These were so crude that these products could be made neither rapidly nor durably. The first satisfactory machine tools were made about the time the textile machines and the steam engine reached a practical stage of development. Even then the major parts of steam engines and machines were made of wood. The lathes of that early day could not turn iron and steel into rods or tubes; flat surfaces could not be made; and even iron fittings were laboriously and crudely wrought by hand. Usually the bulkier parts of all early machines were made from wood. Shafts, pulleys, rods, and even gears were shaped from wood with only bearing surfaces faced with bands of iron to increase their durability. The creaking and groaning described by visitors to early textile factories were not figments of a stimulated imagination but a stark reality. The spread of the factory system came only as rapidly as the machine tools were invented to fabricate the products of an advancing metallurgy.

Machine tools are the versatile machines that make machines. The last half of the eighteenth century saw the birth of these important devices. Wilkinson's boring machine, built to round out the inside of the cylinders for Watt's engines, was one of the first of a great family. In less than half a century a small group of great mechanics not only invented practically all of the machine tools in use today but, what is still more interesting, developed them into the essential forms they still retain. These mechanics knew each other and doubtless cooperated in the production of their great achievements.

Machine tools can best be defined as machines which reproduce themselves. That is, they can turn out a wide variety of other machines including ones exactly like any

one of their family. The most common forms are those metalworking machines usually found in the machine shop. The *lathe* is the most versatile of these. It consists of a device for rotating a piece of metal while a cutting tool removes material from its revolving surface. Its principal products are rods, shafts, cones, and screws. The *drill press* is merely a lathe in which both the relation of parts and their functions have been reversed. Such a machine presses a drill through metal at any desired angle or rate of speed. The cutting bit rotates and moves down into the object which is usually clamped rigidly in relation to the turning drill. The lathe, on the other hand, rotates the object being worked upon in a horizontal plane. The *planer* or shaper is used principally to impart flat surfaces to metal objects. The *gear cutter* cuts teeth on a shaft or around the periphery of a wheel. The *milling machine* is used for a wide variety of metal cutting on every conceivable type of surface or shape of object. The *grinding machine* performs much the same operations as the milling machine but works to much closer tolerances. These are but a few of the machine tools which enable man to produce the complex production machines found in modern industry, but they are still the basic ones employed in cutting and shaping metal.[1]

In addition to these machine tools, there are employed today certain shape-giving machines that usually operate upon metal while it is in a molten or plastic condition. Since great heat is required, they are used in conjunction with the more basic metal-producing processes such as smelting and blasting. *Rolling mills* are merely rolls resembling those used in a laundry wringer through which bars of metal are passed to impart shape. Rods, plates, rails, girders, and angles are made in rolling mills. *Molding machines* impart shape to metal by pouring it into specially

[1] For an excellent non-technical discussion of the nature and functions of machine tools together with a large number of unusual photographs of the principal types, the reader is referred to *Life* for Dec. 2, 1940 (Vol. 9, No. 23), pp. 85–93.

shaped cavities where it is allowed to cool and harden either with or without pressure. *Power hammers* pound heated metal to increase its toughness and tensile strength. Axles, connecting rods, and other parts of machines which operate at high speeds or under great strain are made by this forging process. The *punch press* is used to punch holes in plates where evenness and smoothness of bore are not essential.

The difference between a machine tool and a production machine is primarily a matter of functional specialization. Machine tools can be and are used in production of consumer goods only when the product is produced in relatively small quantities or when great variation is required among the finished items. Goods produced by machine tools are "custom made" or produced to specifications. The essential difference between these two types of machines can easily be seen when a drill press is compared to a multi-plane drilling machine used on a cylinder block in a modern automobile factory. A drill press can be used to drill any size hole, at any rate, at any angle, in any type of material within limits of its size and power. This machine tool can quickly be changed from rapidly drilling half-inch holes at a 45 degree angle in a four-inch cube of cast iron to slowly drilling three-eighths-inch holes directly into the face of a two-inch bar of forged steel. The setting of the object to be drilled and the feeding of the drill downward as it bites into the material require skill and judgment on the part of the operator. A multi-plane production drill, on the other hand, is highly specialized and nearly automatic. The cylinder block is locked in a predetermined position. Batteries of drills of various sizes then converge upon the block from three or four angles or planes and simultaneously drill as many as sixty holes at varying rates of speed. The slightest modification of hole size, placement, or angle of entry requires extensive changes not only in the bits but in the gearing and arrangement of the machine. At best the modification of such a highly specialized production ma-

chine (often called "retooling") is narrowly limited, and great volume of output is necessary to give it an advantage in production.

D. ROUNDABOUT METHODS

Technology is essentially a method of applying human intelligence and effort to the solution of human problems. The tools and machines, which constitute the most important material expressions of technology, are, in the final analysis, merely a more efficient means of applying labor to production. Such things are material aids to current production and are products of human effort applied in the past. When a worker uses a tool in the fabrication of a product he is indirectly applying a part of the energy originally used to make the tool itself. This original human effort expended in making a tool increases the effectiveness of the energy applied through the tool or machine. As we have already seen, simple tools greatly increase the effectiveness of man's efforts in the satisfaction of his wants. Without tools human beings would never have risen much above the abject state where sleep and food gathering consumed the twenty-four hours in every day. Civilization is a product of technology. The first tool increased the effectiveness of man's efforts and reduced the total time required for the satisfaction of a given want.

In modern factory production the essential nature of technology is often obscured by the complexity of the process. The enormous expenditure of time and effort required to build the machines and physical organization of an industry are frequently overshadowed by the more obvious reduction of labor required in the immediate physical fabrication of the ultimate, usable product. A few years ago Henry Ford advertised the astonishing efficiency of the technology he employed in his plants by the simple statement: "Twenty-four hours from iron ore to finished car." Much less evident was the huge expenditure of human effort and ingenuity which had been made prior to the day

when a single revolution of the earth saw little piles of iron, sand, lime, rubber, wood, and other resources combined into the dynamic entity called an automobile. In truth, the first Ford to roll off the end of that new assembly line required years to build. The thousands of hours of human effort required to build the blast furnaces, rolling mills, machine tools, glass plants, railroads, brick kilns, and the vast array of production machines and other technological aids that comprise the giant Ford plant, were all necessary to the first car actually turned out by such a roundabout and indirect system of production. The social gains accruing from such methods of applying human effort can be realized only when a large number of units are produced. Unless the economic structure permits a large and steady output of goods to flow from industry, roundabout methods are not only foolish but disastrous. The building of a sawmill to cut a single cord of firewood is obviously wasteful of time and effort. An ax in the hands of even the most inexperienced chopper will produce the cord long before ten efficient workers can construct the sawmill.

Sometimes roundabout methods are necessary for the production of even a few socially desirable articles. Such methods enlist powers stronger and more delicate than human powers and extend the range of human possibility. Neither directly nor with the aid of simple tools can man make a pair of spectacles. Before the first lens can be made, all the elaborate equipment of even a handicraft stage of glassmaking must be set up. And the many mechanisms required to make and to fabricate the metal frames must first be developed. All these are essential to a single pair. But once they are developed and organized into a system of production they can be employed in making many other articles composed of lenses held in fixed relationships by bands or tubes of metal. Within the range of any given industry the volume of output is a measure of the efficiency of roundabout over more direct methods. The extent to which roundabout, machine methods are employed depends

upon the volume of standardized products that the market will absorb. Technology is conditioned both in its development and application to the way its employment affects the opportunities for pecuniary profit.

In a pecuniary society roundabout methods are reflected in the cost structure of industry. Costs of production refer to the money outlays incurred in the creation of a saleable product or service. Modern machine technology creates costs which can be met only when output is large and continuous.

1. Production Costs

Direct or *variable costs* refer to the expenditures for labor, materials, and other items which tend to vary more or less directly with volume of output. In simple or tool industry where relatively direct methods are used, these constitute the major part of the total costs of production. Aside from a small investment in tools which had a long life, both physically and technologically, the medieval craftsman found that the per-unit cost tended to remain about constant irrespective of the amount he produced. Large volume offered no advantages and in many lines of production was physically impossible.

Indirect or *constant costs* refer to expenditures which do not change in proportion to changes in the volume of output. In modern industry, where roundabout methods predominate, the investment in plant is enormous and requires certain expenditures quite apart from the actual operation. Interest on the investment, insurance, and property taxes remain about constant whether the plant is closed down or producing to capacity. Many other costs bear a very indirect relation to volume of output. Salaries of the office force, heat and light, maintenance of buildings and equipment do not increase in direct proportion to output but are often fixed within certain broad limits. Furthermore, in some industries the highly specialized machinery, either as a whole or in working parts, represents a fixed outlay only

as long as a given model of a product is maintained. In automobile production, every change in body or chassis design requires expensive changes in dies, presses, and other equipment. Often the plant must be closed down during the period of retooling when much serviceable but obsolete machinery is junked to make way for machines essential to the production of a new model. Roundabout methods are economically superior to simpler and more direct ones only when a standardized product can be produced in large and steady volume. The indirect or overhead expenses become financially and physically ruinous unless the volume of standardized output is so great that each unit has only a small part of the overhead to bear.

The fundamental importance of volume of output in determining the relative merits of roundabout or direct methods can be shown by a simple illustration. A modern small automobile could be produced either in a machine shop, where each car would require much skilled labor to fit each part to its proper place in the chassis, or in a large-scale factory where the parts would be made within such narrow limits of tolerance by highly specialized machinery that the car would grow on the assembly line with little or no fitting of parts. In the first instance, the amount of labor expended on each car by highly skilled machinists would be a major item in final cost, while in the factory the amount of labor expended directly on each car by highly specialized but relatively unskilled labor would be only a small item in cost. But the amount and quality of labor required to produce the machine shop would be very much less than that required to produce the factory. Further, the machine shop consists essentially of machine tools that have a wide variety of uses. A lathe or drill press can shape parts for airplanes, tractors, sewing machines, cranes, turbines, printing presses, or any one of a thousand other mechanisms. But the huge multi-drilling machines in Ford's plant, which in a single operation can drill all the holes on the top, bottom, and sides of an intricate V-shaped cylinder block, is practically

useless for any other purpose. In fact, a change in the location of a single hole requires an expensive change in the machine, while a change in the design of the cylinder block from a V-eight to a straight eight makes the machine practically worthless.

When the Ford Motor Company changed from the Model A to the V-eight, most of the expensive machinery had to be scrapped and the plant retooled at a cost of many millions of dollars. All the labor and time expended during more than three months shutdown were essential to the production of the first car of the new model. If we assume that the cost of the change was 50 million dollars and that only 1,000 new models were produced before market conditions necessitated the design and production of another model, then each car would have actually "cost" about $50,000 to produce, since each would have had to bear one thousandth part of the retooling cost. With this small output the machine shop would have been infinitely more efficient since very little increase in overhead would have been required to shift from one model to the next.

The effects of changes in volume of output upon the costs of production involved in the direct and roundabout methods can be more fully appreciated when we set down a hypothetical example in terms of money costs. In a small machine shop the costs of production are chiefly of the direct type. This simply means that the monetary outlays consist mostly of wages for highly skilled workmen who fit and shape each part of the highly versatile machine tools. In an automobile factory the costs of production are chiefly of the indirect type, that is, they consist of interest charges on the huge investments in and the maintenance of large amounts of highly specialized production machinery which can turn out standardized parts with the minimum skill on the part of operators or assemblymen.

The machine shop differs from the auto factory in another important respect. Although the machine shop can very quickly and cheaply adapt its organization to new designs

or models, it can expand output only by adding more machine tools and more skilled workmen. This means, in effect, that the mechanical units employed in a machine shop have a very limited capacity. Usually they are used at or near this capacity. When output is diminished, specific lathes, drill presses, and milling machines are shut down, and the expensive labor required to run them is laid off. In the automobile factory the relationship is markedly different. A given highly specialized machine can turn out only one single product of predetermined design, such as a cylinder block or frame member, but it can operate at such high speed that an operator can turn out vast quantities of the standardized part in a single day. Often one such machine can turn out the entire amount required by a small factory when operating at full capacity. Of course, large factories employ whole batteries of such machines. But the important fact is that each unit involves a huge expenditure and has a wide range of output. When few units are required the shutting down of machines does not materially reduce costs. Some low-paid labor can be discharged, but the heavy interest charges on the idle machines cannot be similarly dismissed. Furthermore, many hundreds of highly specialized machines must be operated to supply the assembly line with even a small flow of standardized parts. Hence, the capacity of the modern plant must be utilized in large and steady output to realize the advantages of roundabout methods. This relationship between the two types of production units is shown in the following table.

	Machine shop	*Auto factory*
Capacity	10,000 cars	1,000,000 cars
Overhead costs:		
Interest, rents, maintenance of technical equipment	$100,000	$50,000,000
Direct costs:		
Labor and materials (materials are assumed to cost the same in both cases, $200 per car)	$500 per car	$300 per car

The effects of changes in output on costs per unit are very interesting. To show the relatively slight effect of unused machine-shop capacity on unit price, we begin our example with an output equal to only one-half the capacity of the machine shop. Then, to bring the machine-shop output up to that produced by full utilization of the factory, we assume that each increment in capacity increases machine-shop cost proportionately. Of course, machine-shop methods would never be employed in a plant with a capacity of a million cars per year.

MACHINE SHOP

Output.....	5,000	10,000	100,000	1,000,000
Costs:				
Overhead...	$ 100,000	$ 100,000	$ 1,000,000	$ 10,000,000
Direct.....	2,500,000	5,000,000	50,000,000	500,000,000
Total.....	$2,600,000	$5,100,000	$51,000,000	$510,000,000
Per unit....	$520	$510	$510	$510

AUTO FACTORY

Output.....	5,000	10,000	100,000	1,000,000
Costs:				
Overhead..	$50,000,000	$50,000,000	$50,000,000	$ 50,000,000
Direct.....	1,500,000	3,000,000	30,000,000	300,000,000
Total....	$51,500,000	$53,000,000	$80,000,000	$350,000,000
Per unit...	$10,300	$5,300	$800	$350

The significant difference is that the economies of roundabout methods cannot be realized until a large plant approaches full capacity. Direct methods can be fully utilized in relatively small units of industrial organization. In the machine shop, the machine equipment entailed an overhead of only $100,000. When fully utilized this overhead could be spread over 10,000 cars, so the overhead per car could not be reduced below $10. But this relatively small overhead necessitated a high direct cost of $500 per car. Since we have assumed the cost of materials to remain constant, the cost of a car in the original unit of the machine

shop, with a capacity of 10,000 cars, could vary from $100,500, when only one was produced during a year, down to $510, when 10,000 were turned out. Even if we take the enlarged machine shop with a capacity of 1,000,000, the cost could theoretically vary from $10,000,500 to the same minimum of $510. Of course, in reality no such aggregation of machine-shop methods would be assembled in one plant.

The automobile factory requires a very large outlay for the maintenance of its highly specialized equipment. Its high overhead is offset by a relatively low labor cost. This means that the high-priced labor of the machine shop has been applied indirectly to the production of specialized machines rather than to the direct production of a useable product. Such labor is employed but once, in the making of equipment that requires only small amounts of low-priced labor for its application. The direct methods applied in the production of technical equipment are expressed as large fixed costs. To apply them effectively requires abundant use. The per-unit costs of the auto factory can theoretically vary from $50,000,300 with an output of only one car in a year to $350 when full capacity is utilized. The significant difference lies in the application of effort as reflected in costs. Modern technology is efficient only when its methods are applied on a large scale. Its huge overhead costs are the chief force producing giant industrial organizations which can control the total output of an industry and hence employ technology efficiently. Only when output is many thousands of units per model (usually a year in the automobile industry) do large-scale methods become more efficient than small-scale, machine-shop ones.

2. Role of Technicians

The industrial system is fundamentally mechanical rather than manual. It is a system of interlocking mechanical parts using natural powers and material resources. It is impersonal in nature. It is economically efficient only under conditions of quantity production of standardized

goods. It lends itself to systematic control by technicians. In fact, the supervision of the whole roundabout process of modern, large-scale, multi-unit production by technological specialists is indispensable to the operation of the system. These technicians are matter-of-fact in attitude. Their function is to increase productive efficiency in terms of tangible and measurable performance. The natural and physical sciences are their tools. Social welfare rather than individual profit is their aim. Their measures of success are material accomplishments, not pecuniary accumulations. Every increase in specialization and mechanization makes their functions more vital. But only with freedom to adapt means (natural resources and science) to ends (human desires) can they produce progressive cultural change in the form of a more satisfying world for an increased number of people.

Chapter 15

The Social Effects of Technology

Around power-machine production arise many social and economic patterns of behavior and organization. In a sense all aspects of modern capitalism are influenced by and in turn influence the industrial core of technology. We have already seen the impact of industrialism upon the broad institutional framework. Here we shall examine those patterns most directly and immediately influenced by science and technology.

A. SPECIALIZATION

Specialization is the differentiation of persons, places, equipment, and things on the basis of function. In its most conspicuous form, the division of labor, specialization means narrowing the range of operation of each worker. It is an aspect of technology in the sense that it results from the application of man's intelligence to the problem of satisfying his wants. By narrowing the range of activity, efficiency is increased. From the standpoint of an individual this is a result of the increased dexterity gained from repeating an action. From the social standpoint the increased efficiency is the result of utilizing more fully the special endowments of an individual or a region. By dividing a physical project requiring the labor of ten men for a day among ten individuals on the basis of their respective

abilities, the task will not only be done more quickly and expertly but the workers themselves will probably need to exert less total effort.

The most significant aspect of the division of labor is its relation to machine technology. Machine technology is very often a direct result of specialization in productive processes. When any process is elaborated into a series of stages where each consists essentially of the repetition of the same movement, that process is most easily mechanized, for, as we have seen, a machine is merely a device for repeating a given movement. But the machine process itself produces greater specialization among those workers concerned with designing, maintaining, and repairing the machines and the productive systems in which they are employed. The production machine is a specialized type as compared with the machine-tool type. Such machines and their integrating mechanisms require the specialization of workers, especially in the capital goods industries which make the equipment used in modern factories. However, at the lower or production levels of mechanized industry technology tends to reduce men to non-specialized machine tenders.

As a given industry is mechanized, the workers gradually become mere links between the automatic parts. Their functions are reduced to mechanical movements such as feeding material into or removing it from machines, pressing buttons, or throwing levers in response to a system of signal lights, or inspecting the stream of finished products. One by one these operations are eliminated, and man finds himself an unnecessary element in the fully automatic process. A few years ago the Consolidated Edison Company of New York opened an electric distributing station that operated without a single human being within its four walls. Even more important, the distribution of current was made according to the intensity of daylight falling on photo-electric cells placed at strategic points in the busy city. When a cloud passed over a few squares and office workers

snapped switches, the voltage never wavered; the automatic eye had signaled the change and made the necessary adjustments before man was aware of the situation. Mechanization not only reduces workers to the dead level of machine tenders but it sometimes removes them from the process entirely.

B. INTERDEPENDENCE

Interdependence is a function of specialization. It refers to the economic position of specialists. The greater the division of labor, and the more complete the specialization of regions, the more dependent is each specialist or region upon all other specialists and regions for the satisfaction of human desires. To say that interdependence increases as production for consumption (by the producer himself) gives way to production for the market is merely to call attention to the fact that under a price system the market becomes the focal point for the meeting of dependent buyers (consumers) and sellers (producers).

Interdependence in a huge automobile factory is clearly recognized by the management. Each department is controlled in terms of the main assembly line. The stoppage in the flow of any item paralyzes the entire system. It is "sensitive" to maladjustment in any of its parts. Yet these same executives oppose control of their relationship to our whole economic system or even to the whole industry. They insist that each company must be free of interference and able to adjust output as it deems best. But they would scoff at the idea of permitting each department of their huge factory to adjust its output as its foreman deems best. Of course, if such freedom were given to the departmental foremen they would probably do a better job of adjusting their output to the central assembly line than the managers do in adjusting plant output to social requirements even as expressed in the market. This is because of the absence of price considerations in the former case and their dominance in the latter. A foreman would probably make a functional

adjustment since his pay depends upon efficiency in physical output while the industrial manager often is forced to make a physical maladjustment in the form of restricted output to gain the maximum money profit.

Sensitivity is a consequence of interdependence. Since the satisfaction of the wants of any one individual in a highly specialized society depends upon the correlation of numerous functions carried on by countless thousands of individuals over vast areas, any obstruction in one part of the process is immediately transmitted not only vertically along the process to the final stage where a usable product emerges but also radially to all the other processes depending in any degree upon that process. The parts are related through the price system. The whole industrial process may be likened to a giant spiderweb where each radial strand is a concatenation of processes leading from the raw materials at the outer edge to the finished products in the center or market, and where the circular strands represent the relation of processes producing basic materials such as glass or rubber to the process turning out usable goods. The slightest pull at any point of this giant web is immediately transmitted to all parts of the whole intricate system. In our industrial structure the most frequent derangement is the result of business tactics exercised either by a business manipulator or a labor organization. Individualism is still dominated by the mercantilist idea that gain for one is loss for another, whereas group welfare depends upon the smooth working of a mechanical process where gain for one is gain for all.

C. STANDARDIZATION

Standardization is merely another name for large-scale multi-unit production. The machine can only repeat the same movement and thus turn out highly uniform products. Many features of modern industrialism make standardization practically inevitable. Specialization makes a high degree of standardization indispensable to the coordination

of all the multitudinous phases involved in the production of usable commodities. Building to specifications means building to standards. If ten manufacturers produce the rotors of the distributor on a Ford they all must be made within such narrow limits as to be interchangeable and to fit without adjustment into the completed mechanism. Today most mechanical products such as refrigerators, vacuum cleaners, and washing machines are assembled from parts made by numerous specialists. Precision is essential. The interdependence of mechanical processes is reduced to definite terms only when standardization reaches a high degree of acceptance. The fullest social advantage of modern machine technology can be realized only when production methods, goods, and demand are standardized within reasonably narrow limits. The pressure of overhead costs makes standardization essential to low unit cost which is the economic requisite for wide use and enjoyment.

The advantages of standardization are both social and economic. In 1880 there were fifty systems of railroad time in the United States. The schedules of each railroad were in terms of the time prevailing in the town where the home office was located. Today there are only four standard time zones for the whole nation. In 1882 the cars of most railroads never left the tracks of the owning company because twenty-five types of coupling were in use. Today there is one standard railroad-car coupling, and a car loaded in Maine can be unloaded in San Francisco. Some years ago a number of automobile companies bought an important part from one large manufacturer. Each one bought from 10,000 to 500,000 parts a year, but each wanted some minor variation in the pattern. The constant change in machine setup necessitated by these varying demands kept the parts manufacturer's plant in confusion. He was practically operating on a machine-shop basis although his total output was large enough to warrant quantity-production economics. Careful figuring showed him that he could cut his price in half, improve his delivery service, and yet make

more money himself, if he could induce all his customers to accept the same pattern. He laid the facts before them. They accepted the proposal. One of them saved 4 million dollars a year, or $20 a part on 200,000 parts.[1]

The chief obstacle to standardization is competition. A few decades ago every manufacturer believed that only by making the parts of his product different from those of his competitors could he be assured of the lucrative replacement business. The first World War made such individualistic sabotage socially disastrous, and a wave of simplification swept over the country. Tire and rim sizes, for example, were reduced from 200 to 20. But in the "return to normalcy" the demands of technology and the welfare of the group were sacrificed to individual pecuniary gains, and profitable variations were introduced on a wide scale in many lines.

D. MASS PRODUCTION

Mass production is one of the most conspicuous results of modern machine technology. The production of millions of machine-made products such as automobiles, radios, refrigerators, and numerous household appliances is so commonplace that few people realize its basic requirements. Large-scale methods are the basis of modern mass production. Of course, mass production can be achieved without large-scale methods, but the products that can be produced in great quantity by small-scale methods are few indeed. Agricultural products, especially wheat and cotton, are examples, but even these involve large-scale methods in their fabrication and distribution.

Although mass production in America is usually accompanied by large plants, high speed, and large volume of output, these are not the distinguishing characteristics of large-scale production. The process consists of either making standardized interchangeable parts and assembling

[1] National Industrial Conference Board, *Industrial Standardization*, 1929, p. 171.

them into the completed unit without fitting or modification, or the dissection of a mechanism or organism into standardized parts with the minimum of skilled labor. Modern automobile production is an example of the first type; meat packing of the second.

Large-scale methods depend as much upon the replacement of numerous small, competing units by a few large organizations in an industry as upon the use of power machines. The type of industrial organization conducive to large-scale methods was early achieved by John D. Rockefeller when he organized the Standard Oil Company and made it the dominating force in petroleum refining and distribution. Beginning about 1870, Rockefeller proceeded ruthlessly but effectively to root out small producers and to bring this field of economic effort under his centralized control. He was primarily concerned with eliminating waste and unnecessary expense in refining and distributing oil products. By controlling the industry as a whole in this country he could plan production, utilize the best equipment, secure superior talent in management and engineering, and otherwise ensure that more oil could be produced and marketed in shorter time and with less cost. His conception of mass production involved the refining, shipment, and distribution of petroleum products. Much of his success came from the use of pipe lines for transporting oil and the systematic utilization of by-products. Many of the efficient methods used today, such as pump delivery from underground tanks, were inaugurated by Standard Oil under the leadership of Rockefeller.

Although Rockefeller was a pioneer in mass production, the process is most commonly associated with Henry Ford. In 1908 Ford decided to concentrate his attention on a single model of motor car. His program rested upon his conviction that interchangeable parts could be turned out in great quantities by machines and then quickly assembled into complete cars. The idea of interchangeable parts was

not new and had been developed in principle before Ford's day. His main contribution was to speed up the production of parts and to adapt a device for assembling them quickly and accurately. The idea of the assembly line was borrowed from the Chicago packers, who used an overhead track to carry carcasses down a line of specialized butchers. Ford tried the idea first in assembling the fly-wheel magneto, then in assembling the motor itself, and finally in assembling the chassis. The Ford system was steadily elaborated until it became the "continuous-flow" method. It has become the dominant form in use today. All parts are produced in such quantities that they move toward a central line where they are assembled into larger mechanical units. Cylinder blocks, cylinder heads, crank cases, pistons, piston rings, connecting rods, crankshafts, valves, and timing gears move along separate processing lines to the motor assembly line where the engine is assembled. Axles, gears, housings, drive shafts, and bearings move along their processing lines to the differential assembly line. Similarly along other lines, frames, bodies, and wheels "grow" to completion. Furthermore, all these minor assembly lines move from either side and at regular intervals toward the master assembly line where the major units are bolted together into the motor car which rolls off the end of the conveyor under its own power. The whole complex of processes represents a masterpiece of precision of measurement, methods, and timing. Trial and error, fitting and refitting, have no place in such a process.

The prerequisites of such methods are few but important. Precise methods of measurement and machine tools of extreme accuracy must be developed to make production machines. These in turn must be capable of producing thousands of units with such small tolerance as to make parts interchangeable. Before production actually begins, however, the item must be of a tested, proved, and standardized design. Furthermore, the process must be run with adequate control techniques and a corps of competent technicians to assure a continuous and perfectly timed flow

of units. Finally, a highly efficient inspection system must be employed to detect flaws before they become part of the larger units. With such factors large-scale methods can be employed in any industry that has sufficient output to warrant the heavy capital investments involved.

Large-scale methods have been the chief means by which mass consumption has become possible. The vast array of mechanical aids which the majority of families in America possess are possible only because of the low costs and high technical efficiency of mass production. Further, the rate of technical progress has been greatly stimulated, since only when the design of a mechanism has reached a high degree of perfection (often called "fool-proofness") can large-scale methods be employed in its production. However, large-scale methods require such elaborate capital equipment and are so physically efficient that under free private enterprise the capacity of plants tends constantly to exceed the ability of the market to absorb the output. The overhead costs tend to reduce the gains of technical efficiency in the process. The flood of resulting goods puts emphasis upon sales and not upon wants. Style changes and inconsequential improvements are used to encourage the scrapping of serviceable goods merely that more sales can be made.

E. PRODUCTIVE CAPACITY

Technology has steadily and relentlessly increased the productivity of human energy. With a given amount of effort man has been able to produce an ever-greater volume of goods. Even during the early stages of the Industrial Revolution the effects of power technology were startling. Cotton spinning was one of the first industries to be mechanized. In 1760 hand methods required one worker per spindle. By 1830 machine methods enabled each worker to operate twenty spindles, by 1860 one girl could operate forty spindles, and by 1900 eighty. Machine technology spread from one industry to another so that the entire

American industrial system showed increased productivity. By 1890, 4 million industrial workers produced as large a volume of goods as 22 million could have produced in 1800. But the gains in productive capacity during the nineteenth century were puny as compared to those made in recent years, especially since the first World War. In 1920 an output of 30,000 automobile tires per day required about 40,000 workers, but in 1935 a production of 80,000 tires per day employed only 14,000 workers.

Modern industry is run by efficient electric energy. This is shown by the increase in horsepower exerted by electric motors in the United States. In 1900 the total horsepower flowing from electric motors was less than half a million. In 1927 the figure had risen to 30 million. The significance of such power can be better appreciated when we compare electric with human energy. The energy of one man is equivalent to one-tenth horsepower; ten men are required to exert a full horsepower. However, an electric motor can run throughout the entire twenty-four hours of each day whereas a normal worker can scarcely exert his full effort for eight hours or one-third of each day. Each horsepower exerted by an electric motor for a day is equal to the energy produced by three shifts of ten men or a total of thirty men. Thus the energy exerted by electric motors in 1927 equaled the efforts of 90 billion human slaves. Of course, no number of slaves could produce the things with tools that electric energy can produce with modern machines. But the industrial energy supplied by electric motors in 1927 was not quite 80 per cent of the total used that year. If past trends hold for the future, the day is not far distant when all industry will be electrified. From 5 per cent in 1900 the amount of industrial activity electrically operated rose to nearly 80 per cent in 1927.

The study made by President Hoover's Research Committee[1] gave a graphic comparison of increased productivity in the four basic industries of agriculture, mining, manu-

[1] *Recent Social Trends in the United States*, 1933, McGraw-Hill.

facturing, and transportation. The index number of 100, expressing the productivity per worker in these four industries for 1900, rose to 178 in 1925. More recently, in 1937, the report of the National Resources Committee on technological trends showed that from 1920 to 1935 the amount of goods produced per man-year in American industries rose nearly 40 per cent.

Much more significant is the failure of our economic system to use the productive capacity of modern technological equipment as it exists in American industry today. The complete utilization of our productive capacity would have greatly raised the possible standard of living. The money value of the actual goods and services produced in 1929 has been variously estimated at 80 to 90 billion dollars. With approximately 27 million families in the United States, this meant that an equal distribution of income that year would have given each family between $2,500 and $3,000 worth of goods and services for use in its everyday activities. The economic system produced the basis for a fair standard of living for all American families even with only a partial use of its technological capacity. As we shall see later, no such standard prevailed, however, but it is interesting to know what could have been done.

To determine how much technology could have raised this standard, two studies have been made. One, made by engineers, determined the productivity of the best known method in use in each of the basic industries. The wide variation in the efficiency of technology employed in one industry is shown by an estimate made of productive capacity in thin-gauge rolling mills in 1933. In twelve of the most efficient mills, 1,600 workers could produce as much tonnage in one day as 32,000 men working the same length of time in the other 630 mills. This study by engineers and technicians was aptly called *The National Survey of Potential Productive Capacity.*[1] The other study, made by economists, tried to determine how much American industry could have

[1] LOEB, HAROLD, and associates, *The Chart of Plenty*, 1935, Viking.

produced if all existing equipment had been used to full capacity under prevailing business methods. This study, called *America's Capacity to Produce* was made by the Brookings Institution.[1] The engineers claimed that the employment of the best technology in all industries to full capacity would have increased the total national income by 40 per cent. This would have meant in money values about 125 billion dollars or about $4,500 per family. The economists claimed an increase of nearly 20 per cent or a total national income of about 96 billion dollars ($3,500 per family). Technology has created the basis for a relatively high standard of living for all people in our great country.

F. UNEMPLOYMENT

Technology has vastly increased the output of goods and services for the satisfaction of human wants, and it has opened vast new fields for the application of human intelligence and energy. But it has also greatly increased the insecurity of industrial urban life. Where all the amenities of life are dependent upon money income, any interruption of wages means a decreased level of living for the earner and his dependents. Unemployment is, of course, not always the result of mechanization, but two major types have been created or greatly increased by it. Unemployment might be defined as any form of enforced idleness on the part of able-bodied individuals.

Technological unemployment is the displacement of men by machines. Often such unemployment of certain individuals is the social price paid for the new types of employment opened up by the new machine-made goods or the wider distribution of older but machine-cheapened commodities. But, more and more, the drive of technology is positively rather than relatively displacing men. According to the report of the National Resources Committee on technological trends, published in 1937, "The number of

[1] LEVEN, MAURICE, et al., *America's Capacity to Produce*, 1934, Brookings Institution.

man-days worked in the industries of the United States dropped nearly 20 per cent between 1920 and 1929 although output increased about 6 per cent." Furthermore, the increasing productivity of the new technology is a constant threat to the operation of industry on a profit basis.

The periodic fluctuations of economic activity, often referred to as the business cycle, have reached such serious proportions that depression unemployment has become a major form. For the past ten years from 20 to 25 per cent of our normal working population of some 48 millions have been unemployed by the combined forces of business depression and technological advancement. The significance of the technological factor was demonstrated in 1936 when in many lines the 1929 volume of output was attained with only about three-fourths of the number employed in 1929. But irrespective of the specific cause, unemployment produces dire social effects.

To the individual it means lowered efficiency, lowered standard of living, increased fears and insecurities, and a breakdown of faith in the social system. With prolonged unemployment in an industrial depression the combined effects of waning efficiency and lowered morale render the individual unemployable; he becomes habituated to an existence where the responsibilities of property ownership and productive effort are so long denied him that he no longer desires to regain them. But the effects do not stop with the demoralization of the individual; most unemployed persons have dependents. The members of a family who suffer most from unemployment are the wife and dependent children. The home, where the most enduring values of life are acquired by children, is disrupted as mothers seek to "tide over" the emergency with their slender earnings. The bitterness of frustrated parents toward an economic order that denies them the means of acquiring a livelihood is inculcated in the children at an age when lifelong attitudes are being formed. When society does not reward honest effort, cunning is often used in self-defense. Such is the

attitude that these conditions breed. The effects of a prolonged depression are found in the gangs and rackets of the next generation. Even the physical effects are dire. Young and growing bodies are distorted by malnutrition and disease. Children are taken from school before they have acquired the basis for intelligent participation in a highly competitive economic society and put to work in "blind alley" employments so that a few dollars each week will help to keep the family together. The child is forced, by conditions over which he has not the slightest control, into an overcrowded unskilled labor market and into an acquisitive society where the chances of passing his miserable condition on to another group of defenseless children will be greatly enhanced.

Evaluation of Technology

Technology has created the basis for an economy in which most of man's needs could be fully satisfied. But the enveloping social pattern is founded upon an economy in which scarcity is the normal condition. Market values are scarcity values. Until very recently, increased production meant gain for those whose property, resources, or energies reduced the scarcity of the market. Always the reduction has been moderate and the market values have been adjusted to meet it. Now technology threatens to abolish scarcity in many sectors of our economy. But such unprecedented increases in wealth would destroy the very foundations upon which some of our economic institutions are built. Unlimited production would raise human satisfaction to new heights but would destroy the market value of many property rights. Our ideology of scarcity thus conflicts with the full use of our technology. In effort to preserve our outmoded social pattern we have throttled technology. The results—idle plants, unemployment, and depressions—are the price we pay. Technology has given man the means of abolishing scarcity but it has not supplied the enveloping cultural pattern necessary to its use. How this conflict between an economy of abundance and the ideology of scarcity can be resolved is the problem of the future.

BIBLIOGRAPHY

ANDERSON, H. DEWEY, et al., *Technology in Our Economy*, 1941, U. S. Government Printing Office.

A monograph based on the findings of the Temporary National Economic Committee. Especially valuable because of its scope.

BEARD, CHARLES, and MARY BEARD, *The Rise of American Civilization*, 1927, Macmillan.

Vol. 2, Ch. 30. The Machine Age, pp. 713–800.

Able analysis of the nature and social effects of modern technology.

BENJAMIN, HAROLD, *An Introduction to Human Problems*, 1930, Houghton Mifflin.

Ch. 1. Introducing the Problem-Solver, pp. 1–7.

Ch. 2. The Search for Order, pp. 8–24.

Ch. 3. The Description of Order, pp. 25–43.

Ch. 4. Science as Generalization, pp. 44–65.

An elementary but thoroughly adequate treatment of the nature of science and its role in the solution of human problems.

BENT, SILAS, *Machine Made Man*, 1930, Farrar & Rinehart.

Ch. 1. The Machine: Genie or Juggernaut? pp. 1–18.

Rise of machines; effects on government, social organization, and personal philosophy of life.

Ch. 16. Labor: From Slavery to the Factory, pp. 257–276.

Condition of modern machine tender compared with that of ancient slaves; attempts to improve working conditions evaluated. Elementary but interesting treatment of some of the basic problems produced by modern technology.

CHASE, STUART, *The Economy of Abundance*, 1934, Macmillan.

Ch. 21. The Technological Imperative, pp. 308–317.

A discussion of the effects of modern technology upon institutions, behavior, and ideology with an enumeration of the changes in the social structure essential for the full utilization of technology.

CHASE, STUART, *Men and Machines*, 1922, Macmillan.

The best popular treatment of the rise of machine technology; the application of power; the effects of power-driven machines on labor, economic organization, and social values. Excellent for the beginning student.

CHASE, STUART, *The Tragedy of Waste*, 1925, Macmillan.

Ch. 9. Wastes in Production, pp. 145–174.

Social costs of industry's failure to use technology efficiently.

CHASE, STUART, and F. J. SCHLINK, *Your Money's Worth*, 1928, Macmillan.

Ch. 9. Standardization—Good and Bad, pp. 168–182.

An excellent analysis of meaning of standardization; development; examples of basic forms; promoting forces; relation to mass production; types; social effects.

Ch. 11. Outposts—Government, pp. 197–204 (only).

An analysis and social appraisement of the U. S. Bureau of Standards.

CLARK, JOHN MAURICE, "Overhead Costs," *Ency. of Social Sciences*, XI, 511–513.
Comparison of direct and indirect costs; theoretical and practical aspects of the changing relationship caused by the advance of machine technology and large-scale production.

COHEN, MORRIS R., "Scientific Method," *Ency. of Social Sciences*, X, 389–396.
An able discussion of the nature, scope, limitations, and applications; scholarly analysis of the difficulties encountered in social sciences. Good bibliography.

COLE, G. D. H., "Industrialism," *Ency. of Social Sciences*, VIII, 18–26.
Nature and meaning; evolution; effects upon business organization; theories of; laissez faire *vs.* socialism as a control.

COREY, LEWIS, "Machines and Tools—Modern," *Ency. of Social Sciences*, X, 21–26.
Cultural setting of modern industrialism; development of technology reviewed both as directive and as resultant force in social evolution.

COYLE, DAVID C., "The Fallacy of Mass Production," Ch. 1 in Agar and Tate *Who Owns America?*, 1936, Houghton Mifflin, pp. 3–17.
A critical analysis of the thesis that modern machine-technology demands large volume of output for its profitable application.

DAUGHERTY, CARROLL R., "Horsepower Equipment in the United States, 1869–1929," *American Economic Review*, September, 1933 (Vol. XXIII, No. 3), pp. 428–440.
Brief but scholarly survey of the development of industrial power.

DAVIS, WATSON, *The Advance of Science*, 1934, Doubleday, Doran.
A popular but competent survey of the fields of science and their effects upon civilization.

DEWEY, JOHN, *Democracy and Education*, 1916, Macmillan.
Ch. 25. Theories of Knowledge, pp. 388–401.
Nature, causes, and social effects of "class knowledge"; need for equitable distribution of knowledge in a democracy.

GARBEDIAN, HAIG, *The March of Science*, 1936, Covici, Friede.
Ch. 12. Power and Our Modern Alladin's Lamp, pp. 242–265.
An excellent non-technical discussion of the achievements of technology in the power age.

GINZBURG, BENJAMIN, "Science," *Ency. of Social Sciences*, XIII, 591–603.
Nature and content of science; factors retarding its development in early civilization; history of development from Renaissance to modern times; relation to technology; scope and content of physical and natural sciences; evaluation of science.

GRIFFITHS, BENJAMIN M., *About Science*, 1931, John Murray, London.
Ch. 1. Scientific Knowledge, pp. 6–17.
Chs. 2 and 3. Scientific Method, pp. 18–49.
Ch. 8. Science and Other Knowledge, pp. 122–142.

HACKER, LOUIS M., *American Problems of Today*, 1938, Crofts.
Ch. 6. Life, Letters, and Art in the Machine Age, pp. 146–173.
Analysis and evaluation of the effects of modern technology upon modern city life and its formal expressions.

HAMILTON, WALTON H., "Our Man-Made Natural Resources," in *Resources for Building America*, 1939, Progressive Education Booklet No. 15, American Education Press, Columbus.
A brief but stimulating statement of the way natural resources are conditioned by our institutions, especially technology.

HIRSHFELD, CLARENCE F., "Power," Ch. 4 in Charles A. Beard (Ed.), *Toward Civilization*, 1930, Longmans, pp. 69–97.
A social evaluation of the increasing power applied by modern machine technology. A pre-depression survey but still valid.

HOBSON, JOHN A., *The Evolution of Modern Capitalism*, rev. ed., 1916, Scribner.
Ch. 4. The Order of Development of the Machine Industry, pp. 66–112.
Nature, economic significance, and main determinants in application of machine technology.

HOBSON, JOHN A., *Work and Wealth*, 1914, Macmillan.
Ch. 6. The Reign of the Machine, pp. 72–78.
A social evaluation of the machine in modern industrial civilization by an eminent welfare economist.

HOWARD, DELTON T., "The Meaning of Science," Ch. 3 in Baker Brownell, *The World Man Lives In*, 1929, Van Nostrand, pp. 51–80.
An excellent survey of the development of science from Aristotle to Einstein.

LEDERER, EMIL, "Technology," *Ency. of Social Sciences*, XIV, 553–560.
Characteristics of modern technology; its development; relation to social change; causes of steady acceleration in modern applications. Bibliography.

MACKLIN, JUSTEN W., "Labor Saving Machines Make More Jobs," *Nation's Business*, January, 1940 (Vol. 28, No. 1), pp. 18–21.
A typical article using statistics to prove that since the number of men in the highly mechanized industries has increased, technology is not a cause of modern unemployment.

MARSHALL, LEON C., *Production in the Modern Order*, 1930, University of Chicago Press.
Ch. 3, Part B. Skills, Techniques, Knowledge—Especially Science, pp. 345–366.
Ch. 4, Part A. The Power Driven Machine, pp. 478–516.
Series of excerpts from works which create an excellent general analysis.

