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THE LAWS OF SUPPLY AND DEMAND

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THE LAWS OF SUPPLY AND DEMAND

WITH SPECIAL REFERENCE TO THEIR INFLUENCE ON OVER-PRODUCTION AND UNEMPLOYMENT

BY

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DEDICATIO

Lionello Milford, homini mihi carissimo amicissimoque, cui plura debeo quam quæ, vel in chartis possim enumerare, vel aliter exponere ausim conari, hunc librum dedico, qui quidem fontem originemque hinc duxit. Quæ enim de iis rebus, quæ in eo tractantur, diutissime ac necessitate nescio qua coactus in animo volutaveram, nuperrime et de industria disposui et ordinavi, noscendi causa, quem ad finem spectarent, simul utrum in rationem doctrinamque redigi possent accuratiorem. Spero quidem, ut nihil aliud, hoc tamen me profecisse, ut materiam perobscuram et difficiles explicatus habentem haud parum dilucide enucleaverim, sicubi vero id non sim assecutus, non me cuiquam futurum ludibrio, ut qui vel futilia molestaque commentatus sim, vel arrogantius aliquid enuntiaverim.

G. B. D.

PREFACE

It may be considered a mild achievement in these tempestuous times to write a work on political economy from which all discussion of tariff and free trade is rigorously excluded. In the following pages free trade is, I believe, nowhere specifically mentioned and where the word tariff occurs it is either in some passage purely descriptive or else accompanied by a statement excluding such parts of the topic as would lead on to the discussion of an unnecessarily vexed question. The operation of tariffs is of course controlled by the laws of supply and demand, but not peculiarly so and not in any way exhibiting a difference of principle with the conduct of unrestricted commerce. It was therefore quite legitimate not to take this young cuckoo-bird of political economy into our nest, where he would infallibly have encroached on space, until there was room for nothing else.

The present study commences with a reference to a dinner-table conversation in December, 1910, which is only worth mentioning in order to give the assurance that it is no rhetorical device to introduce cut-and-dried theories previously formed, but that it is the true starting-point of the inquiry. The only part of this book written out of order was the determination of the theory of value in Chapter IV. and that is necessarily the preliminary of all economic discussion. For the rest, the argument was discovered and written in the order which is followed in the text and the method is a progressive one from point to

point. Some of the deductions came to the author himself rather as a surprise and, what one may call the nett conclusion of the book, requires some courage to face. The position developed by the argument is nothing less than a direct assault on the orthodox theory of political economy, as established by the early English economists. So widely sweeping a condemnation of the old school is nowhere directly stated, but it must be logically and I hope not intolerantly inferred from minor and cumulative criticism of its various doctrines. I believe that this body of doctrine has entirely seen the close of its last period of usefulness and that it must be replaced. It has been maintained upright only so long by its logical coherence in spite of a mistaken or irrelevant social philosophy on which it was founded, in spite of preliminary assumptions always declared to be provisional, but accepted as actual by many followers, in spite of its condemnation by experience and of its demonstrated inapplicability in many ways to real life. Many of its outworks have been shot away without rendering it weak or ridiculous. Infinite and reverent modifications of obvious errors have been used to buttress it up, but they were unnecessary and they ought not to save it now. It has been held together by its own consistency and completeness and this completeness is the justification I feel for my belief that it ought to be swept away.

Some of the conclusions stated in the text, which are to be found in Chapters X., XI. and XII., where the argument proper ends and subsidiary discussions begin, are sufficiently new to deserve a preliminary consideration by those economists who are not fanatically devoted to the orthodox form of current theories. But it was not for economists that this discussion was primarily undertaken. It is rather to be described as a practical investigation of principles underlying the habits of business men. The starting-point

in every case has been the examination of the use of terms current in business, and where, as happens sufficiently often, there is some irreconcilable difference between economic definition and practical use, it is not the latter that is allowed to give way. No doubt this is partly due to my own weakness in the later theory of the subject and particularly in knowledge of its mathematical developments, which have increased more rapidly than their readers. But perhaps a more valid justification for my practice may be that, where theoretical knowledge has been divorced from business experience, as it too frequently has been, it is difficult for economists to be aware of the full content of common terms, which are often the condensation of layers of practical knowledge. These terms are, after all, not originated by economists, but adopted by them from complicated current use. It thus happens that their definitions lack richness as well as reality.

The issue involved is one on which we shall all clearly be bound more and more to take sides in the future, and therefore I feel constrained to throw in my lot with the practical men and to confess that my present study is not founded so much on a rather limited reading as on twenty years of reflection and of experience in more than one kind of business in three countries. The result is unfortunately a certain amount of unfairness on my part in delivering apparently random criticisms on a body of economic doctrines rather vaguely indicated, as the orthodox English school, without selecting any particular author or book or even any precise argument, except in the case of Mill's law of value. It is equally true that the later defenders and modifiers of these doctrines have been neglected in these pages, and no notice has been taken of the number of cases where criticisms have been accepted and embodied and attacks have been skilfully parried. If this work were put

forward as primarily scientific, such omissions would be indefensible, yet since its object is practical, and, as in order to be practical one must be brief, concentrated and concerned chiefly with exposition rather than with criticism or controversy, I have been obliged to neglect the unessential. I consider the modern modifications of the old school unessential. The old school stands unreplaced. Its original language is still current and the men between forty and fifty, who guide the actual currents of business, know no other. We are too old to learn the higher mathematics and we doubt its usefulness in this field.

Among the most notable creations of this venerable school, which has been so little injured by the criticism of half a century, is the economic man. He is the standard popinjay of science. As a working man he has been long ago abolished by the attacks of the Socialists. As an employer he has been given up since we learned that competition in eliminating the inefficient during a crisis is apt to gather a large number of others into its net of destruction. But as a consumer, the economic man still survives undisturbed. In the books the markets are still hungry, or ought to be so, and a glut is considered to be an exceptional case outside all laws. The most solid contribution to economics which I hope to afford in the following pages is the total destruction of the economic consumer. He is more essentially a fraud than the adaptable workman or the ever-provident employer. If anyone would thoroughly realize what phantoms these hungry buyers are, let him start a manufacturing business with the newest and most economical production but without selling connections. Let him turn out the goods cheaply, lower his prices and wait for customers.

But, as everyone knows, it is in the moral sphere that the assumption of an economic man has been most fatal. Theoretically, economic science is no worse than unmoral,

but in its proper sphere moral considerations are so much interlaced with it that true impartiality is impossible and in practice has never been attempted. The idealization of selfishness was quite a sound practical deduction from the theoretical postulate of universal efficiency. It was not slow in coming. In its time it made industrial England a treadmill and speculative America a slaughterhouse. Whatever we may now say or do to subvert it, it will still be dominant as a cheap philosophy in business for another hundred years. But, happily, although it will be hard to wipe out entirely, its influence has long been less than the outward respect paid to it. Many men gave it lip-service, who observed it little in their practice. Take all that business called the "higgling of the market"; it has very little place in the stream of great commercial transactions. To over-estimate your own share in a transaction of exchange is probably in the end to effect a good bargain and to lose further opportunities of making a second. The chief requirement of modern commerce is to satisfy your customers and to keep round you as large a ring of them as possible. So selfishness in exchanges is discounted as a wise weapon and with further effort and better education we may come to see its equal futility in transactions of employment, in international commercial dealings and in the conduct of monopolies.

There is a peculiar function still exercised by the old English school, which has not received due attention, in furnishing the intellectual buttresses to the doctrines of some of its chief opponents. The theoretical edifice of the early Socialists, not yet discarded, was founded directly on one of Ricardo's most celebrated mistakes, and their economic equipment, such as it is, is supported by little of anything more substantial than the weaknesses and omissions in current doctrines. The one original mind among their

leaders was too much absorbed in practical life and politics to be able to develop his own fruitful ideas, while he accepted too readily an infusion from other theories less well-balanced than his own. When the theory of demand has been properly established, collectivist ideals will need to be subversively modified to meet it.