MUMFORD, LEWIS, *Technics and Civilization*, 1934, Harcourt Brace.
Traces the history of machine development. Considers the social changes wrought by the machine and how they may be brought in harmony with human needs.

OGBURN, WILLIAM F., *Machines and Tomorrow's World*, 1938, Public Affairs Committee (Pamphlet No. 25).

Effects of machine technology upon social and economic organization. Popular summary.

PEARSON, KARL, *The Grammar of Science*, (1892) Everymans Library Edition, 1937, Dent & Sons, London.

Ch. 1. Introductory, pp. 1–37.

A detailed and scholarly account of the meaning and functions of science and how its method can be applied to social problems. Good bibliography.

POLAKOV, WALTER N., "Our Productive Potentialities," in *Resources for Building America*, 1939, Progressive Education Booklet, No. 15, American Education Press, Columbus.

The nature of technology and its effects upon an outmoded institutional pattern.

POLAKOV, WALTER N., *The Power Age*, 1933, Covici, Friede.

Ch. 3. The Machine Age, pp. 44–53.

Ch. 5. Birth of the Power Age, pp. 67–86.

Ch. 12. Parting of the ways, pp. 198–218.

These three chapters are the highlights of this little volume which develops the thesis that power technology has created an economic impasse which can be solved only by the evolution of a new cultural pattern based on abundance.

QUIGLEY, HUGH, "Industrial Power," *Ency. of Social Sciences*, XII, 293–300.

Meaning; stages in development; factors governing efficient use in modern industry.

RANDALL, JOHN H., JR., *Making of the Modern Mind*, 1926, Houghton Mifflin.

Ch. 11. Newtonian World Machine, pp. 253–281.

The best brief treatment of the nature and significance of Newton's work as an inevitable culmination of Renaissance forces and as a logically sound but socially inadequate method of science.

RAUTENSTRAUCH, WALTER, "Technology Demands a Planning Economy," Ch. XI in John N. Andrews and Carl A. Marsden (Eds.), *Tomorrow in the Making*, 1939, McGraw-Hill, pp. 155–174.

Nature of machine technology; its effects upon social and economic organization; requirements for maximum social gains; the process of growth in nature *vs.* that in social organization; plan for reorganization of society on a technological basis. Stimulating but elementary discussion.

ROBINSON, JAMES H., *Mind in the Making*, 1921, Harper.

Ch. 12. The Scientific Revolution, pp. 151–157.

The nature, principal contributors, and social effects of science. Very elementary.

Ch. 13. Scientific Knowledge, pp. 158–167.

Effects of the scientific revolution on the pattern of everyday life; a comparison of medieval and modern thought.

ROE, JOSEPH W., *English and American Tool Builders*, 1916, Yale University Press.

Ch. 1. Influence of Early Tool Builders, pp. 1–10.

The role of early toolmakers in the Industrial Revolution. Machine tools considered on par with banking and steam engine as social force.

Ch. 11. Rise of Interchangeable Manufacturing, pp. 128–144.

Nature and significance of interchangeable parts in the technology of modern large-scale production.

RUSSELL, BERTRAND, *The Scientific Outlook*, 1931, Norton.

Ch. 2. Characteristics of Scientific Method, pp. 57–70.

Steps in the accumulation of knowledge; function and relation of induction and deduction; effects of existing beliefs upon search for knowledge.

Ch. 3. Limitations of Scientific Method, pp. 71–84.

Discussion and evaluation of three basic limitations in applying the scientific method to the solution of human problems.

SCOTT, WALTER D., "The New Energies and the New Man," Ch. 2 in Baker Brownell (Ed.), *Society Today*, 1929, Van Nostrand, pp. 43–70.

Development of power technology and its economic, social, and educational consequences.

SLICHTER, SUMNER H., *Modern Economic Society*, 1928, Holt.

Ch. 5. Machine Industry, pp. 85–103.

Ch. 6. Specialization, pp. 104–121.

The nature and industrial consequences of machine technology.

SOULE, GEORGE, "The Challenge to the Engineers," *New Republic*, Jan. 31, 1934 (Vol. LXXVII), pp. 325–327.

SPERRY, ELMER A., "The Spirit of Invention in an Industrial Civilization," Ch. 3 in Charles A. Beard (Ed.), *Toward Civilization*, 1930, Longmans, pp. 47–68.

Role of invention in modern civilization; evaluation of the socio-economic factors affecting the inventive spirit. Good background reading.

THORTON, JESSE E. (Ed.), *Science and Social Change*, 1939, Brookings Institution.

A selection of readings on the relation of science and technology to cultural change.

USHER, ABBOTT P., *A History of Mechanical Invention*, 1929, McGraw-Hill.

A scholarly study of the rise of machine technology. Chs. 1, 2, 3 discuss the nature and cultural effects of invention and the relation of pure to applied science. Ch. 12 discusses the chief machine tools and their significance in the rise of modern large-scale production.

VAN DRESSER, PETER, "New Tools for Democracy," *Harper's Magazine*, March, 1939 (Vol. 178, No. 1066), pp. 397–403.

An able evaluation of modern technology and its social effects. Concentration and regimentation not an inevitable or even necessary attribute of power technology.

VEBLEN, THORSTEIN, *Absentee Ownership and Business Enterprise in Recent Times*, 1923, Huebsch.

Ch. 10. The Technology of Physics and Chemistry, pp. 251–283.
A critical analysis of the methods employed in industrial technology.

VEBLEN, THORSTEIN, *The Place of Science in Modern Civilization*, 1919, Huebsch.

Ch. 1. The Place of Science in Modern Civilization, pp. 1–31.
Evaluation of the place of science and technology in modern culture; relation between primitive mythology and modern science; effects of science on cultural change.

Ch. 2. The Evolution of the Scientific Point of View, pp. 32–55.
Scholarly analysis of the institutional and ideological changes which enabled a scientific point of view to become a social reality.

VEBLEN, THORSTEIN, *The Theory of Business Enterprise*, 1904, Scribner.

Ch. 2. The Machine Process, pp. 5–19.
Technological aspects and social effects of the machine process.

Ch. 9. The Cultural Incidence of the Machine Process, pp. 302–373.
Critical analysis of the social and economic effects of machine technology.

WATKINS, MYRON W., "Large Scale Production," *Ency. of Social Sciences*, IX, 170–181.
Nature, meaning, forms, and social results.

WHITEHEAD, ALFRED N., *Science and the Modern World*, 1925, Macmillan.
An evaluation of the social effects of science by an eminent philosopher.

WILLIAMS, WHITING, "What's Machinery Doing to Us?" Ch. 2 in Baker Brownell (Ed.), *Problems of Civilization*, 1929, Van Nostrand, pp. 43–64.
A human evaluation of modern technology by one who knows working people.

WOLFE, ALBERT B., *Conservatism, Radicalism, and Scientific Method*, 1923, Macmillan.

Ch. 9. Scientific Method and Scientific Attitude, pp. 200–251.
Excellent non-technical analysis of the scientific method; its characteristics; comparison of scientific and popular attitudes; evaluation of social and economic difficulties in using scientific method.

Part V · *The Corporation as an Institution*

The corporation is one of the most dynamic institutions in the cultural pattern called capitalism. From a functional point of view, the corporation is the dominant way in which property rights, human beings, and machine technology are organized under the control of a small hierarchy of managers and manipulated so as to maximize the market values of the resulting economic entity. During the last fifty years the growth of the large corporations has effected a revolution in property rights and economic organization, comparable in its social results to the Industrial Revolution of the eighteenth century. Some authorities believe that the corporation has become the dominant institution of capitalism—the institution around which the whole cultural pattern is organized. During the Middle Ages the church was the dominant institution. Its ideology of brotherhood and salvation organized society into a meaningful and purposeful whole at a time when neither political nor economic organization possessed sufficient unity to guide or control human affairs. With the Commercial Revolution, European economic life spread from the Mediterranean to the broad stretches of the newly discovered oceans and continents. The spiritual interests of society gave way to a new unifying institution—the modern state. Nations became the units of social and economic organization. The basic interests of mankind merged into mercantilistic struggles which had the military power of the nation as their chief objective. Not until the Industrial Revolution made power machines the dominant means of production did business organization become an important organizing force. As populations grew and markets for manufactured products widened, transportation, manufacturing, and exchange assumed a new and increasingly important position in the nation. Vast sums of human energy became necessary to transform natural resources into the myriad products essential to the satisfaction of expanding human wants. Investments became the new measure of a nation's power. Capital, the sum of the wealth devoted to production or acquisition of more wealth, appeared as the new force which lifted a people from niggardly scarcity to relative abundance. As the major institution of social organization, the corporation emerged with the evolution of a market-centered world. Political power found an aggressive challenger as the corporation spread. The modern corporation stands for a concentration of economic power which compares with that of the political state itself.

Chapter 16

The Origins of the Corporation

The corporation is not a new institution. Like all institutions, its origins lie buried in the tangled history of human events. The corporation of today bears unmistakable marks of the multitudinous forces constituting the cultural patterns in which it has emerged. Into its motley structure have gone some foresight, occasional tinkering, and a lot of uncontrolled development. As the result of time, change, and the tedious concern of countless enterprisers seeking personal gain within its protecting cloak, it contains arrangements, procedures, and usages from many ages and several cultures. The church, the state, and business have made definite contributions to its basic pattern.

A. MEDIEVAL BEGINNINGS

The fact of corporate entity emerged in antiquity. Perhaps the Christian church was the first institution to attain the social status of an entity apart from its members and material forms. Certainly, by the time the church had become the core of feudal life, the fact was familiar to many people. But not until the modern state began to challenge the temporal powers of the church did the legal aspects of corporate status take shape. In their desire to extend their power over men and wealth the lay rulers began the practice of recognizing certain groups of people organized in a given

district and exercising certain powers. This official recognition by the sovereign took the form of a charter. Towns, guilds, and merchant leagues gained immunity from feudal dues for their members by buying a charter from the recognized ruler of the region. The practice gained headway. A charter not only gave legal sanction to an organization of people, but also granted special and exclusive privileges to those officially recognized by the sovereign power. By the late Middle Ages the law decreed that only the king could grant a charter and thus create a corporate entity.

But an older idea that the free association of men could create substantially the same social fact still persisted. The core of the matter was the idea of perpetuity. The social organization created by one specific group of people could live on after all the founders had died. Corporate life resided in the organization or pattern which bound the members of a group into a functioning entity. The corporate organization found expression in the behavior of all its members; what distinguished them from non-member fellow beings was their unique pattern of thought and action. Hence, the organization lived on as new members were initiated into its folds and old ones died. This, of course, was the fundamental idea in all corporate groups—a pattern of human behavior which lived on through endless generations of members. So despite the emergence of the legal dictum that only chartered groups had corporate existence, the older idea found expression in the numerous associations of craftsmen, clerics, scholars, and merchants which possessed all the attributes of corporate life, except official recognition. This development of two spheres of corporate growth might never have gained economic significance had not the Commercial Revolution opened entirely new fields for states and merchants.

B. COMMERCIAL DEVELOPMENT

The Commercial Revolution opened vast new lands to the enterprising merchants who fringed the continent of

Europe. The conjuncture of several events transformed Europe from self-sufficient feudalism to bustling, gain-motivated commercialism within a relatively short span of time. The discovery of all-water routes to the Orient broke the virtual monopoly of oriental trade held by Venice and removed the uncertain taxes levied by the Moslems when goods passed through their domains. Despite the loss of most of his ships, Vasca da Gama realized a profit of 6,000 per cent on his first voyage to India. Then the discovery of gold in the New World turned the attention of daring merchants from trade to exploration and flooded Europe with the metallic basis for a true money economy. The resulting price revolution swept away the last vestiges of feudalism and created the bourgeoisie—a class so powerful that it was able to gain control of the emerging national governments of Europe. The resulting military competition of the European nations for the lands and spoils of the newly discovered continents produced the mercantilistic system and laid the basis for a new and startling development in corporate evolution.

The functional aspects of corporate enterprise began to emerge even before the Commercial Revolution supplied the arena for its rapid growth and special adaptations. From a business standpoint, associations of merchants emerged to answer the need for protection on voyages and for the diversification of risks. From these short-lived associations, engendered by the hazards of marine travel, several important features of the modern corporation evolved. One of the earliest commercial types of business association was undoubtedly the single venture of the late Middle Ages in which a number of merchants pooled their resources, consisting chiefly of a stock of goods, and shared the expenses and risks of a voyage to some distant port. The primary object in these expeditions was profit. The chief risks were storms and pirates. A large ship manned by sailors well versed in the use of arms was the minimum essential for a voyage. No individual merchant could afford

such an "overhead" expense. Only when three or four merchants pooled their stocks of goods and resources could a voyage be undertaken. The merchants chartered a ship and loaded it with their individually owned goods. The expenses of the voyage were shared by each merchant according to the relative value of his cargo. But while such ventures were practical, they were not without serious obstacles. The efforts of merchants to eliminate these business hindrances laid the framework of a prototype of the corporation.

The chief difficulty of the early joint venture was the lack of harmony in action and purpose. Each merchant either accompanied his cargo and endeavored to sell or trade it to his greatest personal advantage at each port of call, or sent an agent, called a supercargo, to perform these services in his behalf. The efforts of each competing merchant to be first at the market place or to dispose of the maximum amount of his personal cargo produced dissension and bickering. As the voyage progressed, the opportunities for personal interests to conflict increased. One merchant might trade a part of his cloth for candles which he believed could be profitably sold in a port farther down the coast. But such a call often added nothing to the fortunes of his associates and delayed them in reaching other ports. The difficulty lay in the individually-owned stocks of goods.

The joint-stock venture largely solved the problem of competing interests. In this type of venture the stock of goods was collectively owned by the cooperating merchants. The share of each was indicated by a statement or agreement. With this arrangement the interest of each was bound up with the interests of all. Each sale or trade benefited all members according to the size of their share in the venture. The chief difficulty appeared at the end of a voyage in the distribution of the goods and money. Often the remaining stock of goods or those taken in trade with a view to sale in the home market were disposed of at unfavorable times in order to realize immediately a form of wealth which could

be easily divided among the members. The profit was thus often reduced to accomplish a speedy termination of a venture. A similar situation is often experienced by heirs today. In order to provide one heir with his designated share of an estate all heirs are forced to take the reduced return of a forced sale. The next step in the functional evolution of the corporation came from the effort to eliminate this unprofitable aspect of a single undertaking with joint stock.

The permanent joint-stock type of organization opened the way for numerous refinements in business organization. It emerged when a number of merchants contributed sums for the purpose of acquiring a stock of goods and organizing a long-term venture. It differed from its predecessor by the fact that only the profit or gain was divided among the cooperating members pro rata to their original investment. A certain stock of goods or its equivalent in purchasing power (such as cash on hand or credits in foreign ports) remained intact throughout many voyages. The profits paid out to members in the form of stock or cash dividends were usually figured as some percentage of the permanent joint stock or capital. As the voyages became larger and longer in duration, the size and nature of the joint stock increased and assumed many forms. For the shareholders it became easy to think of their shares in terms of the paper evidence rather than in terms of the more basic stock of goods and cash that represented the company's assets. Once this form of organization became established, it was only a matter of time until many of the more modern features of the corporation appeared.

As before, each new feature grew from the effort to solve some problem concerned with maximizing profits. Since the death or withdrawal of a member usually necessitated the liquidation of assets or the consent of all surviving members for another to enter, transferability of shares soon became desirable. Up to this stage the interests or shares of each merchant merely determined his claim on dividends and,

in case of final dissolution of the association, upon assets. His liability for acts of his associates was limited only by his resources. In case of claims against the association the personal wealth of any member could be seized by a creditor for the payment of his claim. As long as the cooperating merchants were few in number and actually engaged in the active operation of the business, such unlimited liability was no great detriment. But with the rise of transferability the situation changed. If a member could sell his share in the joint-stock company the original members would not wish to jeopardize their personal wealth by the actions of a new and untried member. Furthermore, one who wished to buy into a company might not wish to invest all his property at once or have it subject to seizure because of the acts of others. To overcome this difficulty the liability of each shareholder became limited, at first to debts incurred while the person held stock in the association and later to the amount actually invested.

While merchants were evolving many of the functional features of the modern corporation, the rising national governments contributed important legal aspects to the associations of merchants and fortune seekers who followed the flag. As the nation became unified under the king and his army, the assumption of corporate status by groups of subjects came to be looked upon as a danger to the sovereign power. The king especially feared the organized and deathless religious corporations which not only claimed sovereignty over much of the social life of their members, but even claimed the feudal dues paid by tenants for their lands. To increase his military power and his fiscal income, the king, especially in England, insisted that all such bodies obtain royal sanction in the form of a charter. Gradually, Parliament came to share the power to grant charters by which corporate bodies gained legal existence. Since the charter defined the nature and scope of powers enjoyed by a corporate organization, the king and Parliament were reluctant to grant or renew charters without careful

scrutiny of all the political and economic circumstances surrounding the organization. The result was that powers granted in charters were steadily reduced, and the money costs and political maneuvering necessary to obtain them increased.

A very different set of circumstances attended the granting of charters to commercial associations. The authority of the king overseas depended upon the occupation of territory by subjects with power to repel competing nations and to exploit the region and its inhabitants for the benefit of the homeland. Nationalistic and commercial rivalry with Holland and France intensified the need for rapid expansion in England's overseas commerce. Patriotic desire to promote commerce and flay the enemy clashed with the desire of the king and the lords to throttle corporations and resulted in the rapid growth of economic power in commerce. The warring nations of Europe granted charters giving business groups exclusive rights in territories and trade routes. The Dutch and British East India Companies were only two of a long list of such early chartered monopolies. The English company began as a three-year joint venture but gradually developed into a corporation with permanent capital and transferable shares. Its chartered powers included not only a monopoly of trade between England and India, but also political power to govern such areas of this Oriental domain as the British were able to wrest from the Dutch. The chartered monopolies grew in number and power as England extended her control over the East and West. The Hudson Bay Company in America, exercised its monopoly of fur trade, while the Royal African Company used its monopoly of slave trade to replenish and increase the labor supply essential to the development of the New World sources of sugar and rum. Even some of the colonies in North America began as charter grants of the enterprising British kings. Thus, because of the almost uninterrupted wars of the seventeenth century among the maritime nations of Europe, the chartered corporation

developed rapidly as both a political and economic form of organization.

While these monopolies were extending the power of Britain in foreign lands and enriching those individuals who contributed capital, similar groups were busy operating in domestic and overseas trade without benefit of royal sanction. The reasons for such independent development are evident. A royal charter or parliamentary act of incorporation was both costly and slow. Furthermore, unless a definite monopoly of trade, powers of government, or aid of the nation's armed forces was sought, the possession of a charter was not a requisite to business success. Secondly, near the end of the seventeenth century the substantial group of Dutch businessmen and stock traders who followed William of Orange to London introduced the practice of using the shares of stock as the basis for speculation. The London stock boom of 1693–1696 centered the attention of businessmen upon the opportunities for profit accruing from the issue of stock in all types of schemes. But the speculative fever of Dutch origin did not subside with the decline of this boom. The dealing in the paper shares continued.

In 1711, the English government chartered the famous South Seas Company which, in return for taking over a large part of the public debt at a lower than prevailing interest rate, received a monopoly of British trade with South America and the Pacific Islands. A few years later the company received a monopoly of the lucrative slave trade with Spanish America and in 1719 took over the entire national debt. The scheme consisted of persuading holders of government debt to exchange it for stock in the company. Furthermore, subscribing for shares was made easy by requiring purchasers to pay only a small fraction of a par value. The early apparent success of this gigantic scheme induced thousands of profit-motivated individuals to launch stock-issuing enterprises. Few promoters bothered to obtain royal charters; most companies were pure specu-

lative schemes, developed by small groups of enterprisers who gave their companies all the outward appearances of chartered enterprises. Of course, only chartered companies enjoyed limited liability, but in the speculative fever of the times few investors and no speculators bothered to determine the extent of personal liability incurred by buying stock. In 1717, the share capital of existing companies had been about 20 million pounds. By February, 1720, the nominal capital of new companies alone exceeded 30 million pounds. Companies were organized "to fish for wrecks on the Irish coast, to make salt water fresh, to make oil from sun flower seeds, to import a number of large jackasses from Spain, and to manufacture a wheel of perpetual motion."[1] By June the shares offered in new companies, organized in a single week, exceeded 200 million pounds. Meanwhile, the stock of the South Seas Company had risen from £128 to £1,050. In France the stock of another giant speculative scheme, organized by a Scotsman, John Law, had risen from 300 to 18,000 livres. But in August, 1720, the stock prices in both schemes collapsed like a broken bubble (hence the popular expression "South Sea Bubble"). Furthermore, Parliament passed the famous Bubble Act which placed heavy penalties on unauthorized corporations unless financially sound. As a result of the financial panic which followed in the wake of this speculative period, the corporate form of business organization fell into public disfavor from which it did not soon recover.

The Bubble Act closed an important period in corporate development. We now may review some of the major advances made in business organization under the stimulus of commercial expansion. Two characteristics of the modern corporation—sovereign sanction and legal entity—had been fairly well established before the rise of overseas commerce. During the commercial period the corporation

[1] THORP, W. L., "Speculative Bubbles," *Ency. of Social Sciences*, III, 26. The author has drawn many of the facts on the speculative period of early corporate development from this excellent brief account.

became sharply distinguished from other forms of business organization, especially the partnership, by certain functional relationships. Primary among these was the divorce of owners and managers. Professor Livermore believes that this is a fundamental feature of the corporation. He says: "Truly corporate bodies . . . arise when men devise effective means of participating in an enterprise as a side-issue, apart from other activity to which they devote their principal time and effort. . . . Perpetuity, concentration of managerial powers in the right hands, and free transferability of interests are essential means to that end."[1] The corporation had emerged from a pattern of organization among merchants to a device for the execution of long-term projects. It had become primarily a capital-raising device rather than a mere means of diversifying risks. The property interest in the corporation had begun to pass from the hands of those directly connected with its operation to those interested only in its pecuniary profits.

Another important development was structural organization. As corporations grew in size and number they became increasingly uniform. Meetings, reports, stockholder status, and methods of accounting became more formalized and stood in sharp contrast to the informality of the partnership. Most important was the changed relationship of the stockholder to the corporation—from that of a member to that of an owner of a stated part of the assets and residual profits. Heretofore, those with interests in a corporate entity—the church, a monastery, a guild, a town, or a commercial venture—were always actively associated with its operation and management. When merchants were evolving the functional structure of the corporation in their overseas ventures, they were always in some manner connected with it. Only gradually did the need for additional

[1] LIVERMORE, SHAW, *Early American Land Companies*, 1939, Commonwealth Fund, p. 2. Scattered through this readable book are some of the most important facts concerning the evolution of the modern corporation. The author has drawn upon this highly recommended book.

capital result in the enlistment of the wealth of those neither qualified nor interested in assuming an active place in the association. The change in the functional relationships of those united by property rights is one of the truly important stages in the emergence of the modern corporation. Voting power varied from a single vote per shareholder to one vote per share, but always the idea seemed evident that a stockholder's control was limited to voting on such matters as were offered at formal meetings. Regularly scheduled meetings and even public notices came to be increasingly the rule among the eighteenth century corporations. Delegation of power was a mere legal recognition of the fact that capital was drawn from a large body of men who had neither the time nor the capacity actively to direct the affairs of a business enterprise. Periodical reports to shareholders became the link between them and management and served as a guide to the value of a shareholder's interests. Shares had not advanced to the modern stage of fully paid and non-assessable evidences of ownership. Periodical assessments supplied additional capital in the early commercial corporations. Even today many English corporations still use this method. In general, the framework of the modern corporation had been laid by the time this form of organization suffered general public and legislative disfavor.

C. INDUSTRIAL CAPITALISM

For nearly a century after the Bubble Act of 1720, the corporate form of organization remained in disfavor as a type of business arrangement. At the time of this Act both businessmen and judges were hazy about the real nature of the corporation. Aside from the grant of a monopoly of trade or of a public service in some region, a charter seemed to confer little that could not be attained by the free association of men in business organizations. Professor Livermore believes that the granting of charters in England by Parliament and in America by the state legislatures

ceased to be an important element in the evolution of the modern corporation after the period of intense overseas activity. Instead, he advances and ably supports the thesis that, "the collective desire of the business community for effective organization of enterprise and the will to use the form which at the time is needed despite legal or political obstacles have been the real influences molding the corporation of today."[1] Certainly the next legal phase in the evolution of the modern corporation was the rise of the idea that incorporation was an inherent right of businessmen and not a privilege conferred by the state which it could grant or withhold at will.

The facts indicate that, despite the Bubble Act, men continued to carry on enterprises without benefit of formal incorporation. But business organization of whatever type underwent no significant development for nearly a century. The stimulus for large-scale undertakings began to wane when exploration failed to discover new trade routes or territories for quick and lucrative exploitation. Such overseas opportunities for gain as existed had come under the control of a few powerful companies which had sufficient political influence at home to protect their monopolies of trade abroad. A new stimulus to economic expansion was required to revive the temporarily retarded development of economic organization.

Such a stimulus came from two distinctly different sources. The world, as ruled by European commercialism, was to undergo two revolutions: one political, the other economic. The American Revolution inaugurated the rise of representative government in which business interests gained increasing control of the state. The Industrial Revolution transformed the handicraft system of production into a factory system where owners of the expensive power machines gained mastery of the productive process. The democratic ideology shifted the source of sovereignty from the hereditary head of a monarchy to the citizens of a

[1] LIVERMORE, *op. cit.*, pp. 2, 295.

republic. Since the vote became the new basis of control, and this was largely restricted even in America to the relatively small class of landowners and businessmen, the privileges formerly conferred by the king became the rights of citizens as expressed through their representatives in the legislature. The second revolution created a pressing need for huge sums of capital to be used in large-scale undertakings over long periods of time. Businessmen felt the need for a type of organization best expressed by the corporation.

But the economic changes were far deeper than those evidenced in business organization. The very foundations of society were transformed. In England, where the new technology was first applied on a large scale, the transformation of society early became evident. The skilled craftsman was no longer the limiting factor in production. Instead, he was reduced to the status of a wage-dependent worker. In the factory he became merely one of numerous machine operators. Personal skill meant little beyond that required to run machines, and this was quickly acquired even by women and children. The factory system brought an increasingly large number of workers directly under a single management. The corporation brought the wealth of innumerable individuals under the same management. Workers were divorced from the control of their property. The wages of labor and the wages of capital (interest and profits) became important new forms of income for thousands of individuals. Management and direction of the new technology fell to the business enterpriser. Around him, as the source of national wealth, was built the culture called industrial capitalism. Everywhere the field of business operation underwent rapid expansion. Associations of merchants could not cope with the problem. Successful application of the new technology required large aggregates of land (resources), labor, and capital under unified control. The corporation was preeminently suited to the needs of the new capitalism.

But even revolutions do not immediately sweep away old ways of thinking and acting. Despite the fact that the American Revolution had changed the source of charter-granting power, the prevailing legal ideology concerning the corporation had not been seriously shaken. Both the courts and the state legislatures were stubborn. The corporation had so long been a creature of political policy that only slowly could it be legally reshaped into an everyday device for business organization and management. For a long time, when faced with evidence that many business organizations possessed all the features of corporations except charters, lawyers tried to treat them as partnerships. But the legal status of their organizations meant little to the majority of businessmen who found ever-new gain opportunities in a rich and expanding country. In fact, one of the fields in which the corporate form of organization precisely fitted the needs of the business community was land merchandising. Land companies sprang up and flourished in America with astonishing rapidity. As Professor Livermore points out: "In form and operation these companies were surprisingly prophetic of the nineteenth century corporation; yet no one of them ever secured a charter."[1] Similarly, manufacturing and mercantile enterprises sprang up within the form but without the legal sanction of the corporation. In fact, except for public utilities and banking, the formal corporation was conspicuous by its absence in American economic life until the advent of general incorporation laws. The attitude of the business community toward charters reflected the general public attitude toward monopoly. Where a special privilege or monopoly was essential to a business, formal incorporation under a charter was the rule, but where such privilege was not necessary, as was the case in the vast majority of small enterprises founded on the principle of laissez faire, a charter was neither necessary nor desirable. Furthermore, the majority of businessmen felt that an effective corporate

[1] LIVERMORE, *op. cit.*, p. 8.

entity, merging the interests of all in one body, could and should be secured as a natural right of a citizen.

The legislatures and the courts very slowly adjusted their views to the growing needs of business for incorporation as a right of groups. The long and persistent struggle that finally ended in the general incorporation laws need not detain us here. Only the major steps in this process are essential to an understanding of the corporation as it functions today.

The early attitude of American state legislatures was one of granting charters readily for all enterprises requiring special privilege or monopoly powers. Turnpikes, canals, and utilities were the chief benefactors. In addition, the legislatures took a tolerant attitude toward the associations formed without charters. Everything might have gone smoothly had not these associations assumed the functions of banking, especially the issue of paper money (bank notes). In their retaliatory efforts to bring banks under the nominal control of a state charter, the legislatures passed a series of restrictive measures which almost destroyed the corporation as an effective business device. From 1790 to about 1830 legislatures vied in passing such legislation. Limitation of corporate life to ten or twenty years did much to destroy the value of the corporation as a permanent organization. Restricting profits or tolls in turnpike and canal companies, making the state a gratis stockholder, and forcing new corporations to contribute to school taxes were other evidences of the legislative "nibbling." Much more serious was the practice of inserting in charters a provision that enabled the legislature to repeal or alter the charter at any time. Not until 1819, when the Supreme Court, in the famous Dartmouth College case, declared a charter to be a contract which could not be impaired, was this handicap removed from corporations. Finally, a series of bewildering laws on liability of stockholders added to the general restrictions. These laws reflected the confusion of the legislators on the difference between corporations

and associations. The chief difference between the English companies operating under a royal or parliamentary charter and those operating as unincorporated joint-stock enterprises was that the liability of a stockholder in the former was limited to the original stated investment, whereas in the latter it was usually unlimited during the time he held shares in the venture. The question of liability is also connected with the question of corporate entity. The theory of limited liability rests upon the idea that a corporation is an entity apart from those who own or operate it. The liability of this entity is unlimited whereas that of any shareholder is limited to the amount he has invested. But this modern theory found little support in state legislation. In several states the legislatures attempted to increase the personal liability of stockholders in business corporations. In some cases liability was made proportional to the stock held; in others it was unlimited. These were among the last measures that reduced the value of the corporation as a desirable business form. Not until the passage of general incorporation laws did the corporation again attain an important place in business life.

D. MODERN CONDITIONS

General incorporation laws were, in essence, the legal recognition of what businessmen had long considered their natural right. In 1811, New York State passed what has been frequently referred to as the first general incorporation law. Its primary purpose was to encourage those groups with small capital to enter manufacturing. Many of its provisions restricted the business value of the corporate form of organization. In fact, a general incorporation law for religious, educational, and charitable purposes was passed in Massachusetts long before any state enacted such a law for business or profit corporations.[1] In 1837, Connecticut enacted the first really modern statute which

[1] BUCHANAN, NORMAN S., *The Economics of Corporate Enterprise*, 1940, Holt, pp. 45–46.

permitted groups to obtain a charter for any lawful purpose. One year later, Maryland authorized general incorporation for manufacturing and mining. After these unequivocal endorsements of the right long insisted upon by the business community, general incorporation laws became common. Today every state in the union and the District of Columbia have passed such laws.

Thus, after more than three centuries of serving the needs of gain-motivated groups, the corporation emerged as a way of life open to all who might comply with the simple rules for registration. And because of the rise of ever-larger units conducting business in all parts of the United States, the legislatures tended to lower the requirements for incorporation and make entry into this form of organization increasingly attractive. Furthermore, the lowest standard, rather than the highest, became the prevailing one for the majority of corporations because of interstate comity—the privilege extended by each state for corporations chartered in other states to do business within its borders. If one state were to exclude corporations chartered in any other state from trading within its borders, its power to attract corporations (and receive the income derived from taxing them) would be seriously impaired by retaliatory measures. The general result was that incorporation became a mere formality in the vast majority of states.

But much more important, from the institutional point of view, have been the powers gained by promoters and management as a result of these general laws. When incorporation required the special act of a state legislature, the charter of a corporation represented the product of much general discussion. Those seeking the charter had to justify practically every clause in the proposed articles to a group of men who in a large measure represented the interests of stockholders, investors, and the public in general. Of course, there is little doubt that many corporations gained official life as the result of clever politics or

private influence, but protest was at least open to anyone interested. In the majority of instances, the examination made by the legislature offered very real protection to creditors, shareholders, and the public. This protection consisted of certain legislative conventions and common-law principles. One will suffice for illustration. Before a charter was passed by a legislature, the exact purpose and scope of the enterprise had to be clearly stated. Usually a corporation was limited to a very narrow and definite field of activity. A company could not be formed to carry on manufacturing or transportation in general, but only to manufacture a specific type of commodity or to transport goods and persons over definite routes in a specified manner. This protected the investor by assuring him that his wealth could not be diverted to a use not named or only vaguely stated.

This and many other checks and safeguards disappeared as states began to compete in the passage of general laws. To an increasing extent, the organizers of an enterprise (promoters) sought the assistance of an attorney to draw up a charter which would give them the widest possible latitude of power in respect to the type of enterprise carried on and to the apportionment of the capital structure among various types of securities. Only the broad and usually vague requirements of the general law set limits to the ingenuity of clever attorneys.

The situation would have little social and economic significance if the resulting entity affected no one outside the organizing group. But in reality, the ensuing charter becomes the contract which binds stockholders and investors to whatever modifications the management may make under its broad provisions. Stockholders are drawn from the general public and are not represented, even indirectly through the legislature, either when the charter is drawn or when it is approved as a mere formality by a clerk in the office of the state secretary. Thus the very persons whose wealth makes the enterprise a functioning reality are

largely without representation when the basic law of their enterprise is drawn. The incorporating group, on the other hand, usually represents those who will remain in control of the enterprise as management. The net result is that management gains vast powers over the wealth of others without any commensurable liability.[1] This is one of the numerous ways in which the modern corporation has attained its position as the major institution of economic control in capitalism. Before discussing some of the ways in which the institution has produced basic changes in our cultural pattern, it is necessary to gain an understanding of its structure and organization.

[1] See BERLE and MEANS, *The Modern Corporation and Private Property*, 1932, Macmillan, Bk. II, Ch. 1, pp. 127–152, for a thorough discussion of the effects of general laws upon the interests of stockholders and investors.

Chapter 17

The Legal Structure of the Corporation

From a legal point of view the corporation is an established pattern for organizing and directing economic activities. We may well begin by inquiring how the law defines the corporation. One of the earliest American attempts to give legal definition to the corporation is that of Justice Marshall in the Dartmouth College case of 1819.

"A corporation is an artificial being, invisible, intangible, and existing only in contemplation of the law. Being the mere creature of the law, it possesses only those properties which the charter of its creation confers upon it, either expressly or as incidental to its very existence. These are such as supposed best calculated to effect the object for which it was created. Among the most important are immortality, and if the expression may be allowed, individuality; properties, by which a perpetual succession of many persons are considered as the same, and may act as a single individual. They enable a corporation to manage its own affairs and to hold property, without the perplexing intricacies, the hazardous and endless necessity, or perpetual conveyances for the purpose of transmitting it from hand to hand. It is chiefly for the purpose of clothing bodies of men, in succession with these qualities and capacities, that corporations were invented, and are in use. By these means a perpetual succession of individuals

are capable of acting for the promotion of the particular object, like one immortal being."[1]

The *Corpus Juris* contributes a very important element to the modern legal concept by its emphasis upon the legal entity aspect of corporation. "It [the corporation] is purely a creature of law and can exist only by authority of law, and it possesses such powers only as are expressly or impliedly conferred on it by law. It is impersonal and exists only in contemplation of law, it can act only through . . . its duly constituted officers and agents; but their acts in its behalf, when within their authority, are the acts of the corporation as a distinct legal entity. . . . The only essential attribute of a corporation is the capacity to exist and to act, within the powers granted, as a legal entity apart from the individuals who compose its members, and this is the characteristic which distinguishes a corporation from all other associations."[2]

Thus, in the eyes of the law, the modern corporation is an artificial person created by the state and like all other persons subject to the laws of the state and nation. Because of its legal status as a personality, the corporation has the right to own property, to bind itself by contract, to sue and be sued in the courts, and to enjoy most of the privileges and immunities guaranteed natural persons by the Constitution of the United States. However, there is one very important difference between the legal status enjoyed by a real person and that by a corporation. An individual may do anything not specifically forbidden by law or public policy, while a corporation can do only those things which its charter authorizes it to do.

The legal structure of a corporation is embodied in the general incorporation law of the state from which it obtains its official sanction, in its charter and bylaws, and in the laws of the state applicable to corporate entities. A general

[1] *Dartmouth College v. Woodward*, 4 Wheaton (U. S. 1819) 518. Quoted in Lyon Hastings, *Corporations and Their Financing*, 1938, Heath, p. 13

[2] "Corporations," *Corpus Juris*, Vol. XXIV, Sec. 3, p. 51.

incorporation law is merely the statute that specifies how a group of persons may secure a charter creating the entity called the corporation. The rules set forth in this enactment of the legislature are, of course, subject to any limitations placed upon the charter-granting power of the legislature by the state constitution, as well as to any amendments to the original law of incorporation which the legislature may make in the future. When the general law is amended, the revised rules apply only to corporations brought into being thereafter. The most immediate and most important expression of the legal structure of the corporation is the charter.

A. THE CHARTER

The charter is merely the formal statement of a corporation's legal organization. The rights, powers, and relationships of all persons involved in a corporation are defined by its charter. By complying with the requirements set forth in the general state law any group of interested parties may obtain a charter and thereby bring a corporation into being. The first step is the preparation of the certificate of incorporation (sometimes referred to as the articles of association). This certificate is the nucleus of the charter and usually contains the following data.

a. The name of a corporation, like that of a person, becomes the designation by which it gains legal status. The name must be stated explicitly and must not be like or even normally suggestive of that of any other corporate entity chartered and operating in the same state. The primary purpose of such a requirement is to prevent any new corporation from gaining a business advantage from the good-will of established businesses either through suggesting affiliation or by confusion of names.

b. An address must be given so that legal action against the corporation may be taken. This address need not be, and quite frequently is not, that at which the corporation will carry on its principal business. Since a corporation chartered

in one state may conduct its business operations in some other state, the legal address (which often must be within the state granting the charter) may refer to an office maintained in some large city. In Wilmington, Delaware, the glass panels in the doors of one office building are extraordinarily large to accommodate the great number of names of companies which use one office as a legal address.

c. The purposes and objectives for which the corporation is formed must be stated. This is a formal survival of a once important entry on the certificate. Until recently it was considered as a safeguard to the state, to other corporations, and to the prospective stockholders. As the creator of corporations, the state desired to know the exact nature of the proposed business so as to judge whether the public interest would be served. It also endeavored to protect existing corporations by enabling them to know exactly what type of business the new corporation would carry on. Finally, by exact stipulation of purposes the prospective shareholders, who were to supply the capital for the enterprise, were protected by being certain of how their investment would be used. Today, as a result of both general incorporation laws which remove the direct supervision of the legislature, and also the experts who specialize in gaining the broadest possible charters for their customers, this provision has become almost meaningless. In fact, many certificates contain in addition to a broad general statement such as manufacturing, merchandising, or servicing, the nullifying clause "and all other purposes for which corporations are organized."

d. The capital structure of the proposed corporation finds formal expression in the application. The amount and types of authorized capital stock, the scope and power of each type of stock with respect to preferences, priorities, voting power, rate of return, and other limitations on the powers exercised by future holders of each type, are given in detail.

e. Next, the certificate outlines the selection, powers, and special features of management. The number of directors, method of selection, qualifications, powers, and duties are all set down in accord with the general law.

f. Finally, the document contains a miscellany of special details such as the life span (limited to a given number of years or perpetual), names and addresses of incorporators, the amount of stock held by each, and any other limitation not contrary to the provisions of the state law.

After the certificate is completed the procedure is one of clerical formality. The signed and attested application is made out in triplicate on prescribed forms and submitted to the secretary of the state. This official exercises no regulatory powers. His function is merely to see that the certificate complies in form with the provisions of the law. If everything is in order and the application is accompanied by the specified franchise fees, proof that the organizers have subscribed to the minimum number of shares, and that the stipulated amount of capital, if any, has been paid in, the secretary is required to issue the charter. The corporation receives one copy of the original certificate, duly approved and signed by the secretary, along with a copy of the general incorporation laws of the state. The inclusion of the provisions of the state law as part of the charter is of considerable significance. By this means the state imposes whatever regulation it may exercise over the corporation. Usually, the general incorporation law contains certain rules governing the conduct and activities of the corporation such as powers and liabilities of directors, sources and payments of dividends, and the method of amending the charter. The second copy of the certificate of incorporation is filed in the office of the state secretary, where it is available to any interested person. The third copy is usually filed in the recorder's office of the county in which the new company has elected to maintain its legal address. With the completion of all these details, the corporation becomes a legal entity.

The charter (which includes the state statute of incorporation) and such laws of the state and nation as apply to corporations become the basic law of the internal government of the social organization called the corporation. The charter is more than the basic law; it is a contract. Furthermore, it is a three-sided contract that involves three sets of relationships: those between the state and the corporate entity, those between the corporate entity and its stockholders (owners), and those between the stockholders and the state. Every stockholder supposedly binds himself to the conditions stated in the charter when he buys an ownership interest in the corporation. To what powers his stock entitles him is complex and very difficult to determine. In theory, the owner of voting stock controls the corporation through his right to vote for the directors in whose hands the actual management of the corporation is vested and to pass on such changes in the basic structure of the corporation as may be proposed in the form of amendments. Ownership has long been considered as the basic form of control in capitalistic society. But the corporation, through basic changes in its legal structure, has effected an almost complete divorce between ownership and control of corporate property. Just how this has been effected will become evident as we proceed with the analysis of the institution. Here we shall confine our examination to changes in the legal rights and powers of stockholders.

B. OWNERSHIP RIGHTS

Ownership in the modern corporation consists of a complex hierarchy of rights or powers derived from two chief sources, common law and contract. In the absence of a specific statement in the charter, the powers of stockholders emanate from the common-law concept of property rights. Common law is that part of the body of law in English-speaking countries made up of the workaday concepts and principles of the courtroom. It can be readily differentiated from the formal law consisting of legislative

statutes. The common law exists primarily in the decisions of judges and in the textbooks that discuss cases. It is not entirely separate from the formal law, however, since the acts of legislative bodies are constantly being interpreted and modified by the judiciary. In general, the common law grew up with the legal profession and resides in the body of precedents and practices developed by lawyers. The most dynamic part of this great body of law is that which governs human conduct not specifically treated in the formal edicts of legislatures. From time to time the common law finds expression in statutes, but these, in turn, depend for their meaning and application upon the courts which are charged with their enforcement. The right of contract, itself supported by common law as well as by constitutional provisions, sets up an independent system of government among individuals. Being enforceable by law, contract removes those who voluntarily enter its enveloping power from the general protecting cloak of either common or statutory law. Of course, to be enforceable contracts must be in accord with the established public policy and not in direct violation of any constitutional provision. Around the right of contract, the corporation has grown into a powerful agency of social control. This is evident in the narrow legal category of the status of stockholders.