The study of consumption and the formulation of the theory of demand must be the starting-point of the new political economy. The practical counterpart of theory on these questions is the subject of our daily preoccupation in business and economists would find some profit in this matter by laying their minds beside ours. It is my earnest hope that my present study may be accepted as the second step in this direction. The first was taken by Jevons in 1879 in the celebrated preface to his second edition of the "Theory of Political Economy," where he couples with himself Gossen as being the first to assert for economic science, that it is founded on the requirements of our human nature, on our personal estimates of them and on an account of the received civilized methods of exchanging personal sacrifices for personal requirements. That is not quite the way in which he puts the theorem, because he chooses to adopt the words, pleasure and pain, which do not at all cover the whole field of human requirements. But I see no breach of principle in choosing wider terms to express the whole field, which from the economic point of view is essentially one and the same. Unfortunately, in my judgment, Jevons after assuming psychological data hoped to get valuable results by putting them into mathematical mechanisms and obtained solutions which are entirely shrouded from my vision and whose utility I question. As a mathematical friend of mine, Mr. Mark Barr, with whom I have often discussed this problem, maintains, if mathematics could really be made useful in business and conse-

quently in economics, there would be no difficulty in constructing a machine to measure the change in the rate of change of prices in cotton, sugar, wheat, &c., which would rapidly make anyone's fortune. I have to thank Mr. Barr for much valuable assistance and criticism and much useful illustration from practical life, by which the following pages benefit not a little. I desire also to thank my friend Mr. Frank Pember for his kindness in giving an elegant and classical form to a tribute of gratitude towards another old and valued friend, mentioned elsewhere.

G. BINNEY DIBBLEE.

WATFORD OLD FARM,
GUILDFORD,
December, 1911.

IMPORTANT.—*For the convenience of readers all the laws and definitions quoted or formulated in the text are collected in a handy table at the end of the book* (*see p.* 276), *for purposes of easy reference.*

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THE LAWS OF SUPPLY AND DEMAND

CHAPTER I

THE LAW OF SUPPLY AND DEMAND

On a recent visit to America, which occurred in the autumn of last year just after the Congressional Elections, I happened to be in a household in New Jersey where we were discussing the reasons for the immediate fall of retail prices in the district on the day after the Democratic victory was declared. There was of course a tendency to take party sides on the question, some maintaining that the fall in prices was due to expected changes in the tariff, and others the contrary. One of our number, an eminent lawyer in New York and presumably a Republican in politics, asserted sagely that the tariff had nothing to do with it, but that the fall in prices was due to the operation of the law of supply and demand. This *ex cathedra* judgment indirectly brought the discussion to an end, because I found myself asking him with more seriousness than he observed whether he could help me to understand what the law of supply and demand was, and how he defined supply and demand, because I had had difficulties about it. As he seemed to scent a political discussion arising out of my question, he courteously evaded it in order to spare the company and I

was aware of having perhaps exceeded the limits imposed on general conversation.

But I remained intensely curious as to the proper meaning of this most frequent expression, so much so, that it seemed to me an object for more extended study. I noted that the term is freely used in the plural, when some economic meaning can be attached to it as representing Mill's law of value together with the law of the equilibrium of supply and demand, the two chief laws of supply, and perhaps Bamfield's theory of wants and the laws of demand as formulated by Professor Marshall and others. But as it is more commonly used, in the singular, the expression lacks definition, and it is difficult to attach to it any specific meaning whatever.

When used in conversation and more glibly in the columns of the press, it seems to be accepted in any discussion as necessarily terminating the argument, like some appeal to a bourgeois Cæsar. The word, law, carries weight and the sanction which accompanies it by implication is the predominant force of selfishness, as the sole arbiter of economic problems. It represents a rather brutal assertion of common-sense against the intrusion of sentiment into business.

The mere use of an impressive phrase in a loose way in conversation or current writing is not in itself so infrequent as to require attention. But what brings about the use of this particular term in so portentous a manner without any definite relation to economic laws as they are now recognized and formulated? What is supply and what is demand and what is their all-embracing law?

The law of value as stated by Mill * is that "demand and supply, the quantity demanded and the quantity sup-

* J. S. Mill. "Principles of Political Economy," Book III. Cap. II., Sec. 5.

plied, will be made equal. If unequal at any moment, competition equalizes them." He goes on to describe briefly that this process of competition brings fresh buyers as prices fall and brings fresh sellers as prices rise.

This is not equivalent to the law of the equilibrium of supply and demand, as formulated by Mill's followers, which must be considered later, but, stated baldly and without any of the qualifications immediately elaborated in the context by Mill, it represents the popular idea of the law of supply and demand more especially on the largest scale. That is to say that most people really believe that this law operates irresistibly everywhere on a world scale, without any limitations as to the area of the market or to the restriction of supplies or to their indefinite multiplication. They have cloudy visions of world quantities on sale on one side opposed to world buyers on the other, with the sole requirement of running a price up and down a little scale in order to bring the opposing forces *en rapport* at a given point, when the gigantic bargain is made.

Nothing could in practice be more untrue. It is untrue because, although Mill's theory is within limits correct, the limitations to it imposed by business are more important than the law itself, and a little consideration will show that in all practical cases the line has to be drawn so closely above and below the equation or equilibrium point that there is practically very little room for the operation of the law itself. The proof of this is within the common knowledge, if not within the experience of all.

Any restriction of supply within a market gives rise to a scarcity running into a monopoly. With monopoly the price rises, and may rise, until the demand stops. So far on the side of rising prices there is at first sight nothing not in accordance with Mill's law of value, except that, as

Mill shows, the restriction of supply brings about a rise in price quite out of proportion to mere quantities.) But it is not uncommon to see such an increase of price, if it is caused by a genuine or even threatened shortage, which the buyers know or suspect, actually effect an increase in the demand, more especially so where the market is active and limited. Such a tendency on the Stock Exchange would be described as a run to cover by the "shorts," where the effect would be only temporary, although the operation might be painful. But it is not only in the wayward and speculative market for stocks that this reversal of the market tendency occurs, it is frequent also in the material markets of the world such as those of wheat, iron and cotton. Certain supplies of staple commodities the world must have, and dealers, who are buying not for speculation but for consumption, must protect themselves against a threatened scarcity, and they have therefore to buy steadily on a rising market. For the purposes of the present argument it is only necessary to notice that on a rising scale of prices Mill's law of value is often reversed for the time being.

On a falling scale of prices the result is not entirely parallel, but here also there is a reversal, and when it comes it will be more marked, and its effect for a considerable period will be paralyzing. With an exuberant supply every seller knows that the situation is full of danger for him. The price sags downward only slowly, so long as the market still requires material for immediate consumption. After that prices falling still further will tempt buyers to lay in large stocks. A further fall will induce a little speculation even among the oldest and steadiest buyers. But if supplies are still forced on the market, a terrible thing happens. There will be no buying at all at any price. Stocks are left to go to waste or ruin, even if they are not, as sometimes happens, destroyed. That is what is called

the "glut of the market." It is the complete reversal of the law of value on a falling price list.*

Economists have often mentioned, but not, so far as I know, analyzed this remarkable phenomenon of the glut of the market. In theory it is supposed to be abnormal, whereas in practice greengrocers realize it very often on Saturday nights and fishmongers possibly at any time; every farmer knows it in one season out of a dozen, and most manufacturers look after its occurrence far more anxiously than after their cost of production.

Regarded as the upper and lower limits of Mill's law of value, theory has to take notice that these are a threatened monopoly on one side and the glut of the market on the other; each may import, one gradually and the other suddenly, a reversal of the law. To succeed in business the ordinary man may neglect or be ignorant of Mill's law, but he must be very keen to observe the moment and degree of its reversal on the upper schedule of prices in order to make a living and to avoid, like ruin, which it often brings, the paralyzing reversal of it on the lower schedule.

It is interesting to notice the similarity of a reversal in both contrary eventualities, but the difference in their methods of doing so is still more important. It makes one suspect that supply and demand are not each quantities of goods, or groups of people, or lists of prices. They are possibly dissimilar. What they are I must leave for consideration until a later chapter.

Mill's law of value is no more than a crude statement of one part of the process of the equation of supply and demand. The subject has been more completely and more minutely covered by Professor Marshall in his theory of the

* For a graphical explanation of this reversal of Mill's law of value, both ways, see Diagram I., p. 282.

equilibrium of supply and demand. But I think, myself, in elaborating his generalization, Professor Marshall has still further narrowed the field of operation of his law.

He gives an admirable illustration from a corn market, or, as they would say in America, a wheat market, in a country town where the area is not too big for all buyers and sellers to keep more or less equally well informed as to the movement of supplies and prices. In such a case, he says,* "the amount which each farmer or other seller offers for sale at any price is governed by his own need for money in hand and by his calculation of the present and future conditions of the market with which he is connected. There are some prices which no seller would accept, some which no one would refuse. There are other intermediate prices which would be accepted for larger or smaller amounts by many or all of the sellers. Let us assume, for the sake of simplicity, that all the corn in the market is of the same quality. An acute dealer having corn for sale may perhaps, after looking round him, come to the conclusion that, if 37*s.* could be got throughout the day, the farmers between them would be willing to sell to the extent of about 1,000 quarters, and that, if no more than 36*s.* could be got, several would refuse to sell, or would sell only small quantities, so that only 700 quarters would be brought forward for sale and that a price of 35*s.* would only induce some 500 quarters to be brought forward. Suppose him further to calculate that millers and others would be willing to buy 900 quarters if they could be got at 35*s.* each, but only 700 if they could not be got for less than 36*s.*, and only 600 if they could not be got for less than 37*s.* He will conclude that a price of 36*s.*, if established at once, would equate supply and demand, because the amount offered for sale at that price would equal the amount which could just

* Marshall. "Principles of Economics," Book V., Cap. II.

find purchasers at that price. He will therefore take at once any offer considerably over 36*s.*; and other sellers will do the same. Buyers on their part will make similar calculations; and if at any time the price should rise considerably above 36*s.* they will argue that the supply will be much greater than the demand at that price; therefore, even those of them who would rather pay that price than go unserved, wait, and by waiting help to bring the price down. On the other hand, when the price is much below 36*s.* even those sellers who would rather take the price than leave the market with their corn unsold, may argue that at that price the demand will be in excess of the supply; so they wait, and by waiting help to bring the price up."

He concludes that the price of 36*s.* has thus a claim to be called the true equilibrium price. So much is admissible, but when he continues that, if it were fixed on at the beginning and adhered to throughout, this price would exactly equate demand and supply, we must leave him. One may call 36*s.* the equilibrium price, as the average price of all transactions, but if it had been the fixed price at any time in any modern free market all transactions would have been altered. In such a market as he describes there are always individuals * who will not sell at less than 37*s.*, and others who will not buy at more than 35*s.*; these are strong men and narrow men. Round them the crowd adjusts itself, composed partly of many who are weak and lazy, and partly of a few who are far-seeing and aim at a large bulk of transactions, where many small gains cover a few small losses. Such an adjustment shows itself in various vacillations in the quotations,

* For a vivid illustration of an obstinate seller, read the story told by Mr. Hilaire Belloc about the great barrel of Brulé wine in his "Path to Rome." It is a true description of a bit of real life, such as cannot be left out of economics.

which, after taking in the obstinate men on both sides, broaden down to the average level, unless there are further disturbing elements.

To take this objection to Professor Marshall's illustration may appear trivial, but it is not so in reality. In the first place, I follow Jevons in thinking that human nature is the last thing to be neglected in analyzing economic organization. Secondly, I have to emphasize the minuteness of the field covered by such a market as that chosen and described. If the field were not minute, the operation of this law of the equilibrium of supply and demand would be still less true. It is, in fact, so minute that the reversals of tendency discussed in connection with Mill's law of value can never take place. *Ex hypothesi* all buyers and sellers come into Professor Marshall's market with limited quantities of goods and of money. In other words the real equilibrium price of 36*s.* a quarter has been fixed not at all in the market described, but outside in the market of the world.

How can this be? A market as Professor Marshall has described elsewhere may be large or small, but it must be governed in all parts of it by one price for equivalent quantities over a certain length of time. Such a market is a pure assumption, but it is a very useful assumption, and one that is consistently adopted in practice. We speak, for instance, of the Liverpool * cotton market and the New York

* How purely artificial in a geographical sense a real market may be is seen in the perpetual controversy which goes on between Manchester buyers and Liverpool merchants as to whether "spot" cotton lying at the Manchester Ship Canal docks shall be tenderable at equal rates with Liverpool "spot" cotton as against a Liverpool Cotton Exchange contract. That is to say, it is proposed to include Manchester geographically within the Liverpool cotton market. The argument on one side is that, for Lancashire spinners, cotton lying at the Manchester docks is even more available than cotton in Liverpool. The reply made on the other is that Lancashire is not the only buyer

cotton market. Although each is really no more than an influential section in a world cotton market, yet as each has its own psychological conditions, its limitations and ignorances, so the illusion is kept up that each is independent. It is worth noting that in practice the small men who cling most faithfully to such an illusion pay a steady tribute to the big operators who cultivate a wider view.

But below the big markets are the medium markets and again below them are the small ones. The best analogy for the complexity of the system is obtained from Clifford's theory of mind-stuff, where matter is supposed to be composed of vortices within vortices, every vortex exerting a pull or influence on its parent vortex, according to its speed and steadiness of rotation, receiving similar influences from its own constituent vortices. Professor Marshall's typical market is almost the smallest practical instance he could get, limited further by the fact that no information comes in from outside as to the course of prices elsewhere, which in practice is always happening. In fact, it is an embryo for illustrative purposes.

Within the strict limits of his illustration the law of the equilibrium of supply and demand holds good. But the application of the law is true only in so far as it is narrow. It could better be described as the law of final bargaining*

in the Liverpool market, which supplies cotton largely for continental spinners, and also that the merchants in a speculative centre like Liverpool have often to return cotton to New York against a "bear" contract. For either of these purposes "spot" cotton at Manchester is not so conveniently tenderable as Liverpool cotton. A similar vexed question of widening its area of tender has often been discussed on the New York Cotton Exchange as to whether cotton lying in various southern centres should be tenderable against a New York contract. But so far in neither case can brokers be brought to agree as to the equalization of values.

* I consider it better to drop the word "equilibrium" from the name of this law for reasons which will be shown more plainly in

where the bargaining is carried on between experts on terms the broad features of which have been practically determined by more weighty conditions elsewhere. The struggle here is not so much between real buyers and real sellers as between groups of professionals over the size of their margins. The opposing forces are neither producers nor consumers themselves, but consist mainly of two classes of operators: of those who want a good profit on a small number of transactions, contrasted with a smaller group of experts who are content with a small profit each time over a large number of transactions. The struggle between the real buyer and the real seller, that is, the producer and the consumer, takes place on a wider field.

We may conclude that the common use of such a term as the law of supply and demand is not altogether meaningless, but it is misleading, in so far as it has a meaning, and equivocal in any case. If there be a general law governing the world's production and consumption, it is nothing quite so simple. The explanation of this system of exchange, which makes each man's sacrifice proportional to his estimate of his enjoyments, is unfortunately not arrived at so easily. The deeper we examine this complexity the less do we find it to depend on assessable and ponderable

Chapter XII. It is more suitable to speak of the stable or unstable equilibrium of a market, and of the equation of supply and demand, which is the term I have adopted. The following is suggested as a formula for the LAW OF FINAL BARGAINING: "Where prices in a large market have been determined within certain limits by the laws of supply and demand, the final and critical fluctuations of price within any section of that market will so vary about an intermediate equilibrium point, as to give play to the varying characters of the dealers and at the same time to equate the largest possible amount of goods supplied with the largest possible amount of goods demanded in that section. Such an equilibrium price for any period may be approximately stated as the average price of all transactions during that period."

material quantities. Our language in economics is limited largely to quantities and the use of quantitative terms has dragged thought in its train. But behind the bulky, inert and deceptive quantities lie the vital realities of our variable personal estimates of them, of the sacrifices we will make to obtain them and of the struggle which continues incessantly between the sacrifices of production on one side and the personal estimate of enjoyment on the other.

CHAPTER II

SUPPLY AND DEMAND

Supply and demand have generally been assumed to be the same in kind and this kind to be any kind of goods of marketable quality, of which there are sellers of certain quantities at certain prices and for which buyers are willing to make offers for certain quantities at certain prices. For convenience quantities and groups of quantities have been taken on either side as more or less stable units, while the price is believed to be the chief varying condition. This habit of simplifying the problem is deceptive and, as we saw above, cannot be considered as covering any large number of facts. Those generalizations, such as Mill's law of value and others, which are founded on such assumptions, have only a very limited field of operation.