Most important among the rights with which the common law vests stockholders are the following: (*a*) to vote their shares in all matters pertaining to the selection of representatives (directors) and modification of the *inter se* relationships of the legal corporate structure; (*b*) to subscribe to additional ownership shares in proportion to their existing holdings; (*c*) to obtain statements of the financial condition and such operations of the corporation as affect their interests as owners; (*d*) to participate in the distribution of profits in proportion to the shares held, and (*e*) to receive a proportionate share of the final net assets of the company available after dissolution. During most of the nineteenth century these rights retained a high degree

of validity in the majority of corporations chartered in America. Slowly they have been reduced or completely taken away by two forces: the rise of a specialized group of professional corporation attorneys (largely the employees of investment bankers) who by means of long and complex provisions removed more and more of the charter contents from the common law; and the passage of general incorporation laws which removed the certificates from the surveillance of legislatures without providing a regulatory safeguard or adequate statutory stipulations of the rights of owners and creditors. A brief review of the changes in the common-law rights of stockholders will disclose how far-reaching these changes have been.

Unless qualified by charter provisions, the stockholder's right to vote applies to such questions as election of directors, charter amendments, issue of stock having a claim on earnings ahead of those outstanding, consolidations and mergers, changes in the nature or scope of the corporation's business, and mortgaging the assets in whole or in part. The first inroad on the power of stockholders, according to Professor Berle, was the insertion in charters of the right to vote by proxy. At first instituted as a means of enabling a stockholder to have his interests cared for at meetings which he could not attend, it soon became an agency for control by management and insiders.

Stockholder control even on the basis of one vote per share has been greatly weakened by charter provisions conditioning the voting power of stockholders and by an extension of the range of powers and decisions permitted directors without a stockholder vote. For instance, preferred stockholders may have no right to vote for directors yet be given the right, on an equal basis with common stockholders, when the issue is mortgaging the physical assets of the corporation. Furthermore, the votes may be fractional, that is, the ownership of a certain number of shares may be required for each vote cast. The actual number of restrictions imposed upon stockholders by charter provi-

sions closely approximates the limit. In general, as we shall see, the most effective means of eliminating the voting power of those who supply the capital and bear the major risks of an enterprise are the issue of large quantities of non-voting or highly restricted classes of stock and the close holding of the relatively few shares of full voting stock by those in control of the corporation.

Much more important has been the contractual modification of voting power on important matters of corporate policy. Originally, the common law held that any fundamental change in the structure or in the functions of the corporation affected the ownership interests and required a unanimous vote of the stockholders. Today general incorporation laws and charter clauses have almost abolished the requirement of a unanimous vote. For amendments to the charter a majority of the shares is usually all that is necessary. Often such a majority represents but a small fraction of the voting stockholders. When a corporation has several classes of stock this majority may constitute but a very small percentage of those whose wealth is affected by the change. One of the most important questions in the common-law category of issues requiring unanimous stockholder consent was any change in the nature or business of a corporation. This was expressed as the stockholder's right to prevent *ultra vires* acts, or acts not granted or included in the statement of powers and purposes in the charter. Even majority consent for such important changes has been eliminated by the modern practice of making the charter statement so long and involved that it gives the corporation power "to do substantially anything and everything."[1] The net result is that the stockholder's right to vote his shares has dwindled from a power of control to one of meaningless formality without real importance.

The preemptive right of a shareholder to subscribe to additional shares in proportion to the relation his shares bore to the total outstanding was firmly established in 1807

[1] BERLE, ADOLF, JR., and GARDINER C. MEANS, *The Modern Corporation and Private State*, 1932, Macmillan, p. 158.

by a decision of a Massachusetts court.[1] This decision enunciated the principle that since each stockholder had a prorata share of control through his share votes, he also had a prorata share in the assets of the corporation. This protected the investment of the stockholder in two ways. If new stock were issued at less than the price of the original shares and were given the same right to participate in profits, this would dilute the book value of the original shares. By purchasing his proportion of the new offering the stockholder could maintain both his original voting power and his share in dividends. If unable to subscribe, he could avoid the loss or dilution of value by selling his right to another. The principle set forth in this important decision became a basic part of the common law. But much of the protection therein afforded vanished when corporations began to issue stock for the acquisition of property instead of cash. The courts ruled that such stock is not subject to the preemptive right. Furthermore, as stocks became diversified into classes, the right became so difficult to apply that its effect was lost. Courts have sometimes interpreted the right to apply only to shares not originally authorized in the charter. The result has been that many incorporators circumvent the future stockholder's right by the simple device of originally authorizing a much larger amount of stock than probably will be needed or issued for many years. Finally, certain states included in their general incorporation laws the right to insert in charters clauses whereby the shareholder limits or even entirely waives his preemptive rights.

The right of a stockholder to obtain knowledge of the affairs and financial condition of his corporation has been materially reduced by the passage in many states of statutory limitation. To permit any stockholder to acquire full knowledge of the internal affairs of a company conflicted with the duties and power of directors to conduct the business in a profitable and efficient manner. A competitor

[1] *Gray v. Portland Bank*, 3 Mass. 363 (1807).

wishing to gain access to the books of a rival need only buy one share of voting stock. However, the opposite condition of removing the right of a stockholder to at least such knowledge of the business as affects his ownership equity could result in a tyrannical rule of a company's affairs by a non-reporting board of directors. As a result a wide range of requirements is imposed by the various states. These embrace everything from limiting the stockholder's right to obtaining a list of fellow stockholders to the California provision that, unless specifically dispensed with in the bylaws, a corporation must furnish all stockholders with a balance sheet and a profit and loss statement at least once each year.

The stockholder's right to participate in the distribution of profits has undergone considerable modification. This common-law right did not give stockholders the power to force directors to declare dividends but only to share in such as were declared on an equitable basis with other shareholders. The chief impairment of this right has come as a by-product of the changes already discussed. The participation of a stockholder in the profits of a company is never impaired directly by paying a specific stockholder an amount per share differing from that paid another. Rather the impairment has come through the contractual limitations of the charter which reduced the voting power. By changing the capital structure through the issue of a new class of stock or by issuing bonds without consent of certain classes of stockholders, the right of participation has become almost meaningless. By siphoning the profits of a corporation into the pockets of a new class of stockholders or creditors, the directors can effectively reduce the fund in which the original or voting stockholders ultimately participate. The stockholder, thus, has his right impaired not as an individual but rather as merely one of those who own such rights.

The right of participation in assets left after dissolution has become an almost empty right today. The classification

of shares into several types of common and preferred has been the primary method by which the claim of stockholders to remaining assets has been voided. When this common-law principle was evolved, the chief form of stock was ordinary voting type. Creditors had a common-law claim ahead of owners, especially since the liability of the stockholder was limited to the par value of the stock he held. When this was paid in, he and all others who might have come to own the shares were freed from further liability for the debts incurred by the business entity. When the corporation dissolved he became the residual claimant of whatever assets might be left after all creditors had been paid in full. Today the dissolution of corporations, except in the case of the small personal enterprises enjoying the corporate protection of limited liability, is being increasingly avoided by consolidation and merger. When dissolution does take place the basic claims of the bondholders who frequently have a mortgage on the physical assets of the corporation together with the prior claims of preferred stockholders more than suffice to absorb the wealth of the company. Furthermore, the most common cause of dissolution is financial failure which usually leaves nothing for any stockholder to claim.

Thus, in the development of the legal structure of the modern corporation the status of the stockholder has changed from that of a participant in property rights, with a considerable degree of control over its management and use, to that of a holder of a property right which confers practically no control, little participation, and only the hope for a return.

C. INTERNAL ORGANIZATION

From the standpoint of legal right and powers the modern corporation is a pattern of relationships among men and wealth. The entity or legal personality is assumed to extend itself into the complex pattern of industrial society by means of legally defined powers and rights. Physically, a

corporation may have no greater manifestation than a few clerks who manipulate typewriters, check-writing machines, and a vast pile of records, letters, and stock certificates. Such a simple organization, conceivably encompassed by the four walls of a single office, may exert great influence over the lives and work of thousands of persons engaged in operating the intricate machines of a huge industrial enterprise. By the spiderweb of holding company control the legal powers of a mere handful of persons may direct the destiny of millions of human beings and the physical products of man's inventive genius. Or the corporation may consist of such an intricate pattern and subsist in the daily life of so many thousands of workers operating factories, railroads, and stores scattered over the entire face of the earth that, like the British Empire, the sun never sets on all its parts. What is the legal pattern that makes possible such widely varying organizations of society?

The pattern of the corporation is built around the holders of the voting stock who, despite their impotence, are still regarded as the real owners. According to law, these people hold and exercise the final power within the limits of the charter provisions. On all matters of policy they are the ultimate authority. However, the operating policy of the corporation rests in the hands of a board of directors who are elected by the holders of the voting stock and are responsible only to them. Their duties and powers are defined in the charter and its bylaws. The directors may or may not be stockholders of the company and are usually chosen by the small group of stockholders who exercise the effective control of the corporation by proxy and other devices. Usually the board of directors meets at stated intervals or at the call of the one designated as chairman. Directors are not active managers of a corporation but rather the representatives of the stockholders.

The active day-to-day direction of the corporation's affairs falls to the officers who are usually appointed by and solely responsible to the board of directors. Because they

are appointed they can be recalled at any time by the board. A similar power to recall directors was once held by the stockholders, but today it is neither a common-law principle nor a statutory provision. On rare occasions it is included in the charter of a corporation. Almost invariably the directors are, as Berle and Means say, "supreme during their time." The shareholders can oust a director only by voting for another at regularly scheduled elections, and since the vast majority of stockholders have neither the time nor competency to vote, directors are usually permanent fixtures. Officers, too, it might be remarked, are seldom removed; they are carefully chosen by the members of the board to express the will of their masters. Quite frequently the higher officers are those who exercise effective control by proxy or other devices. In these cases there arises the queer anomaly of such officers being appointed by those who are dependent upon them for their power.

Around this inner organization cluster the numerous other groups and individuals who supply the corporation with its life blood, capital, or perform the services from which the ultimate profits arise. The status, functions, and powers of the creditors and employees are determined by contract. Under ordinary circumstances neither group has a voice in the corporation or any control of its affairs. Both receive a fixed return for their property or their services and are subject to dismissal under terms of the bond indenture or the wage contract. In recent years both groups have organized to some extent to increase their bargaining power and to see that the terms of their contracts are fulfilled by the corporation. The bondholders act through their agent, the trustee, while the employees act through the officers of the unions to which they belong.

The relationships of the corporation to all others exist in the market where the cash nexus or price system becomes the arbitrator of affairs. It has often been said that even the consumer has a vote in the corporation in the form of the dollars which he spends for its products or services. But, as

we shall see in our study of the institution of consumption, the consumer's dollar is usually nothing more than a vote for one of a number of goods all made by corporations controlled by the same group. His votes do not determine which firms shall survive but rather which of a limited number of centrally controlled choices he will make. To vote against the modern corporation would often amount to doing without the goods and services essential to a civilized existence.

Chapter 18

The Financial Structure of the Corporation

The corporation is a business device for raising and applying capital. As we have already seen, there is no term in the field of economics more difficult of definition than "capital." However, for all practical purposes capital is the money value of wealth devoted to production. The funds with which the real or tangible capital of a corporation is purchased are supplied in the first instance by the security holders. During the corporation's active life much of its capital is derived from the process of "plowing back" profits. This simply means that money profits are used to expand physical equipment rather than carried as surplus or paid out as dividends to stockholders. The financial structure of a corporation consists primarily of the stocks and bonds which state the legal rights and claims of those who have invested their wealth in the organization. A large corporation differs from the small or personal type chiefly in the fact that its financial structure is more complex and permanent. The securities of a large enterprise represent an enduring structure.

A. STOCK

The basic capital of a corporation is represented by its common stock which has neither date of maturity nor absolute requirement for regular return. The common

stock is carried as a liability since, in the legal sense, the corporate entity is liable to the holders of such shares for the amount carried on its books as capital stock. On the other hand, the holders of such stock are liable to the corporation and to its creditors. Limited liability is an outstanding feature of the corporation though not an inherent or necessary one. This feature means that a stockholder is not liable to the corporation as an entity, or to the creditors thereof, for more than his original investment or the par value of his stock.

The law at first required a fixed or minimum contribution to the assets of a corporation from the original purchasers of the first issue. This amount was fixed by the stated par value of the stock. In early joint-stock associations the members were liable for additional assessments as they became necessary for the conduct of the business. The principle of limited liability emerged in the decisions of courts as they tried to adjust the efforts of shareholders and of creditors to collect under this provision. Under the guidance of court decisions a stockholder's liability was limited, first to a prorata share of debts, then to such residue claims as were not satisfied by the physical assets of the corporate entity, and finally to a fixed amount stipulated in the charter as the par value of a share. The early practice of assessing shareholders survived, however, when the promoters of a corporation sold the shares for less than the par value. Under such conditions the holder was liable for the payment of whatever difference remained between his original contribution and the stated or par value. Today most shares are designated as "fully paid and non-assessable," which merely means that any subsequent purchaser is relieved of further liability for payment to the issuing corporation.

The sum of the par value of all outstanding stock of a corporation constitutes the amount carried on its books as a capital stock liability. However, it must not be assumed that such a figure represents an actual amount of cash

originally paid to the corporation for its stock certificates. Rather, this figure is merely the nominal value of the contributions made in return for the stock. When the law required the payment of cash for stock, the figure had some meaning in terms of reality, but when payment in property, services, contracts, or other intangible items became permissible, the figure lost most of its meaning. According to Berle and Means, the first effective power to dilute share values was acquired by directors when they were authorized to appraise property and other non-cash items offered in payment for original stock.[1] Nevertheless, as long as stock carried a par value, the contributions to the capital of a corporation retained some degree of equality. After 1912, when New York authorized the issue of non-par stock, capital stock gradually lost all significance as the basis for determining the contributions of original purchasers. When directors are empowered by the charter to determine the price or contribution paid for such stock they can not only dilute the share value of any holder's stock but can destroy all semblance of equality among stockholders of the same class of stock.

The stock of a corporation represents the basic long-term capital structure. Originally stock was all of one type (common) but as the capital needs of the corporation grew, two types of stock were normally offered. The original difference centered about the claim of each type of stock on earnings and assets. Usually one type carried a preferred claim on the assets and earnings but no voting power. The purpose was to attract those investors who desired to avoid the risks supposedly borne by the voting stockholders. A preferred but often limited claim on dividends was offered in lieu of voting power and the uncertainty attending payment of dividends. As the needs for capital increased and corporate charters became the products of those interested in maximizing the capital placed under their

[1] BERLE and MEANS, *op. cit.*, p. 158.

control, the two basic types of stock were subdivided into classes with varying rights and claims.

Preferred stock became the first field for qualification. The preferences attending it underwent modifications of all sorts. One of the earliest, and still the most common, was the manner in which the claim on dividends was temporally conditioned. When the preference applies to dividend payments the stock may be cumulative or non-cumulative. In the former case the stipulated rate of payment when unpaid in any calendar year accumulates in the following year as a prior claim. In the latter case the priority of claim on dividends is limited to the year in which earned and declared. The holders of a 7 per cent preferred stock, if net profits are earned in any year and if the directors decide to declare dividends, must receive an amount equal to 7 per cent of the par value (often stated as $100) of each share before the holders of non-preferred or common stock can receive anything. If such stock is of the non-cumulative type, the failure of the corporation to earn a net profit or of the directors to declare dividends abolishes the preferred claim of that stock for that year. If, in the following year, the earnings of the corporation made a sum of $20 per share available for dividends, the directors would be compelled to pay the preferred stockholders only the 7 per cent or $7 per share before paying all or any part of the balance to the common shareholders. If the preferred were of the cumulative type, the directors would be required to pay the $7 remaining from the previous year in addition to the $7 for the current year. In the first instance the common stockholder could receive a maximum of $13 while in the second he could get no more than $6. In recent years the rights of stockholders have been subjected to such qualifications that the old general classification of preferred and common stock has ceased to have much significance. Furthermore, both preferred and common stock have been divided into numerous varieties under the blanket powers frequently given incorporators and boards of directors by

modern amendments to general incorporation laws. States, competing for the incorporation fees and for the increased revenue derived from the taxing of profitable corporations, have steadily eliminated the old stockholder safeguards and increased the power of "insiders." As already suggested, the tendency to create many classes of stock is stimulated by the desire of management to control a corporation with the minimum risk of its own capital or property.

B. BONDS

Bonds are an important element in the financial structure of many corporations. The percentage of capital derived from bonds depends upon the type of business and the age of the corporation. In general, corporations having a large bonded indebtedness are those engaged in businesses requiring the investment of great amounts of capital in durable goods, land, buildings, and highly specialized machines. Those with most of their capital invested in merchandise usually raise little by bonds. Railroads, electric companies, and steel mills are examples of the first type, whereas mail-order houses and grocery chains represent the second. Age of the company usually determines the rate of interest more than the percentage of capital raised by bonds. A well-established corporation with years of successful operation can cover a large part of its capital by bonds that carry a low rate of interest. A newcomer in the field may be unable to raise any capital by the sale of bonds.

A bond is a formal promise to pay a sum of money. Often it is secured by a mortgage on all or certain specific items of the physical or tangible property of the corporation. A bond differs from a share of stock in several respects. First, it represents the claim of a creditor not an owner. Bondholders have no voice in the corporation and no claim upon its assets as long as the stipulated interest is regularly paid. However, the failure to pay interest, or the principal when due, often changes the status of the bondholder from that of a creditor to that of a quasi-owner. The exact status

depends entirely upon the agreement accompanying the bond which is called the indenture. Sometimes, if only interest is in arrears, the bondholders gain temporary voting power. But when the principal remains unpaid the bondholders sometimes gain complete and effective control of the corporation even to the exclusion of stockholders.

Secondly, bonds differ from stock in the fact that they have a definite span of life and a limited rate of return called interest. They constitute a prior claim on the assets and earnings of the corporation. The interest on bonds is a fixed charge and is ordinarily included as a cost of production. Bonds represent a specific debt of the corporation. Stocks constitute a liability only in the sense that the corporation must account for the fund originally created by the contributions of the holders. However, neither preferred nor common stock carries a direct or immediate claim on assets or earnings. Payments to their holders become an obligation only when the corporation earns a profit and even then only after directors see fit to declare a distribution of these as dividends. Such claim on assets as either type of stock may have does not become a charge on the company, except in dissolution.

Because of these differences bonds have long been considered a safer investment than stocks. It has been claimed that bonds represent an investment with certainty of return and of ultimate repayment of principal while stocks represent a speculative type of claim with no certainty of either regular return or ultimate repayment. Those who adhere to such a view point to the widespread practice of pledging a definite amount of the corporation's tangible wealth as a guarantee of ultimate repayment. Since bonds really amount to promissory notes, it is customary for bondholders to receive a mortgage on all or certain specific parts of the physical property owned by the corporation. The failure to meet the conditions set forth in the indenture for the payment of interest or principal places the bonds in default and gives the bondholders the legal right to foreclose

the mortgage. Technically, foreclosure means that the bondholders have the right to sell the physical properties for the cash necessary to pay the principal of the bonds, any accrued interest, and all legal costs involved in the process. If anything remains the claims of preferred stockholders and, finally, common stockholders become enforceable. Furthermore, the indenture, which is the formal contract between the corporation and the bondholders, often carries provisions for the gradual repayment of the principal or for the accumulation of a fund for repayment. With these "safeguards" bonds are given a highly preferred position as a form of investment.

But, like many other theories, that concerning the relative safety of bonds often fails to fit the facts. In recent years the investing public has rather slowly awakened to the sad fact that any form of pecuniary obligation depends, in the last analysis, upon the price system. Numerous pitfalls stand between the holders of bonds and the legal enforcement of the contractual claims set forth as covenants in the elaborate indenture which nowadays accompanies most bond issues. As long as the corporation is successful as a money-making instrumentality, the claims of the bondholders are valid and enforceable. This is reflected in that great barometer of economic change—the bond market. But if the corporation fails to earn a sufficient income it cannot pay the interest on its outstanding bonds. The bondholders can begin legal action to recover, but it is increasingly common for corporations in financial distress to take steps to prevent creditors from realizing on their legal remedies at once or in full.

One of the first steps taken is an action in equity or bankruptcy to forestall creditors. A receiver or trustee will be appointed by the courts, and during his incumbency the bondholders are effectively restrained from exercising their rights. Usually they are submitted a plan for adjustment or reorganization which offers less than full settlement of their claims. The strongest and most convincing argument

advanced by those trying to salvage underlying claims by reorganization is that execution of bondholders' contractual rights will result in the collapse of the company as a going concern and a consequent larger loss to bondholders than that proposed in the plan. Of course, the motive of many sponsors of reorganization plans, which are commonly offered by investment bankers, is not only to help bondholders but also to obtain as much as possible for underlying stockholders and as large a fee for themselves as the situation will permit.[1]

Despite the use of the reorganization plans by insiders to salvage otherwise worthless claims, the sponsors of such plans have the weight of economic facts to support their action. The protection supposedly enjoyed by bondholders, a mortgage on assets appraised for much more than the total amount of the bond issue, usually evaporates when the time for foreclosure arrives. There is a vast and startling difference between physical assets in a prosperous concern and the same ones in the hands of a defunct corporation. Fixed assets in the form of buildings and machines shrink to a mere fraction of "normal" value when offered for sale. The market value of a going concern is always greater than the sum of the market values of all its physical or fixed assets. Specialized machines and definitely located factory buildings are difficult to transform to other uses. The relentless pressure of technological improvements pushes the market value of any existing equipment steadily downward. Property has value in production only to the extent that it represents efficiency in transforming materials into wanted goods. When the market wanes the primary basis of all money values declines. Bondholders are, therefore, likely to discover that foreclosure offers little help in realizing their claims. Their hope, like that of stockholders, lies in

[1] Reis, B. J., *False Security*, 2d ed., 1938, Dodge, Ch. 9, Reorganization Committees, pp. 170–196. This gives a good popular and easily read account of how bankers and attorneys profit from reorganization of companies which fall under their control.

the rehabilitation of the corporation. One of the most effective means of restoring the earning power of any company is the reduction of fixed costs, and since bonds loom as one of the major forms, the reduction of these claims offers the most stimulating effect upon the sick company.

Thus the security of bonds is largely a legal fiction and an economic illusion. The security of bondholders lies, not in the mortgage or collateral posted as protection, but rather in the fact that they have a prior claim on the earnings and assets. These can become realities only in a going and prosperous corporation. Anything that promotes such corporate health "protects" the interests of both stockholders and bondholders.

Stocks and bonds constitute only the skeleton framework of a corporation's financial structure. Within this larger and more permanent framework the financial aspects of a corporation find expression in accounting practices and statements.

C. ACCOUNTING

The primary purpose of the business corporation is to use the capital derived from shareholders and creditors in such a way as to create money profits. To do this everything with which the entity deals must be measured in terms of the unit in which profits ultimately find expression. Money making is essentially a process of manipulating tangible items and intangible rights through purchase, sale, exchange, or physical conversion in such a manner as to increase the money value of the aggregate. The term "money calculus" is used to connote the process by which a corporation transmutes everything under its control into comparable values. In the market all men and all forms of wealth are related through the cash nexus. This does not mean that everything entering into a business must be converted into actual money, but merely that everything must be valued in terms of the established price system. Business managers must think in pecuniary terms just as

engineers must think in terms of physical and chemical units of measurement. The conduct of any business, and especially the modern corporation, must be in terms of the effects of action upon the money value of the result. Money becomes the unit of account and supplies the world of business with its universal language as well as with its measuring technique.

Accounting is a complex system of arriving at the money value of a wide variety of goods, services, rights, and patterns of organization. We are not interested in accounting as such but rather in the way it is used to judge corporate activity and to compute gains. The two chief expressions of the accountant's efforts most important to corporate activity are the statement of condition and the profit and loss statement. The first of these, often referred to as the balance sheet, sets forth the financial condition of a business on a specified day. To understand this basic financial expression of a corporation's health, we must approach the items from the standpoint of an accountant.

1. Statement of Condition

The accountant begins with the concept of the corporation as an entity quite apart from any human being connected with it. He is concerned with the relation of this legal person to people who have interests (equities) in it or claims against it and to property and other wealth. His purpose is to reduce the social and economic relationships of this entity to money values. To find what the corporation is worth it is necessary to know what claims exist against it, what wealth it owns, and what claims it holds against others. The difference between wealth owned or due the corporation and what it owes others is its net worth. We have already seen the value of the accounting process in arriving at the net worth of an individual.[1] Assets consist of those items held by or due the corporation while liabilities are those which it owes or for which it is responsible

[1] See Ch. 5, The Development of the Price System, p. 119.

(liable) to others. On page 376 appears the statement of condition of an imaginary company. Referring to its entries will assist in understanding the explanation which follows.

The central problem in accounting, and particularly in compiling a statement of condition, is that of arriving at the money value of a complex variety of things. The final arbitrator of value in our economic system is the market. But accountants cannot submit all the complex property of the corporation for sale in order to find its money value. Furthermore, many items in the corporation are not tangible, as are machines or buildings, but are mere rights in the form of contracts or highly conditioned interests in real wealth. Contracts are less bothersome since they are usually expressed in dollars, but interests in complex entities, such as other corporations, cause accountants no end of trouble. To reduce the problem to some comprehensible terms, accountants have developed certain rules concerning valuation called "conventions of valuation." One of the most important of these is the convention which requires that when the money cost of an item and its present market value do not coincide, the lower of the two should be used. This is a conservative point of view in that it avoids valuing things at a figure which may not be realizable. Many other conditions of our complex social life impinge upon the problem of valuation. In fact, as we have already seen, there is scarcely a single phase of our culture that does not have bearing upon or is not conditioned by the price system. For instance, the natural phenomenon of wearing out is a most important factor in arriving at the value of any form of material wealth. Hardly less important are the effects of man's inventive genius which produces the most spectacular wonders of the modern world in technology. The accountant tries to allow for these mighty forces in arriving at values by setting up reserves for depreciation and obsolescence. But the term "reserve," so useful to the accountant, introduces another complexity in the accounting process.

STATEMENT OF CONDITION
THE SUREFIT SHOE CORPORATION
Dec. 31, 1941

Assets

Current Assets:			
Cash		$ 18,000.00	
Accounts receivable	$ 60,000.00		
Less: Reserves for doubtful accounts	2,000.00	58,000.00	
Notes receivable		6,000.00	
Inventory of production materials	20,000.00		
Inventory of goods in process	11,000.00		
Inventory of finished goods	8,000.00	39,000.00	
Total current assets			$121,000.00
Fund: For plant extension (see surplus reserve)			10,000.00
Deferred (prepaid expenses):			
Prepaid insurance	$ 5,000.00		
Inventory of marketing and admin. supplies.	4,000.00		
Other prepaid expenses	3,000.00		
Total prepaid expenses			12,000.00
Fixed Assets:			
Land		$ 20,000.00	
Buildings	40,000.00		
Plant equipment	90,000.00		
Office equipment	15,000.00		
Marketing equipment	16,000.00		
Total	161,000.00		
Less: Reserve for depreciation	51,000.00	110,000.00	
		130,000.00	
Intangibles			
Patents	$ 14,000.00		
Goodwill	1.00	14,001.00	
Total fixed assets			144,001.00
Investments:			
Securities (at lower of cost or market)		$ 30,000.00	
Leased land		50,000.00	80,000.00
TOTAL ASSETS			$367,001.00

Liabilities

Current Liabilities:			
Accounts payable		$ 40,000.00	
Notes payable		9,000.00	
Wages and salaries accrued		6,000.00	
Property taxes accrued		7,000.00	
Social security taxes accrued		700.00	
Reserve for income taxes payable		2,500.00	
Other current liabilities (summarized)		1.300.00	
Total current liabilities		$ 66,500.00	
Fixed Liabilities:			
Bonds payable		50,000.00	
TOTAL LIABILITIES			$116,500.00
Capital Stock (2,000 shares at par $100)		$ 200,000.00	
Surplus:			
Unreserved (available for dividends)	$ 35,501.00		
Earmarked:			
Reserve for plant extension	$10,000.00		
Reserve for contingencies	5,000.00	15,000.00	50,501.00
NET WORTH			$250,501.00

A reserve is usually thought of as something set aside to meet a future situation. In this sense it is often confused with surplus. For instance, a farmer may look upon those garden products which he and his family are unable to consume during the growing season as a surplus of food. This food may be canned or preserved whereupon he is likely to refer to it as the reserve for winter. In accounting, the term "reserve" is given a variety of meanings. The three principal ones are allowance reserves, liability reserves, and surplus reserves. The first of these is furthest removed from the meaning employed by the farmer. An allowance reserve does not exist in any tangible form. Rather it is a negative quantity, that is, a deduction from the basic asset value set forth in the statement. One of the best examples of such a reserve is that set up for depreciation. A machine has a definite life. Despite repairs and replacement of the most commonly wearing parts, the whole mechanism gradually deteriorates and loses its efficiency as an instrument of production. Sooner or later it will have to be replaced by another machine. In arriving at the value of a machine ten years old, the accountant must consider some interesting facts and figures. He can learn from past records what the machine cost and from market quotations what a similar one sells for today. A technician can tell him its probable life. With these facts he can arrive at present worth. From the original cost or present market value, whichever is lower, he can subtract the percentage of this figure which corresponds with the percentage of its total life that has already elapsed. For instance, a machine costing $10,000 and having a useful life of ten years would depreciate at the rate of $1,000 per year. At the end of three years its worth as an asset would be $7,000. The item of $3,000 would appear as an allowance reserve. Thus, such reserves are mere deductions from the value of assets.

Liability reserves more nearly approach the common concept of the term. Such reserves consist of an estimate of the present value of a future liability. For instance, a corpora-

tion knows that it will have to pay income taxes next year on the income being earned during the current year, but it does not know how much the total amount will be. To meet this liability the accountant will allow or set aside a sum sufficient to cover what he believes to be the present accumulation of a not yet determined amount.

The third type closely approaches the farmer's idea of a reserve. Surplus reserves consist of the actual wealth held by corporations for specific purposes and hence not available for dividends. Usually, they consist of a part of the actual earnings or profits which are held for some definite purpose. A contingency reserve might fall into this class. This merely refers to an item set aside to meet unforeseen and unfavorable events such as destruction of the company's plant in a flood or earthquake. Of course, even these reserves are not an actual sum of cash or any stock of tangible goods but rather an item of wealth for which the corporation is liable.

Other terms common to a statement of condition require explanation. Under assets a corporation usually carries an item called "prepaid expenses." Usually one thinks of expenses as liabilities. In fact, such expenses as salaries and wages due are carried under liabilities. But many forms of expenses are incurred by a corporation as the result of contracts. For instance, the premiums on all the various forms of insurance essential to reducing the risks of a business enterprise are usually paid in advance. The protection afforded by the policies covers a long period of time, sometimes years. When a given fire insurance premium is paid, the assets of the company do not immediately change in the aggregate. What really happens is that an asset in the form of cash or bank deposit is exchanged for a new asset in the form of an insurance policy. Cash decreases, prepaid expenses increase by the same amount. But the asset acquired is not something in the physical possession of the company like a machine or building. What the company has acquired is a claim. The protection afforded consists of

perhaps a thousand days during which the loss of a physical asset, such as a building, will be transformed into income in the form of cash or a new building. The only part of the purchase available now is the protection of the moment or the day. Protection for tomorrow will not be available until tomorrow arrives. The policy represents a potential or deferred asset. As the days pass the protection afforded by the policy is realized and its asset value diminishes. In a statement made one month hence this fact would be shown by a smaller amount under prepaid expenses (assuming no other forms had been added in the meantime). The idea underlying this accounting practice is that expenses decrease the ownership equity (or net worth of a company) while income increases the equity. But this concept is much more important to a profit and loss statement than to a statement of condition and will be deferred until we consider this aspect of corporate accounting.

The primary purpose of the statement of condition is to show economic status in terms of money. Such a statement is a mere "snapshot" of a constantly changing entity. Furthermore, its compilation requires the exercise of human judgment on a wide variety of scarcely comparable conditions. Such a statement is not a mathematically exact solution of a problem but a mathematical expression of human judgment. Within the broad confines of accounting there lie endless possibilities for human error and considerable scope for deliberate deceit as a means of accomplishing certain personal ends. A corporation can be made to appear very poor and unsound by any one or a combination of devices. Some of the simpler ones are setting up excessive allowance reserves (especially depreciation and obsolescence); carrying valuable patents and contracts at a nominal value of $1; entering the costs of valuable improvements and plant extensions as operating costs rather than as assets; or carrying accounts receivable at a figure far below what is reasonably certain to be ultimately realized. Such undervaluation of assets gives a pessimistic picture

of the business and is sometimes resorted to in order to squeeze out certain stockholders and thus gain control of the company at a low cost.

The most common tendency, however, is to overvalue the assets for the purpose of securing additional capital or raising the value of its securities on the exchange. Here accounting offers considerable possibilities. One of the most common methods of "writing up" assets (increasing the accounting value) is to capitalize intangible items such as patents and contracts on the basis of their earning power rather than cost. Another method grows out of the widespread supposition that a sale is the best evidence of market value and also the true money value of an asset. By merging two companies through the sale of one to the other, such items as goodwill can be given very high values merely by the one company theoretically paying much more than the book value of the other. Book value refers to the value of the stock in terms of net worth of the corporation. To pay more than the net worth is to pay for something not shown in the assets. Since it is a fact that any long-established and prosperous company is worth more as a going concern than its net worth or the book value of its stock, the practice of capitalizing this difference as goodwill becomes quite defensible from an accounting standpoint. The opportunity for abuse lies in the fact that the purchase of one firm by another may not represent a true valuation in the sense of competitive bidding or even of the seller's holding out for as much as possible and the buyer's trying to obtain the company for as little as possible. It is difficult, if not impossible, for a person to bargain with himself. Similarly, the purchase of a corporation by a person having interests as seller results in a fictitious rather than a genuine evaluation of the enterprise. However, this is only one method by which assets may be written up. It is mentioned first merely because it often results in very large increases in the valuation of assets.

The condition of a firm can be enhanced by numerous practices growing out of the fact that most items in a state-

ment of condition are surrounded by a constantly changing economic environment, and the money values are merely expressions of human judgment. The valuation of debts affords an opportunity for increasing the apparent wealth of the corporation. Under accounts receivable the claims shown may be a mere summation of all sorts of claims. Some may indeed be the equivalent of cash; others may be long overdue and of such nature as to make collection more expensive than the returns realized; still others may be absolutely worthless claims. By the device of lumping them all under "accounts receivable" the corporation may be able to enlarge its net worth to such an extent as to induce the average investor to buy the treasury stock those in control are offering. Similarly, the item "cash on hand and in banks" can be used to cover a multitude of situations. In this innocuous-appearing entry may be carried not only deposits in solvent banks and actual currency in the cash drawer of the company but a miscellany of non-equivalent items such as deposits in foreign banks subject to very material exchange losses, deposits in closed banks, cash in the hands of a trustee for the guaranty of a contract, and even notes from officers and employees. Likewise, the valuation of the goods held by the corporation for sale may be based on current market values rather than cost. Many minor items enable those in the control of a corporation to give it the financial structure most useful to their personal ends. All these offer certain individuals the opportunity to use the pecuniary statement of a corporation's condition for individual ends rather than for setting forth an accurate picture of the entity so that all those with interests in it may guide their actions more intelligently. However, many of the misuses of corporate accounting discussed above apply to the second type of statement commonly used to analyze the pecuniary behavior of a corporation.

2. Profit and Loss Statement

The profit and loss statement of a corporation differs both in form and purpose from the statement of condition.

As we have seen, the statement of condition is a picture of a corporation's financial structure at a given time. To carry the photographic analogy further, we might say that it is a snapshot of a very active person. It shows none of the activity by which the corporate structure came to manifest the condition shown. A series of such pictures may help us to see corporate growth or decline, just as pictures of a real person taken at yearly intervals enable us to observe changes in his appearance. But neither the corporate pictures nor the real ones tell us much about the behavior of the "person" during the interim. A movie might enable us to observe the behavior of a real person for a short period of time. But if we are going to hire him we want to know his history over a considerable period. The profit and loss statement is the history (usually for one year) of a corporate person reduced to pecuniary terms. These statements are especially valuable to the managers of a corporation for guiding them in their work of directing the physical properties to the most profitable ends. They are often called "operation statements" because they show the history of operation and are one of the best available guides to future operations. When prepared for this purpose they are often long and detailed. When prepared for stockholders or others not directly concerned with control they are likely to resemble the usual statement of condition; only the general items are shown. The profit and loss (operating) statement of our mythical corporation, on page 383, is of this latter type.

The basic purpose of all business corporations is to manipulate their wealth in such a way as to produce a money income. In the statement of condition, the purpose is to balance assets against liabilities so as to determine the net worth or ownership equity. In the operating statement the purpose is to determine the net results of the past year's operation of the business. This result, whether it be positive or negative (deficit) profits, conditions the net worth and will be reflected in the next statement of condition. But

PROFIT AND LOSS STATEMENT
THE SUREFIT SHOE CORPORATION
Year Ending Dec. 31, 1941

Net sales for the year			$310,000.00
Less: Cost of goods sold:			
Direct materials:			
Inventory of Jan. 1, 1942	$ 30,000.00		
Purchase during the year	80,000.00		
Total materials available for use	110,000.00		
Less: Inventory of Dec. 31, 1941	20,000.00		
Cost of direct materials used during year		$ 90,000.00	
Direct labor (wages)		60,000.00	
Factory overhead (production) expenses:			
Light, power, and water	6,000.00		
Indirect materials (factory supplies)	3,000.00		
Indirect labor (wages)	5,000.00		
Repairs and maintenance	7,000.00		
Social security taxes	1,500.00		
Superintendent and clerical salaries	9,000.00		
Depreciation, insurance, and taxes	19,500.00		
Patent amortization	1,000.00		
Other factory overhead expenses (summarized)	9,000.00		
Total factory overhead expenses		61,000.00	
Production charges originating during 1941		211,000.00	
Plus: Inventory of goods in process Jan. 1, 1941		15,000.00	
Total charges to production, 1941		226,000.00	
Less: Inventory of goods in process Dec. 31, 1941		11,000.00	
Total cost of production, 1941		215,000.00	
Plus: Inventory of finished goods Jan. 1, 1941		10,000.00	
Total available for sale during 1941		225,000.00	
Less: Inventory of finished goods Dec. 31, 1941		8,000.00	
Cost of goods sold, 1941			217,000.00
Gross profit on sales			$ 93,000.00
Less: Marketing expenses:			
Salaries and commissions	$ 25,000.00		
Advertising	6,000.00		
Other marketing expenses (summarized)	10,000.00		
Total marketing expenses		41,000.00	
Less: Administrative expenses:			
Officers' compensation	$ 21,000.00		
Clerical salaries	9,000.00		
Other administrative expenses (summarized)	10,000.00		
Total administrative expenses		40,000.00	81,000.00
Net operating profit			$ 12,000.00
Plus: Income from property not used in operation of business			
Return from securities		3,000.00	
Rent from leased land		500.00	
Total added income			3,500.00
			15,500.00
Less: Financial expenses:			
Interest on bonds			3,000.00
Net profit for 1941			12,500.00
Less: Estimated income taxes for 1941			2,500.00
Net Profit to surplus			$ 10,000.00

always the accountant is interested in the way each change during the year conditioned profits. Here income is balanced against expenses. Of course, many items appearing in the statement of condition also appear in the profit and loss statement. Likewise, the same problems of imputing present values to changing assets and liabilities are present. The chief question is that of income *vs.* expense.

Profit or loss is the result of the difference between money income from sales and the actual and imputed money costs of producing the goods or services sold. Ordinarily a sale is considered to be complete for accounting purposes when title passes to the buyer. Income becomes an asset at this time even though actual payment may be postponed. Since sales are current and in definite amounts of money the determination of income is relatively simple. The major problem is that of determining the costs incurred in the production of the goods or services. Many costs in a manufacturing business are not incurred directly as goods are produced but rather at intervals when the plant was built, equipped, and modernized from time to time. The problem of the accountant is to allocate a proportion of these larger fixed costs to the period covered by the statement. In the statement of condition the accountant indicates this fact by "writing down" the asset value of fixed capital. Even the actual direct cash outlays for raw materials and for labor are not considered expenses at the time they are made.

The reason for this attitude of the accountant is that he is constantly thinking of net worth, or ownership equity. Neither the depreciation of fixed assets nor the direct expenses incurred by the production of goods still in the possession (inventory) of the corporation are deductions from ownership equity, for they represent a mere transformation of assets. The decreasing asset value of a machine used in producing shoes is offset by the increased value imparted to the leather as it passes through the machine. The asset value of a machine flows gradually into the goods produced. The accountant sees this process as a diminution

of asset values in machines and an increase in the asset value of goods (inventories). But these cannot be compared until the product is sold. Then the money value realized can be compared to the total money value of all the goods, services, and assets used up during the period required to produce the goods. Of course, if the money value of the finished goods was exactly equal to the decrease in asset values suffered by fixed assets such as machines plus the total direct outlays for materials and labor, the net result would be neither profit nor loss. The purpose in "using up" fixed assets and buying materials and labor is to increase the money value of the finished product by more than the money costs incurred in production. The operating statement is prepared to determine how well this was done. Failure is reflected as a loss; success as money profit. In this statement the expenses are balanced against income rather than assets against liabilities. Both are related through the concept explained above.

Here again the accounting record is merely a mathematical expression of human judgment. The same questions pertaining to the determination of assets and liabilities in the first type of statement apply to the determination of income and expenses in the profit and loss statement. For this reason similar opportunities for error and for intentional misrepresentation occur. When businesses consisted of handicraft methods most expenses were of the direct type such as expenditures for materials and labor. Today, the larger manufacturing corporations, to say nothing of those in transportation and public utility services, employ such roundabout methods and highly specialized power-machine production that fixed costs constitute the major item in production. Such items as depreciation, obsolescence, insurance, interest, taxes, and executives' salaries are not greatly affected by the volume of output. Because they tend to remain fixed per year rather than per unit of output, as tends to be true for materials and labor, they are called indirect expenses. The allocation of such charges to specific

sales is a most difficult problem and offers considerable opportunity for personal manipulation on the part of those in control. One might at first believe that because these expenses continued at a more or less constant rate there would be little opportunity for manipulation. The error of such a view lies in assuming that all fixed expenses "flow" regularly on a time basis. The rate of change in a given item such as a machine depends upon the basis for computation. An illustration will suffice to indicate the possibilities.

A machine used in production depreciates at several rates depending upon the point of view. If we viewed it on the basis of sales value we would find that, like an automobile, the major depreciation occurs when the firm takes delivery and begins to use the machine in production. Here we might well decide that the large depreciation for the initial use as reflected in asset value should be allocated during the first year. If we viewed the same machine from a standpoint of operating efficiency we might completely reverse our depreciation schedule since the least "wear and tear" occurs during the first year of operation. However, if we viewed the machine from the standpoint of its contribution to production in terms of output we would be using what in the case of an automobile would be a "mileage basis." In this case depreciation would vary with the use of the machine. During slack periods, we would charge off little of its asset value while in boom times we might conceivably charge off its entire asset value in a single year. We would, of course, begin our computation with an estimate of the probable total life output of the machine and charge off the proportion of its total life that each day's output bore to the total. In the case of an automobile we might assume that its life was 50,000 miles. If the car cost $1,000 we would depreciate or write off its value as an asset to us at the rate of two cents for each mile. If the car was still in good operating condition and continued in operation after that mileage, our depreciation policy would result in incurring an expense for something that from an accounting point of

view did not exist. Such a policy is sometimes used by large corporations with the result that they build up "hidden reserves." The real worth of the company then greatly exceeds that shown in the statement of condition. The profit and loss statement shows small profits because here the depreciation of asset values appears as fixed operating expenses.

Another opportunity for conditioning the operating statement arises out of the fact that much of the income was derived from the sale of goods produced in a period prior to that in which the income was realized (and covered by the statement). For instance, during a slack period a company may continue operations and build up a large inventory of goods. In the statement of condition at the end of such a period this will not affect net worth since the diminution in asset values and other outlays will be compensated for by at least an equal increase in inventory assets. But in the operating statement the profits will be very small or even a loss may appear. During the next period the large inventories may be reduced by sales exceeding production. In this period the operating statement would show an unusually large profit. Under such conditions, which are quite usual in modern industry, the size of profits *vs.* losses for any period can be changed by the allocation of fixed expenses. If depreciation of fixed assets is made uniform in the two periods, the results indicated above will appear. But if the "writing off" of assets is on a production basis the difference in profits will not be so pronounced. The net result shown in either type of statement is largely the result of the policy followed by those who control and manage the corporation. Their personal interests can have marked effects.

In conclusion we might well indicate the position of the accountant. Many people believe that because a corporation statement bears the certification of a public (and hence impersonal and unbiased) accountant that everything contained therein is not only mathematically accurate but also

absolutely true. Nothing could be further from the facts. Accountants are perhaps among the best trained men in our complex business system today. As a class they rank with doctors and lawyers in striving to manifest a professional attitude toward their clients. But like lawyers and doctors the efficiency of their work depends upon the truthfulness and intelligence of the client. Accountants strive to produce statements that will offer an accurate and honest picture of the business under consideration. They cannot go beyond the information supplied them by those in control of the complex business structures which they audit. No accountant's certificate claims truth for the statements contained therein. All it certifies is that certain accounting conventions have been followed and that to the best of his knowledge the statement presents an accurate account of the items furnished him by the officials of the company. At the time of the collapse of McKesson and Robbins the statement on an accountant's certificate was changed somewhat in wording. Its present form indicates that an audit is not a guarantee of the economic condition of a corporation but merely one expression of its financial structure. To judge the pecuniary value of such a complex institution as a corporation much more than a knowledge of law and accounting is needed. The history of a corporation is a chapter from the history of the culture in which it is embedded.

Chapter 19

The Cultural Setting and Operation of the Corporation

As an institution, the corporation permeates the entire fabric of capitalism. Under its aegis the economic life of industrialized regions has been organized and made to function in a manner utterly different from that prevailing under the handicraft system, commercialism, or even early small-scale industrialism. Corporations have ceased to be significant as legal devices which enable individuals to carry on business activity with little personal risk (limited liability). The corporation has become a system of economic organization under which the wealth of numerous individuals has been concentrated into huge aggregates and placed under the control of a few persons. They exercise such power over the economic life of the nation that the kind of lives led by the majority of its citizens largely depends upon them. Under the system made possible by the corporation, property has been considerably changed in its nature and in the way it is related to the production of wealth. No longer is the ownership of property essential to induce individuals to use it for the increase of wealth. To a very large extent, control over wealth and the social responsibilities attending its use have been separated from ownership. Property has become a legal tangle of rights and equities while control over the real productive wealth of the nation (capital) has become vested in the hands of a

few individuals who are no longer restrained by the social responsibilities formerly surrounding the use of property. However, it must not be supposed that every business organization bearing the legal form of a corporation either possesses these characteristics or is an integral part of the system which makes them possible.

The corporate device of itself does not necessarily create the powers inherent in the modern corporate system. The private corporation in which the individual personally uses his own property for the purpose of his personal monetary gain has long been and still is an important type. In fact, such private forms still constitute a large part of the total number of corporate units in many fields of business, but the influence they exert in our economic life is no longer significant. The modern corporate system arises from the quasi-public corporation[1] in which the multiplication in the number of shareholders and the varied restrictions upon the rights exercised by these legal owners have produced a distinct separation of ownership and control. In this dominating type of corporation effective control rests in the hands of those who gain their power through means other than owning the majority of wealth invested in the enterprise. Such corporations command their supply of capital from millions of individuals collectively known as the "investing public." What is perhaps most significant is the fact that to an ever-increasing extent those who supply the capital of the corporate giants do not invest their tiny contributions directly in these enterprises. The quasi-public corporation receives only a part of its capital from those who personally buy its shares. More and more, it secures the savings of millions of low-income receivers indirectly through insurance companies and investment trusts which act as more or less automatic mobilizers of the capital fund from which the corporate system draws its supply of life-giving capital.

[1] This is the term applied by Berle and Means in *The Modern Corporation and Private Property*, Part I, Ch. 1, on which the discussion here is based.

The separation of ownership from control of wealth has produced a condition where the interests of owners and those of users of wealth often diverge and where the social responsibilities attending the use of wealth by an owner are largely absent. In addition, the methods of raising and applying capital employed by the quasi-public corporation have produced economic organizations of such size that the whole system of business enterprise has undergone significant and far-reaching modifications. Our analysis of the operation of the corporation as an institution will be centered on the role played by these corporate giants, although we shall give some attention to the lesser units by way of comparison.

Before beginning our analysis of the operation of the modern corporate system, we might profitably answer certain questions. What are "giant" corporations? How can they be measured? What part of modern business do they constitute? How much wealth do they control? What part do they play in everyday life?

A. PLACE IN BUSINESS AND INDUSTRY

The term "big business" has become popularly employed to designate the activities of the modern giants of the corporate system. In the early part of this century the term "trusts" was applied in much the same way. But size is a comparative matter. Nothing is large or small except in comparison with something else. And usually when we speak of a thing being large or small we infer that it differs from the average or majority of such things. A big business of fifty years ago may be a small one today simply because most units in that field have grown in the meantime. No standard of comparison is completely satisfactory. We have had occasion to see the difficulties in using money as a standard. Even physical units, we have seen, are neither absolute nor entirely independent of time, place, and circumstance. To judge the size of a corporation we must use several standards.

Corporate size can be measured in terms of the wealth owned or the monetary income received during a period of time. During 1935–1936 the associates of the Twentieth Century Fund made a rather extensive study of the corporate system in the United States.[1] We are indebted to their work for many of the facts presented herein.

From the standpoint of assets, corporate size can be reduced to comprehensible terms. In 1933 less than 600 corporations had assets of 50 million dollars or more. These constituted only 0.15 per cent of the corporations reporting to the Treasury Department.[2] However, these few giants owned more than half of all corporate wealth. If only non-financial corporations are considered, the dominance of giants is even more marked for 375 out of 287,000 or about 0.13 per cent owned 56 per cent of such corporate assets.[3] The great bulk of American corporations had assets of far less than 50 million dollars. More than half of reporting corporations possessed assets of less than one one-thousandth of this figure—$50,000. These owned less than 2 per cent of the total corporate assets. The difference between those at the top and those at the bottom is more marked when we compare average assets. Among the 600 giants the average assets per company amounted to 240 million dollars while for the nearly 200,000 small companies the average was less than $5,000. However, more than 80 per cent of all American economic activity was carried on by the small (mostly private) corporations and by unincorporated firms and individuals. Even when the small corporations are eliminated, more than 40 per cent of American business was not in corporate form. But of the

[1] BERNHEIM, A. L. (Ed.), *Big Business: Its Growth and Its Place*, 1937, Twentieth Century Fund.

[2] Corporations not filing income tax returns (mostly charitable and non-profit types) and those not submitting statements of condition are not included in the figures given by the Twentieth Century Fund. Those omitted held less than 1 per cent of corporate assets and received practically no net income in the business sense.

[3] BERNHEIM, *op. cit.*, p. 54.

little over 500,000 corporations in existence in 1933,[1] less than 600 or 0.1 per cent owned more assets than the other 99.9 per cent combined. It is evident that while the giant corporations constitute but an infinitesimal fraction of the total number of corporations they control the vast majority of corporate wealth.

The relatively few corporate giants of 1933 did not dominate all business in the United States. Their importance in various industries varied to a surprising degree. In general, the more mechanized an industry becomes the greater the advantage of the large corporation with its centralized control and capital raising power. In the building industry where medieval handicraft methods still were entrenched in 1933 the giant corporation was conspicuous by its absence. Less than 3 per cent of the assets of this industry were owned by corporations in the 50 million dollars or more class. Agriculture, personal service, and trade showed relative freedom with about 10, 12, and 18 per cent of their respective assets in the hands of giants. Mining, which was one of the earliest fields to employ the corporate form, had about one-third of its assets in huge companies. Manufacturing and finance were fairly evenly divided between the giant and smaller corporations. However, the number of giants in these two fields greatly exceeded those in the ones previously enumerated. This is, of course, a result of the relatively large size of these two fields. The domination of finance by giants has special significance since the assets of the corporations in this field consist very largely of the securities of those in other fields. This concentration gives the giant financial corporations disproportionately greater power in the larger economic pattern of all industries. Financial institutions are largely in the hands of those few individuals who control the corporate system. Transportation and public utilities (electric,

[1] BERNHEIM, *op. cit.*, p. 99. This figure includes all corporations, whereas the conclusions in this study are based upon the statistics of the 388,000 reporting corporations.

gas, and water) stand at the head of the list of industries dominated by corporate giants. Nearly 90 per cent of the corporate assets of this field were owned by them. And here again their influence has special significance. Modern industry depends to an ever-increasing degree upon two factors: power and transportation. Those who control these gain great power over the economic health of all industry.

When income is used as the measure of size, the large corporation again stands out as the predominating power in the corporate system. If the Treasury Department's figure of 5 million dollars a year be taken as the income of corporate giants, less than seventy corporations could qualify for inclusion in this class in 1933. Yet these few received more than 30 per cent of the total corporate income that year. In sharp contrast stand the vast majority of corporations. Nearly three-fourths of them received less than $5,000 that year and accounted for less than 3 per cent of all corporate income. Again on this basis the giant corporation holds a commanding position.

B. PLACE IN MODERN SOCIETY

The place of the giant corporation in American economic life is difficult to comprehend. Today we have become so accustomed to talking and thinking in terms of astronomical figures that money values have ceased to be an adequate measure of economic organization. But when we pause to consider that, in the prosperous year of 1929, two-thirds of American families received an income of less than $2,500 and that only a mere 2 per cent received more than $10,000, we can reduce our money measure to comprehensible terms. Because of the large incomes received by a few wealthy families, the average income for American families in 1929 stood at about $2,800. With such figures as a background, the income and wealth of the corporation may have some meaning.

In 1929, two-thirds of all non-financial corporations[1] reported net incomes of less than $5,000. But the existence

of a relatively few giants at the top swelled the average income for all corporations to about $25,000. Even the average assets of all corporations were only a little over $500,000. But while the income and wealth of the average corporation looms large as compared to the income of the average family, those of the average corporation are but small as compared with those of the few real giants which stand at the apex of the corporate pyramid and which set the pace and largely guide the course of economic life in America today. Among the more than 300,000 corporations operating in 1930, less than 200 had assets of 100 million dollars or more. Yet these 200 had combined assets of 81 billion dollars or nearly half of all corporate wealth in the United States at that time. Ten of the super-giants rose to astonishing size. Each of these had assets of over a billion dollars, and the largest of all, the American Telephone and Telegraph Company, controlled more wealth than that contained within the borders of twenty-one states.

But much more important to the everyday life of the average person is the extent to which he is dependent upon the few giant corporations for the goods and services which constitute his daily round of life. In the home the products of the 200 giants are legion. Food is a basic commodity, and the average city housewife would have difficulty securing a normal supply without patronizing a significant number of the corporate giants. The meat she buys was probably prepared by Armour, Swift, or Wilson, sugar by the American Sugar Refining Company, crackers by National Biscuit. Most of the cans in which her food is purchased were produced by the American Can Company. The electric refrigerator into which she places fresh foods, as well as "leftovers," probably bears the trade-mark of

---

ing types. The reason for this omission of a very important type of corporation is that the income and wealth of banking (and investment) corporations consist of the returns from and securities of underlying corporations. To include them is to reduce the significance of corporation statistics by much duplication.

General Motors, General Electric, or Westinghouse. Even the pots and pans in which the food is cooked are likely to be the products of the Aluminum Company of America or of one of the great steel companies. She probably purchased some of her groceries from the familiar A. & P. stores. The medicines so often used to relieve the after-effects of over-indulgence in tempting food are more often than not products of United Drug Company. Even the dishes are probably washed with the aid of Procter and Gamble's soap.

Home furnishings and equipment likewise are among the products with which the housewife and her family come into daily contact. The house itself may contain lumber originally from the mills of the Long-Bell Lumber Company. The gleaming bathroom fixtures, which are so regularly cleaned with a product of Armour or Swift, probably bear the familar trade-marks of the Crane or the Standard Sanitary companies. The water flows from the shining faucets after traveling through pipes made from the products of Anaconda or Kennecott Copper companies. The windows reveal the outside world through glass made by Pittsburgh Plate or Libby-Owens-Ford, while the house itself is in part protected by paint containing a product of National Lead Company. The chores of household cleaning are lightened and the evening hours brightened with the electricity generated by one of the numerous giant utilities. Even the gas that cooks the food and may heat the house is most likely a product of these same utilities.

When the American family seeks recreation, it again finds itself dependent upon the products and services of the giant corporations. At the movies the family often sees pictures printed on Eastman or du Pont film; produced by Warner Brothers or Paramount; and projected in a "palace" owned or operated by Loew's. At home the radio program or recorded symphony comes to the family through a mechanism at least licensed, if not actually manufactured, by Radio Corporation. They chat with friends over a

telephone produced and operated by A. T. and T. The pleasant and stimulating pastime of smoking depends largely upon the products of American Tobacco Company or one of the other "big four."

For travel the average American is extremely dependent upon corporate giants. His auto is probably a product of General Motors, Ford, or Chrysler. Its tires probably bear the name Goodyear, Goodrich, Firestone, or U. S. Rubber Company. The gas and oil it consumes comes from Gulf, Standard, Pure Oil, Texaco, or one of the other dozen giant petroleum corporations. The roads over which he speeds with such exhilarating satisfaction are probably made with cement supplied by subsidiaries of the great steel companies. On city streets he is commanded by the ever-changing traffic lights made by General Electric or Westinghouse. If he goes by bus, he becomes a customer of Greyhound and is sped to his destination in a vehicle made by General Motors. The railroad, likewise, represents an aggregation of corporate products. The engine on his train bears the name plate of American or Baldwin, the cars that of American or Pullman. The rails were rolled by U. S. Steel, Jones and Laughlin, or another of the few major producers of steel. The train is guided on its way by a combination of signals, telegraphs, and telephones representing Western Union or A. T. and T. His train rolls to a smooth stop under the pressure of Westinghouse air brakes, and the upholstery on the seats contains the product of American Woolen. Throughout the journey he carries a ticket supplied by the Pennsylvania, New York Central, Baltimore and Ohio, Santa Fe, Union Pacific, or another one of the twenty major railroad corporations or their subsidiaries. No matter what the average American does today, he is forced to patronize the giants of the American corporate system.

Even the farmer is caught in the net that blankets the nation and represents the goods and services of industrial giants. He plows, cultivates, and harvests with machines made by Deere and Company or International Harvester.

He buys many of the numerous essentials for his family from one of the mail order houses—Sears Roebuck or Montgomery Ward.

But even more subtle are the ways we all supply the capital so necessary to the development and expansion of the American corporate system. Many of us believe that the capital of American industry is supplied by a small class of extremely wealthy persons called capitalists. To be sure, there are persons who fit this mental picture, but the capital they supply constitutes but a small part of that in use today. Much more important is the role of the average wage earner and other small income receiver. For generations citizens of this great country have been taught to save. From the penny bank at home and bank day in the public schools, the child acquires his first habit of "putting aside" a part of the money he receives. Few people realize that such habits are the springs from which flow the streams of capital. Every form of saving today brings the saver into contact with the mightiest corporations in America—banks and insurance companies. These represent a special class of investment institution and are not included in the 200 considered above. However, among all American corporations with assets of one billion or more, banks and insurance companies constitute a large minority. When one pays his life insurance premium, he not only contributes to a fund from which all death claims are paid, but he also contributes to the even larger fund from which many American corporations are financed. The reserves of insurance companies are the pipe lines to industry.[1] From them comes much of the money necessary to equip and to expand railroads, steel companies, and numerous other American corporate enterprises. Thus the corporation controls the flow of savings in America.

[1] *Cf.* GILBERT, MORT, and E. A. GILBERT, *Life Insurance*, 1938, Modern Age Books, Ch. 2 for an interesting but somewhat biased account of the investment activities of large insurance companies.

C. OPERATION

With this background of the nature and place of the giant corporation in American business, we can now turn to the operation of the corporate system. It is primarily a pattern of economic control. The sources, forms, and economic significance of control constitute an important basic aspect of the corporate system.

The modern corporation centers around the control of wealth. In its modern form, and especially in the larger units, the corporation becomes an agency for the control of any form of wealth having a market manifestation (price). Control consists internally of the power to determine the behavior of those directly connected with the corporation through property rights or contract, and externally of the power to influence the conditions under which goods are offered for sale in the market. Internally, the large corporation offers the supreme example of power to mobilize and control property without ownership and without the social restraints surrounding the use of property by owners. From the standpoint of control, the corporation is a device that enables a select few to maximize their financial power and at the same time to minimize their personal risks and social responsibilities. Internal control is exercised through legal and financial devices inherent in the corporation. External control is exercised through legal and financial combinations which can dominate the conditions under which a commodity is made and offered for sale.

1. Internal Control

Internal control is a matter of directing the property rights and contractual powers of the corporate entity. In theory, the basic control of a corporation is vested in the owners of its voting stock. In actual operation, the stockholders delegate this power to a board of directors, who in turn pass it on to the officers and active managers. Internal

control thus flows from the shareholder through the hierarchy of directors and officers to the actual functioning workers. But in the modern corporation control seldom flows along this legal chain. Instead, certain individuals occupy such positions that they are able to control the policy and the operation of a company quite independently of those who supply most of the capital and, oftentimes, independently of those who own most of the voting stock.

a. Majority Voting Power: The internal control of a corporation is attained through any one or a combination of several devices. The ownership of the majority of the voting stock is the oldest and simplest but no longer the principal one. Since voting in most corporations is on a per-share basis, the ownership of the majority of voting shares gives their owner effective control. He can put on the board of directors men who will do his bidding. He can, of course, elect himself to the board and can have himself appointed to whatever official capacity and at whatever salary he sees fit (limited only by the ability of the corporation as a functioning unit to earn the necessary income). He can place his friends and relatives in positions of power and affluence to a degree that would make many politicians blush with shame. Furthermore, with the capital supplied by the minority of voting shareholders, by the holders of non-voting stock, and by bondholders, he can buy the basic resources, equip the buildings with the finest examples of power technology, and hire the technical and business talent essential to the operation of the corporation as a producer of goods and services. But despite these powers the effects of such control are neither unsocial nor unavoidable. Modern technology requires larger aggregations of capital than any but a few individuals can muster. Modern business requires a combination of specialized skills far beyond those possessed by any small group. Finally, modern economic conditions demand a centralization of direction which can be secured only by vesting authority and responsibility in the hands of a very few. If the separa-

tion of ownership and control in the corporation meant no more than that secured by this method, control would involve no serious social problem. In the larger corporations this type of control is rare; other devices permit control to be exercised without substantial ownership or investment.

b. PROXIES: The modern tendency of the largest corporations to encourage the widespread ownership of their shares offers one of the most effective means to maintain control with ownership of very little of the voting stock. The larger the corporation and the greater the number of shareholders the easier it becomes for management to exercise control by the proxy device. The attendance of shareholders at the meetings of corporations having many thousands of stockholders indicates that the holder of a few shares has neither the time, money, nor knowledge necessary for attendance. Furthermore, his voting power as a holder of a few hundred shares would be so small in comparison to that of management holding thousands of proxies that he would be powerless to make his presence felt. Some idea of the actual situation making the proxy device effective can be gained from the table shown on page 402 which gives the status of a few corporate giants.

It is interesting and significant to note that in this representative list the number of shares runs into the millions and that those exercising legal control own but a very small fraction of them. Control of the corporations in this list is not necessarily maintained by the proxy device. The list is merely a cross section of the situation in big business which makes the proxy so effective.

A *proxy* is an order transferring the voting power of specific shares to a designated person or group for a specific meeting or period of time. Anyone can solicit the votes of shareholders by proxy, but no one can be forced to sign a proxy. The difficulty confronting anyone other than management in obtaining proxies lies in the cost of securing a sufficient number to be effective. The mere clerical and mailing costs of proxies in such a company as United States

Steel Corporation would run into thousands of dollars. But to management these costs mean little since they may be charged to operating expenses. Furthermore, proxies can be mailed to stockholders in the notice of meetings which must be sent to shareholders anyway. The fact that the solicitor of a shareholder's proxy happens to be an official or director of the company carries great weight with the average stockholder. To him such men appear particularly qualified to exercise the voting privilege of his stock. It is logical, but not always realistic, to assume that the interests of management coincide with those of shareholders.

Company[1]	*Assets owned January 1935*	*Number of shareholders*	*Total voting shares outstanding*	*Percentage held by directors and officers*
Anaconda Copper Mining Company	$ 522,000,000	118,000	8,674,000	0.6
Bethlehem Steel Corporation	506,000,000	88,000	4,128,000	1.5
General Electric Company	381,000,000	196,000	28,845,000	0.7
Montgomery Ward and Company, Inc.	153,000,000	75,000	4,718,000	1.3
Standard Oil Company of New Jersey	1,104,000,000	127,000	25,856,000	0.4
United States Steel Corporation	1,588,000,000	239,000	12,306,000	0.5

[1] Based upon B. J. Reis, *False Security*, 1937, Dodge, pp. 11–16.

Even if the shareholder felt otherwise, there is no other means readily available for expression of his wishes. To attend meetings personally would be expensive and futile. To combine with other stockholders to solicit proxies with which to gain control involves the expenditure of time and effort beyond the average stockholder's means. To refuse to sign makes little difference unless great numbers do likewise and thus prevent the holding of an election for lack

of a quorum. The only effective choice open to the average stockholder is to sell his shares and thus withdraw his capital for investment elsewhere. The proxy is the mainstay of control by management or the minority in the larger corporations today.

c. THE HOLDING COMPANY: The crowning device for maximizing control and minimizing investment in the modern corporation is the holding company. Through this means a few individuals can become the masters of the wealth invested, not only in the basic company, but in numerous other companies as well. Sometimes this device is called "pyramiding" because the control in one company spreads out over the vast wealth of underlying companies as from the apex of a pyramid. This device has been used to the greatest extent and developed to the highest degree of manipulatory efficiency in railroads and public utilities. The regulation of corporations in these fields by state and federal commissions makes the holding company the most efficient means for maintaining private control and profits. A word of explanation on the nature and scope of such regulation will enable us more fully to appreciate the economic effects of this device.

A public utility (which in the technical sense includes railroads) differs from other businesses in several respects. Competition cannot be used to assure the most efficient service at the lowest possible price to the consumer. Competition merely determines which company of several serving a region will survive as a monopoly. Such businesses are, therefore, natural monopolies. They involve the grant of monopoly power from the government by reason of their nature. Since monopoly without some form of control or regulation is abhorrent to people living under a democratic ideology, the government exercises a degree of regulation through commissions having a combination of legislative and judicial power. The Interstate Commerce Commission is the Federal agency for the regulation of railroads, pipe lines, and, to some extent, bus lines. Public service com-

missions of the several states regulate public utilities within their borders. In general, the powers vested in these commissions consist of determining that services offered are adequate for the welfare of consumers and controlling the prices charged in such a way that they yield only a fair return on the investment of the company. The theory behind such control of price is that unless a fair return is earned investors will not supply the capital necessary for the maintenance and extension of the services offered and that more than a fair rate of return would be using the authority of the state to exploit consumers. A fair rate of return is, therefore, one that is just sufficient to attract capital in such amounts as are required to supply the needs of the consuming public. The method of determining what rate structure yields a fair rate involves matters beyond the scope of this chapter. We are here interested in the way such rates encourage the use of the holding company as a corporate control device.

A hypothetical example will assist us in understanding the role of holding companies in public utilities. Let us assume that the Western Light and Power Company of Oregon is an operating company engaged in the production and distribution of electric light and power. This company has a capitalization of $100,000,000 represented by the following classes of securities: $60,000,000 in 5 per cent bonds, $20,000,000 in 7 per cent preferred stock, and $20,000,000 in common voting stock. The entire capitalization represents the actual investment of creditors and shareholders. Let us assume that in the state of Oregon the fair rate of return is 8 per cent. This means that the public service commission of that state will approve a rate structure for this corporation which will yield an average of $8,000,000 a year after all operating expenses have been paid. This amount will be available for the holders of securities as interest and dividends. If all is paid out, each class will receive the following amounts: bondholders, $3,000,000 which is 5 per cent of the face value of the bonds;

preferred stockholders, $1,400,000 or 7 per cent of the par value of their stock; and common stockholders, as residual claimants of the balance, $3,600,000 or 18 per cent on the par value of their shares. This large return to the voting shares does not violate the state-set rate of 8 per cent as a fair return on the total investment. The common stockholders are the residual claimants, that is, they receive whatever is left after all creditors and others with preferred claims have been paid in full. The voting shareholder enjoys an especially favorable position in utilities, where bonds have become the chief source of capital. The commission's approval of the rate structure may abolish his chances for spectacular returns, sometimes enjoyed by stockholders in unregulated companies, but it more or less assures that he will regularly receive a very substantial return. In times of falling revenues the commissions often permit utilities to revise their rate structure upward so that the established return on the investment will be maintained. Of course, this is no guarantee, and a severe depression may make it impossible for any revision of the rate structure to yield the established return on the whole amount invested. However, in recent years as a result of steady improvements in the technology of producing electric energy, decreasing operating costs have enabled most utilities to lower the price of their services and still to maintain the established rate of return on an ever-increasing investment. In fact, the difficulty of judging the validity of operating costs deducted by privately owned utilities before figuring the amount available for return on the investment is one of the reasons for the establishment of government owned and operated utilities to serve as "yardsticks" in regulation.

The holding company device rests upon the power vested in corporations to own the stock of other corporations. A holding company differs from an operating company in that the primary purpose of the former is the holding (owning) of stocks in other corporations, while in the latter case the primary purpose is to carry on the production of

some good or service. Today, the one type tends to merge into the other: some corporations own stock in other corporations in addition to engaging in the production of commodities; others conduct some minor production activity but have most of their capital invested in other companies. The structure of a holding company is conditioned by the purpose for which it is organized. We are here considering its use in public utilities as a device for maximizing the financial power and minimizing the actual investment of a small control group. We shall presently discuss other uses of the holding company.

By means of a holding company, the rate of return to the owners of common stock can be greatly increased. In the heyday of holding company development, when the investing public was befuddled by the spectacular performance of the stock market, control groups found it possible to organize holding companies with capital structures very similar to those customarily employed in the more basic operating companies. Let us assume, for the purposes of illustration, that the control of the Western Light and Power Company was exercised by a small group of men owning half of its voting stock. Such control would entail an investment of only $10,000,000 if the group bought it at par at the time of organization. By organizing a holding company for the express purpose of controlling the single underlying operating company, the return would be materially increased. Let us suppose that they organize such a company, called The Central Power and Share Corporation, with the following capital structure: $5,000,000 in 5 per cent bonds, $3,000,000 in 7 per cent preferred stock, and the balance of $2,000,000 in common. If the proceeds were used to buy the shares held by the control group in the operating company, the holding company would become the legal owner of half the common stock in the operating utility. The only functions of the new corporation would consist in receiving and reallocating the return on this stock among its security holders and in voting these shares. The income

of the new holding company would consist of half the yearly dividends on the common stock of the Western Light and Power Company, or $1,800,000. Of this, $250,000 would have to be paid to the holders of the bonds in the holding company, and $210,000 to the holders of preferred stock. If the operating costs of the holding company (consisting chiefly of clerical expenses and office salaries) amounted to $240,000, there would still remain a balance of $1,100,000 available for the holders of common stock. If, in accord with standard practice, the holding company set aside some of its earning as a reserve, say $100,000, and paid the remainder as dividends, those who held the voting power would receive $1,000,000 on an investment of $2,000,000 or 50 per cent. The promoters, of course, need retain only about half the voting stock to maintain control of not only this holding company but also the underlying operating corporation.

Here, then, are some of the rewards of high finance. In addition to occupying the high-paid executive positions in the Central Power and Share Corporation and receiving a return of 50 per cent on their investment, the control group retain their control over the investment of $100,000,000 in the operating company with only $1,000,000 of their own wealth invested. We assume, of course, that they retain half of the voting stock in the holding company and pay the par value for it. For all practical purposes half of the stock would give complete control.

But the process need not stop here. The creation of a second holding company to own the controlling interest (in this case half the voting stock) in the first holding company will enable the control group to maintain control of both the first holding company and the basic operating utility with a still smaller personal investment and a still larger rate of return. Let us assume that this group forms a second holding company known as the Eastern Utility Service Corporation with the following capital structure: $400,000 in 5 per cent bonds, $400,000 in 7 per cent pre-

ferred stock, and the balance of $200,000 in common. The proceeds are then used to buy the control group's half-interest in the common stock of the first holding company. The dividends on this stock now become the income of the new and second holding company. Let us assume the following distribution of the $500,000 income among the basic or prior claimants as follows:

Officers' salaries	$ 75,000
Clerical and office expenses	15,000
Bond interest	20,000
Preferred dividends	28,000
To surplus	62,000
	$200,000

A balance of $300,000 would be available for dividends on a par value of $200,000 common stock. The control group would now receive a yearly return of 150 per cent on their investment of only $100,000 with which they could retain the effective control of almost $100,000,000 of other people's money. In addition they could elect themselves to the board of directors on all three organizations and have themselves appointed to the high-paid executive positions in each case. What greater separation of control from the property which creates it could the human mind devise?

This hypothetical example is far from the actual facts, however. It would be neither practical nor necessary to erect a series of holding companies on a single basic operating company. In the example we have unrealistically assumed that as the original control group gained a higher rate of return they reduced their investment from the original $10,000,000 to a final $100,000. In reality, the original investment need not have been reduced. Instead, by the organization of larger holding companies and the use of the proceeds to purchase controlling interests in not one but many operating companies, the original control group could have received the high rate of return on their total investment fund of $10,000,000 and at the same time extended their actual control over perhaps a billion dollars

of other people's money invested in ten or a dozen operating companies. Furthermore, by such widespread ownership of shares in underlying companies engaged in the production of several kinds of service and spread over the whole economic face of the nation, the control group could have even more easily raised the required capital by offering diversification of investment to the purchasers of holding company securities. Such widespread penetration of utilities and related businesses would have opened up a whole new field for profitable exploitation.

By reason of sitting on the boards of electric power generating companies, electrical equipment companies, and land leasing companies, the members of the control group could have effectively circumvented the working of the competitive price system in what is called "inter-company" relationships. The electric power companies could be "persuaded" to build new plants on land leased at fancy rents by the land company and to install generators and transformers built to unique specifications and at strictly non-competitive prices by the controlled electrical equipment companies. As we have remarked in another connection, it is very difficult for a man to bargain with himself, especially when high prices mean diverting an impersonal corporation's capital into the very personal pockets of the sole party to the bargain. This is not mentioned by way of pointing out dishonesty on the part of directors but rather by way of indicating how the holding company (and other forms of corporate concentration) creates situations where the interests of property-owning stockholders do not coincide with those of property-using managers and directors.

The hypothetical case departs from the everyday facts of the corporate system in other important details. We assumed that the original control group sold their controlling stock in the operating company to the first holding company at the price they had originally paid when the stock was originally issued and before the utility had demonstrated its earning power. Even though we accept

the assumption of the creation of a holding company merely to control this stock, no organizer in his right mind would sell it to his corporate brain child for such a low figure. It will be recalled that on the basis of par value this stock paid 18 per cent. In our study of the price system, we saw how a high rate of return can be capitalized in the market price. If the par value of a share was $100 (which is usual) the yearly return would be $18. If this amount of money is capitalized at 9 per cent the certificate which gave the holder the property right to claim it would bring $200. When promoters organize a holding company they usually sell it the stock they own for at least the capitalized value of the yield. Usually they receive more. In our example the control group could have done one of several profitable things. They could have used the proceeds from the sale of securities in the holding company for the purchase of just half their interest in the operating company or they could have organized a holding company with twice the capitalization and sold their entire holdings to it at the enhanced capitalized value. In the first instance the holding company's legal control of the underlying utility would have been reduced to that of minority (one-fourth) control but the promoters would have suffered no personal loss since they would retain half of their original stock (the other one-fourth) in the utility. In the second instance, which is more nearly in accord with prevailing practice, the control group would have realized a 100 per cent immediate profit from the sale of their utility stock to the holding company (recovering $200 for each share which had cost them only $100) and would have still retained the control of the operating company. Such a profit is called "promoters' profit" and is one of the important reasons for the organization of companies for the purpose of controlling one or more other companies.

The failure of our example to approximate usual practice must not be taken as evidence that the principle it illustrates is unreal or far-fetched. An examination of the

structure of any of a hundred or more public utility or railroad systems during the decade of the twenties will disclose the fact that the example greatly understates the conditions in any one of the real "hook-ups." Under the leadership of Insull, seventeen holding companies were superimposed upon a few basic operating companies with a resulting corporate web that defied disentanglement or even analysis by experts in the field. Happily, it can be stated that steps to curb the erection of fantastic corporate holding empires have been taken in the Wheeler-Rayburn Act of 1935. The Securities and Exchange Commission, too, is entrusted with the duties of prohibiting the formation of holding companies more than two stages removed from the underlying operating units as well as with disentangling some of the corporate fantasies already existing in the utility field. But this act and its amendments, even with SEC activities, cannot abolish the basic ideology that lies beneath such corporate organization. The needs of modern power technology for capital and of world-wide business organization for control will force the evolution of some form of social organization capable of dealing with these needs. What the future form will be, only time can tell.

2. External Control

Corporate controls extend beyond the legal and financial structures of the entities themselves. The primary purpose of corporate organization is to maximize the financial return to those who exercise control. Anything that conditions the power of a corporation as a money-making device becomes an object for control. When corporations were small, both in number and size, the impersonal forces of the price system acting in the market determined the relative position of any domain of business. However, all gain-motivated individuals seek to attain a position where they are protected from the battering forces of competition and price fluctuations by some unique position or power. As power technology gave the corporation a peculiar advan-

tage over other forms of business organization as a capital-raising device, it also created a condition in the market which made the position of any unit increasingly precarious. Technological changes in a growing industry could confer great advantage on the owner of a patent covering a new and better productive technique and could likewise destroy the position formerly held by another. Businessmen sought means of controlling the conditions under which goods were produced. They desired to govern the supply of a commodity and thus stabilize its price at a profitable level. The union of the capital, resources, intelligence, and energies of numerous individuals in a corporation had given it great power as a business unit. The union of all such units in an industry could rid the industry of smaller and less efficient firms and could keep the gains of an increasingly efficient technology from being passed on to the consumer in the form of lower prices. This required control of numerous corporations as operating units rather than as financial devices. External control thus refers to those devices and means designed to eliminate competition and to secure a more or less monopolistic position in an industry.

a. FORMS: The attempts of producers to control the market began on a large scale with the rise of modern power technology and the spread of the corporation as the dominant form of business organization in those fields. The struggle for a monopolistic position conflicted with the laissez-faire ideology and produced a definite reaction on the part of the government in the so-called anti-trust laws, which had as their primary objective the maintenance of competitive conditions in each and every industry except those not amenable to such automatic devices. The public utilities, as we have seen, were removed from the field of competitive regulation and placed under the control of government commissions. Here the social benefits of the concentration of control first became apparent. The policy of government was that of regulating rates to afford a fair return on the vast investments of capital. A fair rate was that

which competition would normally establish and which would induce investors to supply the new capital necessary for the expansion of industries as public demand increased. However, utilities constituted but a small part of the vast field of corporate activity. In those spheres where competition was supposed automatically to control business in the interests of society, the attempts of large corporations to gain monopoly control took many forms. Usually, each new device evolved from the efforts of business to circumvent the antitrust laws and other efforts of government to force competition into business.

One of the earliest forms was the *gentleman's agreement.* A gentleman's agreement is simply an informal understanding reached by and affecting two or more competing business units. It generally results in some modification of the competition that previously existed. Such agreements were usually secret and never had any legal standing in the courts. When they were broken, as frequently happened, the injured parties had no recourse except a return to the competitive practices the agreement had aimed to remove. This lack of legal effectiveness led to experimentation with other forms.

Pools were designed to bring about a greater unification of interests. The purpose of a pool was to restrict or modify competition in some important feature. For example, the whisky pool restricted the amount that any plant might produce. Some pools consisted in apportioning a specific share of the total territory to each of the plants, thus eliminating competition in each region. Ordinarily a pool did not involve the placing of all profits in one common fund from which all firms would draw a predetermined share. The first and most common type dealt with the market, where output, price, and territory were divided among members. A second type (which is still used) was known as the patent pool. Here basic patents were made the common property of a few corporations. Without access to these, competitors could not survive.

The next device was the *trust.* In the historical sense a trust was an arrangement whereby the stockholders of competing corporations assigned their stock to a group of men who acted as trustees and who had complete power to vote the stock as they might see fit. Trust certificates were issued by the trustees to the stockholders in return for the stock which they had assigned. Earnings from all the various units were usually put into a common fund and dividends were paid upon the trust certificates irrespective of the profits or losses made by any particular unit. Since the trustees could vote the stock of each unit, they could and did elect the officers and control the policies of each underlying corporation. This device proved very effective in centralizing the control in the hands of a small group. However, unfavorable court decisions such as that against the Sugar Trust[1] made the scheme practically useless almost as soon as it had been devised.

The transformation of a trust into a *holding company* was an easy step. A corporation was set up with the former "trustees" acting as its board of directors. The trust certificates were replaced by shares of stock in the new corporation, which in turn owned or "held" the stock of the originally competing plants or firms. Since it was legal for a corporation to own stock in other corporations, the holding company appeared to be safe from attack on this ground. It was, however, still possible to attack large business, irrespective of its type of organization, as a monopoly in restraint of trade and in violation of the anti-trust legislation.

A commanding position in an industry was often attained by *consolidation,* which consisted of the union of two or more units. This form of industrial concentration gained considerable favor in the early decades of the twentieth century. The acquisition of one corporation by another through purchase was known as merger rather than consolidation, but produced substantially similar results. Mergers

[1] *State of New York v. North River Sugar Refining Company.*

and consolidations have been the means by which some of the largest American corporations came into existence.

Sometimes effective control of price was attained without legal devices. Certain leaders of finance and business came to occupy positions on the boards of numerous corporations. In such positions they were usually able to establish price policies that were mutually profitable to all the companies under their influence. Each and every new directorship gave an individual additional influence, and the more influential he became the more his services were demanded by other competing corporations. Thus the system grew, and some individuals came to have so many connections that they sometimes found it difficult to keep their interests from conflicting in specific cases. Their function was not the detailed direction of the businesses of which they were "directors" but rather the establishment of policies whereby the control of prices and the maintenance of profitable conditions might be assured.

b. CAUSES: Concentration of corporate power in an industry is the inevitable result of the increasing size and costs of machine technology. Costly power-machine methods can be used only where the volume of output is large. Technology affects concentration of control in industry in two ways. The efficiency of specialized power-machine methods over simpler handicraft production or even the less specialized machine-shop type can be translated into money profits only when a standardized product is produced in large amounts. Duplication of units is the essence of modern machine methods. But technology also involves constant change both in the design of the product and of the producing mechanism. These changes were the source of competitive advantages in the early days of machine production. Today they are a constant threat to the position of the dominant corporations in an industry. Concentration of power thus becomes doubly necessary: first, as a control of the market so that large steady output can be assured over a considerable period of time, and secondly, as

a control of technological changes so that improvements are orderly and accrue to the profit of those who dominate the field.

Technology is the primary cause for the giant industrial corporation, but it is not the only cause for concentration. There are at least three other important incentives for such control. Each individual corporation is interested primarily in making profits and in securing an established and stable position for itself. Competitors, whose operations continually introduce an element of uncertainty into the business situation, are the principal obstacles preventing the achievement of these goals. Their elimination, therefore, bulks large as a major incentive in the corporate sphere of the industrial struggle. The elimination of competitors also means an immediate expansion of the market for the products of the remaining producer. The most immediate as well as the most obvious reason for elimination of competition is that monopoly confers the power to fix prices at the most profitable level and keep them there. This power is, of course, restrained somewhat by the actual or anticipated regulatory power of the government and by fear of substitution and potential competition.

The most widely publicized reason for industrial concentration was the prospective increase in operating efficiency which was to accompany the combination of independent plants into the larger units of industrial bureaucracy. Although in many cases these economies and technical gains have been real, they have often been exaggerated. And even when the technical gains and financial economies have been large, they have usually been passed on to the stockholder in the form of dividends and not to the consumer in the form of reduced prices. The increased industrial and business efficiency resulting from the combination of industrial plants and the concentration of business control may take numerous forms.

From the standpoint of industrial efficiency, combination permits integration of an industrial process, use of the

more efficient plants during periods of less than full capacity production, and the installation of the most advanced technology without jeopardizing investment in older types. From the standpoint of business efficiency, concentration of control does much to eliminate the enormous wastes of distribution caused by numerous duplications in management, sales forces, and advertising. Certainly larger industrial units have the potential efficiency for a vastly greater output of better goods.