In theory the assumption of definite quantities on each side of any bargain will ultimately be found to be a bad method of analysis. The business of the world has been conducted for so long under the influence of habit that the upward and downward movement of price, outside the limited field of operation conducted by expert bargainers, is a less usual occurrence than in theory it ought to be. In the world of business the opposing masses of supply and demand vary far more easily, if imperceptibly, than the supposed central variable of price. To put it more clearly, under a fractional variation of price vast quantities of goods will be withdrawn from sale or pushed on the market, always under the utmost possible conditions of secrecy, on

the sellers' side of the contest; on the buyers' side, there is not the same concerted action behind a veil, because the workings of the spirit are, like the wind, free of intention or self-consciousness, but small falls and small rises in the market price will cause whole areas of wants to become effective or to fade away into unexpected weakness and nullity. The great experts in business spend their lives in testing this supposed strength or weakness of a market.

The assumption of fixed quantities or groups of quantities at named prices to represent supply and demand is bad as a method, because in fact neither are quantities. It is true that on the side of supply the idea of quantities looms large. In practice commodities are offered in blocks at quoted prices and the total available supplies of the great staple materials of commerce are calculable even in the world market. We have come, therefore, habitually to speak of supply as a matter of physical existence or, in the case of "futures," of calculable existence. The inference is therefore general in economics that supply is a concrete thing so nearly measurable in quantity and price that these may be taken as its practical equivalents.

But the great problem that confronts theorists and business men alike is to estimate demand. If skilled practical men give up their lives to this pursuit, often with only partial success, it is obvious that for economists to generalize easily on the subject is but to brush the skirts of the difficulty. The only knowable demand is past demand, which is enshrined in the history of prices. The assumption that the history of past demand, or dead demand, justifies one in expecting also a similar course of future demand is made less and less frequently by anyone in proportion to the length of time he has been in business. It is almost as safe to assume that a curve of past demand will be reversed, as that it will be continued.

Like everything which is a direct offspring of human feelings and human wants, reversal of demand at some moment is a necessity, recurrence of it a probability and the occasion of the one or the duration of the intervening period before the other quite incalculable except on so generous a scale of averaging as is only permissible to very wise heads and very long purses. If demand were to be left to itself, supply in business could be undertaken only by very rich individuals or by powerful corporations. We shall see later on * that demand is not and cannot be left to itself.

A course of study in economics has made us all familiar with two short curves, cutting each other at an equilibrium point, which represent respectively supply and demand. It is the neatest way of expressing Mill's law of value and no outrage to truth follows so long as the abscissæ are kept short for quantities and prices, and it is at the same time clearly explained that the diagram is purely illustrative. To bring them strictly into relation with facts the curve of supply alone is approximately valid, because only supply can quantitatively for practical purposes be expressed. The other curve is nothing more than a convenient reversal of the supply curve drawn to furnish the proper kind of intersection, which by inference from Mill's law of value is required by the hypothesis. The two curves are made to cut each other sharply at a point where a transaction of sale and purchase takes place, and then the curves drift hopelessly apart and apparently further transactions of the same kind are impossible. This odd feature of the curves is not any serious misrepresentation of the truth, because each separate transaction of sale and purchase, when looked into microscopically, has, considered by and in itself,

* See Cap. XV. on the Manipulation of Demand.

something of this final character. That is to say, as we shall see later, demand terminates with satisfaction and is renewed owing to the occurrence of a fresh set of circumstances, not specifically connected with the first transaction.

These two intersecting curves are a fair illustration of the operation of the law of final bargaining* under the assumption that it is operating on a minute scale.

They are, however, very far from general curves of supply and demand. Of two such curves, that of supply, which represents only a succession of concrete masses of goods at named prices, is ascertainable from the history of the past and can be inferred with tolerable certainty up to some future point not too far removed from the present. But demand in my opinion is not expressible in any curve. A pseudo-curve might be obtained, not very far distant by inference from demand, by drawing a line through the intersecting points of a series of diagrams of the character mentioned above, each representing single transactions. Such a curve would practically for the past be a history of prices, and for the future nothing at all. Demand, valid demand, future demand is beyond sound inference, beyond prophecy and remains always in the regions of speculation. Trading is only possible on our present scale, because of the vast organization kept up by the producing part of the world to manipulate demand, to deceive it and often to call it into being.

The argument on which this depends requires a deeper analysis. Any transaction of sale and purchase is a meeting-place of supply and demand in two categories, those of thought and extension. In the latter, which we may take first, as the least important, equality is *ipso facto* assumed. That is to say, in the category of extension or, as we may

* See Cap. I., p. 10, note, and Handy Table.

more conveniently put it, in relation to the question of quantity, a transaction of sale and purchase implies an exchange of something for something else, which is, economically speaking, its exact equivalent. In the category of thought, when thought is taken to include feeling in its ordinary sense, since, economically speaking, no feeling need be considered except in so far as it results in some personal intellectual estimate of it by each for himself, wide differences are discovered between the, as yet undefined, entities of supply and demand.

Supply and demand are the opposite sides of an exchange. What finally do people exchange in, let us say, the sale of a quarter of wheat for 36 pieces of silver? Essentially both these objects are symbols for two kinds of the same thing, for the personal sacrifices of individuals or groups of individuals. Just as the quarter of wheat and the sum of silver are each expressions in a different form of personal sacrifices, so also are the terms, supply and demand, descriptions of something similarly different on a larger scale. Yet the group of personal sacrifices represented by the term, supply, are different and opposed in more than one way to the corresponding group under the term, demand.

Most obviously they differ in respect of time. Supply appears in the form of concrete results of past sacrifices made by the sellers, and that is why for convenience' sake it is generally expressed in quantities of named goods at fixed prices, even though in reality it may be something else. But demand, which is a group of prospective sacrifices on the part of buyers, is necessarily inchoate and can only be brought into quantitative character by an act of the imagination. Supply is crystallized, demand is uncrystallized sacrifice.

More subtly supply and demand diverge owing to the variations in the personal ratio involved in all sacrifice.

The economic ingredients in all personal sacrifice are, roughly speaking, talent, effort and abstention, but no two people have exactly the same estimate of how much of each they will put forth or sustain for a specific reward. Thus equal sacrifices are never interchanged, but only rough personal estimates of what may be equivalent to some named quantity of a common medium.*

This imports the question whether those who supply and those who demand differ only as individuals from one another or whether they also differ from each other as members of one group as opposed to all the members of another group. The answer is, they do. Not only does each supplier differ from each supplier or demander, but he differs as a supplier from every demander in a totally different way from that in which he differs from other suppliers. And it is in this fashion. Every supplier has to make his sacrifices by rule of thumb or tradition or by a hazardous estimate of prospective demand, while each demander estimates his sacrifice only at the moment of purchase with many additional facts before him which no supplier can expect to obtain.

In another fashion these differences in time and quality between buying and selling react on one another. For instance, the real variations caused by the personal factor on the side of the seller have a different influence on the meeting-point of price from that which is caused by any change in the mind of the buyer. In supply, sacrifices are crystallized in the form of goods. These are not wholly fixed quantities Accident may occasionally affect their quality and unexpected fluctuations in quantity may react

* This is the philosophical justification of the common medium of exchange. It is not only the mechanical instrument of exchange, but the mental gauge of the personal sacrifice to each side, and the latter function is essentially the more important.

on their price. But as a rule these variations are limited in their action. Supply is generally preconditioned under circumstances which are fairly well known and, apart from the vagaries of demand, can be to a certain extent forecasted.

The opposite is true about demand. The personal factor so predominates here that any accident up to the last moment may determine a considerable variation. In fact, a certain amount of abnormalities may so be counted on to occur that a sane kind of normal stability can illogically but practically be assumed from their frequent recurrence. But this is where Nature requires a little assistance from art. As we shall see later on these accidents have to be carefully considered in modern business, which devotes a considerable part of its machinery to the task of influencing the personal factor in demand, stimulating any favourable influence, counteracting the unfortunate tendencies which might paralyze the eagerness of the buyer and above all watching for the moment when supply must at any cost be controlled and the reserves withheld.