The third major cause for corporate combinations is the huge profits often accruing to promoters when mergers are made.[1] Many combinations are carried through largely, if not solely, by the incentives of the promoters who expect to receive handsome "fees" for their promotional activities. These fees are frequently in the form of stock in the newly formed combination. When the United States Steel Corporation was organized in 1901 to acquire control of some twenty steel producing and fabricating corporations, the investment bankers, who thus brought the industry under business-like management, received promoter's profits of $62,000,000. These were mostly in the form of common stock and enabled the bankers to acquire an important directing power in the stabilized steel industry. In many instances the promoters, having but little faith in their own creations, quickly dispose of their stock to the unsuspecting public who are thus left "holding the bag" when the inflated security values collapse. In the case of the United States Steel Corporation the new giant prospered even beyond the expectations of its promoters. By its ability to fix and maintain basic steel prices the corporation was able to earn a consistent profit on its huge capitalization. Of course, the real gains resulting from an integrated industry employing an increasingly efficient technology played no small part in its success.

[1] *Cf.* JONES, ELIOT, *The Trust Problem in the United States*, 1921, Macmillan, especially Ch. 9 for a detailed account of the forces promoting the formation of giant corporations.

Minor factors promoting concentration of corporate controls are personal and political power. In the higher brackets of income and wealth distribution, the desire for power is probably fully as effective as an incentive to economic activity as the gain spirit. It is axiomatic that the greater the industrial concentration and the larger the business unit, the greater the centralization of power in the hands of the few. The corporate structure, especially when pyramided through holding companies, has made possible a degree of concentration that would have been regarded as fantastic a few decades ago. At the present time more than two-thirds of our total national wealth is owned and controlled by corporations, the direction of whose affairs is largely in the hands of a fairly small group of men. The exact size and personnel of this group are difficult to determine precisely. However, such an eminent public figure as James W. Gerard was willing in August, 1930, to name in writing sixty-four men who he believed controlled the economic destinies of the United States.[1] Perhaps the group may be somewhat larger, but no one can deny that the desire for greater personal power has been one of the major incentives impelling the so-called captains of American industry to effect an ever-greater concentration in the business structure which controls the operation of the productive process. Furthermore, the large organization is better able to bring political pressure to bear upon public officials or through lobbying upon the members of the national Congress and state legislatures. This fact has operated as a significant by-product, if not as a major incentive, to concentration. The effectiveness with which many business groups have operated in the political sphere has now been exposed by a long series of Senate investigations and needs no comment here.

c. TYPES: Corporate concentrations tend to evolve along three more or less distinct lines: horizontal, vertical, and

[1] LAIDLER, HARRY W., *Concentration of Control in American Industry*, 1931, Crowell, pp. 3, 77.

diagonal. If each industry such as rubber, glass, paint, coal, and iron be likened to a stratum of rock in the earth's surface, the purpose of each can be readily appreciated. *Horizontal* combinations consist in unifying the control over a number of plants all of which are producing the same product. The purpose is to secure monopoly control of the supply and price. Sugar refining, retail sales, and glass production all afford examples. *Vertical* combination or integration consists of bringing under unified control various successive stages in the production of a commodity. By this method the cost of production can be decreased and the profits on production materials, which would otherwise go into the coffers of independent firms, can be secured by the integrated concern. Only so much of each stratum is brought under control as is essential to the production of a manufactured commodity such as an automobile. Ford Motor Company is a typical example. *Diagonal* (lateral) combination is a mixture of the horizontal and vertical types in which the combination is composed of plants producing the same goods, plus plants producing the materials used by these plants. The diagonal organization sometimes includes factories concerned with the fabrication of by-products or engaged in the production of remotely related products or services. The purpose of such arrangements is to secure monopoly, to increase profits, to cut costs, to assure the completion of the major product, in short to ensure the most effective organization of the projects. General Motors is one of the best examples.

All these have as the organizing principle the creation of a protected position for one or a few major corporations. The lines along which any given combination movement proceeds are dictated in part by industrial and in part by business or financial considerations. Always stabilized price and profits are the immediate goal for the aggressive corporations.

Evaluation of the Corporation

The corporation is perhaps the most dynamic institution in modern capitalism. Certainly it is in the emergent stage where an institution has its greatest effect upon the other parts of a cultural pattern. All other institutions have felt the effects of its rapidly spreading structure and process. Of those in the economic sphere, property, the price system, and technology have been most directly and drastically affected. It is even possible that the corporation will become the nucleus around which a new cultural pattern may be organized. As a guiding philosophy, the corporation is a cross between the old individualism and the newer collectivism. Within the corporation all the various groups of people—investors, managers, and workers—direct their energies and property to the creation of an efficient and profitable organization, but toward the rest of society the resulting unit applies many of the older laissez-faire principles of maximizing the profit of the unit at any outsider's expense. This is, of course, not universally true. Perhaps it may be the trend rather than the typical situation. Certainly this was the condition pictured by a national figure when he characterized the corporation as a form of "private socialism."

The corporation has become increasingly an agency for the reorganization of economic life at all levels. The round of life called the "American way" is certainly a product of its influence. The widespread use of electric devices and automobiles, around which the American standard of living is built and by which it is so readily distinguished from that of other nations, is a result of its powers to produce a large volume of commodities and to bring them within the reach of millions of consumers. But the wide disparity in income levels which finds such close expression in New York's Park Avenue and the East Side are also largely of its making. While millions have shared in the products corporate industrialism has made possible, millions have been reduced to comparative poverty by the unemployment of a corporate-controlled technology, and a few have risen to social and economic power undreamed of in other countries.

The corporation has created the basis for a new civilization but it has also created one of the most baffling social problems of all time. Under its guidance, technology has

advanced to levels where the good life for all is a genuine possibility. But also under its guidance the powers of technology have been largely controlled in the interests of maintaining pecuniary values. Competition has ceased to be an effective social control of the new business. Whether society can control the corporation or will be controlled by it is perhaps the major economic problem of the world today.

BIBLIOGRAPHY

ARNOLD, THURMAN, *The Folklore of Capitalism*, 1937, Yale University Press.
Ch. 8. The Personification of the Corporation, pp. 185–206.
Ch. 9. Effects of Anti-trust Laws on Combinations, pp. 207–229.
Ch. 10. Ritual of Corporate Reorganization, pp. 230–262.
An able analysis of the conflict between the legal and dynamic aspects of modern corporations; a study of the economic forces underlying the development of an institution and the social (legal) attempts to fit the new organization into outmoded but widely held beliefs.

BAUER, JOHN, "Accounting," *Ency. of Social Sciences*, I, 404–412.
Origin and development of modern accounting; theory, practices, and limitations of methods in use today. Excellent background material for corporate controls.

BERLE, ADOLF A., JR., and GARDINER C. MEANS, *The Modern Corporation and Private Property*, 1932, Macmillan.
One of the ablest studies of the changes in the structure and function of property rights caused by the rise and development of the corporation.

BERLE, ADOLF A., JR., and GARDINER C. MEANS, "Corporations and the Public Investor," *American Economic Review*, March, 1930 (Vol. XX), pp. 54–71.
Study of the corporation as a new agency of property control with little or no regulation by those who supply the capital or who are dependent upon such organization.

BERLE, ADOLF A., JR., and GARDINER C. MEANS, "Corporation," *Ency. of Social Sciences*, IV, 414–423.
An excellent survey of the rise, expansion, functions, operation, and social effects of the corporation as an institution.

BERNHEIM, ALFRED L. (Ed.), *Big Business: Its Growth and Its Place*, 1937, Twentieth Century Fund.
A small but thoroughly scholarly volume on the concentration of economic power resulting from the rise of modern corporate control devices.

BONBRIGHT, JAMES C., and GARDINER C. MEANS, *The Holding Company*, 1932, McGraw-Hill.
Ch. 1. Significance of the Holding Company, pp. 1–20.
Ch. 3. Early History of the Holding Company in America, pp. 55–65.
These two chapters are the most general and directly related to the institutional aspects. The remainder of the book is devoted to a detailed study of the organization, operation, and social and political significance of the holding company, especially in public utilities and railroads.

BONBRIGHT, JAMES C., and GARDINER C. MEANS, "Holding Companies: United States," *Ency. of Social Sciences*, VII, 403–409.
The standard treatment of the subject. Excellent evaluation of chief forms.

BONBRIGHT, JAMES C., et al., "Field and Functions of the Holding Company," *Annals*, American Academy of Political and Social Science, January, 1932 (Vol. 159), pp. 1–22.
A symposium by J. C. Bonbright, W. H. Hodge, and John T. Flynn.

BUCHANAN, NORMAN S., *Economics of Corporate Enterprise*, 1940, Holt.
Ch. 3. Nature of the Corporation, pp. 36–71.
Ch. 15. Unresolved Problems of Corporate Enterprise, pp. 443–462.
These two chapters give excellent background material on the rise and consequences of the corporation as an economic institution. The rest of the book is concerned primarily with the technical aspects of the corporation as a legal and business entity.

BURNS, ARTHUR R., *The Decline of Competition*, 1936, McGraw-Hill.
Ch. 1. Competition in Transition, pp. 1–42.
A scholarly study of the forces promoting the rise of corporate controls in modern capitalism. Balance of book devoted to detailed study of forces and forms modifying competition as a regulatory device in modern capitalism. Not recommended to the elementary student, but one of the best references for the advanced student.

CHILD, MARQUIS W., "Samuel Insull—His Rise and Fall," *New Republic*, Sept. 21, 1932 (Vol. LXXII), pp. 142*f.*; Sept. 28, 1932, pp. 170*f.*; and Oct. 5, 1932, pp. 201*f.*
A popular and generally accurate study of the rise, power, and collapse of Insull's utility empire of holding companies.

CLARK, JOHN MAURICE, *Social Control of Business*, 1926, University of Chicago Press.
Ch. 17. The Corporate Background of Regulation, pp. 291–297.
Ch. 27. The Problem of Trusts, pp. 427–448.

COREY, LEWIS, "Who Gains by Speculation?" *New Republic*, Apr. 7, 1929 (Vol. LVIII), pp. 247–249.
The relation of changes in the size and distribution of corporate wealth to the growth of speculation in corporate securities; types of speculators and promoting forces; the relation of speculation to general economic prosperity.

CROSS, MAURICE C., *Types of Business Enterprise*, 1928, Prentice-Hall.
Ch. 23. Changing Attitude toward "Big Business," pp. 319–332.
A good example of the attitudes produced by the halcyon twenties. Neither the motives for combination nor the diffusion of corporate ownership had any real significance in changing the character of the corporation.

DANIELIAN, N. R., "From Insull to Injury," *Atlantic Monthly*, April, 1935 (Vol. 151, No. 4), pp. 497–508.
The role of Insull as a corporate promoter.

DENNISON, H. S., and J. K. GALBRAITH, *Modern Competition and Business Policy*, 1938, Oxford University Press.
A critical analysis of the role of the corporation in modern economy.

DEWING, ARTHUR S., "Corporation Finance," *Ency. of Social Sciences*, IV, 423–430.

An excellent summary of the financial aspects of corporate organization expansion, control, and consolidation.

FETTER, FRANK A., "Capital," *Ency. of Social Sciences*, III, 187–190.

An excellent survey of the changing use and content of the concept in economic theory and practice.

FLYNN, JOHN T., *Security Speculation*, 1934, Harcourt Brace.

One of the best evaluations of the operation and social effects of the stock market. An excellent analysis of the corporation as a financial entity.

FRIEDRICH, ANTON A., "Stock and Stock Ownership," *Ency. of Social Sciences*, XIV, 403–407.

Types of stock, rights of stockholders, social and economic effects of widespread ownership.

GILBERT, MORT, and E. A. GILBERT, *Life Insurance*, 1938, Modern Age Books.

Ch. 2. Pipelines to Industry, pp. 12–39.

The control of insurance companies by investment bankers, as brought out by recent Senatorial investigations. Sketchy but based upon good sources.

GLAESER, M. G., "Capitalization," *Ency. of Social Sciences*, III, 208–211.

Nature and uses in the capital structure of corporations; the process of arriving at market value of income-yielding rights on the basis of return; public regulation to prevent unsocial uses and consequences.

HANEY, LEWIS H., *Business Organization and Combination*, 3d ed., 1934, Macmillan.

Chs. 5 and 7. Evolution of the Corporation, pp. 73–128.

A good, but not well organized, treatment of the factors affecting the rise of joint-stock companies and corporations. Also outlines the legal structure of a modern corporation.

Ch. 15. Holding Company Organization, pp. 248–279.

Rise of early form, examples, advantages from business standpoint, some social results. Elementary reading.

HARDY, CHARLES O., "Speculation," *Ency. of Social Sciences*, XIV, 288–293.

Nature, methods, social and economic effects, regulation of speculation.

HUNT, B. C., *The Development of the Business Corporation in England*, 1800–1867, 1936, Harvard University Press.

JONES, ELIOT, *The Trust Problem in the United States*, 1921, Macmillan.

Ch. 4. The Modern Trust Movement, pp. 27–45.

Ch. 12. Promoter's Profits in Establishment of Trusts, pp. 283–299.

Ch. 19. Economies of Trust Form of Organization, pp. 499–541.

These chapters discuss the broad general aspects of the combination movement. This scholarly and very readable book contains specific descriptions of the organization and operation of five giant corporations which still play a dominant role in modern industrialism.

LAIDLER, H. W., *Concentration of Control in American Industry*, 1931, Crowell.
Ch. 1. Development of Big Business, pp. 3–11.
Ch. 23. Interpreting the Trend, pp. 434–465.
Rise of corporation as control device and evaluation of its effects.

LIVERMORE, SHAW, *Early American Land Companies: Their Influence on Corporate Development*, 1939, The Commonwealth Fund.
Ch. 2. Precedent Forms of Association, pp. 9–36.
An excellent survey view of the influence of guilds, boroughs, and charters upon the rise of important features in the modern business corporation. Well annotated.

LYON, HASTINGS, *Corporations and Their Financing*, 1938, Heath.
Chs. 1 and 2. What Is a Corporation? pp. 3–36.
A good elementary treatment of the legal origins and aspects of the corporation.

MACNEAL, KENNETH, "What's Wrong with Accounting," *The Nation*, Oct. 7, 1939 (Vol. 149), pp. 370–372, and Oct. 14, 1939, pp. 409–412.
Origins, development, and limitations of modern accounting practices from a social and economic point of view. Deals particularly with inadequacy of modern accounting practices to determine the economic worth of corporate assets.

MARSHALL, LEON C., *Production in the Modern Order*, 1929, University of Chicago Press.
Ch. 7. Part B. Sec. 5. The Corporation as an Instrument of Concentration, pp. 894–901.
Excerpts from authoritative works. Treats chief corporation devices for control.

MCCONNELL, DONALD, et al., *Economic Behavior*, 1939, Houghton Mifflin.
Sec. 4. Business Organization, pp. 158–249.
Corporation compared with other types of business organization, extent and power of the corporation, types of corporate securities, concentration of control.

NADLER, MARCUS, "Stock Exchange," *Ency. of Social Sciences*, XIV, 397–402.
Types, organization, government regulation, operation, technical processes and terms; services to investors and industry; and social evaluation.

O'LEARY, PAUL M., *Corporate Enterprise in Modern Economic Life*, 1933, Harper.
An elementary but competent study of the modern corporation as it affects the economic interests of managers, bankers, workers, and investors. Recommended for beginning students.

REIS, BERNARD J., *False Security*, 1938, Dodge.
Ch. 2. A Glance at the Control of Corporations, pp. 7–23.
An interesting treatment of the rise and consequences of widespread corporate ownership in the United States. This book is written in a

popular vein and is somewhat sketchy and poorly organized but offers the point of view developed by many competent persons during the early years of the depression. Every chapter is supported by references at the end of the book.

RIPLEY, WILLIAM Z., *Main Street and Wall Street*, 1927, Little, Brown.
A well-written and easily understood treatment of the effects of corporate finance and manipulation in the United States during the roaring twenties, by an authority in the field. No bibliography.

SIMPSON, KEMPER, "Goodwill," *Ency. of Social Sciences*, VI, 698–702.
The place of differential advantages in the valuation of corporate assets, especially in mergers and combinations.

SLICHTER, SUMNER H., *Modern Economic Society*, 1928, Holt.
Ch. 7. Large Business Units, pp. 122–147.
Prevalence, advantages, limitations on size, relation to small units, influence of fixed costs, problems of management, control powers, relation to the state. A scholarly treatment for the more advanced student.
Ch. 8. Modern Business Organization, pp. 148–175.
The modern corporation: a device for raising capital, incident of ownership, concentration of economic power, control by insiders, diffusion of ownership and its effects on property rights. The trade association as a control device. Excellent but somewhat advanced treatment.

THORP, WILLARD L. (Ed.), *Economic Problems in a Changing World*, 1939, Farrar & Rinehart.
Chs. 25, 26, 27. Some Capital Problems (F. C. James), pp. 583–637.
A general treatment of the nature and uses of capital in modern corporate capitalism. Consideration of problems produced by savings, investment, and liquidity in modern capitalism.

TUGWELL, REXFORD G., et al., *American Economic Life*, 3d ed., 1930, Harcourt Brace.
Ch. 15. Business Organization and Ownership, pp. 305–325.
Excellent elementary analysis and evaluation of the corporation as a type of business organization.
Ch. 16. The Technique of Corporate Production, pp. 326–342.
Description of the corporation as a device for applying modern technology.

VEBLEN, THORSTEIN, *Absentee Ownership*, 1923, Huebsch.
Ch. 5. The Rise of the Corporation, pp. 82–100.
A critical study of the rise of the modern corporation as a business instrument rather than as an industrial organization. By one of the first and ablest critics of modern capitalism.

VEBLEN, THORSTEIN, *The Theory of Business Enterprise*, 1904, Scribner.
Ch. 6. Modern Business Capital, pp. 133–176.
An excellent treatment of the changes in the meaning, content, and social significance of capital resulting from the rise of the corporation.

WARE, CAROLINE F., and GARDINER C. MEANS, *Modern Economy in Action*, 1936, Harcourt Brace.

Ch. 2. The New Economy, pp. 11–55.

An able but elementary analysis of the rise of the corporation as a business device to control the productivity of the new industrial technology. Recommended for advanced as well as beginning students.

WATKINS, MYRON W., "Promotion," *Ency. of Social Sciences*, XII, 518–521.

A survey of the conditions giving use to promotion and of the forms and functions in modern corporate capitalism.

WIEDENFELD, KURT, "Industrial Combinations," *Ency. of Social Sciences*, III, 664–674.

Types of industrial combinations (trusts, cartels, etc.); economic and technical factors promoting combines; structure, purposes, and operation of unified productive organizations. Good general discussion.

Part VI · *The Institution of Consumption*

The institution of consumption embraces that sphere of economic activity in which individuals and families acquire and use goods and services for the satisfaction of their socially conditioned wants. Like that of all other economic institutions, the basis of consumption lies in the broader cultural context. It is difficult if not impossible to separate those patterns of thought and action composing this institution from the larger social process. Furthermore, such separation, if possible, would be unrealistic. Man's efforts to satisfy his wants are conditioned by the thought patterns and attitudes embracing many other spheres of economic activity. His power to command the goods and services offered in the market is influenced both by his money income and by the environment in which he acquires that income. Much of what he consumes contributes more to the realization of his ambitions as a money-maker than to the satisfaction of basic physical needs or wants. Much of his activity as a consumer is motivated by his desire to acquire rank in a price-minded society. Even his basic physical wants are so conditioned by cultural forces such as advertising that he demands a definite variety of food, clothing, and housing. Finally, the pattern of consumption has been greatly influenced by formal social controls. The control of production in the interests of consumers is still very weak as compared with that exercised over consumers by producers, but, nevertheless, it is steadily expanding. Legislation and education are becoming important aspects of the institution that seems destined to play a dominant role in cultural change.

Chapter 20

The Nature and Development of Consumption

The institution of consumption consists of all those social arrangements that condition the acquisition and use of goods and services in the satisfaction of human wants. Human wants, of course, arise from a maladjustment of man and his environment. Many basic wants arise from the physiological processes and take such forms as hunger, cold, and fatigue. The means of satisfying such wants are usually referred to as food, clothing, and shelter. The great majority of wants experienced by the modern city dweller are for things and services not essential to mere physical existence but more or less essential to living in a certain pattern of human and physical relationships. Even the basic want produced by hunger is not satisfied by food alone. Rather the individual hungers for certain specific types of food, served in an approved manner, and at a definite time and place. The basic physiological feeling of hunger finds expression as a more or less definite pattern. The office clerk wants not merely food when he is hungry but rather certain definite quantities of meat, vegetables, pastries, and beverages served at certain temperatures on conventional dishes, amid a definite variety of implements and utensils, and in an appropriate place. How thoroughly his hunger is satisfied and what joy he experiences in its satisfaction depend upon how nearly the combination of

food, service, place, and fellow eaters complies with his highly conditioned idea of lunch in a city restaurant. All this is merely an example of what everyone is so thoroughly familiar with as to overlook the significance of, namely, that human wants and the efforts to satisfy them are conditioned by existing patterns of behavior.

A. MEANING

Consumption can most readily be distinguished from production by the way goods and services are used. Consumption refers to the use of goods for the direct and immediate satisfaction of wants. "The consumer," says Stuart Chase, "is the person who finally eats, wears, lives in, or uses up the things which industry and agriculture have made or grown for him."[1] Of course, everything is being used in the sense that it is employed by someone for some purpose. Sometimes economists use the terms "intermediate" or "productive" consumption to denote the uses of goods by non-consumers. Industries are users of raw and semi-finished materials. Many forms of wealth never pass beyond this stage in a recognizable form. Coal used to fire the boilers in a chair factory is consumed in the generation of steam pressure which in turn is consumed in driving the machines used in fabricating chairs from lumber. Similarly, the rails over which passes the train hauling the finished chairs from factory to store are consumed in the process of transportation. A small portion of coal, rails, freight cars, delivery trucks, and a host of other things used in the production and distribution of goods become a part of the chairs which the ultimate consumer finally enjoys in the process of "wearing out." All such "uses" are essential to the production of the goods that are ultimately employed in the satisfaction of human wants. Only when goods are used for the direct and immediate satisfaction of wants are they in the process of being truly consumed. However, the

[1] CHASE, STUART, and F. J. SCHLINK, *Your Money's Worth*, 1927, Macmillan, p. 5.

institution of consumption embraces much more than the patterns of action involved in the use of goods for the immediate satisfaction of wants.

The institution embraces the activity involved in the acquisition of the goods and services which give satisfaction. Acquisition in its simplest form means the expression of choice. As we shall presently see, unless a person or family is free to choose they cannot participate in the institution of consumption. The mere use of goods to satisfy basic needs does not necessarily imply the existence of an institution. When choice consists of either taking what someone offers or doing without, it is a philosophical concept rather than a psychological reality. Food, clothing, and shelter used by slaves under the dictates of a master interested only in maximizing their physical energy are not consumed in the sense of satisfying wants. Under such conditions the slaves do not even have the freedom necessary to choice in the philosophical sense; to do without food would mean danger of starvation and forced feeding to protect the master's property. Some freedom of choice is essential to the use of goods for the satisfaction of wants. The sustenance of a slave renders no satisfaction in the economic sense since it is not chosen but merely supplied.

Of course, one may be a consumer and receive little beyond basic needs. The productive efficiency of a person may be so low that his efforts result in nothing beyond mere essentials of physical existence. Yet he is a consumer in the elementary sense that he chooses the form of effort and has some control over the resulting goods. Indeed, the very act of producing the goods may constitute a part of the income of such a person. He may choose ways of production which in themselves yield direct and immediate satisfaction. In a very simple economy where each family is largely self-sufficient, as was true in frontier America, production and consumption were not entirely separated. Work and enjoyment were intermingled. Often when mental or physical effort is undertaken for the pleasure derived

directly from the doing we refer to it as play or sport. These, of course, are consumer activities. Only when effort is expended solely or chiefly in order to attain directly or through exchange some tangible result or product can the effort be properly termed "work." Most modern effort, in the absence of institutionalized slavery, partakes of the characteristics of both work and recreation. To the extent that the doer is more conscious of the ultimate result or product than of the satisfaction involved in the action, we refer to his effort as productive work.

In a simple agricultural economy the distinction is not important. But as people become involved in a specialized and interdependent society the difference attains social significance. Specialization reduces self-sufficiency and makes the individual dependent upon many other specialists for the satisfaction of his wants. No longer can the individual consider any usable product the expression of his personality. Indeed, he quickly loses the joy and satisfaction derived from seeing a useful product take form under his hands. The increasing complexity compels the postponement of satisfaction until the pleasures of consumption come to be sharply distinguished from the pains of production. This current condition accounts for the separation of the daily round of life into irksome work and pleasurable consumption. But such a condition is relatively modern. The patterns of behavior associated with the acquisition and use of wealth have not always been distinct from those involved in its creation. The separation of the normal daily activities of most people into two broad spheres occurred only after many basic social patterns had been developed in cultural evolution.

B. ORIGIN AND DEVELOPMENT

The origins of the institution of consumption are inseparable from those of the cultural pattern in which it functions. The patterns of behavior associated with the use of goods in the satisfaction of wants are conditioned by the

other patterns of thought and action which characterize a culture. Of course, consumption had existed in an institutionalized form long before the advent of the culture called capitalism, but it has undergone great changes in structure and scope as culture has evolved through one pattern after another. From the standpoint of understanding its present form, the origins of certain features are important.

The first, and fundamental, characteristic of the modern institution is the consumer's opportunity to choose among a host of goods and services. Consumption in the modern sense could not exist until society was able to produce an economic surplus. This made possible the variety of goods and services essential to choice. Even when an economic surplus did arise, choice was possible for a very few people. In the Temple-town civilizations, which appeared as the result of the earliest surplus, choice was a reality only for the ruling classes and in a very limited sense for the small class of freemen who produced and bartered handicraft products. The vast majority of the people living under this cultural pattern were slaves who consumed only in the productive sense. The second feature of the modern institution is that it is concerned only with wealth used in the satisfaction of wants and not employed for the production of more wealth. This, of course, characterized the use of goods by the exploiting classes of both Temple-towns and feudalism. Perhaps never since has such a sharp separation occurred between those who produced and those who consumed as in these class-stratified cultures. But a third, and perhaps more important, feature of the modern institution is that while a definite distinction is made between the activities giving rise to the creation of wealth and those yielding enjoyment from its use, both types of activities are carried on by practically all people. This is the result of the rise of groups in which free men formed the majority element. As long as slavery was the lot of the masses, specialization was limited. The efforts of specialized slaves were coordinated by masters. Furthermore, such

specialization did not mean interdependency of individuals but only of classes. The rulers, who consumed without producing, depended upon their slaves. These in turn depended upon their masters for subsistence and produced without consuming, in the modern sense. But, when free men specialized, methods of converting a single product or service into the numerous goods essential to normal life and of coordinating specialized efforts and relating them to the wants of consumers became necessary. Specialization came to mean interdependence of individuals. The market was essential to a society in which specialists were free to choose among the products produced by the coordinated efforts of many other specialists.

The core of this situation arose in the towns of feudalism, especially those chartered towns that have been so aptly described as "isles of freedom in a sea of serfdom." Craftsmen and merchants dominated these towns, and their citizens enjoyed a marked degree of freedom of choice in a market supplied with the products of free specialists. Furthermore, the consumer played a dominant role in the feudal system of production. Most of the guild rules were passed in the interests of consumers. Although these rules protected the competent craftsman as a producer, they were vastly more important as means of assuring him the maximum amount of high-quality goods when he spent his income as a consumer. The interest of the consumer permeated the whole handicraft system. The pride of craftsmanship motivated the producer, and the relatively limited range of goods made him a competent judge of what he bought. Consumption in the guild system was not sharply disassociated from production. Man was the central factor in both production and consumption.

The Industrial Revolution laid the groundwork of the modern institution of consumption and gave it a new ideology. First came the machine, which eliminated skill as a conditioning factor in industry and removed the influence of individual differences in ability and intelligence.

Secondly, and almost simultaneously, the engine harnessed the limitless powers of nature and eliminated muscular fatigue as a factor in industry. These two forces inaugurated the trend that reduced man from the chief element in the production of goods and services to a mere ingredient in the process. Labor became a commodity to be bought and sold at market prices in the same way that coal, iron, or lumber were bought and sold. Likewise, man as the ultimate reason for production became obscured by a set of circumstances that persisted until producers became so habituated to them that they were unable and unwilling to admit the facts when they at last appeared self-evident.

As power machines were adapted to the production of one commodity after another in early nineteenth century England, the demand for goods increased at an unprecedented rate. Small groups of enterprising people in America, Africa, and Australia clamored for the products of the new technology as they sought to bring the seemingly inexhaustible resources of virgin continents under the domination of gain-motivated individuals. The relation between the efforts of those engaged in the exploitation of a continent or in the production of goods in the factories of industrial centers and the demand of these same people for the ultimate products of their efforts was obscured by the physical vastness and complexity of a market that changed more rapidly than the thought patterns of those influenced by its force.

The usual attempts of philosophers to reduce the complex pattern of a changing world to a generalized explanation (sometimes called theory) were not lacking. But the new pattern expanded so rapidly and spread over such vast areas that the ablest minds were unable to grasp its significant features. Under such circumstances it is not surprising that men generalized on an inadequate basis. Furthermore, the neatness of the Newtonian explanation of the forces of the physical world fascinated the minds of even the ablest thinkers and caused them to conclude

that all life was a part of a gigantic system that operated according to natural forces. The conclusions of Newton seemed to be confirmed by the early studies of the behavior of nature. Natural law came to be viewed as universal force, which set the limits of all human endeavor. In view of such cultural forces it is not surprising that the economic aspects of society came to be viewed as a special case in the larger natural order. The early economic philosophers, such as Jeremy Bentham, Adam Smith, Thomas Malthus, and David Ricardo tried to reduce economic behavior to principles that harmonized with the general intellectual atmosphere of the Europe of their day.

The broad principles of the philosophers found general acceptance by the dominant class of the day—the *bourgeoisie.* The business enterpriser, whose vision was limited to the narrow confines of a workaday world, found these principles not only in accord with his knowledge but, what was much more important, also conducive to the acquisition of personal gain. The factory owner-manager could see little or no connection between the prices he paid for labor and materials and the prices that he obtained for his product. His employees bought little or none of the product. The prices of all he bought and sold were apparently determined by forces he could not control. To buy cheap and sell dear was the simple formula of financial success. And, with the expanding array of goods made available by the new technology, the more money an individual acquired the greater abundance and variety of goods he could enjoy. This seemed so evident that all who came in contact with the bourgeois-controlled market regarded it as a fact. The philosophy of the bourgeoisie became the fourth feature of modern consumption. This is the gain spirit and its complementary materialistic concept of success.

The institution of today is colored throughout by this ideology. Each individual strives to maximize his personal share of purchasing powers by specializing in that for which he is best fitted by nature. The gain spirit finds

expression in the level of living, that is, the goods and services that income affords. Social status has come to be determined by the amount of goods and services one can command on the market, instead of status in a class hierarchy determining what goods and services the individual could command from those below him in rank. The modern institution of consumption is thus tied to production through the market and the price system. Today it is a social institution rather than a class institution. Machine technology has provided the institution with its most modern features. Since most claims on the fund of goods produced grow out of the application of extremely efficient methods of modifying the physical environment, they depend upon mass production. Large output requires widespread use or mass consumption. Technology not only makes consumption the basis of modern production but constantly threatens the differential gains upon which modern enterprise is built. But the institution of consumption retains many of the features acquired in earlier cultures and only haltingly adjusts to the stresses and strains of the new forces forever emerging in a dynamic society.

Consumption thus attained its modern form under the pressures of rising capitalism. Like all institutions in that cultural pattern, it is a product of all it has met and all it has been. In its present form it is a series of interrelated patterns governing the expression of choice in the market and the use of goods and services so acquired. Its structure finds support in the numerous surrounding institutions, and its process is a product of people who are often working at cross purposes but always in terms of its guiding ideology. Today consumption is primarily a matter of converting money incomes into goods and services and, secondarily, a matter of using the resulting wares in ways that conduce to the satisfaction of the wants which arise from the larger social process.

Chapter 21

Factors Conditioning Consumption

What, when, and how much a person consumes in our modern society depends upon many factors. Consumption is not a matter of simply selecting what one wants but rather an institutionalized form of behavior that is limited and controlled by numerous other institutions and forces impinging upon the individual. However, among the complex forces and institutions that compose the fabric of our culture, certain ones immediately surround consumption and condition its structure. The structure and functioning of the industrial system largely determine the variety, quality, and amount of goods and services available in the markets of capitalism. However, the share of this vast fund of goods and services ultimately enjoyed by any given consumer depends upon the amount of claims he receives. These claims grow out of the contributions made by the individual or his property in the process called production and most commonly take the form of money received as wages, interest, rent, profits, and taxes. The distribution of income determines the pattern of consumption in terms of purchasing power. Once in possession of money, the individual's claim on the actual goods produced depends upon the price structure, the behavior patterns of those whom he respects or emulates, his knowledge of market possibilities and technological qualities, and a host of minor but

not clearly discernible forces that compose the cultural pattern and social process.

A. THE INDUSTRIAL SYSTEM

The basic economic factor affecting consumption is production. Today under large-scale methods technology is the primary element in setting the potential limit of production. More particularly, the industrial system, which is the framework within which modern industrial technology operates, determines what can be produced and at what costs. However, while those activities comprising production actually determine the upper limit of goods and services available for the satisfaction of the wants of a given group, they have little to do with the patterns or levels of consumption within that group.

In a society where the technology is such that little more than the bare physical essentials of life are produced (as actually prevailed in the Neolithic villages of prehistoric Europe) the pattern of consumption is simple and wealth is evenly distributed, since, when all are near the level of subsistence, none can acquire more than an equitable share without having the fury of the group vented upon him. However, with the rise of an economic surplus the distribution of income can and actually did become very unequal. In fact, such inequality is the basis of economic classes—the institutional arrangement by which the higher level of consumption enjoyed by certain groups is condoned and supported by those born into less fortunate groups.

In our society the hereditary class structure has been largely destroyed, but still wealth and income are very inequitably distributed. Today the institution of property is the chief support of a wide range of income disparity. The result is that great increases in physical production may do little to raise the level of consumption for a large section of our industrialized populations. Instead it may merely increase the actual and relative amount of claims possessed by a small group. Still more important, a large

increase in the income of one group may vitally affect the whole pattern of the institutionalized forms of consumption in several important ways. First, it may actually divert a large measure of the energies of the whole group into the production of such goods and services as the swollen incomes of a satiated minority can command. This may decrease the output of more basic goods upon which the physical well-being of the lower group depends. Yachts and mansions are often created with human energy sorely needed for the production of essential clothes and food. Furthermore, in a society where social status is largely determined by conspicuous consumption, those in the lower income groups may choose gaudy rather than plain, durable goods merely to attain a higher rank in a price-stratified system. The higher the level of consumption attained by those with the largest incomes, the stronger will be the social pressures upon those below to advance their position by emulation. Industrial technology and competitive distribution, therefore, are only important as limiting factors of consumption in the academic or theoretical sense. Today the distribution of income is far more important in explaining the real limitations imposed upon the mass of consumers in the market. Industry is the machine which creates the actual goods and services available for consumption. Money payments, market prices, and social patterns determine the types and proportions of goods actually enjoyed by consumers.

B. DISTRIBUTION OF INCOME

In a gain-motivated pecuniary economy, money income is the most common factor determining the amount and kinds of goods consumed by individuals and families. The actual or real income of Americans consists of wealth produced during an interval of time—usually a year. The best available though not entirely satisfactory measure of this stream of new wealth, which moves in varying volume through a maze of changing channels, is market price

expressed in dollars. For some of the wealth produced no market price ever appears. Such wealth, often called "income in kind," can be valued only by imputation, that is, by comparing it with similar goods and services exchanged during the same period of time in the great value-determining agency of capitalism, the market. In terms of actual and imputed dollar values, let us examine the money incomes of Americans during depression and compare them with those received in the halcyon days of alleged prosperity.

1. Depression Income

The distribution of income among the people of the United States during a depression year was studied and analyzed by the National Resources Committee.[1] The year covered was the period from July, 1935, through June, 1936. However, for convenience in referring to this study and in comparing its findings with those of the Brookings Institution study for 1929, we shall use 1936 to designate the depression study.

The total income produced in the United States during 1936 had a market value of approximately 60 billion dollars. If this vast national income had been shared equally, each person would have received about $470. But such a division of wealth never has been and probably never should be made. As we have already noted, the claims upon the actual wealth represented by this vast sum of money are wages and property incomes. Much, in fact most, of our population consists of people who are either too young or too old to contribute their services or to exercise property claims in our society. In addition, great numbers of able adults have neither property nor the opportunity to contribute their services to production. Of the 128 million people who consumed the goods and services produced in the United States that year, only about 45 million received a money

[1] National Resources Committee, *Report on Consumer Income in the United States*, 1938, Government Printing Office.

income. What then determines the amount others receive? The chief factor determining this is the relation they bear to the actual recipients of money incomes.

The fundamental consumer unit in this as in all previous societies is the family. The individual, however, is rapidly coming to constitute an important unit in consumption. Today more than ever before there exists an increasing number of persons whose relation to wealth is through the market rather than through family. While these constitute less than 10 per cent of our total population, they assume greater significance when we realize that they account for nearly one-fourth of the total income receivers.

When we study the distribution of money income among the consumer units, we find that single persons fared best. The 116 million persons who received their share of income as members of the 29 million families received a total of 48 billion dollars, or about 80 per cent of all wealth produced. If this income had been distributed equally, each family would have received only $1,650, or a little over $400 for each of its four members. The 10 million consumers who lived as single individuals shared an income of about 11 billion dollars, or an average of $1,150 each. These fortunate few who have avoided the responsibilities of a family or the care of aged relatives enjoyed the largest average share of wealth. But, again, this is a statistical survey of possibilities rather than actualities. In 1936, an income of $970 was scarcely enough to maintain a family of four on a bare subsistence level, yet 40 per cent of all American families received less than that amount. Over half of all families failed to get the $1,250 required for plain maintenance. Nearly 90 per cent fell below the $2,500 necessary to a minimum standard of health and decency. Only 2 per cent of American families, those with incomes over $7,500, attained a comfort or higher level. Yet these fortunate few at the top received as much total income as those vast numbers in the larger families of the lowest two-fifths. When the 2 per cent of the families at the top

receive as much wealth as the 40 per cent at the bottom, consumption is a matter of grinding poverty for a very large number of the people in the richest country on earth.

This maldistribution of income helps to explain why so much of our industrial effort is concentrated in making frequent and often seemingly senseless style changes in automobiles, refrigerators, and other durable commodities purchased new by those families with income margins above necessities. The 11,600,000 families with incomes below $970 were able to purchase only 15 per cent of the products of American industry, while the same number of families with incomes between $970 and $2,050 were able to command more than twice as much (35 per cent) of the good things of life. But the 6 million families with incomes above $2,050 received more than half of all society produced. The 300,000 richest families with incomes over $10,000 received as much as the 10 million poorest families. No wonder so much productive effort is devoted to making the semi-luxury goods which all desire but which few ever obtain in new condition! Only those few with relatively large incomes can afford the heavy depreciation involved in the practice of regularly discarding outmoded but serviceable goods. By reserving genuine technical improvements until the time a conspicuous style change ushers in a new model, manufacturers are able to maintain the price of a host of durable goods. Instead of flooding the market with durable low-cost (and small-profit) goods having a long operating life, they restrict production to the more lucrative but limited group which can afford to suffer a forty or fifty per cent depreciation in market value in order to keep in the vanguard of style changes. The mass market is reserved for the flow of "trade-ins" which keep those in even the lowest income brackets scrambling to advance their possessions one more step in the hierarchy of styles. This is strikingly evident in the automobile field where the number of used cars that must be sold for each new one

steadily mounts. Almost every used-car buyer has an older model to trade in.

When the 29 million families are divided into ten groups of equal size, we find that the richest tenth, those with incomes over $2,800, received more than a third (36 per cent) of all income. This was about 18 times the amount received by the same number of families in the lowest tenth, those with incomes of less than $410. When the total national income is divided into ten equal parts we find that the richest 0.5 per cent of the families, those with incomes over $16,000, received as much income as the poorest 31 per cent at the bottom. Thus, 10 per cent of the national income supported 62 times as many families at the bottom as at the top. The 294,000 wealthiest families were able to set the pace in conspicuous consumption while over 9 million families limped along with incomes of less than $820 and received hardly an adequate amount of bare necessities.

When the incomes of single individuals are considered, a slightly different picture is presented. However, to compare the incomes of independent self-supporting individuals on the same basis as those of families is to place individuals on very much higher standards than families. The average family consists of four persons, and never can four live as cheaply as one, especially when two are youngsters requiring heavy outlays during the formative years. To compare the incomes of single individuals on the same basis or to include them is obviously unfair. What few studies have been made seem to indicate that individuals can attain about the same living standards as families on about half the income. On this basis, a few figures on individual incomes may be significant in determining the effects of money incomes on consumption. In 1936, the 10 million individual consumers enjoyed a slightly better distribution of purchasing power than families. At least a fourth of these individuals received less than the $500 required for bare subsistence; nearly one-third received less than the main-

tenance level of $625, and only three out of every ten obtained the $1,250 necessary for health and decency. Less than 3 per cent attained the $3,500 level of comfort. Like that for families, the most conspicuous feature of this distribution is its concentration in the higher intervals.

2. Prosperity Income

It might easily be supposed that the maldistribution of income pictured by these figures was a direct result of a prolonged economic depression and that under more "normal" conditions a better distribution prevailed. A study of the distribution of income among families and individuals was fortunately made by the Brookings Institution during the days when even the most profound believer in normalcy admitted that prosperity had reached a new high in American economic life. However, instead of a better distribution accompanying a larger national income we find that relative distribution remained substantially unchanged. We shall offer only such broad comparisons as will afford the reader an insight into the situation.

In 1929 the 122 million persons in the United States were grouped into consumer units consisting of about 27 million families, averaging four persons each, and 9 million unattached individuals. The total income realized by these consumer units amounted to 90 billion dollars, or 50 per cent more than the 60 billions received in 1936. These figures are not exactly comparable because of slightly different bases used in the two studies, but they can be compared with sufficient accuracy for our general purpose. Of the total 1929 consumer income, 77 billion dollars accrued to families and 16 billions to individuals. In 1936, families received 48 billions and individuals 11 billions. This meant that slightly fewer families received about 50 per cent more income. If the relative distribution of wealth remained substantially the same, an increase of 50 per cent in each income bracket would maintain the same relative percentage of families on each level in 1929 as in 1936. The

figures available do not permit us to do this exactly, but we can arbitrarily make income levels approximately 50 per cent higher in 1929 than in 1936.