These differences between supply and demand might be considered fantastic, if they were a mere matter of theory. But theory here, I hold, is right and useful, because it is following practice. We are safe in recognizing a real difference between supply and demand when we see the buyer and the seller behaving so differently. We come, then, to the following conclusions. Supply so clearly resembles mere brutal quantities of priced goods that it may be accepted as such for all practical purposes. Demand has an element of futurity, which carries with it infinite possibility of variation in the spiritual factor of its constitution. To treat demand as quantitative is the merest speculation.

Demand is nothing more tangible than a group of values,

and until we have come to an acceptable understanding of value, such as approximates most closely to the common use of the term, demand also must remain undefined. For the present I will only say, that I take the value of any object to be, whatever anyone *will* give for it in the recognized medium of exchange.

CHAPTER III

WANTS AND SACRIFICES

In the course of the last chapter I concluded that a series of quantities of goods at fixed prices was near enough to supply for the practical purposes of the economist, but that in reality like demand, supply was something else. If we take any unit from either series of supply or demand we shall find that both are composed of the same psychological elements. Each is essentially a personal equation between the wants and sacrifices of an individual whether he be a buyer or a seller. Assuming the introduction of the simplest form of the division of labour and of the rudest method of exchange every operation of sale and purchase can be analyzed to contain at least three equations; first, the personal equation made by the producer, here also the seller, between his sacrifices of exertion and abstention in order to produce a certain commodity and his expectation of a reward or compensation for it in some exchange; secondly, a similar personal equation of the wants and sacrifices of the buyer or consumer in acquiring or reserving from consumption a quantity of some medium of exchange whereby he can obtain the above-mentioned commodity; thirdly, the equation of these two groups of sacrifices by trading. This trading is done by each of the two parties mentally estimating how much of his own personal sacrifices is equivalent to a named quantity of the common medium of exchange which each is accustomed to handle.

Such a treble equation is the ultimate analysis of the process of buying and selling which has been perfected by civilization. All the complicated machinery of production, money and credit tends to assure the simplicity of this transaction as opposed to the more involved mental processes required in a ruder condition of mankind. For instance, under a system of barter the process is far more complex since each buyer is also a seller and has to make a double equation for himself and contrast them with the double equation of his co-trader. With barter there must be at least five mental equations, possibly six.

We have come to this, then, that buyers have wants and sellers have wants, but the want of the seller is stereotyped in kind and variable only in amount; that is to say, he wants more or less of a commonly used medium of exchange. His position thus is more easily analyzed so far as want is concerned. The buyer, on the other hand, has a certain number of wants stereotyped in kind, such as generally pass for necessaries, but a very much larger number of variable wants which may be alternatively satisfied, more or less, according to his means. That is to say, many of these wants are, in the buyer's mind, means to some further end and, while the end is permanent, the wants leading to the end may be alternative and interchangeable.* One want may therefore be legitimately discarded, if its satisfaction is expensive, in favour of the satisfaction of another at a lower price.

In considering the complicated question of human wants, using the word in its economic sense of wants, which have some possibility of being realized, there are two useful ways of generalizing about them. One consists in taking all the wants of one individual, observing their comparative

* See below, Chap. X., p. 109.

influence on him and noting his personal ratio of exertion or sacrifice which he is willing to make for them. This is naturally a problem of consumption and may be extended to consider wants of groups of people as well as of individuals. The second is effected by considering together all the wants of many people for the same or similar objects, and estimating the corresponding exertions necessary to satisfy them with the expectation of an equivalent return. Such a study is the everyday task of business and is called the estimation of the demand for a particular article of commerce. To this we shall recur later.

The first group of facts is of primary economic importance and has often been suggested as a subject for a separate division of the science under the name of consumption. But so far singularly little has been made of it and its consideration has been relegated to what Aristotle would have called domestic economics. Actually its study is highly necessary in any attempt to determine the laws of demand, owing to the preponderating proportion of variable wants among our needs and the very considerable field occupied by what may be considered artificial or stimulated wants. Instead of this study, an assumption takes its place that, whatever his deficiencies otherwise may be, a man at least knows what he wants and knows also when and how to buy an object to satisfy him. This assumption is so far from being true that for at least half his expenditure an ordinary individual does not know what he wants, and out of the other half for at least a half he does not get what he wants. It is only by becoming the creature of habit and the victim of mimicry or stimulation that he accomplishes very badly a task which is really more difficult than that of earning his income. That this apparent paradox is not untrue even of the great masses of the poor can be perceived by reflecting that of few vital necessities of their existence, at least

four—education, sanitation, insurance and provision for old age—have to be procured for them by the State or the municipality, and another, their food, is injudiciously chosen and in this country wastefully and unattractively prepared.

In what sense can we say that the buyer only occasionally knows what he wants? In this sense, that even for his necessaries, and still more often for his luxuries, he is seldom without an alternative satisfaction for any desire. These alternatives are so numerous that they embrace a rivalry between one want and another, competing with each other for prior satisfaction, a rivalry between different kinds of objects to satisfy a determined want and finally a rivalry between mere qualities of the same object. A man may be in doubt until the last moment before the satisfaction of any want, and it is mainly an acquired habit of certain choices which stands between most of us and the waste of an enormous deal of time.

The best classification of wants is afforded by noting the number of alternative satisfactions for each. We are accustomed to call those objects the "necessaries of life," where our habits permit very little choice in selection. Ample food is a necessity for the poor in the sense that exhausting labour requires adequate nourishment and leaves only a margin for luxury, yet even here in this country there is very considerable room for choice in foods even for a poor man. A black coat and a tall hat are absolute necessities in this country for a city clerk and for many others, who have to curtail their food, in some cases, to get them. A good address, that is, a suitable residence in a fashionable locality, is a necessity for a rising Government official, even if he have to stint for it his children's education.

But the necessaries of life in most cases cover a small part of the field of our expenditure. Except in the case

of married women of the lower classes, the greater part of anyone's income is usually devoted to the satisfaction of variable wants. That is to say, that most of us can afford to allow taste or caprice to dictate an infinite variety of alternative satisfactions which tend in time to get narrowed down by weariness into a routine of habit with a border of petty enjoyments.

Again, outside the variable wants are the obvious superfluities which take up a much larger part of the annual expenditure of the middle and upper classes than any of us would care to admit. Half the furniture of any house is mere mimicry of other establishments whose use is in display without beauty or comfort. Half the clothing of either children or adults is dictated by fashion and discarded before consumption. Half the wages of most of those who pay any for domestic service are for the performance of ceremony useless, boring and time-wasteful. Few of us are perhaps willing to admit this specifically in our own cases because all kinds of useless waste and ceremony have for ourselves associations to which, out of habit or traditional sentiment, we attribute supposed importance. But it is easier to see the truth of such a generalization in the habits of others, particularly of the very rich, whose estates and stables, yachts, gardens and pictures are bought for them, kept going for them and regulated for them down to the last boot-button by a whole army of officials and experts with only an occasional reference to any personal enjoyment, which their owner may expect from them.

It is interesting to notice that it is not rare to find some men, driven by the pressure of these envied circumstances, turning from material enjoyments not so much out of refinement of character as in order to make some small assertion of individuality. It is often the millionaires who

have the simplest personal tastes. But as a rule individual leanings of this kind are treated as a private idiosyncracy and not permitted to influence the outward life of stereotyped magnificence, which habit, the opinion of others and the mere impossibility of buying for oneself on that scale impose on those who inherit or acquire immense fortunes.

To the moralist the public proceedings of the rich are of small importance. He would be interested in watching, as he would put it, the struggle of a reformed Dives to recapture his soul. For him the humble incompetent efforts of an individual endeavouring to resist the pressure of circumstances so seldom paralleled, without the knowledge of himself and fate, which a struggling clerk with a large family may acquire through his very difficulties, outweigh infinitely in interest the colossal and empty shell of useless routine from which the owner may be himself trying to escape. But to the economist the empty shell for the moment is everything and the man nothing. For no one but the philosopher observes the real man and thousands have their eyes eagerly fixed on his dome of many-coloured glass trying to contrive some poor and vulgar imitation of it for themselves in Surbiton or Brooklyn or Neuilly.

It was long ago recognized that there is a certain progressive change in the character of our wants as they come to be satisfied and Banfield postulated an immature form of this law by saying that "the first proposition of the theory of consumption is that the satisfaction of every lower want in the scale creates a desire of a higher character." Here a certain difficulty is imported by the use of the words "lower and higher," which have a doubtful economic significance. If the meaning of "lower and higher' implies an ethical standard the proposition is very questionable and probably untrue. The safer way of re-stating it

economically would be to say that the progression was from simpler to more developed desires, development unfortunately implying with many individuals not so much improvement as sophistication. The nobler part of most men's lives lies in meeting the obligations of necessity for their families and any further measure of success they may obtain is not always devoted to so unimpeachable an aim.

A man's first efforts, so far as he follows a serious purpose, are directed to attaining and perhaps improving on the standard set for him either by his family or his chosen companions. When he marries he must redouble those efforts to bring and keep those dependent on him up to the same level, whether it be of culture or wealth. In most cases one largely depends on the other. But the obligations of his inherited or chosen standard once satisfied, in many cases the man is free to direct his surplus to some further aim.

How often this fails to be in a higher direction either ethically or intellectually is a matter of common observation. Self-development, self-assertion and the desire for distinction are but different forms of the same instinct which each one of us has for advancement, after the imposed standards have been amply met. For the saint, the student and the hero the inner needs call for extremity of effort with but distant, if any, prospect of reward. For the successful politician and the conquering man of business effort is partly instinctive and partly conscious seeking after the rewards of ambition. The professional and salaried classes follow the path of duty with some humility, but with clear ideas about the necessity of remuneration. But curiously enough none of these classes set the pace or pattern within the economic sphere of consumption. In this, our present subject, we see at once that the higher forms of desire trouble us very little, because the vast

majority of buyers in a pitiable form of humility exhaust their resources in a fourth or fifth-rate repetition of some mock ideal.

Even the most skilled developments in the arts, which might in a sense be called the objects of a higher desire, are followed by consumers in a sad imitative fashion. Appreciation is allotted to these goods as to most others according to the appraisement of recognized guides, who may be disinterested, but often are not. Anyone behind the scenes in a great capital will know how much in the spheres of art, music or the stage can be effected with little merit by the help of the recognized organizations and what a combination of talent, energy and resourcefulness is required to attain success without them. We cannot expect to find the best artistic results attained under the maximum of commercial encouragement, and it is only the occasional desire for the distinction of being right entertained by a few which counteracts the enormous pressure of the commercial machine.

The study of consumption, when it comes to be thoroughly done, will be a grimy business. The human race is nowhere more vulgar than in its expenditure. In spending, even more than in getting, we lay waste our lives. It is a disheartening reflection that not even the most cultivated of us can escape from this kind of degradation; if we refrain from fresh vulgarity ourselves, we continue to take it at second or third hand from the habits and fashions of others. It is not worth the thought of a noble woman, when it comes to spending money, to be careful to avoid everything that comes from a tainted source. She will take pains, and rightly, in discouraging cruelty and refuse to wear the feathers of the egret or the fur of the unborn lamb; but her hats may be the echo of one designed for a Mademoiselle de Maupin and the cut of her gown may have

first seen the light at Ascot or at Auteuil. Even economy and cheapness will not save her; let her hat only cost her 15*s.*, it is odds that 5*s.* of that will have gone for material and labour while the other 10*s.* will be payment for what the milliner will consider "her inspiration."

It is almost ironical that so much effort should be devoted to accumulation, when the correlative duty of disbursement offers so little opportunity for nobility of character. Perhaps it is the instinct of postponing the more difficult task which often drives the modern millionaire to become a multi-millionaire. Those who have led or are leading the finest lives had little or nothing to spend, and their example fails us. We fall naturally and lazily into the rut of following in this sordid business the example of those who take it most seriously, we lay ourselves open to the advances of the insidious salesman or the wily advertiser and, when any large block of expenditure has to be perpetrated, we say in effect to someone, carelessly selected: See what you can make of it with such an outlay.

I have not the space here for the reasoned study of consumption which still leaves a gap in economic science. Regarded from the point of view of the laws of supply and the laws of demand, consumption for us affects but one half of the personal equation between the want of the buyer and the sacrifice he is prepared to make for it. The habits of consumption—and we have seen that consumption is a mingling of necessity, traditions and caprice—dictate the values which the buyer will place upon various commodities, which are the fancied objects of his desires, and the prices he will be prepared to pay for them. But although the buyer settles the values to himself of these commodities he does not alone regulate the prices of them. To determine these is the prerogative of the seller, and the

result within him of similar mental equations of wants and sacrifices, which we have analyzed in the case of his antagonist.

How price differs from value in idea, when it is so almost coincident with it in quality and quantity, must be reserved for the next chapter, where their relations are exactly considered and each is defined. In considering the question how far consumption influences value and correspondingly demand affects price it is of paramount importance to understand the variable, capricious and often artificial nature of human wants. Without desiring to be cynical or paradoxical I am convinced that there are few things which, if left to themselves, are so little within the compass of calculation. Human wants are strangely indeterminate things, occasionally grouping themselves, as if to aim at some ideal, yet seeking, in order to reach that ideal, objects which contain its negation. Their inherent waywardness leads them easily into confusion and exposes them to distortion by artificial impulses. The most interesting problem about human wants is to determine how far they are vague and paradoxical by nature and how far they have become so after the efforts of manipulation. I am inclined to the opinion that the manipulating forces tend towards steadiness and operate to make business possible on regular lines. When we come later on to consider the vast machinery organized by the producers and sellers of this world to stimulate demand, to create wants and often to abuse and deceive them, it is evident that we are nearly out of reach of any simple interpretation of these phenomena. The respective degrees of natural and artificial complexity are still to some extent behind a veil.

Much of our present involved and over-luxurious habits of consumption are due to the immense productivity of

organized industry. We are nowadays too well off, materially speaking, and poorer than we used to be in the things of the spirit. Privation refines wants and earlier ages were not cursed with the vulgarity of easy circumstances prevailing through many classes. Yet there is one form of vulgarity prevalent then and prevalent now, the aimless habit of accumulation. But our modern accumulation is prompted by different desires. Of old avarice was the child of fear, a habit formed during the uncertainties of fortune; to-day the love of money is not fostered by vicissitude, but prompted by the reluctance to part with the power of choice. The rich will not resign a general command of commodities for specific enjoyment and expected disappointment. So great fortunes roll up more easily and provide spontaneously the great masses of capital beloved of the old-fashioned economist, capital more required at the present day to sell a commodity than to make it.

CHAPTER IV

VALUE AND PRICE

VALUE and price are two terms which it has always been difficult to distinguish from one another. Even when they are consciously defined it is not easy to separate them, and wherever they are in current use it is generally found that they become interchangeable in most passages where they occur in the argument. It is thus necessary to admit that either they overlap throughout a large portion of their respective meanings, or else they coincide in meaning at a certain point, and that, too, at a point where both terms are most frequently employed. Of these two alternatives the latter seems to me the more probable, and, as I propose to use the words, it is certainly true. The point where they coincide in meaning is that moment of a buying and selling transaction, when the deal is completed, where value is crystallized and realized in price. and price becomes the measure of value. What, then, have value and price really meant before this moment, when each has realized itself in completion?

The answer to that question can be ascertained only by surveying the states of mind of the two parties to a transaction of sale and purchase. These two parties are at the outset of our analysis themselves indeterminate. In modern civilized life for every article which is transferred from a producer to a consumer a large number of sale and purchase transactions take place. They may be as few as two or three, but very seldom less; they may be as many as twenty. Who,

then, are these parties, most of them successively buyers and sellers, and how can any state of mind be attributed to them universally in one capacity and again an opposite one universally in the reverse capacity? The difficulty is not so great as it sounds, because it can easily be seen that every seller is psychologically a producer and remains during the process of selling the agent of the producer; that is to say, he has either made sacrifices to create a commodity, which he does not himself intend to enjoy, or else he has in his exchanges taken upon himself the pecuniary risks of such a position. In either case, so far as he is a seller, he does not hope for a compensation by consuming his property, except as a desperate alternative, but is asking for an equivalent in return for his own sacrifices. Every buyer is, similarly, in the reverse position of being an intentional consumer or agent for the ultimate consumer. So far as he buys, he has to bear in mind and estimate his own prospective enjoyment or the enjoyment of some other person to whom the property will ultimately be transferred.