TABLE 1. THE DISTRIBUTION OF INCOME, 1935–1936*

Income Level	*Families*	*Income*	*Percentage of*	
			Families	*Income*
$ 0–1,000	12,200,000	$ 7,400,000,000	41.7	15.6
1,000–1,750	9,100,000	12,000,000,000	30.9	25.2
1,750–3,500	6,500,000	14,900,000,000	21.8	31.0
3,500–7,500	1,100,000	5,300,000,000	4.0	11.2
7,500 and over	470,000	8,000,000,000	1.6	17.0
	29,370,000	$47,600,000,000	100.0	100.0

* Based upon National Resources Committee, *Report on Consumer Income in the United States*, 1938, U. S. Government Printing Office.

TABLE 2. THE DISTRIBUTION OF INCOME, 1929*

Income Level	*Families*	*Income*	*Percentage of*	
			Families	*Income*
$ 0–1,500	11,600,000	$10,100,000,000	42.4	13.0
1,500–2,500	8,000,000	15,300,000,000	28.7	20.0
2,500–5,000	5,600,000	19,300,000,000	20.6	25.0
5,000–10,000	1,600,000	10,800,000,000	6.0	14.0
10,000 and over	630,000	21,600,000,000	2.3	28.0
	27,430,000	$77,100,000,000	100.0	100.0

* Based upon Leven, et al., *America's Capacity to Consume*, 1934, Brookings Institution.

The number of families, aggregate income received, percentages of families, and percentage of total income accruing to those on each level are shown for 1936 in Table 1 and for 1929 in Table 2. A comparative study of these indicates that maldistribution of wealth is not a depression phenomenon but persists and even increases during so-called "prosperity." It is interesting to note that

while the actual amount of wealth shared by the families on each of the five income levels increased during prosperity, the amount received by those families on the three lower levels, constituting 90 per cent of all families, was proportionately less. That is, the amount of wealth received by these families decreased relatively while that received by those on the upper two levels increased relatively and positively. About 42 per cent of the families were in the lowest bracket both in prosperity and depression. If depression had any significant effect upon consumption as expressed in money income it was to reduce the actual and increase the relative amount of wealth shared by 90 per cent of the families. In prosperity the 4.3 per cent of families at the top received more of the national income than did the 71 per cent at the bottom, while in a recovery year 5.6 per cent at the top did not receive nearly as much as the 72 per cent at the bottom. In 1929 the richest 0.1 per cent of all families received practically as much income as the 42 per cent at the bottom. In 1936, the 1.6 per cent at the top, or sixteen times the number of 1929 wealthy families, shared about the same amount as the poorest 42 per cent. But depressions are no cure for the maldistribution of income. A slightly better distribution of a much smaller amount of goods and services is not a solution to the basic problem of consumption. Increased production as well as better distribution of income is essential to an improvement for those who depend upon capitalism for their income.

C. PRICE STRUCTURE

Money incomes represent the basic claim of most consumers upon the actual goods and services offered in the market. The real income of consumers depends upon the conversion of their money claims into want-satisfying goods and services. This involves the exercise of choice, which is the basic element of the institution. A consumer's choice conditions the amount and quality of goods that his

money income will buy. Of course, his choice is restricted by a host of conditioning factors. It is subject to such social pressures as advertising, customs, attitudes of his friends, and many other intangible but nevertheless important forces. Many of these appeal to his emotions and cause him to spend his money income in ways which he knows from experience will not yield the maximum satisfaction. But irrespective of the means by which he decides, he will find that the market presents certain broad forces that condition his real income. These are changes in the price level and in the price structure.

We have already examined the nature and meaning of the general price level and the effects of its changes upon the income receivers. Inflation and deflation are two of the broad social effects of changes in the value of money. To the consumer such changes are significant only to the extent that they affect the price structure in which he is forced to operate. The price structure refers to the pattern of prices. General price levels may remain fairly constant, but the relationship of individual prices may change in such a way as seriously to affect certain consumers. If the prices of clothes rose while those for rent or housing fell it is possible that the one might exactly counteract the other and the general price level would be unchanged. To the extent that a given consumer spent about the same proportion of his money income on clothes as on rent he would experience no significant change in his pattern of consumption. He would simply spend more on clothing and less on rent. But few actual consumers spend the same amount on these two items. In the case suggested the individual would probably dress much better since normally a larger part of one's income goes for rent than for clothes.

The price structure is a constantly changing pattern that has a far-reaching and serious effect upon the way consumers convert their money into goods and the way they use the goods in the satisfaction of wants. The price structure, as we have already said, is the pattern of prices. The

giant price crazy-quilt is composed of broad categories of prices and numerous specific prices. Changes in the general price level affect these component parts much as laundering affects the crazy-quilts of our grandparents. Besides removing dirt, washing causes the multitextured pieces of cloth to shrink and to change color. But all do not change equally. Some shrink much; others little or none at all. Some fade; some colors run into adjoining pieces and produce bizarre effects; still others come through with little change. Our price system is similarly affected in the laundering process called general price changes. Depression is one cleansing agent which plays havoc with the general price structure.

The widely differing rates of change in the various parts of the price structure produce the most serious effects upon the institution of consumption. Economists usually refer to this obvious feature as differences in the flexibility of prices. Such flexibility may vary from absolute rigidity to constant gyrations. Another way of viewing this phenomenon is in terms of the sensitivity of individual prices to general price changes. Some prices are so sensitive that they move immediately and almost directly with changes in the value of money. Others are so insensitive as to remain fixed irrespective of broad price movements. The core of the modern price structure is debt. Debts are contracts almost always expressed in dollars rather than in purchasing power. The legal dictum that the payment of a debt restores the two parties to their original economic status is based upon the unrealistic assumption that money units are true measures of value. In the early days, when economy was simple and highly localized, the underlying assumption was not only more nearly in accord with the facts, but the effects of bringing debts into line with prevailing prices by "writing down assets" and bankruptcy were also of relatively little economic significance. Today the proportion of all national wealth depending upon contract has grown to such an extent that any attempt to adjust

debts to prices would practically destroy the structure of capitalism itself. Bonds, mortgages, insurance reserves, and many other forms of obligations expressed in money have become the core around which the modern price structure is built.

The price structure has developed numerous other rigidities which are only slightly less fixed than debts. The ability of many modern industrialists to control output has given them power to maintain prices over long periods. The classic example is the price of steel rails, which changed only once in twenty years (1901–1921). Steel was one of the first industries to set up unified control of output. Today the number of such industries is legion. The result is that commodities not subject to such controls fluctuate so widely in prices that large sectors of the population are ruined by the deflationary effects of depression. Furthermore, practically every sector of our industrial life is striving to set up controls which will remove it from the disastrous effects of general price changes. Labor organization has recently grown to unprecedented proportions in its effort to control the supply of available labor and thus maintain wages. Even farming, the last large outpost of free enterprise, has been encouraged by government subsidies to restrict production and stabilize prices.

But the modern crazy-quilt is far from a state where its parts retain their relationship. Instead, the introduction of "sanforized pieces" in its pattern has served only to make the shrinkage of older pieces more pronounced. The patching of the quilt with stronger patches has only caused strains and stresses which threaten to tear the quilt asunder in the increasingly prolonged laundering of depression. The consumer finds himself the unhappy victim of patched and torn covers. He never knows where he will be next exposed to the chilly draft of changing prices.

The effects of changes in the general price structure upon the consumer's problem of acquiring the goods and services essential to the maintenance of his level of living have

become increasingly serious. Although the general price level fell during the depression, those parts composed of agricultural prices fell nearly 80 per cent while those composed of industrial prices fell less than 20 per cent. The rigid debt element and the relatively inflexible parts of the price structure, especially those conditioned by long-term payment contracts such as insurance premiums, interest on mortgages, and installments on durable goods, have become the core of the consumer problem. In their attempts to protect equities in durable goods and past savings in insurance policies, consumers have been forced completely to reorganize their patterns of spending and using. In early depressions consumers were not seriously affected by diminished money income since most of the goods they bought had flexible prices which diminished in somewhat similar proportions. Furthermore, they usually bought for cash and were free of the fixed money payments involved in modern installment buying. Finally, they seldom had such large parts of their "normal" incomes pledged to "lifetime" payments on mortgages and insurance policies. Today the effect of diminished income is quite different. The equities built up in homes, insurance reserves, automobiles, durable household goods, and other forms of wealth force consumers to carry the debt load at the expense of health, clothing, and food. The price structure has become a major factor in conditioning the behavior of the modern consumer. It not only dictates his pattern of expenditures but largely determines his employment and the amount of his money income itself.

The most serious social effects of the strains and stresses generated in the price structure by depression were felt by those consumers whose incomes were derived from goods sold in the flexible price sectors and whose expenditures consisted largely of payments on debts and other relatively fixed prices. This situation was most pronounced among the farmers. Staggering under huge mortgages incurred during the war boom in agricultural prices, farmers moved

through the roaring twenties with increased production but diminishing money income. Furthermore, prices for manufactured goods either rose or remained stationary in the twenties. In the depression, prices for farm products, which were in the most flexible sector, fell to unprecedented lows while mortgages and other farm debts remained fixed and the prices of farm equipment and manufactured goods essential to farmers declined but slightly. The position of these consumers can be more fully appreciated if we use index numbers. If we let 100 represent the relation between the prices received by farmers for their products and the prices they paid for the goods they purchased in 1919, we find that the buying power of farm income fell in 1929 to 89 and in 1932 to 48. Despite a steady increase in the amount of farm products, the money income of farmers fell from 12 billion dollars in 1929 to 5½ billion in 1932. Farm mortgages, on the other hand, rose from less than 30 per cent of the market value of farm lands in 1929 to nearly 50 per cent in 1932. The farmer was being ground between the upper and nether millstones of fixed debts and falling income. The vast majority of other consumers were similarly circumstanced.

The effects of depression and a changing price structure on large numbers of consumers are graphically illustrated by the case of a typical small farmer. A stock raiser in Missouri bought his little farm at $60 an acre in 1929. During the first year of his ownership he paid $400 on his mortgage, besides interest and taxes, and bought some stock. The next year he paid only interest and taxes and, with his city neighbors in distress, considered himself lucky to get a living for his family. After that, although he worked harder and handled more stock each year, he failed to meet expenses and his family suffered. His wife tried to look on the bright side of things and to keep up the spirit of her husband and their three boys. Finally, she too could see nothing ahead. She expressed herself in a letter to the Secretary of Agriculture in 1936.

I noticed a piece in the paper which stated that producers' prices had risen as fast as consumers'. It is not true here. The cheapest sack of flour we can buy is $1.75 and the better grades are $1.90 to $2.35. At the same time flour raised 'in price' we were getting six cents a dozen for eggs. They continued at that price for a number of weeks, only the last two or three weeks reaching fifteen cents. This time of year our eggs are scarce and a farmer does not have a check every Saturday evening, so it is a problem to know where the flour is to come from. Every crust must be eaten and no extra baking done for that sack must last a long time.

I have three boys. They went almost in rags until it got warm enough to go without shirts, as I patched until they would no longer hold the thread. I sold thirty roosters and fourteen hens to get school clothes. They brought $9.38. Now I studied and worried how to divide that out among three boys and felt I should have sent it to some of the economists and let them plan it out for me. Overalls had doubled in price, shirts had doubled, shoes had more than doubled and the chicken price remained at six and seven cents a pound, a mere nothing. So where I would gladly have relieved this merchant of six pairs of overalls, I must get only three, the cheapest they had, and then wash again on Saturday so they may be clean for school.

Ten thousand pounds of pork on the Kansas City market cleared $230. Can you imagine the long hours of hard work that represented? It is work sixteen to eighteen hours and it is not fair to our children. Do you know that farm people would sooner raise half what they do? We have been driven to double and even treble our products to see if we could keep even, but we can't. The papers say "Buy." I could spend $500 if I had it and not get one thing but what would be a necessity. My cook stove is worn out until it is a misery to get a meal on it, oil stove beyond use, table cloths worn out, bedding threadbare, cooking utensils about gone. No overshoes for the family, our clothing all shabby, nearly gone. We have done without all we could to save our home, waiting each year for better conditions only for each year as it came to cast us farther aside. As a wife and mother I am worn threadbare trying to manage and I have labored and sacrificed to save our home in order that my boys would not have to be cast out to loaf or go wrong. We have reached our limit.

Now unless hog prices raise to between $7 and $8 in the next six weeks we cannot possibly get out, and if we lose our home, I'm telling you right now we will sit down and it will just be one more family on the list to feed and clothe. We did succeed, and we could yet with more reasonable prices. If the bankers or insurance companies think I will go on one of their old farms to be bossed or driven as a slave they

are mistaken, I'll take my hand-out like the other fellow and quit wearing out my body.[1]

D. ADVERTISING

Industrial activity, the distribution of income, and the price structure impose broad limits upon the patterns under which consumers acquire the goods and services which they use up, wear out, or directly enjoy in the actual processes of satisfying their wants. But while these factors condition the general pattern they only incidentally impinge upon the consumer as he expresses his choice through purchase. Industry determines the amount and type of goods available on the market during a given period of time, income levels largely condition the price range to which one is restricted, and the price pattern tends to limit the proportion of income available for purchases. But within these limits the consumer of whatever type still has a wide range of choice. What is actually bought determines the specific form of goods used or enjoyed. At this level the most immediate factor conditioning the consumer is advertising.

Advertising, in the broadest sense, consists of every effort to condition the behavior of sellers, buyers, and users. The intent of all such efforts is to persuade someone to act in a certain way. Most advertising can be classed as propaganda since its purpose is to persuade buyers and users to act in definitely preconceived ways. Although much advertising is informative and educational, these effects are always incidental and secondary to the main purpose. Attempts to enlighten or inform are almost invariably conditioned to impel action without consideration of all possibilities or alternatives. This primary purpose of directing or conditioning choice is the significant aspect of all advertising from the standpoint of the consumer.

1. Historical Development

The evolution of advertising throws much light upon its modern structure and operation. In the sense of supplying

[1] *New Republic*, Feb. 7, 1937 (Vol. 54), p. 364.

information, advertising has a long history. Merchants used pictures to indicate the nature of their wares and craftsmen their trade in ancient Egypt. The Greeks and Romans were urged by pictures and reading matter to attend games and festivals. But in these and all other Temple-towns such forms were extremely rare. The great mass of the population was illiterate, and the thousands of slaves had no opportunity to express choice even had they been urged by exhortations. In the Middle Ages the almost universal illiteracy made criers the chief agents of publicity. Shop and innkeepers employed them to direct trade to their establishments. In towns the craftsmen used pictorial signs that indicated, even to the illiterate, the type of product or service offered. The criers of the modern circus and the many billboards picturing the commodity offered for sale are effective survivals of a time when the great mass of consumers could not read. But advertising in the modern sense is a product of the same forces which produced the cultural pattern in which it operates. Modern advertising is part and parcel of the thought patterns and mechanical technology composing the framework of modern industrialism. The rise of public education and the transformation of the populace into observing and reading individuals; the revolution in transport and the attending diffusion of ideas and products throughout most of the populous centers of the earth; the development of machine printing and the ensuing flood of cheap expressions of ideas and events; the emergence of new manufacturing techniques and marketing organizations and the constantly widening stream of varied goods which these spewed upon the concentrated populations of great industrialized cities—these are but a few of the events that created the modern world and made advertising a necessary feature.

From the viewpoint of the consumer, the growth of specialization is perhaps the most significant of the cultural changes which gave advertising birth. In a simple self-sufficient economy the plans and actions of others are of

little importance to the satisfaction of a family's wants. But in a world where the individual is a specialized producer of only one infinitesimal part of the goods essential to his daily life, such knowledge is vital. Information concerning the plans and actions of millions of interdependent persons and groups is essential for integrating and relating the specialized units of our productive system. Without such information specialized production could not continue. Advertising is the chief agency for the dissemination of economic information.

2. Spheres of Operation

On this basis advertising serves to coordinate our modern economic system in two rather distinct but interrelated spheres. The first of these is the business sphere. Business involves the buying and selling of goods and services. Everyone who is dependent upon the market for his supply of raw or semi-finished materials and for the sale of his product, property, or service is anxious to be informed of sources and outlets. Trade journals are the chief advertising media through which businessmen give and secure information. Their contents consist almost exclusively of general and specific advertising. News in such journals is almost invariably information given by individuals or groups in the hope of gaining publicity and stimulating sales. The second sphere in which advertising furnishes information is that in which the ultimate consumer operates as buyer. The majority of modern consumers are specialists who usually produce nothing which they themselves or others can use alone. They need information concerning the usable goods and services their money incomes can buy. Only to the extent that they can gain such information is it possible for them to specialize in their productive efforts. Advertising is the agency which relates and coordinates a world of specialists by furnishing the information essential to buying and selling in the market.

In the business sphere advertising functions well as a coordinating device. Here it is usually directed at well-informed specialists who buy not for the satisfaction of their wants but for the more efficient and profitable conduct of their business. Their narrow range of interests enables them to evaluate ads on a rational basis. But in the consumer sphere a vastly different situation prevails. Here the consumer is an unspecialized and uninformed person who buys goods on the basis, not of efficiency, but rather of contemplated satisfaction and pleasures. His wide range of requirements and interests makes it impossible for him to acquire the knowledge of the specialists in a thousand fields. Furthermore, satisfaction is psychological, not technical or logical. Emotions play a large part in his behavior. These powerful urges to action offer a very vulnerable area in his behavior as a buyer as well as a user. Finally, his major time is spent in acquiring a money income, and much of his so-called "leisure time" is spent in increasing his skill in this field of endeavor. Thus the combination of inadequate knowledge, the inseparability of reason and emotion in deriving satisfaction, and the necessity for crowding consumer activities into the little time left after working and sleeping create a situation in which advertising affords specialists a powerful agency for the control of consumer activity in the market. An analysis of advertising in the consumer sphere will make this situation increasingly evident.

3. Functions

The primary function of advertising is to sell goods, but in its modern form it performs many other essential but incidental functions. As has already been suggested, advertising is an inevitable part of our economic system. We might conceivably have a highly advanced economic system, even one applying modern power-machine technology, but without advertising it would be vastly different from

the one we now live in. Furthermore, before any system employing modern technology could function, some agency would have to be devised to perform the services of modern advertising. Dictatorship is one such agency, but with its application come such changes in other parts of the economic, political, and social system that those living in a world having a democratic ideology are loath to sacrifice the numerous other desirable aspects of our culture for possible gains in a single sector.

Consumer choice is but one aspect of the freedom which characterizes a democratic way of life and for the exercise of which the functions of advertising are necessary. The primary function of selling goods involves the use of advertising by producers to condition choice. All incidental functions grow out of and support this primary one of guiding the action of people who are free to choose. In this sense many actions of a free people are forms of advertising, for they strive to persuade others to their point of view. Most efforts of educators, politicians, and religious leaders have the avowed purpose of influencing the choice of those seeking the services of these fields of social activity. Advertising is merely the economic manifestation of a fundamental democratic technique.

a. IMPARTING INFORMATION: The oldest function of advertising and still important among its varied modern ones is that of imparting information. Many forms of advertising are devoted to giving potential customers information on new products. This does not mean that such products must be new in the sense that they are offered for the first time on the market, although this may be and often is true in capitalistic countries where many inventions take immediate practical forms. Newness can be used in the personal and local as well as in the social and general sense. Every existing thing is new for every living person when he first becomes conscious of its existence. Of course, such things as the pyramids of Egypt are old even when first discovered by a youngster merely because he associates

them with other things that he has learned to recognize as old. In the personal sense of newness, advertising brings many commodities to the attention of individuals for the first time. Like a newspaper which must be written for a growing group of readers, advertising may call attention to existing commodities for the first time to youths, to young married couples whose new social status makes them sensitive to many forms of commodities formerly passed by, to newcomers in a region, or to people who have acquired new interests or hobbies. Many times advertising serves to call attention to new and less costly forms of established commodities. Again it may impart information concerning new uses or applications for goods. Another form of advertising, especially labels, counter signs, window displays, and local newspaper spreads, informs potential customers of the composition, special qualities, name of maker, places where purchasable, and prices of various sizes of goods. But along with its informative function advertising renders many services that are far from social.

The very fact that advertising is used as a medium for information makes it a powerful force for controlling or guiding the behavior of consumers. By selecting or editing the information supplied, an advertiser can condition the choices of consumers in the market in such a way as to benefit himself at their expense. As an educational medium, advertising often ranks low. A recent survey of some 800 advertisements disclosed the fact that more than 85 per cent of them presented biased information in order to persuade the reader to take definite action without consideration. Less than 15 per cent enlightened the reader on the quality of the goods offered or presented facts which would make comparison possible.[1] This is especially true of competitive advertising.

b. CREATING MASS DEMAND: Another important, though incidental, function of advertising is to create a market

[1] WAITE, WARREN C., and RALPH CASSADY, JR., *The Consumer and the Economic Order*, 1939, McGraw-Hill, p. 166.

large enough to make large-scale production methods profitable. As we have already seen, production machines and assembly-line methods are more efficient than handicraft methods only when a large steady output of a standardized product can be maintained over relatively long periods. Advertising not only creates an effective demand for such goods but in the opinion of one authority makes possible the "application of mass production and machine methods to the distribution and sale of goods. . . ."[1] Of course, so-called national advertising grew up with the development of large-scale production methods. The fact that it employs similar methods merely indicates that it too is a product of an evolving culture. But no one can deny that advertising does increase demand and that it is essential to the maintenance of that share of an industry's output which enables a manufacturer to employ such methods. Building a demand for goods is one of the primary purposes of those who employ this agency. Some years ago a large advertising agency made the following statement in a circular sent to its clients: "It would be a liberal estimate to say that twenty-five per cent of the business transacted in this country each day is done as a result of 'natural demand.' The other seventy-five per cent is done as the result of salesmanship in one form or another." Advertising was recommended as the most effective and least costly type of salesmanship. And this claim can be substantiated. In terms of the costs of other media for influencing the consumer, advertising is by far the least costly, both in terms of the number of people reached and its effectiveness in sales. The question of costs is, however, one of the chief points of attack by those who view it as wasteful and socially inefficient.

One of the basic requirements for large-scale production is standardization of parts. Only when a mechanical part

[1] TAYLOR, DOUGLAS, "The Viewpoint of a Representative of Advertising," in *Making Consumer Education Effective*, 1940, Stephens College, Columbia, Missouri, p. 54.

is standardized can it be produced by high-speed production machines rather than by handicraft or machine-shop methods, and the larger the number of units assembled from standardized parts the relatively more efficient and less costly become large-scale methods. Creating a wide demand sometimes enables a manufacturer to apply such methods to an increasing number of the parts used in his product. National advertising has been especially valuable in creating a widespread and steady demand for the products of modern power-machine technology. Its costs, like those of the machines used to fabricate standardized parts, are often large in terms of money outlays but small in terms of the amount borne by each of many thousands or even millions of units. One authority in the advertising field points out quite correctly that "the cost of advertising should be measured not in terms of lump sums but in cost per package or per unit of the article. . . . " If one cent of the price for an article now selling at ten cents is spent on advertising that creates a demand large enough to make large-scale methods both practical and profitable, it may be money well spent from the consumer viewpoint. The increased output enables the manufacturer to reduce his costs of production from fifteen to five cents and thus to sell the article at ten rather than twenty-five cents. In this instance advertising benefits both the producer and the consumer. One makes a larger total profit; the other pays less for the product.

Of course, all advertising does not reduce the price paid by consumers. Too often advertising means higher profits rather than lower prices. This is particularly true in fields where standardization means adopting uniform but unique-sized parts or ones which are used only during the period in which a model is being turned out. Such standardization cuts the producer's costs without giving the consumer lasting benefits. As soon as the model is changed, the standard for parts changes. Existing equipment can then be kept in operating condition only by the

purchase of the unique parts from the manufacturer at unbelievably high prices. This is a course often used as a sales argument for the purchase of a new and allegedly revolutionized model. Aside from the individual and social losses caused by the forced replacement of whole mechanisms when the maker goes out of business, such "unique" standardization causes the consumer needless waste of time and money in maintaining the ever-increasing mechanical equipment of the average home. The plight of a housewife who wishes to replace a sewing machine needle is a good illustration. Sewing machine needles are made in ten diameters and in innumerable lengths varying often by only one to three thousandths of an inch. Yet a variation of one one-thousandth of an inch in length will make needles non-interchangeable. Even the system of size rating is not standardized—some size numbers range from 000 to 1, others from 1 to 6, still others from 5 to 20. Sometimes a fine needle is given a high number, and sometimes the coarser ones are given the higher numbers. Yet genuine standardization of this small but significant part of a widely used mechanism could save thousands of dollars in costs of production, replacement stocks, and paper work as well as the frayed nerves of many perplexed but helpless housewives. More than a decade ago Stuart Chase enunciated a principle which seems to be scientifically sound: "There never need be more sizes and shapes of a given thing than can be distinguished as such by the user."[1]

Unfortunately, the huge investment in goodwill built up by advertising often results in standardization of the wrong types. A standard is defensible only when it is based upon research to discover the best method of accomplishing a given result within the limits imposed by the state of the industrial arts and by the relation between cost of production and efficiency of design. A widely advertised toothbrush was found to be very inefficiently designed from the stand-

[1] CHASE, STUART, and F. J. SCHLINK, *Your Money's Worth*, 1927, Macmillan, p. 174.

point of mouth hygiene, but the goodwill built up by the wholly unscientific, though plausible, claims of advertisements made it impossible for the company to change the design except at a cost of millions in competitive profits. The social significance of standardization by advertising becomes apparent when we remember that the cost of the research necessary to design the best article producible at a given price is only a small fraction of the usual outlays for advertising.

c. MAKING COMPETITION EFFECTIVE: The use of advertising to stimulate and maintain the sales of a branded commodity has far-reaching effects upon the whole economic system as well as upon the behavior of the consumer in the market. Competitive advertising is that which is used for the purpose of selling a specific brand of a given commodity. Trade-marks are the means by which one manufacturer distinguishes his products from those of his competitors. Around the trade-mark, advertising attempts to build in the mind of the consumer a definite preference for that brand. Trade-marks are always most effective when no standards exist. By associating the trade-mark with those things a consumer likes or has found satisfactory by experience, an advertisement attempts to short-circuit the process of making a choice on the basis of physical comparison by persuading the consumer that satisfaction will be greatest only when he uses this particular brand. This technique is made more effective by imputing all manner of real or imaginary, but always unique, qualities to the specific brand.

It is in this field of competitive advertising that "artificial demand" is created in its most anti-social sense. By persuading a consumer that his welfare depends upon something that only the advertised brand possesses, the producer is often able to remove his product from the forces of competition and realize a monopoly profit. Anything which gives a producer control over supply gives him monopoly power. According to individualistic ideology,

monopoly can be gained only when a producer can control substantially the entire supply of a commodity. Economic theory and government regulation of business under the anti-trust laws have proceeded on the assumption that the presence of a number of producers in an industry and the absence of cooperative efforts among them to curtail production or restrain trade, sustain competition and automatically protect the interests of the consumer. But for years the superficial evidences of competition have been sustained by the very force which in reality created the most effective type of monopoly control. Competitive advertising has created infinite numbers of protected positions where manufacturers have been able to enjoy much more than competitive profits. Today a few economic theorists are attempting to fit the obvious facts into a decadent theory by using the phrase "monopolistic competition." Although advertising is not the only modern device[1] for creating effective monopoly powers under the outward appearances of competition, it is the most widely used and the most effective.

Competitive advertising more than any other type creates product differentiation. Trade-marks enable the consumer quickly and positively to differentiate (identify) the product of one maker from that of all others. Advertising endows the brand with one or more unique qualities and persuades the consumer that these are vital to his welfare or at least to the maximum enjoyment of that type of commodity. The consumer is induced to prefer one brand to all others, not on the basis of price or measurable superiority (standard), but rather on the basis of believing that it alone possesses some real or imaginary quality. By this means each manufacturer of a branded product is able to build a demand based upon non-price and hence non-competitive considerations. It is an interesting fact that the Federal Trade Commission, charged with the enforcement of anti-trust legislation and with making competition

[1] Patents and holding companies are other devices.

effective, supports the very institution which makes monopoly profits such an effective reality. Among the practices branded as unfair competition, the Commission lists misleading advertising, simulation of another's trade name, and misbranding as to composition. Most of the cases brought before this body result from action taken by a competitor who contends that one of the above practices has injured his position as a competitor. Yet the very essence of competition is the use of a device which removes a commodity from its force. If consumers were to lose faith in advertising which misleads them into the morass of non-comparable qualities, in trade names as a guarantee of genuine value, or in branding a commodity with meaningless slogans, the protected position secured by competitive advertising would diminish to insignificant proportions. Competition would then be somewhat effective since the products of competiting producers would be subject to the acid test of meaningful standards of quality and comparable prices.

Of course, advertisers have a very different basis for supporting their claim that advertising makes competition effective and destroys monopoly powers. In the first place trade-marks protect the consumer against inferior goods by making the identification of reliable brands easy. Any branded product is superior to an unbranded one, they contend, because it can be identified as to the source and the maker. By knowing the maker the consumer can protest inferior quality or can effectively exercise his freedom of choice by avoiding that brand. Secondly, national advertising makes competition effective and protects the consumer by preventing over-pricing. The price, or at least the maximum price, is set by the manufacturer to protect the consumer against those few unscrupulous local retailers who may try to charge what the consumer's ignorance will bear. Thirdly, competitive advertising brings many possibilities to the attention of the consumer so that his choice can be real and genuine.

Furthermore, such advertising often calls attention to substitutes and forces down the price of the original commodity. Finally, it makes comparisons easier by bringing many similar products to the attention of the buyer. This and most of the other claims for competitive advertising are based upon the debatable premise that consumers make rational choices and the even more questionable one that competitive advertising makes rational comparison possible.

d. PROMOTING CHANGE: Several other aspects of advertising condition the institution of consumption. One of its important incidental functions is that of stimulating an attitude of change and creating a desire to live more abundantly. This is supposed to raise the American standard of living. There can be little doubt that the best known evidences of the alleged American standard such as automobiles, radios, electrical appliances, and movie shows have become important articles in the daily life of millions of Americans because of advertising. But such desirable parts of American life have not been attained without a great social cost. We do not refer to the obvious fact that millions of Americans are without the ordinary essentials necessary to the maintenance of a standard of health and decency. This condition cannot be charged to advertising, nor is it an inevitable result of the widespread use of those few articles which serve to make the consumer habits of many people conspicuous and enviable. But advertising must share a large part of the responsibility for some of the unwise and unsocial behavior of people on nearly every plane of living in this country.

Much of the most effective advertising parades before the eyes of all income groups the conspicuous consumption of the leisure class. The publicity given the manners, dress, housing, sports, and hobbies of the few consumers whose incomes enable them to devote practically their entire time to the pleasures of consumption, without even the effort necessary to efficient conversion of their incomes into goods,

does much to create a demand for shoddy imitations of luxury goods among those whose incomes can barely cover the costs of necessities. Secondly, by frequent style and model changes necessary to gain the profits from regular replacements by the wealthy, advertising encourages the waste and even the destruction of goods. During the early and experimental stage when a new industry is taking form and the reliability of performance essential to standardization of parts is being developed, changes in design often represent real improvements and justify the scrapping of untrustworthy earlier models. But the vast majority of goods today have been developed to a stage where long life and reliability are inherent features of any model. Yearly models consist of an occasional technical improvement surrounded by inconsequential but conspicuous style changes. The effectiveness of advertising in making users of older models lose all sense of functional values is shown by the eagerness with which thousands of consumers pay large parts of their income for non-technical changes. The effects of such results are most serious among the low-income receivers who often squander their inadequate means upon poorly designed but flashy yearly styles and models. Advertising represents a huge social waste in the destruction of functional values and the energy devoted to replacing durable goods with newer models when many of the needs for a sound body and an alert mind go unfilled. As Professor Gordon has well said, "conspicuous consumption is by no means limited to the very wealthy. It permeates all groups differing only in degree."[1] Advertising has been an important agency in making this condition a reality.

The basic function of all advertising is to increase sales. In their effort to increase its sales efficiency, specialists in the field have conducted scientific studies of the psychological process of the consumer in our civilization. Much

[1] GORDON, LELAND J., *Economics for Consumers*, 1939, American Book, p. 126.

has been learned about the patterns of mind acquired by individuals in the process of growing up, and the field of social psychology has been enriched considerably by these studies made by men in the employment of advertising agencies. But the consumer has been as much exploited as he has been aided by these studies. Much advertising, and not infrequently the most effective, is misleading and false. The term "puffing" is often used by the advertising fraternity to denote the exaggeration of facts. This is defended on the ground that it is an effective means of catching the attention of the consumer. Experience with the products is supposed to give him the ability to quickly distinguish puffing from fact. But in our culture, where science and technology make miracles a commonplace, the weary consumer has none of the old-fashioned sense of values which his grandfather acquired in a civilization offering the consumer a very limited range of durable and, for long periods, unchanging commodities. Much worse than puffing is the deliberate misstatement of fact which appears in far too many ads despite attempts of Better Business Bureaus and other agencies of the business world to eliminate such practices. Closely associated with these practices is that of basing appeals upon emotions. This is so common that in the survey of 800 advertisements, already referred to, nearly 90 per cent were on an emotional rather than a rational basis. On these bases much advertising represents definite waste of human energy. Even though much advertising does no harm to consumers it is nevertheless wasteful in the sense that energy expended in this fashion could be far better used. Estimates of social wastes in advertising run from 10 to 90 per cent of the total human effort expended in this field.

Sometimes the shortcomings of advertising are defended on the basis of the social costs of elimination exceeding those involved in its toleration. Many times the increase in unemployment is given as a consequence of any effort to remove the less desirable aspects of the institution. In a

world where unemployment has become a major social problem, such an argument is often accepted as a valid reason for maintaining things as they are. Recently the advertiser and ex-congressman, Bruce Barton, warned his constituents and the general public of the dire results of any legislation that might diminish the volume of advertising by pointing out that the first and immediate result of any such reform legislation would be "the addition to the relief rolls of artists, printers, electrotypers, musicians, actors, singers, paper makers," and many others. The argument could be used as the basis for a program whereby all existing unemployment could be eliminated. By simply increasing the number of inspectors in modern factories to ten for every workman, everyone could be put to work. The only unpleasant result would be that everyone would have to work longer and harder for a much smaller amount of consumer goods. Everyone would be employed, but no one would enjoy a standard of living much above that prevailing a hundred years ago for the average American. If Mr. Barton's plea for maintaining the status quo for fear of unemployment had been advanced and followed a generation ago we would still be setting type by hand and riding in buggies.

4. Cultural Evaluation

No analysis and evaluation of the functions of advertising would be adequate without some consideration of the cultural conditions under which these functions have been performed. When we consider that advertising grew into an institution along with the rise of science and the development of the institution of machine technology, we can better understand the forces which developed with it. Technology has revolutionized the pattern of production and made available not only undreamed-of natural resources but also an increasing volume and variety of goods. The flood of goods has spread out upon a human race inured in the patterns of thought produced by thousands of

years of scarcity. The obvious abundance made possible by technology has only slowly been comprehended by men raised in an alien social heritage. "Our tradition is one of careful frugality. The pillars of our society were built for a society of strict economy."[1]

The new productivity of organized technology burst upon men who could think only in terms of scarcity. The bankers have encouraged investments, the schools have inculcated thrift, and economists have emphasized savings as the only way to the solution of the old problem of poverty. Advertisers almost alone have been forced to deal realistically with the growing fact of abundance. To them the new productivity meant increased consumption. No other agency of modern life has endeavored to encourage or guide the common man as he has come into possession of the material means for a life which for thousands of years had been reserved for those few who ruled and exploited him. Advertising has used every means at its disposal, some good and some bad, to persuade the consumer that high productivity requires increased use and enjoyment of wealth. "Advertising," wrote Professor Lyon in 1930, "whether for good or ill, is the greatest force at work against the traditional economy of an age-long poverty as well as that of our own pioneering period; it is almost the only force at work against puritanism in consumption."[2]

[1] LYON, LEVERETT S., "Advertising," *Ency. of Social Sciences*, I, 475.
[2] *Idem.*

Chapter 22

The Structure of Consumption

The structure of an institution consists of patterns of thought and action. Consumption is expressed institutionally in the established ways by which people acquire and use the things that satisfy their wants. In our industrialized culture the patterns of consumption can be divided into two broad categories: those expressing choice in the market and those expressing interest in the use of goods and services. Of course, these patterns of choice and interest are interrelated. They are also individually and collectively conditioned by and in turn condition the enveloping institutions composing the cultural pattern. Studying the behavior of the consumer is merely studying the behavior of man in one of the numerous but inseparable spheres of human activity. Furthermore, the structure of consumption is inseparable from the process, for, although an institution is patterned action, it is, nevertheless, action. An institution finds expression in the similarity of individual behavior. We have already given considerable attention to the broad cultural forces impinging upon the consumer. Now we shall turn our attention to the patterns of action involved in the interrelated process of acquiring and using actual goods and services. Here the institution finds expression in levels of living, ways of using goods, buying

practices, customs and traditions, and other patterns of behavior associated with the use and enjoyment of wealth.

A. LEVELS OF LIVING

A standard of living is a much used but seldom defined phrase. From the standpoint of relative economic status, it is the scale of consumption which, in a given social group or class, is deemed necessary for a tolerable or respectable existence. From the standpoint of behavior patterns, it is the attitude of mind that conditions the amount and type of personal expenditures. From the standpoint of effect upon economic activity, it consists of those things which a person will exert every possible effort to maintain in his daily habits. In this sense a standard of living is a negative stimulus to economic activity. The danger of losing the goods and services to which one has become accustomed is the stimulus for either increased acquisitive activity or resistance to the endangering forces.

Levels of living are, in a sense, groupings of standards of living into broad consumption strata. Poverty, decency, comfort, and luxury are the four strata into which all people living under capitalism can be realistically divided. *Poverty* is the lowest stratum in which a people can exist and reproduce themselves. On this level life is made precarious by unemployment, malnutrition, and disease. Usually from a very early age all members of a family must sell or use their energies to maintain the family group. All families with incomes less than sufficient to regularly maintain their members above bare subsistence are in the poverty stratum. *Decency* is the stratum where all members of a family regularly enjoy the essentials of health and general social approval. *Comfort* is the stratum in which are found most of the persons contributing to social progress. Here the individual has all the essentials for a high degree of mental and physical development but not such abundance of wealth as to make efficient utilization of his resources unnecessary. In the *luxury* stratum are found

those persons whose economic income or position affords them opportunity for waste without impairing their well-being. The leisure class belongs here but is not the exclusive occupant. Many persons at this level are active participants in the economic process and use their incomes in non-wasteful and socially defensible ways.

1. Measurement

Either standards or levels of living can be best measured by the amount and quality of the goods actually consumed by persons. Such studies are seldom available and unless made by experienced workers are unreliable. The most common method is to compute the amount of income necessary to maintain a person or an average family on a given level and then classify people into standards or levels on the basis of such an estimate. Such amounts and their corresponding standards are always limited in relevancy to the price level or to a given time and place and are based upon the very broad assumption that personal efficiency in spending is rather consistent throughout a group. The average family, consisting of a father, mother, and two children, is the statistical entity theoretically required to maintain the existing population.

A recent study of two basic levels of living prevailing in the United States provides definite examples of what levels mean in terms of actual goods and money income. The study, made in 1935 by the Social Research Division of the Works Progress Administration, compared the costs of maintaining a family consisting of a moderately active man, his wife, a boy of thirteen, and a girl of eight, at each of two levels in some fifty-nine cities located in representative sections of the country. The first or *maintenance* level is not so high as that called "health and decency" but provides considerably more than the requirements for bare subsistence. The second or *emergency* level is about equal to bare subsistence but provides a considerably better standard of living than most relief budgets allow. The study

assumed complete self-support in all respects, but only on a current cost basis. No allowance, beyond a small life insurance policy, was made for carrying or paying debts or for purchasing on credit. Everything included in the typical budget was figured at actual market prices prevailing in the section studied. The typical list of goods and services composing the real income on each level was determined from a study of the purchases made by many actual families.

At the maintenance level, the typical family of four live in a four- or five-room house or apartment in a fair state of repair. Their dwelling contains an indoor bath and a toilet for their exclusive use. They have electricity, gas, ice, and a small radio, but no automobile. They read a daily newspaper, go to the movies once a week, and enjoy a few other leisure-time activities. Their food provides an adequate diet at minimum cost. They pay for their own medical care, but it is inadequate in amount. Clothing, furniture, and household equipment are provided with some regard to social as well as to material needs.

At the emergency level the four persons live in less desirable or smaller quarters. There is less frequent replacement of clothing, furniture, and household equipment. Food is plainer and of a cheaper grade but contains the same nutritive value as that supplied on the higher level. Household supplies are less plentiful, while other services are reduced in quality or eliminated entirely.

The most astonishing fact about these meager standards is that their costs are greater than the income of millions of families in the United States. The WPA study shows that the cost of the maintenance level of living ranged from $1,130 in Mobile, Alabama to $1,415 in Washington, D. C. The average cost in the fifty-nine cities studied was $1,260. The cost of the lower emergency level varied from $810 in Wichita, Kansas, to $1,014 in Washington, D. C., with an average of $903. At both levels the cost in the most expensive city was 25 per cent higher than in the least expensive

place. However, the range of costs for these levels in cities scattered all over the country is relatively small when compared to the range in the distribution of money incomes among families. One-half of American families received less than $1,060. The richest of these received $200 less than the average cost of a maintenance standard of living. The poorest third of American families received less than $780, which means that not even one could afford the emergency standard in the lowest cost center. The most fortunate lacked $123 of the average amount required. At least one-third of all families in our nation are submerged in that lowest stratum of living—poverty.

The condition of the "submerged third" is indicated by a statement which recently appeared in a large advertisement in many American newspapers. "Surveys just completed by the United States Government of 8,000,000 homes in 203 cities show 15 out of every 100 have no private water toilets and 20 out of every 100 have no private baths. This average applied to our entire country means there are 4,500,000 dwelling units *without* water toilets—6,000,000 *without* baths."[1] This is especially significant since it appeared in an advertisement, where the American standards are so frequently referred to as the highest in the world.

2. Relativity

All standards or levels either in the sense of behavior patterns or goods consumed are relative to very narrow areas and very limited periods of time. The much-vaunted "American standard" is quite a meaningless measure of the superiority of the American system. To begin with, there is no single American standard. Rather there are numerous ones, and even in prosperous times the majority of the workers are below that of health and decency. Or, again, if we mean by the American standard the goods and services accruing to that monstrosity of statistical method, the average man, our claim is relative to the cultural pattern.

[1] *Pittsburgh Press*, Jan. 3, 1939, p. 6.