That estimate of prospective enjoyment or utility is value. It is a nebulous quantity with a hard core. Value is the measure in terms of exchange of the sacrifice which the buyer, or more precisely the consumer or his agent, is prepared to make for some object, wherewith to relieve a necessity or secure an enjoyment. It is, perhaps, not quite strictly right to call it a quantity, since it is nebulous and cannot be accurately measured. But it is always endeavouring to express itself as a quantity. Even in modern civilized life, where the bulk of useful commodities are displayed for sale at fixed prices, we often do not know what we are prepared to pay for either our necessities or our enjoyments. To take two extreme cases: many a father has never realized how

great a sacrifice he would make to pay for a vital operation on his child until circumstances have tested him: on the other hand, an economical housewife may be heard to say that she went out to buy a flower-vase for 2*s*. 6*d*. and had to pay 7*s*. 6*d*. for it. In each case the ultimate satisfaction was constant, but the sacrifices exacted for it have varied to a great degree.

Our civilization presupposes an enormous aggregate of habitual wants with concomitant values, which are not so fixed as they appear to be. Such classes of wants are on the whole satisfied by an amount of sacrifice which custom has approximately determined in each case. A disturbance of this custom produces unpleasantness, disturbs trade, and is therefore, where possible, avoided. Within these limits values and prices easily coincide. Beyond these limits lies the region of alternative wants where, owing to fluctuations, prices often do not meet values: the desires prompting the latter have then to be satisfied elsewhere or else values rise until they meet prices! In a few rare cases desires remain unsatisfied either by the original objects or by any substitutes for them. Such surviving and unsatisfied desires thus become the main incentives to exceptional effort, so far as this occurs in the economic sphere.

From these considerations, if they are correctly stated, it follows that values remain sometimes, but not in the majority of cases, below the level of prices; but it is only when they come up to the level of prices and materialize in the shape of "market values" that they come into the light of public day and attain to the dignity of quotation. In fact, it is very hard to give instances of values, which are quoted as apart from prices. The ordinary commercial offer to buy may be so, but it is more often a tentative experiment to test the stability of price. A firm and final

offer to buy is a statement of value as apart from price.* Perhaps I may give a humble but precise illustration of this case in the instructions given by a housewife to her husband going into town telling him to buy a particular vegetable, if it is in season, at a named price, but otherwise to fall back on something else within her means.

As a mere matter of debate it may be asked whether, if values may remain below prices and be equal to them, they may not also rise above them. Theoretically they can and do, but it is very seldom they do so for any considerable time. Any particular transaction where a value finds a price lower than itself is closed by completion and the market is made. If high values continue to exist after successive transactions have taken place at lower prices it is odds that the sellers will discover the fact and prices will go up rapidly or other sellers will rush in and spoil the market. Stories used to go round Lancashire of a Manchester merchant who in the old days found a part of Japan where gold was to be had in equal exchange for silver; but after one profitable season he could not go back there because his life was in danger.

In defence of the attribute, nebulous, as applied to value, differentiating it from price, which is nothing if not definite, I may urge the extraordinary variety of qualifications of value, wherever this has to be estimated without any

* As an instance of sensational deviation of value from price I may quote from Mr. F. W. Hirst, "The Stock Exchange," p. 75: "The investor should note that a quotation in the official list does not mean, in the case of securities seldom dealt in, that your broker can at any time get a jobber to deal in the stock at the nominal or quoted price. When there is a slump in the market and a rush of selling orders with no support, as happened in rubber shares in the months of June and July, 1910, the jobbers are apt to be away at lunch all day, and the brokers have to report to their clients that they simply cannot find a purchaser."

transaction of sale or purchase to fall back upon. Take the terms known to any business man such as "replacement value," "insurance value," "taxable value," "rateable value," "capitalization of annual value," "value under a forced sale," "value as a going concern," "value as between willing buyer and willing seller," "break-up value," "probate value," and so forth, everyone of these special descriptions having a known meaning connected with a definite purpose, but each and every one carrying in the terms of its name an admission that it is only an approximation to the real thing.

The transaction generally known as sale and purchase is theoretically supposed to take place between a pair of higglers, the seller coming down and the buyer going up until they meet. In ordinary commerce this is, however, unusual. In the great majority of cases the buyer comes with his notion of value and waits to see if this is correctly interpreted within certain limits of variation by the seller; in other words, he looks round to see if he can satisfy his want at a reasonable price.

This brings us to the point of view of the other party to the transaction, to the state of mind of the seller, and we find a very real difference between it and that of his opponent. At first the seller seems to have all the advantages of the situation. To begin with, he has generally named a price and apparently made a market. These prices remain fixed during a reasonable period of time and have the enormous advantage of being quoted as the current price and the apparent measure of value even though no transaction takes place. That is to say, buyers may refuse a current price for days but they may not be able to get the quotation lowered until perhaps a group of outside buyers, ignorant of the real situation, comes forward to accept the old price, which does not reflect the true balance of forces.

This would help to sustain prices which otherwise would have to go down. Such a hollow situation is sometimes seen in the press quotations of a blank day on the Stock Exchange, when it is customary to print in the lists and newspapers the previous day's prices, and this, although there has been meanwhile every preparation for a heavy fall.

On the other hand, while the seller has the temporary advantage of choosing the conditions of the contest and of naming and maintaining his terms, he is at a serious disadvantage in a prolonged struggle. He has committed himself directly or indirectly to the sacrifices required for production and he may not have much time in which to meet his liabilities. When he comes to the point of being willing to make concessions the fixed prices he has named become a clog to him. In retail trade he cannot in most cases give way at all and for the sake of his goodwill and good name he must swallow from time to time considerable losses, whose cost has to be added to his normal profit elsewhere. There exist, of course, various devices for mitigating these disasters, when they cannot be avoided, and the best known form of them is employed by big drapers and general stores, who, to avoid the necessity and risk of holding over doubtful stocks for a new season, announce periodical bargain sales to which the public are attracted by lavish advertising. At these bargain sales prices are lowered to meet the market without conceding any permanent reduction in ordinary times.

We see, therefore, that price has not the inevitable character with which it is ostentatiously clothed. Fixed prices are a deceptive device to hide the hit-or-miss nature of the seller's problem. He has to gauge values beforehand and determine his estimate at the highest figure possible which will give him a reasonable chance of

completing his sale. Price is the measure, *stated* in terms of exchange, of the equivalent required by the seller, that is, the producer or his agent, for the sacrifices directly or indirectly incurred in producing and bringing a commodity to the market.

Here the essential word is "stated." It constitutes the definite nature of price in opposition to the nebulous form of value. There can be no such thing as a nebulous price. Sooner or later the equivalent required by the seller changes hands and measures the amount of the transaction. To avoid confusion we must make a distinction, not often required, between nominal prices, which are no more than offers for sale, and real prices in the economic sense, which are the figures stereotyped in completed transactions. The most perfect approximation in business to true economic price is the double quotation given by the stockjobber to the broker where the jobber has to be bound either way to buy or sell and with only his fixed margin of profit. Where the uncertainty of the transaction is great the jobber can only cover his risk by making his margin a wide one.

In ordinary business there are occasional forms of sale where the definite character of price is obscured by the postponement of its determination until the last moment. Of this nature are the common auction where the buyers have to take the initiative, or the Dutch auction where the sellers take the initiative by successively lowering the price. In each of these cases the price emerges almost accidentally at the last moment. But it has to be definite. More difficult to analyze are the cases of professional charges, where the bill by custom often comes in after the transaction is over, or where the work is done to order and charged for according to the seller's sale. But always in the final stage price emerges, as a definite equivalent for sacrifice in production, as a point at which value is

temporarily for that transaction determined and fixed, and therefore as a measure of the value so far as the particular transaction is concerned.