One of the most frequent methods of proving the superiority of the American levels over the European is to quote such figures as the number of bathtubs, motor cars, or kilowatt hours of electric energy per capita. Naturally, in terms of such peculiarly American items the statistics favor America. European standards of living differ from American in one vital respect. Because of the class segregation of society there is much less tendency for those in one class to ape those in a higher bracket by conspicuous consumption. This conduces to a more intelligent spending of income and probably results in a more efficient conversion of money into real income. Of course, at best the scale of consumption on most levels is relatively lower in Europe than America. But this proves nothing beyond the fact that the indices are culturally non-comparable. American standards should be compared, not to those in other countries, but rather to the potential standards that American technology and resources could afford if fully and intelligently used. Similarly, foreign countries should be judged by the degree to which they utilize their technology and resources in producing living standards.

B. CONSPICUOUS CONSUMPTION

Under capitalism, the rise of a person in the social hierarchy is almost directly proportional to his success in gaining income. No longer is status a matter of birth as under feudalism. The gain spirit is all-pervasive, and each individual seeks position through wealth accumulation. But the acceptance of an individual into the highest stratum depends more upon how he uses his wealth than upon how he gains it. The "nouveau riche" are often scorned socially because they have not yet succeeded in aping the inanities of the established wasters. Conspicuous consumption is the expression of the gain motive in use of goods. Here the goods are purchased not because they enable the user to live more comfortably but because they enable the owner to impress his neighbors with his economic

power. Conspicuous consumption applies chiefly to superluxuries which are valued more because of the distinctive status they confer upon their possessor than for the pleasures their use affords.

From the standpoint of group welfare, the conspicuous consumption of a few has a marked effect upon the consumption habits of the many. Since social rank is conditioned largely by the ability to waste rather than to use goods, the whole hierarchy of social status reflects the attitudes of those at the top who set the pace for all ambitious persons in a capitalistic society. Each on his level tries to emulate those one or more levels above him. The salesgirl receiving $10 a week buys silk stockings and eats poor food in showy places because these actions give her standing in the eyes of her fellow workers. The whole scale of values shifts from a functional to a display basis. "Keeping up with the Joneses" (pecuniary emulation) becomes the major aim of all "progressive" consumers. And with advertising constantly parading the acts and goods of the small leisure class before the eyes of those with limited incomes, the whole economic structure becomes unbalanced. Instead of the gains in productive technology enabling the group to live better or have more leisure we find that, like Alice in Wonderland, the individual must run faster and faster to stay where he is, that is, to maintain his position in an acquisitive society.

C. BUYING IN THE MARKET

Consumption is greatly conditioned by the behavior patterns of the people in a given region. These are very evident in the practices involved in acquiring goods in the market. Certain prices come to be viewed as proper and fitting. A five cent fare on trolley lines is a good example. Even though property values crash in a depression and the prices of food, clothing, and shelter fall drastically, the great mass of riders do not question the fairness of a nickel. Likewise, they resist any increase in fares even though they

rather easily submit to a rising price level for other goods and services. Such habits greatly condition the consumption of many important goods and services in our economic structure. In the technical language of economic theory, such habits produce an "inelastic demand." Buying habits have a similar effect upon consumption. Once the habit of buying boxed or canned groceries is established, the practice of evaluating goods on the basis of a common denominator of weight is lost and one buys the biggest package. Value comes to be associated with the container rather than with the goods, and smaller content, even though plainly stated on the label, finds little reaction from patrons. Similarly, the habit of buying at a certain store will eliminate the competition of all other near-by stores and enable the favored merchant to reap a large return from the "goodwill" that habit has built for him. The most common methods employed by the average ultimate consumer in making choices in the market are: (1) comparing the price of a given quantity of apparently similar grades of bulk goods; (2) comparing the physical characteristics of competing grades by scrutiny and touch; (3) buying a well-known brand; (4) asking the advice of salespeople or friends; (5) combining two or more of the above methods. That each and all of these methods are unreliable has been already suggested. Definite evidence of this was shown in a test of sheets made at Columbia University. Nine competing brands of sheets were rated according to the Bureau of Standards procedure. This rating was compared with price, the judgment of consumers based upon physical examination, and the judgment of experienced salespeople. The results showed that all indices except laboratory testing gave a very low degree of reliability.

Consumer choices in the market depend upon such a range of information that no one person can hope to acquire the basic information necessary to intelligent action. Furthermore, the structure of the market and the consumers' opportunities therein are factors quite apart from the technical considerations of quality. In a price-controlled

system where earning and spending are the two aspects of consumer effort, even the most careful and intelligent shopping soon reaches a point of diminishing returns. Except in the case of expensive articles with a relatively long life, the effort required to find the best existing value in a given shopping area may often exceed the benefits derived. Only an unemployed or leisure-class person can spend unlimited time in shopping. Most people find that converting a money income into goods and services involves time which must be deducted from earning an income or enjoying life. The net result is that ignorance rather than knowledge characterizes the behavior of most consumers in those activities by which they acquire the goods and services used in the satisfaction of their wants.

There are several outstanding causes for consumer ignorance. The first is the cultural emphasis. In a gain-motivated economy the whole emphasis is upon money making. Most of a person's energy is devoted to increasing his personal efficiency in the art of gaining a larger money income. Wise spending is either assumed or ignored. The second cause for consumer ignorance is a result of the shift from handicraft to power-machine methods of production. Under modern industrialism, where goods are very numerous, highly fabricated, and sold under meaningless brand names, the consumer is far less able to be his own judge of quality than he was when goods were relatively few, simply fabricated, and familiar to him through his direct experience in producing and handling them.

Not only is the modern consumer becoming increasingly incompetent as a judge of quality in the more standardized articles, but he is hopelessly besieged by an ever-greater variety of new commodities concerning which he has absolutely no basis for judgment. The myriad of small articles made from synthetics, which are the by-products of the major industries, are produced under conditions of joint costs. Even the accountant cannot determine their per-unit cost. The policy of "charging what the traffic will bear" results in the establishment of huge differentials

between cost and selling price, especially where a patent gives the seller a monopoly position. The much-used sales argument of reminding the consumer of how little a thing costs in comparison to what it would cost him to make it himself is wholly inapplicable since most modern commodities could not and would not be made by individuals. The confusion of the consumer by the multiplicity of brand names is even worse than that caused by the variety of goods themselves.

According to an estimate made by the National Bureau of Standards, there were on the market, in 1938, 500 brands of mustard, 1,000 brands of packaged tea, 4,500 brands of canned corn, 10,000 brands of wheat flour. The original purpose of a brand name was to protect the consumer by making it easy for him to identify an article which had proved especially satisfactory when again he wished to buy it. A secondary function was to connect an advertisement with a specific article for which a demand was being created. In a simpler system of advertising and selling, where brands were relatively few in number, these functions were often performed. But under modern conditions of multiplicity of both products and brands, the whole system breaks down and becomes an expensive and frequently meaningless heritage of the past. The number of brands having identical characteristics multiply without apparent limit. A brand name no longer guarantees identical articles or identical quality. Frequently a brand name is built on quality and then exploited by a slow but steady diminution of quality or quantity. Brand names frequently conceal the real merits of a product by associating with it, mainly through the accompanying advertising, all kinds of non-existent or inconsequential features. And finally, the brand system when supported by containers of distinction can frequently make comparison on a strictly bulk and quality basis quite impossible for the average consumer.

Recently the author attempted to buy cod liver oil. In effort to avoid being called a "person of sluggish intellect who does not know what he wants," he asked the courteous

clerk to give him the price on five reputable brands. When the price varied over 100 per cent on comparable packages he asked to see a "bottle" of each. The bottles were of such shapes as to make all five appear to be about the same in size, but a careful reading of the label revealed the following facts:

Brand A contained 12 oz. and cost $0.79
Brand B contained 16 oz. and cost $0.89
Brand C contained 12 oz. and cost $1.09
Brand D contained 14 oz. and cost $1.04
Brand E contained 15 oz. and cost $0.51

All labels stated that the contents met the U.S.P. standard of quality. This meant that all brands were essentially alike in medical properties. The letters U.S.P. are the abbreviation for the United States Pharmacopoeia, the accepted standard for quality and purity of therapeutic drugs and medicines. This work is the result of the United States Pharmacopoeial Convention, an organization composed of representatives from the medical departments of the U. S. Navy, the U. S. Army, the U. S. Marine Hospital Service, medical societies, and colleges of medicine. Any drug bearing this abbreviation must meet the standards set by this convention, which meets every decade and revises its work.

Lack of formal education in the technique of buying is the third cause of consumer ignorance. The elaborate school system, to which the patriotic American points with pride and the taxpayer with sorrow, is conspicuously deficient in courses devoted to aiding the student in performing that task which he is forced to undertake regularly from the day he spends his first dime. Except for a few courses in manual training or domestic science, the whole curriculum has for its aim the making of dutiful voters, efficient money getters, and cultured ladies and gentlemen. Like the laissez-faire economists, educators make the fallacious assumption that the ability to be intelligent parents and wise spenders is automatically acquired in the process of growing up.

Chapter 23

The Control of Consumption

The philosophy of laissez faire under which the institution of consumption developed has been modified in recent years by a growing belief that economic life is too complex to be controlled effectively by the force of price acting in the market. This new philosophy of social control finds expression in agencies and laws designed to direct or limit the activity of individuals. Since business enterprise is the chief force of economic life determining the goods and services supplied in the market, regulations which affect the institution of consumption have been applied chiefly to the processes involved in making and selling consumer goods. This regulation is by no means the exclusive work of government. Many agencies have been developed by industries themselves. These, it is true, are usually concerned with increasing the profits of the manufacturers, but in many cases the adoption of standards has greatly benefited the consumer through the production of superior and lower cost goods. The activities of government agencies are not always designed for the direct improvement of consumer goods or even the protection of the buyer in the market. Often the controls of the Federal government are designed to aid businessmen in their profit-seeking activities or to regulate the conditions governing competition in a whole industry. But there is a steady increase in the

activities of government which, both directly and indirectly, improve the levels of living and the efficiency of consumer choice in the market.

A. FOOD AND DRUG ADMINISTRATION

The first important step taken by the Federal government to protect the consumer in the market was the Food and Drugs Act of June 30, 1906. This unprecedented law provided for the criminal prosecution of persons and concerns violating its decrees and for the seizure of adulterated or misbranded products. The seizure of actual products gave the administrators both evidence and power. Such action could be instituted in any one of three types of cases: food products containing poisonous or other deleterious ingredients harmful to the health of the consumer; food products consisting of filthy or decomposed substances; food or drugs so grossly adulterated or misbranded as to make intelligent comparisons impossible or to demoralize legitimate trade practices. To enforce the act, which applied only to goods shipped from one state to another, definite standards were evolved and laboratories set up for testing samples seized by inspectors. Much of the success of this early act can be attributed to the untiring efforts of the chief of the Bureau of Chemistry, Dr. Harvey Wiley, who made every effort not only to administer the act intelligently but also to extend the scope of its provisions. But even under able direction the law was in many ways inadequate. New industries, especially the cosmetic industry, grew up after 1906 outside the scope of the act or the powers exercised by its agents. This fact and the increasing dependence of families upon food products and drugs prepared in commercial factories on a large scale, intensified the demand for a new or revised law. For many years this produced little beyond an amendment (in 1913) requiring the net weight of every package to be plainly stated on the outside. However, in 1927, an important advance was made with the organization of the *Food and Drug Adminis-*

tration in the Department of Agriculture. The new administration expedited the enforcement procedure by separating action against violators into two distinct parts: first, a civil action against the goods, and, secondly, a criminal action against the manufacturer or distributor. This speeded up the processes involved in the relabeling, reprocessing, or destruction of misbranded or adulterated products and gave the consumer more effective protection. The powers of the administration were strengthened in 1930 when the Secretary of Agriculture was authorized by the McNary-Mapes Amendment to set up minimum standards of quality, condition, and fill for all canned goods except milk and meat products.

But a more efficient administrative agency and increased powers failed to meet the growing needs of the consumer. The absence of any specific powers over advertising, cosmetics, and curative devices handicapped the administration. Furthermore, neither the staff nor the yearly appropriation was large enough for effective enforcement. In 1932 the Food and Drug Administration had a staff of only 650 to enforce the six acts under its jurisdiction, whereas the Bureau of Animal Industry had a staff of 2,400 to enforce the Meat Inspection Act alone. From 1918 to 1932 the Treasury Department spent $250,000,000 attempting to enforce prohibition. During the same period the Food and Drug Administration spent only $22,000,000 or about 1.5 cents per year for each of the more than 100,000,000 consumers whom it attempted to ensure a wholesome supply of food and drugs.

With the advent of the depression the consumer movement became a real force for the first time and found expression in the early agencies of the New Deal. Political champions of the movement, such as Rexford Tugwell, Undersecretary of Agriculture, and Royal S. Copeland, Senator from New York, sponsored new and more effective laws. Several bills were introduced in Congress, but each met with strong and determined opposition on the part

of economic interests that viewed efforts of the government to control production in the interest of the consumer as a violation of laissez-faire principles. Finally, after some five years of effort and despite persistent opposition, the powers of the administration were materially increased in scope and effectiveness by the passage on June 25, 1938, of a new Food, Drug, and Cosmetic Act.

The new act greatly increased the powers of the Food and Drug Administration with respect to drugs. Cosmetics were brought under control for the first time. Furthermore, drugs whose claims are "false or misleading in any particular" are not only subject to seizure but can also be entirely barred from interstate commerce. Formerly the government had to prove that claims for a drug or medicine were both false and misleading before action could be taken. This meant great technical difficulties and legal delay. Now the consumer's health rather than the producer's interest is the major consideration. In addition, the term "drug" has been broadened to include all devices or substances used in diagnosing or healing. A label must now specifically state the name, quantity, and strength of narcotic or hypnotic substances used in the preparation and must have clearly printed the statement, "Warning—may be habit forming." Many other labeling rules are set forth, such as the germicidical powers of antiseptics and the effects of deterioration upon the efficacy of a preparation. But most important of all is the "permit system" to prevent manufacturers of medicines from using the public as guinea pigs. Before a producer can offer a new drug on the market, he must apply to the administrator for specific permission to do so. In the application the proposed content, method of compounding, label information, and results of tests made to determine its harmlessness must be set forth. A period of sixty days must then elapse before distribution in interstate commerce can begin. Misbranding and adulteration of drugs are specifically prohibited. Regulations such as that prohibiting the use of deceptive or slack-filled con-

tainers, and that requiring a definite statement of net contents or weight, which formerly applied only to food products, now apply to drugs and cosmetics. These drug-control sections represent a commendable gain in the effective protection of the consumer.

The food sections of the new act are second only to the drug provisions in importance. The outstanding feature is the extension of the inspectors' powers to factories. In the old law the seizure of a product was subject to court action. If the specific quantity seized was found to violate the law, the inspector could order it returned to the manufacturer for relabeling or reprocessing under supervision or could order it destroyed. The chief defect in this system was that it applied only to specific items actually seized. Under the new law the government is empowered to inspect factories processing or packing foods, drugs, cosmetics, and medical devices for interstate commerce. This permits the detection of violations at their source and protects the consumer against all output rather than mere specific cases or shipments. Another new feature is the provision for setting up basic standards and the control of processes used in production. Standards of identity for all foods, except fresh or dried fruits and vegetables, can be devised and promulgated by the administrator after hearings with consumers and manufacturers to determine needs and prevailing trade practices. A standard of identity is merely the minimum requirement for the commodity sold under a widely accepted trade name. The amount of water permissible in oysters at the time of sale, the sugar content of jam, and the amount of egg in noodles, for instance, can be determined by such standards. Standards of quality can also be set by the administrator under similar conditions. Once a standard of identity and quality for a food has been duly promulgated, any product entering interstate commerce must conform to it or have the fact clearly stated on the label. Furthermore, the administrator has the power to issue emergency permits for the control of

any food contaminated in manufacture, processing, or packing. Where some poisonous substance is necessary to the growing or fabrication of a product, such as arsenate of lead for spraying fruit trees, he can prescribe the limit permitted in the ultimate product.

Labeling of foods has undergone marked improvement under the new law. All food labels must conspicuously state the name and address of the manufacturer, packer, or distributor, and the quantity of the contents in terms of weight, measure, or numerical count. Furthermore, nothing on a food label must mislead the buyer concerning the nature, style, or quality of the contents. In the case of foods for which no standard of identity has been set, the label must state the name of the food or, if it contains two or more ingredients, the common name of each ingredient and the presence of artificial coloring, flavoring, or preservatives. If the food purports to be for special dietary use, the label must bear information concerning its vitamin, mineral, and other dietary properties. Finally, any legally required information must be printed in such size, style, and position as to render it likely to be read and understood by an ordinary person under customary conditions of purchase and use.

Although the total powers exercised by the Food and Drug Administration give considerable protection to both the health and purse of the consumer, they are not entirely adequate. For instance, medical manufacturers are not required to employ technically trained workers or supervisors, the ingredients of cosmetics need not be stated on the labels of the container, soaps are not included in cosmetics, and dried fruits are not brought under the standards provisions. A steady extension of this important agency's powers is to be expected.

The other acts enforced by the Food and Drug Administration need only a brief description since each is definitely limited to a specific field. The Tea Act has for its purpose the regulation and inspection of tea entering the United

States from foreign countries. The Import Milk Act is of a similar nature. The Filled Milk Act regulates all imitation milk products. Finally, the Caustic Poisons Act requires manufacturers to label in a conspicuous way any product containing certain caustic poisons or corrosive substances.

Since 1939 the Food and Drug Administration has been a division of the new Federal Security Agency which is not officially attached to any existing department of the Federal Government. Two other offices of considerable importance to the consumer—the Public Health Service and the Home Economics Education Service—are also divisions of this new agency. The Public Health Service establishes standards for public water supplies and cooperates with states and cities in their application and enforcement. In collaboration with the Bureau of Dairy Industry, the Public Health Service has promulgated the Standard Milk Ordinance and Code, governing the distribution of milk, which has been widely adopted by local governments. The Home Economics Education Service is a new office developed to assist schools in organizing more effective courses in consumer education. Much of the success of the new standardization and grading of consumer goods depends upon getting young consumers to understand and use these services of the government.

B. BUREAU OF STANDARDS

Two of the greatest aids to efficient buying in the market are standards and specifications. Standards, as has been explained, are concerned with reducing meaningless variations and thus permitting direct and intelligent comparisons to be made. Only with reliable consumer standards can competition be conducted upon a fair and equitable basis. Intermediate consumption is now conducted largely on the basis of specifications and standards. Many examples of the savings effected in business have been given.

The *Bureau of Standards* is the government agency concerned with physical research, testing, and development of

standards and specifications. It was originally created in 1901 to develop, compare, and maintain standards used by the government; to test and calibrate standard measuring apparatus; to solve problems arising out of the use of standards; and to determine the physical qualities of materials when important to scientific or manufacturing interests. From an original fourteen the staff has grown to over 800. The Bureau is the chief agency for the preparation of specifications for goods bought by the government. It is also the largest, though by no means the only, laboratory maintained by the government for the testing of supplies purchased on a specification basis.

The Bureau of Standards serves the consumer in many ways. Some of the more important activities include the custody and maintenance of the standards of weights and measures, publication of data on the units of measurement, formulation of standards of quality and performance, development of testing apparatus and methods of testing, and researches on the useful properties of materials.

The work of the Bureau has been greatly aided by the changing attitude of consumers regarding what would be most helpful to them in their purchases. Formerly consumers urged that lists of products be established with the various brands of goods in each list arranged in order of excellence. They thought that, because the Bureau of Standards does a large amount of testing for the government, it should be in a position to say which is the best in a given group of products. The testing procedure necessarily followed by the Bureau does not give this information, nor does it afford the Bureau much knowledge of the competing brands ordinarily available at retail. Each specification lists the required properties of the article to be purchased. In buying rope, for example, the requirements of the specification regarding the kind of fiber, the diameter, the weight per foot, the oil content, and the breaking strength must be met. No brand or trade names are used in the specification, and any contractor who can supply

an article with the required characteristics is free to bid. The order goes to the lowest bidder, and the goods are tested after delivery to determine whether or not they meet the specifications. If the material meets the required tests, this closes the transaction. If not, the procedure is repeated with the next lowest bidder whose products meet the specification requirements. This procedure saves an enormous amount of time and labor, but gives little information about the relative value of the products of the various manufacturers. It does not tell which is the best. The ultimate consumer is now beginning to see that his requirements can best be met by classifying the products in a particular group into grades, each grade standing for specific requirements as to quality. To meet this need consumer specifications with nationally recognized standing are necessary.

Contract buyers, those who purchase large quantities of certain commodities on definite written contracts, can set forth their requirements in the form of specifications submitted for competitive bidding and are in position to tell the manufacturers just what they want and to determine by means of tests whether the commodities delivered comply with the specified requirements. Since the direct use of specifications is not practicable for the individual retail buyer, the Bureau has done what it could to encourage the use of a procedure which would secure for these buyers the advantage of quality specifications similar to those which the government utilizes. In this connection, it has developed the "labeling plan" by means of which manufacturers are encouraged to identify by suitable labels such of their commodities as they are willing to guarantee as complying with certain nationally recognized standards or specifications. A label placed on a particular commodity should carry with it not only a statement of guaranteed compliance with a designated standard or specification, but also the name of the firm or agency which holds itself responsible for the guarantee. Goods marketed under this

plan would come under the supervision of the Federal Trade Commission, and such tests as the Commission might find necessary could be carried out by some designated Federal agency. However, this alone is not enough. The ultimate consumer is not familiar with specifications, and help must be obtained from responsible consumer groups in order to distinguish between specifications which give the proper protection and those which do not. A real danger to the whole movement lies in guarantees based on misleading and meaningless specifications. Nationally recognized specifications that have withstood the test of service should be used whenever possible.

Perhaps the value of these to the ultimate consumer as well as to the stability of the business structure can best be shown by delineating the method by which the Bureau of Standards goes about the formulation of a standard specification for the purchase of a commodity by the government. For example, when the army wishes to purchase overcoating material for its marines, the Bureau proceeds as follows. Samples of all commercially available materials are obtained and subjected to rigid testing to determine comparative quality. The present state of the technical arts relative to the fabrication of such material is studied. The conditions under which the material is to serve are studied to determine their effects upon each factor involved in the process of manufacturing. In view of all these data a theoretically perfect material is devised. Then, keeping in mind the theoretical ideal, the highest quality of available materials, the limitations of the existing technology, and the relation between costs of production and quality, a specification is written. This concludes the actual work of the Bureau as a research agency. The final step is obtaining bids on the basis of the specification.

The Federal government is the largest single purchaser of consumer goods in this country. Most of its purchases are made on the basis of these specifications, of which over 1,300 are now in use. These specifications are prepared by

some 80 interdepartmental committees made up of technical men drawn from all branches of the government working under the general direction of the Federal Specifications Executive Committee. Furthermore, goods are tested when they are delivered to make sure that the requirements of the specifications have been met. Inasmuch as a large part of government purchases (excluding foods) are tested at the Bureau of Standards, its staff has had unusual opportunities to observe how buying under specifications works out in practice.

Another important service of the Bureau is its work in reducing meaningless sizes and varieties of goods. Simplification will aid consumers of any commodity made under large-scale, machine methods by reducing original and maintenance costs. The Bureau of Standards serves as a clearinghouse or centralizing agency through which manufacturer, distributor, and consumer groups cooperate in furthering a nation-wide program for the elimination of the excessive and needless variety of sizes, types, and dimensions of manufactured products. The simplified practice recommendations resulting from this cooperative effort are a record of retained items, sizes, or varieties considered adequate for normal stock purposes. The establishment of the simplified practice recommendation for bedsteads, springs, and mattresses is typical. As a result of conferences composed of representatives from manufacturers, distributors, consumer organizations, and the Bureau some seventy-eight different sizes were reduced to four.

The Bureau of Standards renders another important nation-wide service to the consumer through the direct or indirect standardization of devices used in weighing or measuring commodities purchased by ultimate consumers. It promotes uniform action in weights and measures administration throughout the country and serves as a clearinghouse for information on the subject. On one hand, the Bureau tests the control standards by which commercially used measures are made. On the other hand, it tests

the state standards employed to assure the accuracy of the equipment used by the numerous inspectors in the field. The field inspectors periodically check every weighing and measuring device employed in everyday trade. This is done under normal operating conditions by weighing and measuring test purchases, to determine directly whether full weight or measure is being delivered, and to disclose whether the weights and measures are being properly and honestly used. This procedure furnishes evidence against the careless or dishonest merchant, and is a strong deterrent against fraud in transactions.

C. OTHER GOVERNMENT AGENCIES

The Food and Drug Administration and the Bureau of Standards are two important agencies conditioning the pattern of consumption. But they are not the only ones. A number of others, mostly in the Department of Agriculture, supplement and extend the work done by these two basic ones.

The *Bureau of Home Economics* devotes its entire time and resources to improving the levels of living enjoyed by American families. For many years it has been studying clothing and household textile materials with a view to developing methods for the more efficient purchase and use of such products. Much of its research is conducted in cooperation with other government and private agencies. It publishes numerous pamphlets and buying guides to assist the purchaser in judging the quality of blankets, sheets, towels, and many types of clothing.[1] Its most promising work is the development of standards and specifications for these commodities. The bureau has also done important work in securing widespread acceptance of such standards by household buyers and by business groups. Together with other organizations interested in consumer education, the bureau has worked toward an

[1] The *List of Publications of the Bureau of Home Economics* may be obtained from the Superintendent of Documents, Washington, D. C., for five cents.

intelligent and sympathetic understanding of the problems of business by consumers and, conversely, the problems of consumers by business.

The *Bureau of Animal Industry* carries on a wide range of activities directly conditioning consumption. Its work includes research in animal husbandry and diseases of animals, inspection and quarantine of herds, and inspection of meat. The research activities indirectly benefit the ultimate consumer by enabling cattle raisers to produce a better quality of meat through scientific breeding and feeding. A similar service for poultry raisers benefits the consumer through superior quality eggs and poultry meat. By its inspection of dairy herds and other farm animals the bureau has done much to protect the consumer against diseased meats or animal by-products. Its greatest service is rendered in its administration and enforcement of the Meat Inspection Act. Inspection of meat and meat establishments directly protects the consumer in his purchase of this food. All meat-packing houses that distribute meat and meat food products in interstate and foreign commerce must place their plants and products under the surveillance of Federal inspectors. The wholesale cuts of meat passing the examination of the inspectors are marked conspicuously with the blue circular stamp reading "U. S. Insp'd and P's'd" and giving the number of the establishment where the inspection was made. This stamp does not indicate quality but merely assures that the meat was wholesome and fit for human consumption at that time. The importance of this inspection service can be judged from the fact that it covers more than two-thirds of all food animals slaughtered in the United States.

The *Bureau of Dairy Industry* controls the production and distribution of a product that has special significance to consumers of all ages. Milk is not only an ideal food but, because of the numerous steps through which it passes from source of supply to citizens of large cities, is also capable of absorbing and transmitting many diseases.

The Bureau of Dairy Industry inspects butter factories and conducts research in breeding, feeding, and maintaining dairy cattle; in handling milk on the farm, in transit, and at dairy plants; and in the bacteriology and chemistry of milk and its products.

The *Agricultural Marketing Service* is another important unit of the Department of Agriculture. From the standpoint of the consumer its most significant activities are standardization, grading, inspection, and regulation.

Although these services are designed to aid the producer and dealer in buying goods on the basis of market quotations without personal inspection, they have also aided the ultimate consumer by improving the general quality of goods offered in the market. Since the organization of this service the consumer has received much concrete and tangible help in the form of grades. Grade designations have served the needs of specialized buyers for a number of years. Only recently have sufficiently simple and meaningful grades for consumers been developed, but work in this field is progressing rapidly. This new interest in the small consumer has been the result of aggressive demands of certain retailer and consumer organizations for tangible help from the government. It has also been stimulated by the policy of the Department of Agriculture that to be effective any farm program must consider the interests of the ultimate consumer. As a result, methods have been devised for carrying grade designations to the consumer on meats, poultry, butter, eggs, and many varieties of canned fruits and vegetables. However, these are still largely ineffective because they are provided only when requested by producers, rather than as a regulatory service of the government.

For millions of consumers with very low incomes the work of several units in the Department of Agriculture has special significance. The *Agricultural Adjustment Administration* administers legislation designed to raise farm income to a level more nearly equal to that of urban

workers, to conserve soil resources upon which the food supply of Americans ultimately depends, and to protect the interests of both producers and consumers of farm products.

The diet of low income and relief families has been immeasurably improved by the work of the *Federal Surplus Commodities Corporation.* This operating agency, under the direction of the Secretary of Agriculture, carries out programs designed to assist in the removal of price-depressing farm surpluses from the market. The original policy of buying these surpluses and distributing them through welfare agencies to relief families is rapidly giving way to the food-stamp plan of distribution. Buying power is given directly to relief families in the form of stamps that can be exchanged at any retail store for such surplus commodities as the individual family may choose. These stamps are good only for such commodities as the Secretary of Agriculture places on the official surplus list. Merchants redeem these stamps for cash. This definitely democratic policy supports established methods of marketing, provides a wider distribution of farm products, and makes possible a more adequate diet for low income families. These agencies have done more than any other to restore the pattern of consumption to the predepression level. But the Department of Agriculture has not limited its efforts to these alone. Its long-range program encompasses the whole gamut of consumer income and aims both to develop the standards necessary to intelligent buying at all levels and to educate the average consumer to use the services of business and government more intelligently.

The *Consumers' Counsel Division* was originally set up in 1933 by the Secretary of Agriculture to ascertain and disseminate facts regarding the effect of the processing tax on retail prices of farm products. While engaged in this important work for the Agricultural Adjustment Administration, the counsel found that standards were essential to any marketing program. Recognizing the interdependence

of price and quality variations, the counsel emphasized the need for development of consumer standards to promote intelligent buying. As a result the counsel has been very active in the formulation and promulgation of standards for farm products. Its services have consisted to an increasing extent of representing the consumer at standard formulating conferences at which producers, manufacturers, and distributors are well represented. Some of the most impressive efforts to simplify grades so that they can be understood by the layman have been made by these Consumers' Counsel representatives.

The most direct service of Consumers' Counsel to the ultimate consumer is the semi-monthly publication *Consumers' Guide.* In addition to descriptive and explanatory articles on farm products, this periodical presents a wealth of pertinent information on the value of grades and standards and how they can be advantageously used by the ultimate purchaser. This definite effort of the government to maintain an interest in its work for consumers is distributed to more than 140,000 subscribers throughout the 48 states, Canada, and even foreign countries. No other publication of the government is more consistently helpful to the everyday consumer-buyer.

The *Federal Trade Commission* was organized in 1914 to prevent unfair competitive methods in interstate trade. Although the original act gave the commission control over false labeling, deceptive advertising, and other undesirable trade practices, the consumer received little or no benefits, since action could only be instituted by a competitor who had suffered business losses. The commission had little power to correct many practices injurious to consumer interests since these often benefited rather than injured the position of businessmen. However, the Wheeler-Lea Act of 1938 broadened the powers of the commission. It now has power to prevent business practices that are injurious to consumers as well as those damaging to business competitors. Most significant of these is the power to prevent false

or deceptive advertising of goods, drugs, cosmetics, and curative devices. The commission maintains a constant check on advertisements in newspapers, magazines, and radio continuities. This is the work of the Radio and Periodical Division of the commission. Some idea of the extent of its supervision can be gained from the fact that in 1939 it examined more than 220,000 newspaper and magazine ads and over 625,000 radio continuities. Of those advertisements questioned by the commission 42 per cent was for drugs, 10 per cent for cosmetics and only 7 per cent for foods.

D. PRIVATE AGENCIES

Aside from the Federal government agencies, many others contribute to the control or regulation of business in the interests of the consumer. These include trade associations, professional societies, private testing laboratories, and private research organizations. The *American Standards Association* consists of national industrial associations, technical societies, bureaus, and even departments of the Federal government. Its work consists of formulating standards for both producers' and consumers' goods and having them accepted by the members of the affiliated associations. Much indirect help has been afforded the consumer through the efforts of this voluntary federation. A great number of businesses have cooperated to improve their products and to conduct research. Among industrial corporations the work of Bell Telephone and General Electric research laboratories are outstanding examples. Many trade associations conduct research. The *Underwriters Laboratories* test types of electrical equipment and devices from wire to refrigerators. Their approval plate means that the product is dependable and safe to use under the conditions encountered in the average home. The laundry owners' associations in two states, Pennsylvania and New Jersey, maintain research departments for

improving methods used by members. Their certification of members assures consumers of high-quality service. The *American Gas Association* maintains a research and testing service for its members. Manufacturers of gas-burning equipment can obtain permission to use the seal of the AGA by having their products meet standards for safety, performance, and construction. The *American Medical Association* and the *American Dental Association* conduct vigorous campaigns for the education of the consumer. They maintain a testing service and award certificates of approval to all food products complying with certain health standards. Large retail organizations such as Sears Roebuck, Montgomery Ward, and Macy's have set up research and testing laboratories which greatly aid the ultimate consumer. By means of buying unbranded goods on the basis of specifications these firms have been able to obtain lower prices for merchandise of known quality. This not only affords these firms a better margin of profit but also assures the customer quality merchandise at distinctly lower prices than similar branded merchandise having heavy advertising expenses included in its price. Such methods resemble those already described in connection with purchases of the Federal government and stand in sharp contrast to buying without knowledge of quality on a pure price basis. Many colleges maintain research laboratories and conduct tests of commodities for large organizations. Even more important are the great private testing laboratories, such as the Mellon Institute, which afford thoroughly scientific research and testing to members or to anyone willing to pay for the service. Several attempts have been made to extend research services to the ultimate consumer on a fee basis.

The two outstanding organizations supplying a limited testing service to consumers are *Consumers' Research* of Washington, New Jersey, and *Consumers' Union* in New York City. Both attempt to conduct scientific tests on a

representative list of commodities offered at the retail level. For instance, ten or twelve specific models of electric refrigerators will be tested under identical conditions and the resulting evidence used as a basis for recommendations. Those found to offer the best combination of performance, durability, freedom from service, quality of workmanship, and adaptability to average conditions encountered in the home are "Recommended" or listed as "Best Buys." Those which have minor shortcomings are listed as "Intermediate" or "Also Acceptable" with brief explanations of reasons. Those falling below certain minimums in quality and service are placed under "Not Recommended" or "Not Acceptable." Each organization offers its services in the form of periodical bulletins containing the findings in the latest tests made on a selected list of branded goods, general information on the purchase and use of materials, protection, and services, and news of developments in government bureaus and the general market. The annual fee for this service is nominal.

The two services differ chiefly in their attitude toward the consumer problem. Consumers' Research is indifferent to all labor or business organization and recommends purchasing approved goods on a strictly price basis. Consumers' Union reviews the labor movement and working conditions in the factories where the commodities they test are made. Both services describe commodities by trade name and oppose the attempts of advertisers to influence buyers on a non-scientific basis. Both are supported by the fees obtained from subscribers and are independent of producer influences. However, they are neither infallible nor adequate substitutes for government regulation and standard enforcement. They are performing a very worth-while service to the ultimate consumer by helping him to choose more intelligently in a bewildering and chaotic market, to use goods and services more efficiently, and to become better informed on the social and economic backgrounds of consumer problems.

E. CONSUMER EDUCATION

The person who defined the consumer as a "person of sluggish intellect who does not know what he wants" must have had experience in selling. But whether this condition is a product of the bewilderment of the average person in the face of the much exaggerated and usually conflicting claims of competitive advertising, or of the limiting effects of a small income and high prices, or of general ignorance with respect to the basic principles underlying the rather simple household mechanisms of everyday utility, it is not our purpose here to inquire. Genuine consumer enlightenment and education would probably do much to make the absurdities of advertising claims not only impossible but unnecessary. Furthermore, it could do much to orient the consumer in a complex economic system which is more and more dependent upon him for its continuous and efficient operation.

Formal education of the consumer is just beginning. Courses labeled "Consumer Education" are being fitted into the old established but largely irrelevant curriculum of the secondary schools. Often the problem of "fitting in" such a course receives more attention than that of its content or purpose. Frequently it is placed in the commercial division where it is required for commercial students and elective for others. This position has certain merits. Consumer education helps to give balance to a course of study where the emphasis is upon business practices and techniques. Even more important, it gives the student a broad perspective or point of orientation for courses designed primarily to increase his earning capacity. When such a course attempts to study the organization of economic society from the standpoint of consumer problems it has real possibilities. By studying the broader economic system and the ways it impinges upon their lives as buyers and users of goods and services students can more clearly see the relation between greater efficiency in business and

increased ability as buyers and users of the goods and services that business supplies. The earning of money income takes on a new meaning. The student comes to see that the size of his future income is an important but not a singular factor in determining his scale of living or the enjoyment he derives from life. He sees that the way he spends this income in the market and the intelligence with which he uses the resulting goods and services are equally, if not more, important in determining how well he lives. Furthermore, if the consumer course is taught effectively, the student will appreciate the importance of preparing himself to do that which brings him the maximum possible satisfaction in the actual earning of an income. A good course in consumer education will definitely dispel the attitudes that earning a money income is an irksome and distasteful phase of life which is undertaken merely because it is an unavoidable preliminary to the acquisition of worldly goods and services and that money is the only essential to the greatest enjoyment in life. Such a course will help to build realistic attitudes toward life by showing the student that spending money and using goods require as much training and practice as earning money.

Too often, however, educators look upon consumer education as merely a course in "buymanship." Such an attitude can destroy the very foundations of consumer education and reduce a specific course to a petty drill in the manipulation of a few helpful, but wholly inadequate, techniques of buying. This unfortunate situation is already beginning to have an adverse effect upon consumer courses. Many of the newer courses attempt to educate students in consumption by requiring them to learn a list of specific buying principles. Sometimes such buying techniques serve as an introduction to a home economics course in which the main content consists of exercises in the use or preparation of goods in the home. Such courses may be practical and helpful but they can never be more than a sampling of a single sector of consumer activities. Furthermore, such

activities, while valuable in themselves, are usually practiced to the exclusion of much more basic and adequate training.

The basic purpose of consumer education should be to relate all phases of education to the problems of getting the greatest good out of life. In our interdependent society where specialization and power technology have narrowed the range of the individual's productive activities and increased the scope of his wants and the variety of available satisfactions, the problem of intelligent living can never be separated from the price system and the market. Consumer education must begin with the economic activity of the individual and lead out into the broad spheres of the arts and sciences to determine how they increase his wants as well as the means available for their satisfaction. This is the broader plan and purpose of effective consumer education. Effective consumer education consists of building an integrated pattern of attitudes and behavior patterns. Instead of petty techniques or abstract sciences, pigeonholed facts, and catch phrases, consumer education should involve the relation of techniques, sciences, literature, and all other aspects of the "higher" social heritage to the problems of human beings living in a practical workaday world. Fundamentally, consumer education is the building of a pattern of knowledge that finds expression in the daily life of the individual.

F. PRODUCER EDUCATION

The shift of an increasing number of producers from the individualistic to the social point of view will more immediately benefit consumers than any other single change in attitudes. This does not imply that businessmen have to undergo a fundamental change in nature but merely that they need a greater amount of training in the social sciences in order that they may more quickly ascertain the trend of a culture. Most businessmen are quick to see the advantages of machine methods and specialization but rather

slow in realizing that as these methods are widely adopted the differential advantages of individualism are automatically canceled and the gain of each becomes inextricably bound up with the social welfare. Competition can only bring greater and temporary rewards for the few at the increasing cost of the many. The machine process does not lend itself to differential advantages except through social controls (such as patents and monopolies) which enable an individual, through the power of the group, to prevent the many from enjoying the full fruits of machine technology. When business was still dependent upon individual ability, and production upon individual skill, competition and self-interest usually produced greater social as well as private welfare. Individual differences counted. But under machine technology the process becomes so completely automatic that individual differences mean little to its smooth operation. Only through obstruction can differential advantage be gained, and at best only temporarily. Obstruction jams the process, and the largest gainer often becomes the largest loser in the debacle of depression when the interdependence of all persons becomes apparent even to the dullest minds.

The relation of consumer purchasing power to an expanding market is another matter on which the producer can become more enlightened with increased profit both to himself and the consumer. Often this aspect is referred to as the "high-wage doctrine." Although a few industrialists whose products are widely consumed by their own employees have demonstrated its validity, the great majority of producers, especially in the basic industries, are still firm in their belief that low money wages mean low costs of production, and still fail to see that low wages mean small purchasing power and a restricted market for their own as well as for others' products. Their own cost problems are so intimate and real that the larger aspects of the problem are obscured. The forest is hidden by the trees.

Evaluation of Consumption

The institution of consumption is rapidly emerging as the basic point of orientation for modern industrialism. The patterns of behavior employed in the purchase and use of the products and services of our complex and interdependent economy have largely been evolved under the pressures of special-interest groups and under the ideology of scarcity. Modern science and technology demand a social organization based upon use rather than market values. The invention and application of a machine for the manufacture of perfect diamonds at a few cents a carat would destroy the market value of all existing diamonds but would in no way affect their use-value. To the extent that diamonds satisfy a genuine and widespread human want such a change would greatly increase the pleasures and satisfactions of mankind. But to the extent that they satisfy only those wants arising from the efforts of individuals to gain personal distinction by possessing goods having a high market value (price), such a change would remove diamonds from the category of want-satisfying goods. The whole hierarchy of human wants must slowly but steadily change in the face of man's increasing powers to produce abundantly. The institutionalized ways of consumption are being drastically affected by the rise of an economic system capable of producing an abundance of goods with high use and low market values.

The American system has often been praised for its ability to reduce the former luxuries of kings to the necessities of workaday citizens. But the social consequences of this have been only dimly perceived. While large-scale productive methods were being applied to a relatively few goods these methods were hailed as the crowning achievement of our industrial system. Now as they spread into an ever-widening field they have become the object for alarm and restriction. As money values fall under the onslaught of abundant production, investment is impaired, unemployment rises, and the whole system of market values crumbles. Consumers hold the key to the reorientation of our social system. By shifting their attention from production to use they can create the ideology necessary for the reorganization of society. Man must recognize production as a mere means and not an end. Richer and more meaning-

ful living must become the objective. An abundance of goods and services is certainly necessary to the highest development of a society. The institutions surrounding production are the means whereas those activities comprising the institution of consumption are the ends which give meaning and purpose to life.

Our institutional framework is the backbone of our culture. Unless it is constantly and intelligently modified to serve the needs of a growing civilization it must rot and decay. Such a condition has often characterized the institutions of preceding cultures. Whether this must be our fate depends upon the degree to which the average citizen of our democracy understands their form and function and to which he is willing to contribute his energies to their constant and orderly modification.

BIBLIOGRAPHY

ARNOLD, THURMAN, *Bottlenecks of Business*, 1940, Reynal.

An analysis of modern industrial restraints on trade and an evaluation of the work of the government anti-trust administration. Written from the consumer point of view.

BRINDZE, RUTH, *How to Spend Money—Everybody's Practical Guide to Buying*, 1935, Vanguard.

A practical handbook on buying practices designed to aid the average consumer. Non-technical and interesting.

BYE, RAYMOND T., and RALPH H. BLODGETT, *Getting and Earning*, 1936, Crofts.

Ch. 1. Poverty and Riches, pp. 3–30.

Ch. 2. To Each His Due, pp. 31–58.

An analysis of the relation of earned and unearned incomes to the inequality of wealth distribution.

BYE, RAYMOND, T., and WILLIAM HEWETT, *Applied Economics*, 3d ed., 1938, Crofts.

Ch. 3. Consumption and the Guidance of Industry, pp. 34–49.

A good general discussion of the place of consumption in modern economic society and of some means of improvement.

CHASE, STUART, *Mexico*, 1931, Macmillan.

Chs. 7 to 11. Machineless Men, pp. 123–227.

A description and social evaluation of the food, clothing, shelter, work, play, and thought patterns of consumers in a civilization almost free of capitalism. Recommended as a comparative study. Written for the non-technical reader.

CHASE, STUART, "Park Avenue," *New Republic*, May 25, 1927, pp. 9–11.

Interesting description of the consumer goods bought by some of America's wealthy families.

CHASE, STUART, "The Consumer's Tomorrow," *Scribner's Magazine*, December, 1933 (Vol. XCIV, No. 6), pp. 333–338.

An able survey of the effects of the depression upon the place of consumption in our economic system.

CHASE, STUART, *The Tragedy of Waste*, 1925, Macmillan.

Ch. 5. Waste in Consumption, or Illth, pp. 53–81.

Ch. 6. More Illth, pp. 82–107.

Ch. 7. An Analysis of Advertising, pp. 108–125.

Although written during the post-war slump, the material in these chapters is still applicable to a considerable extent to conditions today. Very elementary.

CHASE, STUART, and F. J. SCHLINK, *Your Money's Worth*, 1927, Macmillan.

One of the first of a long list of books evaluating the economic system from the standpoint of the ultimate consumer. Especially good for the beginner since it not only shows the social wastes of modern distribu-

tion but also the potential powers of modern technology to improve the general level of living for all.

COLES, JESSIE V., *The Consumer-Buyer and the Market*, 1938, Wiley.
Detailed analysis of structure, functions, and costs of the market, problems of the consumer as buyer, and private and public agencies for controlling the market in the interests of consumers. Excellent reference.

CONSUMERS' COUNSEL DIVISION, A. A. A., *Consumers' Bookshelf*, A Bibliography of Publications on Commodity Buying and Other Consumer Problems, 1937, U. S. Government Printing Office, Consumers' Counsel Series No. 4 (1938).

DAVIS, JEROME, *Capitalism and Its Culture*, 1935, Farrar & Rinehart.
Ch. 10. Distribution and Consumption, pp. 148–186.
A sketchy but worth-while analysis of some selected aspects of consumption in America, especially those reflecting the influence of capitalistic ideology.
Ch. 21. Privilege and Profit, pp. 439–458.
Analysis of the patterns of behavior and consumer activities of the middle and upper classes. Sketchy.

EDWARDS, CORWIN, "Some Consumer Problems," Part I in Willard Thorp (Ed.), *Economic Problems in a Changing World*, 1939, Farrar & Rinehart.
Seven elementary chapters on standards of living, choice in the market, government agencies, cooperatives, and government aids for the production of better consumer goods by the chief economist of the Federal Trade Commission.

ELY, RICHARD T., and RALPH H. HESS, *Outlines of Economics*, 6th ed., 1937, Macmillan.
Ch. 8. Consumption, pp. 139–149.
Types, measurement, relation to production, social setting, and standards. A good elementary treatment of these aspects of the institution.

EZEKIEL, MORDECAI, $2500 *a Year: From Scarcity to Abundance*, 1936, Harcourt Brace.
A study of the physical and economic requirements for satisfactory family maintenance, the social, ideological, and economic barriers to its attainment, and possible ways of making it a reality

GORDON, LELAND J., *Economics for Consumers*, 1939, American Book.
Chs. 4 to 12. Forces Conditioning the Acquisition and Use of Goods, pp. 59–244.
An excellent survey and social evaluation of custom, fashions, advertising, and fraud.
Chs. 13 to 26. Consumer Problems, pp. 245–631.
Analysis and social evaluation of such problems as installment buying, budgeting, cooperatives, insurance, home owning, and investment. Survey of private and government aids for consumers.

HARDING, THOMAS S., *The Popular Practice of Fraud*, 1925, Longmans.
Nature, types, examples, social effects, means for control. One of the best general treatments.

HENDERSON, GERARD C., *The Federal Trade Commission*, 1924, Yale University Press.

A scholarly and comprehensive treatment of development and work of this agency.

HOBSON, JOHN A., *Work and Wealth*, 1914, Macmillan.

A broad study of the philosophic implications involved in the modern problem of directing production in the interests of consumers.

HOMAN, PAUL T., "Consumption in Economic Theory," *Ency. of Social Sciences*, IV, 293–295.

A scholarly analysis of the changes in the role of consumption in the literature of economics. Chiefly of interest to students interested in the development of economic thought.

HOYT, ELIZABETH E., *Consumption in Our Society*, 1938, McGraw-Hill.

Ch. 8. Advertising and Aggressive Salesmanship, pp. 98–108.

Ch. 9. Consumers' Protection in the Market, pp. 109–120.

Ch. 10. Standardization of Consumers' Goods, pp. 121–130.

Ch. 21. American Consumption, pp. 253–264.

The importance of the consumer as the center of our whole economic system; measures of actual consumption in the United States and the world; philosophy underlying consumers' choices. The chapters listed above develop specific aspects of consumption. Their titles are amply descriptive.

INSTITUTE FOR CONSUMER EDUCATION, *Making Consumer Education Effective*, 1940, Stephens College, Columbia, Missouri.

Proceedings of the second national conference on consumer education held at Stephens College, April, 1940. One of the best cross sections of the attitudes, methods, and evaluations of education for the consumer.

KAIDANOVSKY, SAMUEL P., et al., *Consumer Standards*, Monograph 24, Temporary Economic Committee, 1941, U. S. Government Printing Office.

A very complete analysis of the work done by the various government departments and bureaus and by public and private agencies on standards, specifications, and simplification of practices.

KALLEN, HORACE M., *The Decline and Rise of the Consumer*, 1936, Appleton-Century.

Ch. 3. Primacy of the Consumer, pp. 88–108.

Philosophic treatment of the effects of outmoded concepts of property, prices, and profit on the modern consumer and his function in society. The entire book offers an excellent historical and philosophical treatment of the changing role of the consumer in modern economic society.

KALLET, ARTHUR, and F. J. SCHLINK, 100,000,000 *Guinea Pigs*, 1933, Vanguard.

A popular exposé of the plight of the modern consumer in a world of convincingly advertised but inadequately regulated foods, drugs, and cosmestics. A survey of conditions prior to the new Food and Drug Act. A stimulating book for the beginner.

KYRK, HAZEL, *A Theory of Consumption*, 1923, Houghton Mifflin.

A Hart Schaffner Marx Prize Essay in Economics.

LAIRD, DONALD A., *What Makes People Buy?*, 1935, McGraw-Hill.
The psychology of customer motivation. What the customer buys, how he is most likely to buy it, and the personality necessary for the successful salesman.

LAMB, RUTH D., *American Chamber of Horrors*, 1936, Farrar & Rinehart.
A disclosure of the inadequacies of the laws protecting consumers and proposed remedial legislation.

LEVEN, MAURICE, HAROLD G. MOULTON, and CLARK WARBURTON, *America's Capacity to Consume*, 1934, Brookings Institution.
Analytical and interpretative study of the amount, division, utilization, and economic effects of the national income in the prosperous year of 1929. One of the most widely quoted sources. Scholarly but not difficult.

LYND, ROBERT S., and HELEN M. LYND, *Middletown*, 1929, Harcourt Brace.
CH. 9. The Houses in Which Middletown Lives, pp. 93–109.
A sociological study of the houses, their furnishings, occupants, and economic conditions in a typical industrial town in the days of alleged prosperity. The entire book is one of the finest studies of American institutions.

LYND, ROBERT S., and HELEN M. LYND, *Middletown in Transition*, 1937, Harcourt Brace.
The effects of depression upon the consumers of the same industrial city studied in *Middletown*. Chapters on food, clothing, homes, and work. Especially recommended.

LYND, ROBERT S., and ALICE C. HANSON, "The People as Consumers," Ch. 17, Vol. II in *Recent Social Trends in the United States*, 1933, McGraw-Hill, pp. 857–911.
Factual analysis of causes for increased production of goods; forces conditioning what people consume; amounts spent for various classes of consumer goods in 1929; significant changes in consumer habits.

LYON, LEVERETT S., "Advertising," *Ency. of Social Sciences*, I, 469–475.
Development of advertising from ancient times; aspects of modern economy promoting its spread; economic functions; effects upon consumer habits and standards; social evaluation. Especially recommended.

MARSCHAK, JAKOB, "Consumption—Problems of Measurement," *Ency. of Social Sciences*, IV, 295–301.
Methods employed in studying consumption by individuals, by families, by nations, and by commodities; comparison of amounts spent for selected commodities by families in leading industrial nations; effects of changes in income or allocation of expenditures.

MCCONNELL, DONALD, et al., *Economic Behavior*, 1939, Houghton Mifflin.
Ch. 34. Standards of Living, pp. 750–770.
An interesting but poorly organized treatment of the meaning, content, and factors affecting consumer activity.
Ch. 35. Consumer Influence on Prices, pp. 771–790.

Factors affecting consumers in the market; consumer movements and agencies. Elementary.

McKean, Dayton D., "Your Money's Worth," *Forum Magazine*, October, 1938 (Vol. C, No. 4), pp. 197–202.
An excellent survey of growth of consumer books and services (Consumers' Research, Consumers' Union, Cooperative Distributers, and Consumers' Counsel of AAA); the difficulties in testing innumerable brands under all operating conditions; the limiting effects of maldistribution of wealth; and role of the individual and government in an intelligent program of consumer education.

McMahon, Theresa S., *Social and Economic Standards of Living*, 1925, Ginn.
A comprehensive study of the origin, development, and effects of living standards in America. Good general reading. Not statistical.

Means, Gardiner C. (Ed.), *The Structure of the American Economy*, Part I, Basic Characteristics, National Resources Committee, 1939.
Ch. 2. The Structure of Wants, pp. 6–21.
A detailed study of the pattern of wants as expressed by expenditures of consumers; study of effects of changes in income on the pattern; many excellent charts and diagrams. Recommended for elementary and advanced students.

Mitchell, Broadus, "Brief for the Consumer," *The Annals*, March, 1938 (Vol. 196), pp. 9–13.
Evolution of the "price and profit" system from Middle Ages to date; its ideology and economic consequences; evolution of NRA and AAA from consumer viewpoint; socialization of industry considered as possible remedy.

Mitchell, Wesley C., "The Backward Art of Spending Money," *American Economic Review*, 1912 (Vol. II), pp. 269–281.

National Resources Committee, *Consumer Incomes in the United States*, 1938, U. S. Government Printing Office.
General study of the distribution of money incomes by individuals, families, and thirds. Also detailed studies of family incomes on the basis of size, composition, location, occupations, and race. Studies based upon selected samples.

Peixotto, Jessica B., *Getting and Spending at the Professional Standard of Living*, 1927, Macmillan.
A detailed study of the incomes and patterns of consumption of 96 professional families at the University of California.

Pitkin, Walter B., *The Consumer*, 1932, McGraw-Hill.
An interesting study of the forces conditioning the consumer in modern society and a social evaluation of their effects upon his behavior habits.

Plummer, Wilbur C., "Installment Selling," *Ency. of Social Sciences*, VIII, 74–81.
Historical development; principal forms in various nations; causes for recent expansion; organization and functions of American finance companies; social and economic effects.

RORTY, JAMES, *Our Master's Voice, Advertising*, 1934, Day.
Ch. 6. Magazine Study, pp. 73–81.
An analysis and social appraisement of the contents of advertisements in thirteen leading magazines.

RUBINOW, I. M., "Poverty," *Ency. of Social Sciences*, XII, 284–292.
Meaning, measurement, effects of modern industrialism upon; general and specific causes, comparison of modern with non-industrial forms; economic and social effects. Excellent bibliography.

SCHLINK, F. J., "Adulteration," *Ency. of Social Sciences*, I, 466–468.
Nature and social significance; history, methods for control.

SCHLINK, F. J., *Eat, Drink, and Be Wary*, 1935, Covici, Friede.
A popular exposé of deleterious materials found in common foods, with a program for abolishing them through government regulation.

SCHLINK, F. J., "Government Bureaus for Private Profit," *The Nation*, Nov. 11, 1931 (Vol. 133), pp. 508–511.
A critical survey of the services of the Bureau of Standards to private business organizations and an evaluation of the forces which keep this government agency from making its findings available to the private citizen. The reader of this stimulating article should also read the Bureau's own bulletin "Services of the National Bureau of Standards to the Consumer."

SLICHTER, SUMNER H., *Modern Economic Society*, 1928, Holt.
Ch. 22. The Position of the Consumer, pp. 539–591.
Causes and consequences of consumer ignorance; agencies and forces for consumer protection.

SOULE, GEORGE, "Consumer Protection," *Ency. of Social Sciences*, IV, 282–285.
Effect upon consumer of shift from handicraft to factory production, rise of laissez faire, standardization, and sumptuary legislation.

SOULE, GEORGE, "Consumers' Leagues," *Ency. of Social Sciences*, IV, 291–293.
Organization and functions; effects upon labor legislation and general working conditions.

STEWART, MAXWELL S., *How We Spend Our Money*, 1938, Public Affairs Committee (Pamphlet No. 18).
An interesting popular analysis of the expenditures made by typical wage-earning families for food, clothing, shelter, health, recreation, and education. Based on the study of purchases made by manual and clerical wage earners conducted by Bureau of Labor Statistics and on a study of consumer purchases made as a WPA project by Bureau of Home Economics and Bureau of Labor Statistics with cooperation of National Resources Committee.

STEWART, PAUL W., and J. F. DEWHURST, *Does Distribution Cost Too Much?*, 1939, Twentieth Century Fund.
A study of the costs involved in modern marketing and a program for their reduction. Ably summarized in a popular style in T. R. Carskadon, *59 Cents of Your $1*, 1940, Public Affairs Committee.

TUGWELL, REXFORD G., THOMAS MUNRO, and ROY E. STRYKER, *American Economic Life*, 3d ed., 1930, Harcourt Brace.

Ch. 6. Urban Poverty, pp. 96–123.

Ch. 7. Comfort, pp. 124–153.

Ch. 8. Riches, pp. 154–166.

One of the best elementary treatments of the nature and meaning of levels of living in the roaring twenties.

VAILE, ROLAND S., and HELEN G. CANOYER, *Income and Consumption*, 1938, Holt.

Ch. 5. America's Capacity to Consume, pp. 89–103.

Ch. 7. Factors that Influence the Individual's Capacity to Consume, pp. 124–143.

Ch. 8. Other Factors that Affect the Individual's Capacity to Consume, pp. 144–190.

Ch. 9. Standards of Living, pp. 191–215.

A series of chapters accurately described by their titles. Excellent general treatment of income in the United States from the consumer's point of view.

VEBLEN, THORSTEIN, *The Theory of the Leisure Class*, 1899, Macmillan.

Ch. 2. Pecuniary Emulation, pp. 22–34.

Ch. 3. Conspicuous Leisure, pp. 35–67.

Ch. 4. Conspicuous Consumption, pp. 68–101.

Ch. 5. The Pecuniary Standard of Living, pp. 102–116.

These chapters develop the theme that the underlying ideology of private gain permeates the entire fabric of life and finds expression in the consumption patterns of people at all levels.

WAITE, WARREN C., and RALPH CASSADY, JR. *The Consumer and the Economic Order*, 1939, McGraw-Hill.

A study of the major economic forces conditioning the behavior of the consumer in the market and an analysis of some selected consumer problems.

WOODWARD, HELEN, *Through Many Windows*, 1926, Harper.

An interesting account of the life of an employee of a large advertising agency. Recommended as a background and evaluation of modern advertising practices.

WYAND, CHARLES S., *The Economics of Consumption*, 1936, Macmillan.

An able analysis of the major problems of consumption. The place of consumption in economic theory, the nature and function of the consumer, the factors affecting choice in the market, and the interrelation of consumption and planes of living are treated in a scholarly but realistic fashion.

WYLIE, HARVEY W., *An Autobiography*, 1930, Bobbs-Merrill.

One of the best sources for an account of the struggle to obtain and then to enforce government control of food and drugs by a champion of consumer legislation who served many years as chief of the Bureau of Chemistry in the Department of Agriculture.

Index

A

Abilities, as related to techniques, 272
Ability, compared with techniques, 3
  defined, 3
Accountants, functions of, in modern society, 388
  importance of, 387–388
Accounting, defined, 118, 374
  as an expression of money, 118–120
  financial statement, 119
  treatment of income and expense, 384
  treatment of indirect expenses, 385–386
  treatment of profit and loss, 384
  two chief expressions of, 374
Acquisitive property rights, 76–77
Adaptation, active *vs.* passive, 271–272
  related to maladjustments, 271
Advertising, competitive, defined, 465
  methods of, 242
  cultural evaluation of, 471–472
  defense of, 470–471
  defined, 456
  functions of, 459–471
Advertising, historical development of, 456–458
  in intra- and inter-industrial competition, 242–243
  modern, methods of, 250–252
  promoting change, methods of, 468–469
  and "puffing," 470
  related to prices, 191
  spheres of operation of, 458–459
  and standardization of products, 461–465
  and trade-marks, 465
Agricultural Adjustment Administration, 497–498
Agricultural Marketing Service, 497
Agriculture, as a form of private enterprise, 255–256
Allowance reserve, 377
American Dental Association, 501
American Gas Association, 501
American Medical Association, 501
American Revolution, as a stimulus to economic expansion, 342–343
American Standards Association, 500
Artifacts, defined, 9
Assets, defined, 118, 374
  undervaluation of, 379
  writing up of, 380–381

B

Balance sheet (*see* Statement of condition)
Banking, evolution of modern, 120–124
Barter economy, 113–114
Bequest, anti-social, example of, 56
  contrasted with inheritance, 55
  defense of, 57
  defined, 55
Bonds, defined, 369
  foreclosure, right of, 370–371
  indenture, 370
  vs. stocks, 369
Brahe, Tycho (1546–1601), 279
Bubble Act, 339
Bureau of Animal Industry, 496
Bureau of Dairy Industry, 496–497
Bureau of Home Economics, 495–496
Bureau of Standards, 490–495
Business, evolution of, 229–230
  as an expression of individualism, 228–230
  lingering beliefs of, 228–229
Buying in the market, causes for consumer ignorance when, 481–483
  consumer methods of, 480
  effects of habits when, 480
  as illustrated by proper price, 479

C

Call money, and corporate surplus, 177
  defined, 177*n.*
Capital, defined, 154, 330
Capitalism, beginning of, 46
  defined, 32
  evolution of, 46–47
  as related to technology, 270
Capitalization, illustration of, 156
  process of, 154
  related to investment, 158–159
  social aspects of, 160
Caustic Poisons Act, 490
Charter, as a contract (Dartmouth College Case, 1819), 345–346
  defined, 352
  vs. free association of men, 332
  as granted by state legislatures, 347–348
  granting of, in America, 345
  granting of, in commercialism, 336–337
  illustrations of grants of, 337
  modern method of granting a, 348–349
  place of in evolution of corporation, 341–342
  procedure of obtaining a, 354
  provisions contained in a, 352–355
  of the South Seas Company, 338
  as a three-way contract, 355
Coal mining, 82–87
Combinations (*see* Diagonal; Horizontal; Vertical)
Commercial bankers, 258
Commercial Revolution, and the price system, 110
Common law, contrasted to formal law, 355–356
  defined, 355
  rights of stockholders, 356–357
Common stock, contrasted to preferred, 367–369
Competition, and advertising, 242–243
  corporate control of, 249
  defined, 239
  definition of regional, 243
  economic, 244
  evolution of, 247
  failure of, 250–253
  forms of, 240
  in free private enterprise, 244–245
  as a hindrance to standardization, 312
  as illustrated by radio and aircraft, 249–250
  by refrigeration, 250
  inherent limitations of, 251–252
  intra- *vs.* inter-industrial, 241–243

Competition, methods of modification of, 247–248
in modern economy, 248–249
and modern technology, 253–254
in petty trade, 249
as a promoter of efficiency, 245–246
as a regulator of industry, 244–245
related to laissez-faire economy, 238
related to monopoly, 252
related to other institutions, 239–240
related to price system, 182
related to self-interests, 238
and technical progress, 246–247
Competitive advertising, as an aid to differentiation, 466
anti-social effects of, 465–466
defense of, 467–468
defined, 465
as regulated by the Federal Trade Commission, 466–467
results of, 466–467
and trade-marks, 465
Conspicuous consumption, 478–479
Constant costs, as affected by production, 304
defined, 300
vs. direct costs, 303–305
in factory, 303–305
in machine shop, 303–305
Consumer education, defects of present, 504
as it should be taught, 504–505
purposes of, 503–505
in secondary schools, 503–504
Consumers' Counsel Division, 498–499
Consumers' Guide, 499
Consumers' Research, 501–502
Consumers' Union, 501–502
Consumption, and advertising, 456–472
as affected by distribution of income, 441–442
by property rights, 441
Consumption, and Bureau of Standards, 490–495
conspicuous, 478–479
and consumer education, 503–505
as contrasted to production, 432–433
defined, 432
and distribution of income, 442–449
in early cultures, 435–439
evaluation of, 507–508
and Food and Drug Administration, 485–490
and government agencies, 495–500
in industrial system, 441–442
and levels of living, 474–478
new philosophy of control of, 484
origin and development of, 434–439
and price structure, 449–456
and private agencies, 500–502
and producer education, 505–506
as related to acquisition and choice, 433
as related to human wants, 431–432
structure of, 473
Consumption goods, contrasted to production goods, 153
defined, 153
related to wealth, 153
Continuous-flow method of production, 314
Contract, defined, 61
freedom of, 58
types of (wages and leases), 62
Conventions of valuations, 375
Copernicus, Nikolaus (1473–1543), 279
Copyright, 63
Core of beliefs, 8
Corporate property rights, 72–73
Corporate reserves, 175–176
Corporate savings, effect upon interest rates, 175
and individual saving, 175
Corporate surplus, defined, 175
used as call money, 177

Corporation, changes in functional relationships of, 341
commercial development of, 332–341
comparative size of (1933–1936), from standpoint of assets, 392–394
from standpoint of income, 394
as compared to an individual, 351
as compared with land companies, 344
comparison of incomes of, 394–395
and the Dartmouth College Case (1819), 345–346
as distinguished from partnerships, 340
evaluation of, 420–421
external controls, 399–411
formal *vs.* informal in America, 344–345
fundamental feature of as described by Livermore, 340
in industrial capitalism, 341–346
internal controls, 399–411
internal organization of, 361–364
board of directors, 362
officers, 362
introduction to, 330
legal definitions of, 350–351
legal status of, 351
in medieval times, 331–332
modern conditions of, 346–347
in modern industrialism, 212–215
as modifier of price system, 184–187
operation of, 399–419
ownership rights of stockholders of, 355–361
place in business and industry, 391–394
place in modern society, 394–398
procedure of obtaining a charter for a, 354
provisions of a charter of a, 352–355
as related to modern consumer, 395–398
Corporation, relationship of, to consumers, 364
to creditors and employees, 363
to others in the market, 363
and separation of ownership and control, 389–391
theory of limited liability of, 346
in transitional period, 211
Corporation property, fluctuating value of, 372
during receivership and reorganization, 371–372
Corpus juris, 351
Counters (small coins), 116*n*.
Crusades and the price system, 109–110
Cultural pattern, 4–13
Culture, defined, 4
definition of, Benedict's, 9
Malinowski's, 7–8
Tylor's, 6
Wissler's, 6, 9
distinguishing characteristics of, 9–12
ideology of, 8
interdependence of, 6
meanings of, 6
Currency, forms of, in use today, 124
Customs, 18

D

Dartmouth College Case, 350–351
Deflation, and money value, 149
social effects of, 148–150
Depreciation, effects on accounting statements, 387
illustrations of methods used, 386–387
methods of, 386
Depression unemployment, 319
Descartes, René (1596–1650), 280
Diagonal combination, 419
Differential gains, as contrasted to positive gains, 225
by early enterprisers, 227–228

Differential gains, as an expression of individualism, 225–228
as opposed to the general welfare, 226
Direct costs, as affected by production, 304
defined, 300
in factory, 303–305
vs. indirect costs, 303–305
in machine shop, 303–305
Directors, of corporations, 362
relationship to officers, 363
Domestic system, beginning of the, 204–205
and English textile industry, 204–205
and enterprisers, 204–206
and labor, 206
Drill press, 296

E

Economic activity, 5–7
Economic surplus, commonest form (leisure), 39
defined, 36
the first, 35
first claimant of, 40
first evidence of, 41
hypothetical example of, 37–39
Economics, 5
Enterprise, and the businessman, 260–261
defined, 202
and the domestic system, 204–206
in early industrialism, 206–210
evaluation of, 262
evolution of, 203
as illustrated by agriculture, 255–256
by petty trade, 256
in modern industrialism, 212–215
as related to banking, 258
as related to other institutions, 202
in transitional period, 210–212
Enterprisers, changing position of, 211
in domestic system, 204–206
in early industrialism, 206–210
in transitional period, 210–212
Exclusive control, defense of, 78–79
related to production, 79
restrictions to, 53
social *vs.* anti-social effects of, 54–55
External profits, 261

F

Factory system, as aided by machine tools, 295
vs. machine shop, 301–302
origin of, 291
Fair-trade laws, evolution of, 189–193
reasons for, 192
Federal Security Agency, 490
Federal Surplus Commodities Corporation, 498
Federal Trade Commission, functions of, 499–500
Radio and Periodical Division of, 500
and Wheeler-Lea Act of 1938, 499
Fiat money, 146
Filled Milk Act, 490
Folkway, defined, 14
example of, 15
relation of, to institutions, 16
Food and Drug Act of 1906, amendment of (1913), 485
as compared with new law of 1938, 488
inadequacy of, 485
provisions of, 485
Food and Drug Administration (1927), 485–490
and Caustic Poisons Act, 490
and Filled Milk Act, 490
and Food and Drug Act of 1906, 485
and Food, Drug, and Cosmetic Act (1938), 487–489
functions of, 486
and Import Milk Act, 490
McNary-Mapes amendment to (1930), 486
new status of, 490

Food and Drug Administration, (1927), physical structure of, 486
and Tea Act, 489–490
Food, Drug, and Cosmetic Act (1938), as compared with the law of 1906, 488
and permit system, 487
provisions of, 487–489
Foreclosure, as referred to bondholders, 371
Freedom, American concept of, 222
contrasted by the two viewpoints, during frontier days, 224–225
during modern days, 224–225
as an expression of individualism, 221–225
negative, 222
positive, 223
as viewed by anarchists, 221
Functional property rights, 76

G

Gain motive, as controlled by self-interest, 236
as inherent to man, 235
as a premise of laissez faire, 235–236
as related to mobility of the factors of production, 236
Galileo (1564–1642), 280
Gear cutter, 296
General incorporation laws, 346–347, 351–352
Gentleman's agreement, defined, 413
as form of corporate control, 413
Going rate, conditions affecting the, 155
defined, 155
illustration of, 155–156
related to risk, 155
Goldsmiths in evolution of banking, 120–124
Goods, discussion of man-made and machine-made, 168
as related to price, 168
Goodwill, defined, 65–66
as a device for overvaluation, 380
Government, functions of, under laissez faire, 233–234
Grinding machine, 296
Group property rights, 71

H

Holding company, as compared to an operating company, 405–406
as device of corporate control, 403–411
in the field of public utilities, 403–404
hypothetical example of a, 404–408
vs. actual facts, 408–411
modern regulation of, 411
position of stockholder in a, 405
powers of boards of directors of, 409–411
and pyramiding, 403
related to trusts, 414
Home Economics Education Service, 490
Horizontal combination, 419
Humanism, 278
Hypothesis, 284

I

Import Milk Act, 490
Income, as affected by price structure, 452–453
Brookings Institution, report on 1929, 447–449
study of, 91–92
defined, 90, 127–128
depression *vs.* prosperity, 442–449
discussion of distribution of, 90–92
effects of distribution of upon consumption, 441–442
individual, 128
and money, 127–128
National Resources Committee report on 1935–1936, 442–447
from property, 90

Income, and property rights, 90–92
real, 128
as related to the factors of production, 128–130
social, 128
Indenture, 371
Index numbers, construction of, 135
illustrations of, 135–136
uses of, 139
weighting of, defined and illustrated, 137–138
Indirect costs, as affected by production, 304
defined, 300
vs. direct costs, 303–305
in factory, 303–305
illustrations of, 300
in machine shop, 303–305
Indirect expenses, 385
Individual property rights, defined, 70–71
Individualism, contrasted to feudal ideology, 216
definition and ideology of, 216
as expressed in business, 228–230
as expressed by differential gains, 225–228
as expressed by freedom, 221–225
as expressed by personal freedom, 230–232
expressions of the ideology of, 221–232
historical development of, 217–221
Industrial Revolution, effects of, upon consumption, 436–437
as first applied in England, 343
as stimulus to economic expansion, 342–343
Industrialism, early, in England, 208–209
modern, 212–215
in the transitional period, 210–212
Inflation, and borrowing for warfare, 144–145
defined, 143
and general price level, 143–144
and government currency, 145–146
Inflation, illustration of diminishing money value during, 147–148
social consequences of, 147–148
In-group *vs.* out-group, 35
Inheritance, contrasted to bequest, 55
defined, 55
Installment buying, of durable goods, 140
and price fluctuations, 140
Institutions, changing of, 19–20
composition of, 14
creation of, 14
defined, 4, 13, 16, 25
elements of, 16
functions of, 26
interrelation of, 16
need for, 24
origin of, 26
related to folkways, 16
to society and social change, 22
uses of, 21
Insurance reserves, 178
Interdependence, consequences of, 310
as a function of specialization, 309
as illustrated by an automobile factory, 309
and price system, 111–112
Interest, defined, 172
determination of the rate of, 174
nature of, 173
necessity for, 173
as a regulator, 173–175
Interest rate and savings, 172
Interest rates, and corporate savings, 175
and insurance reserves, 178
Internal profits, as contrasted to external profits, 260
defined, 260
Invention, 12
Investment, defined, 154
related to capitalization, 158–159
Investment bankers, defined, 259
functions of, 259
importance of, 259–260
power given to, 214–215

Investment bankers, as promoters, 257
rise of, 213–214
and underwriting, 259

J

Joint-stock venture, described, 334
difficulty of, 334
liability in a, 336
permanent, 335

K

Kepler, Johannes (1571–1630), 279–280
Knowledge, defined, 272
as related to science, 272–273

L

Labeling plan, 492–493
Labor, beginning of free, 206
as a commodity, 207
in the domestic system, 205–206
in early industrialism, 207
as a market, 207
Labor organization, as a modifier of price, 188–189
purpose of, 188
Labor theory of property rights, 68
Laissez faire, basic assumption of, 232
basic premises of, 233–238
gain motive, 235–236
government, 233–234
market price, 236–237
public welfare, 237–238
rationality, 234–235
doctrine of, 232
evolution of, 232
related to competition, 238
Land companies, 344
Lathe, 296
Laundry owners' associations, 500–501
Lease, 62
Legal tender, defined, 124*n.*, 146
Levels of living, comparisons of, 477
defined, 474
measurement of, 475–477
relativity of, European *vs.* American, 477–478
Liabilities, 118, 374–375
Liability reserve, defined, 377
example of, 378
Liquid wealth, defined, 160
effects of, 161–163
related to speculation, 161
rise in percentage of, 161

M

Machine, defined, 288–289
as an element of technology, 288
as illustrated by the wheel, 290
vs. tool, 290–291
Machine-shop methods, 302–305
Machine tool, as contrasted to production machine, 297–298
defined, 295
as one aid to rise of factory system, 295
Maladjustment, 271
Manipulation, 151–152
Manipulators as promoters, 258
Market, defined, 126
in early industrialism, 183
and exchange, 126
in a laissez-faire economy, 237
pressures of a free, 182
and price, 118, 126
and price system, 110, 126–130
as a regulator of price, 182–193
Market price, in a free market, 237
as a premise of laissez faire, 236–237
Mass production, prerequisites of, 314–315
as related to standardization, 312–313
Meat Inspection Act, 496
Mellon Institute, 501
Merger, compared with consolidation, 414–415
defined, 414

Merger, as an external control of corporations, 414–415
Mill, John Stuart, 55
Milling machine, 296
Molding machine, 296–297
Money, defined, 114
  defined by Ware and Means, 125
  expressions of, 116–126
    accounting, 118–120
    banking, 120–124
    currency, 124–126
  fiat, definition of, 146
  functions of, 115–116
  and general price level, 133
  illustration of fluctuating value of, 141
  and income, 127–128
  related to general price level, 133
  relation of government to, 145–146
  results of changes in value of, 134
Money economy, 113–114
Morality, 34–35
Mores, 15

N

Natural rights theory of property rights, 67–68
Needs, compared with wants, 36
  defined, 36
Net worth, 374
Newton, Sir Isaac (1642–1727), 280–281
Non-pecuniary motives, comment by Prof. Douglas, 181
  discussed, 178–181
  examples of, 180

O

Occupation theory of property rights, 67
Oil, extraction of, early methods of, 87–88
    modern methods of, 89
    wastes in, 87–89
  formation of, 87
  geological conditions of, 88
Ownership, defined, 45, 52
  relationship of, to possession, 52

P

Patents, anti-social effects of, 63–64
  defined, 63
Pecuniary standards, illustration of, 166–167
  in the price system, 166
  related to social standards, 167
Permit system, 487
Personal freedom, as an expression of individualism, 230–232
  and individual welfare, 232
  negative type *vs.* positive type of, 231
  restrictions of, by the group, 231
Personal property, defined, 74–75
  examples of, 74–75
  intangible, 75
  related to possession, 74
  tangible, 74
Petty trade, 256
Planer, 296
Pools, 413
Possession, contrasted to ownership, 51–52
  defined, 51
  legal and illegal, 51
  related to personal property, 74–75
  social sanction of, 51
Power, natural, *vs.* machine, 292–294
  origin and development of, 291–294
Power hammer, 297
Preferred stock, contrasted to common stock, 367–369
  cumulative, *vs.* non-cumulative, 368
Prepaid expenses, 378–379
Price, defined, 110
  expressions of, 112
  in the market, 126–127
Price fluctuations, of durable goods, 140

Price fluctuations, economic effects of, on business, 142
example of in stock market, 162
and the general price level, 139
and government spending, 146
and installment buying, 140
modern indifference to, 140
and real income, 141
Price level, defined, 132
and deflation, 143–144
effects of changes in, 139–140
and inflation, 143–144
measured by index numbers, 134–139
and price system, 132–134
and purchasing power, 133
related to money value, 133
and specific price changes, 132
Prices, agricultural, *vs.* manufactured, 454–456
and control of production, 186
effect of price cutting, 192
flexible, *vs.* rigid, in early industrialism, 183
in modern industrialism, 184–193
related to advertising, 191
restriction of by labor organization, 189
Price structure, effects of changes in, 450–456
effects of, as illustrated by a Missouri farmer, 454–456
flexible, *vs.* rigid prices in, 453–456
as related to consumption, 449–456
Price system, and commerce, 110
and Commercial Revolution, 110
and Crusades, 109–110
of early industrialism, 183
evaluation of, 194
example of social effects of, 169–172
and formation of attitudes, 169–172
and a free market, 182
and general price level, 132–134
Price system, influenced by corporate administration, 184–187
by fair-trade laws, 189–193
by labor organization, 187–189
introduction to, 108
and market, 110, 126–130
and modern interdependence, 111–112
and non-pecuniary incentives, 178–181
origin of, 109–112
and pecuniary standards, 166–167
primary function of, 182
related to competition, 182
structure of, 114–130
and thought patterns, 164
and wealth, 169
Printing, as an aid to science, 278–279
Producer education, 505–506
Production, related to exclusive control, 79
to property, 78–81
Production goods, contrasted to consumption goods, 153
defined, 153
related to wealth, 153
Production machine, as contrasted to machine tool, 297–298
Productive capacity, as illustrated by cotton spinning, 315
as increased between 1800 and 1890, 316
in modern industry, 316
studies in, 317–318
Profit and loss statement, as affected by depreciation methods, 386–387
by inventories, 387
as contrasted to the statement of condition, 382
illustration of, 383
purpose of, 382
Profits, external, definition of, 261
internal, contrasted to external, 260–261
definition of, 260

Promoter, characteristics of, 257
functions of, 256–257
types of, 257–258
Promotion, defined, 256
functions of, 256–257
Property rights, changes in, 48–49
and coal mining, 82–87
corporate, 72–73
early concept of, 53–54
evaluation of, 99–100
functional, *vs.* acquisitive, 76–77
group, 71
Hamilton's comment on, 54
historical development of, 43–44
and income, 90–92
individual, 70–71
and production, 78–81
public, 71–72
relationship to the market, 45
relationships involved in, 59
restrictions to exclusive control of, 53
and security, 95–98
social basis for, 49–58
social sanction of, 50–53
and social status, 92–94
supporting theories of, 66–69
types of, 69
Proxy, defined, 401
as a device of corporate control, 401–403
Public Health Service, 490
Public property rights, 71–72
Public utilities, as compared with other industries, 403
regulation of, 403–404, 411
(*See also* Holding company)
Public welfare, as a premise of laissez faire, 237–238
as a summation of individual welfare, 237–238
Puffing, 470
Punch press, 297

R

Rationality, defined, 234
in the market, 234
Rationality, minor beliefs of, 235
as a premise of laissez faire, 234–235
Real property, 73
Reflation, 150
Rent, economic, *vs.* ordinary, 158*n.*
Reproduction cost, defined, 157
illustration of, 157–158
Reserve, as illustrated by food of a farmer, 377
principal types of, 377–378
allowance (valuation), 377
liability, 377–378
surplus, 378
Risk, defined, 155
illustration of, 155–156
related to the rate of return, 155
Robinson Crusoe, 6
Rolling mill, 296
Roundabout method, as contrasted to the direct method, 301–305
as illustrated by modern factory production, 298–299
necessity of, 299
and production costs, 300–305

S

Science, as aided by Copernicus, 279
by "humanism," 278
by printing, 278–279
by rationalism, 279
basic assumptions of, 281–282
causation, 282
permanence, 282
regularity, 281
defined, 272
by Ginzburg, 275
as developed, by the bourgeoisie, 276–277
in the Middle Ages, 276
essentials of, 274–275
as expressed by Greek culture, 275–276
nature of, 273
as related to knowledge, 272–273
to technology, 271
and the scientific method, 283

Scientific law, defined and discussed, 285–287
as natural law, 286
similarity of to social laws, 286–287
and truth, 285
Scientific method, defined, 282
and generalization, 284
procedure of, 282–285
as related to science, 283
to technology, 283
results of, 285
Security, importance of to man, 95
and property, 95–98
Selling short, 142
Sensitivity, as a consequence of interdependence, 310
Shaman, claim on surplus, 40
defined, 39
Simplified practices, 494
Smith, Adam, 68, 234
Social action, defined, 226
as opposed to individual action, 226–227
scholastic emphasis of, 227
Social expediency theory of property rights, 69
Social laws, contrasted to scientific laws, 286–287
as folkways, 15
Social organization, defined, 7
Malinowski's definition of, 7
Social process, 43
Social relationships of man, to cultural pattern, 64
to man, 60
to material wealth, 59
Social sanctions, of bequest and inheritance, 55
defined, 50
of exclusive control, 53
expressions of, 50–51
of freedom of contract, 58
Social welfare theory of property rights, 68–69
Society, defined, 6
relationships in, 13
South Seas Company, 338
Specialization, as an aspect of technology, 307
defined, 307
as illustrated by labor, 307–308
illustration of, 308–309
as related to consumption, 435–436
to interdependence, 309
to standardization, 310–311
results of, 308
Specie, 145*n.*
Specifications, 491–494
Speculation in England from 1711 to 1720, 338–339
Squatters, 51
Stamp plan of distribution, 498
Standardization, advantages of, 311
chief obstacle to, 312
development of, 211
in modern industrialism, 211–212
as related to advertising, 461–465
to mass production, 312–313
to specialization, 310–311
of weights and measures, 494–495
Standard of identity, 488
Statement of condition, as affected by depreciation, 387
by under- and overvaluation of assets, 380–381
as contrasted to profit and loss statement, 382
illustration of, 376
purpose of, 374
Stock, as capital of a corporation, 365–366
contrasted to bonds, 369–370
non-par, 367
par value, 366–367
preferred, *vs.* common, 367–368
(*See also* Common stock; Preferred stock)
Stockholders' rights, knowledge of financial condition of corporation, 359–360
modification of, 357–361
participation in assets after dissolution, 360–361
in profits, 360

Stockholders' rights, under common law, 356
preemptive right of subscription, 358–359
voting power, 357–358
Stock market, and manipulation, 152
as a perfect market, 151–152
Surplus reserve, 378

T

Tea Act, 489–490
Technicians, 305–306
Techniques, defined, 3
as related to abilities, 272
Technological unemployment, 318
Technology, defined, 271
effect of, upon corporate control, 415–416
evaluation of, 321
and interdependence, 309–310
and mass production, 312–315
and productive capacity, 315–318
as related to capitalism, 270
to science, 271
and specialization, 307–309
and standardization, 310–312
and unemployment, 318–320
Temporary National Economic Committee, 177
Theory, 284–285
Thought patterns, illustrated by a growing child, 164–165
by jewelry, 165–166
in the price system, 164–172
Timber culture and mining, 89
Title, defined, 51
related to real property, 73
Token money, 124
Tool, defined, 289
distinguishing characteristic of, 289
as illustrated by use of a hammer, 289
vs. machine, 290–291
Trade-mark, defined, 465
related to competitive advertising, 465
Trust, 414

U

Ultra vires act, 358
Underwriters Laboratories, 500
Underwriting, defined, 259
importance of, 259
Unemployment, defined, 318
depression, 319
social effects of, 319–320
technological, 318
United States Pharmacopoeia, 483
Utility, 237

V

Valuation reserve (*see* Allowance reserve)
Variable costs, as affected by production, 304
defined, 300
in factory, 303–305
vs. indirect costs, 303–305
in machine shop, 303–305
Ventures, early modern, 333
relation of to modern corporation, 335
types of, 333–336
Vertical combination, 419
Vested interest, 64

W

Wages, 62
Wants, 36
Wealth, and monetary return, 154
as a power to control, 168–169
in price system, 169
primary uses of, 153
as related to interest, 172
Weighting of index numbers, 137
Writing, technique of, 3