How far does the determination of value and price help us in the understanding of supply and demand? Are each of the latter functions of the former? Not exactly and not to the same extent in both cases. If that were the case we should be able to state the exact relations between value and demand on the one side, and on the other side between supply and price. Of demand, however, it is clear that it is of the nature of value, that it is more extended than value and therefore that it is probably a group of values* regarded in relation to a group of particular commodities of the same kind. Demand is not a group of values of different kinds, some of pounds of tea, some of bushels of wheat and some of yards of cloth. Between such values there is no relation covered by the term, demand, except in a wider sense where all three commodities are regarded as necessaries of life. But the demand for sugar is such a group of the values of definite quantities of sugar as may be considered to come within practical probability of purchase.

Supply may be defined as a group of sacrifices made by producers in manufacturing articles of the same kind. It is usually and conveniently measured in quantities and prices. Similarly demand is a group of values of the same kind. It cannot be definitely measured and must be considered as an indeterminate aggregate. It is indeterminate because no one can tell how many values will come within the operating field of a market. A slight lowering of the cost of production of a commodity, a change of fashion, a new invention, such as makes the commodity

* In Cap. X., p. 107, it is held that demand may be even a single value.

a by-product of some large manufacture, will awaken fresh strata of unsuspected demand through a lowering of the price. Similarly a contraction of demand will follow on any increased cost of a commodity to the extent sometimes of ultimate disappearance; although this rarely happens, unless some efficient substitute of the original commodity is ready to take its place.

In the case of supply and price the relation is not that of aggregate and constituent. As we have seen, supply is not essentially a series of quantities at named prices, but for practical purposes it may be and is generally assumed as such. That is to say, that, although in the ultimate analysis supply is as much a thing of the spirit as demand and although it is essentially an aggregate of self-values, yet as these self-values have already at any given moment of trading been converted into sacrifices and embodied in commodities and measured in prices, these series of quantities at named prices may acceptably be held as far better equivalents to the entities of real supply than any ascertainable representative series in the case of demand. This very much simplifies the study of supply and the determination of its laws as compared with those of demand.

CHAPTER V

THE FUTURITY OF VALUES

Of the nature of value, so far as we have ascertained the full content of the most common use of the word in commerce and exchange, the most essential characteristic and that which specifically differentiates it from price, is the element of futurity. A value or willingness to buy remains up to the moment of realization in a purchase, a future sacrifice of some goods or benefits or their equivalents. And there is a further element of futurity, more elusive than the other, which still remains in the breast of the buyer even at the moment of the completion of the contract, and that is, that while he is nominally handing over the medium of exchange, which is the fruit of past sacrifices, he is really handing over the equivalent of future sacrifices.

It is this element of futurity,* as here defined, which imparts some measure of novelty to the idea of value, as generally accepted by economists. Such an element of novelty can only be proved by the test of time and the general assent of students of the science. It involves a result so startling as the reversal of what Mill† held to be axiomatic, viz., that there cannot be a general rise in values. So long as values are held to be only general prices, *i.e.*, prices measured in exchangeable quantities of

* With regard to the futurity of values, see Cap. XVI., p. 199, for the loss of a time-agio in delayed sales.

† See Book III., Cap. I., Sec. 4.

all commodities other than the named one—as distinct from money prices—it is obvious that a general rise of money prices is possible, but not a general rise in values. But when we realize that values are the measure of a future sacrifice of the results of past or future effort, it is evident that they can rise simultaneously over limited and large areas and theoretically also over everywhere together. The results of past effort are fixed, or nearly so, in the combined and concrete results of the process of production. The results of future effort, for which in a transaction of sale and purchase they are exchanged, are elastic, often to a surprising extent.

Let us examine more carefully the nature of the buyer's sacrifice, which constitutes value. He comes prepared as a rule to pay for his purchase in cash, bills or, more rarely, services. In the latter case the futurity of the sacrifice in the transaction is evident. In the case of bills, futurity is also clearly an element. In this group of cases, embracing all the big operations of trade and therefore including several times over the sale and resale of many commodities, which only go once through the process of retail sale, the object of the futurity element is to postpone the necessity of payment until the expected trader's profit has been secured. The feature of futurity in this class of dealings is so well understood that it is accurately measured as discount. The trader buys his block or line of goods, pays for them with a bill, which has to exceed the cash cost of the goods by just the cost of futurity so as to enable the seller in discounting the bill to realize his own price, then resells his purchase at a presumable profit, meets after the end of three or six months his own bill and thus realizes the reward of his skill and speculative courage in his margin of profit.

Let us analyse the more difficult case of a cash payment

to ascertain whether the element of futurity is there in all cases. At first sight the passage of money—excluding here cases of borrowed money, which are simpler—seems to point to the transfer of the results of past sacrifices. Further analysis discloses that this is not really the case. Money, although it is the fruit of accumulation, here represents the alternative powers of enjoyment or the useful replacement of effort, and if we dissect two cases of the latter and one of the former we can see that in all three futurity is nearly always present, if latent, in value. The three kinds of transaction are differentiated by the intention of the purchaser.

Take first the case of the purchase of necessaries to keep going the human machine, the establishment or the workshop. If all this is not explicitly what an accountant would allow as capital expenditure, it is certainly the replacement of wear and tear, the renewal of life or the tools of production, needs which are a perpetual drain on our usual resources, exacting sacrifices as well now and in the future as in the past. Any sum spent for such a purpose is exactly exchangeable with a future sacrifice of the same kind, repeatable day by day until we die.

Secondly, we have the purchase of the usual instruments of capital by means of previously accumulated money capital, where the element of futurity is enshrined in its most coldly calculated form.

The third case is that of the purchase of a mere luxury with cash or even with post-obits. Here the use of post-obits does not import the element of futurity which we are seeking. The purchaser only endeavours by this device not reasonably to adjust the sacrifices required by his enjoyment but only to avoid or postpone them as long as possible. Yet the element of futurity is still present even in the purchase of consumable luxuries, because the pur-

chaser will always have to face the results of his temporary enjoyment and may be forced into the necessity of replacing his lost currency. And that is in practice what most of us do. We maintain a certain standard of expenditure, only a small part of which goes in casual enjoyment, and we are careful to be in a position to replace out of income or by our efforts the sums required to continue living up to this standard. It comes to this, then, that there is a rate of exchange maintained more or less equably by the vacillating human will between the results of past effort and the fruit of future effort. The buyer pays for his enjoyments in a kind of bimetallic note, exchangeable in the coin of either the past or the future, as he pleases, and although the nominal sum is fixed, the rate of exchange between his two currencies is determined by his personal estimate of the balance between effort and enjoyment. But this interchangeability with one another of two aspects of property at all times at some ratio is *ipso facto* inherent in the nature of property. That is why we can say effectively that payments are made in the equivalents of future sacrifices.

If the point is once accepted that values are offers of payment in future sacrifices or their equivalent, it follows that a general psychological stimulus over a certain area will carry with it a general rise in values. The human race has to live on future effort and but uses the results of past effort to make the start of future effort on a certain acquired level of efficiency. That is to say, that we do not perpetually have to return to using spades and distaffs, but can employ modern machinery and organization. But we could not live on past effort alone for more than a few months. It is therefore theoretically true that in the area of the whole world an addition to the capacities of endurance and efficiency of all mankind together would raise values universally.

But it is not merely true theoretically on our present showing, it is also a matter of experience that such a general rise in prices over considerable areas, especially in new countries, does leave behind a general residuum of benefit, even after the temporary inflation which accompanies it has subsided. And the cause and explanation of this phenomenon is to be found in the fact that prices have only followed and taken advantage of the general rise in values, which is the real solid gain of the community.

Mill took the instance of a general rise in prices to indicate an illusion prevalent among many people, which he describes as an indistinct feeling, when all prices rise, as if all things simultaneously had risen in value and all possessors had become enriched. My own experience of men in business is, that they are not more subject to illusion than philosophers, but it is seldom that they find it necessary to go out of their way to explain things. In fact, the weakness of an able man of business is that he is too reticent and seldom parts with knowledge that he can turn to account in profitable ways. Now, as to the beneficial effect to a community of a general rise in values and prices there are no two opinions among business men; they will tell you that a "boom"—Anglice, a sharp general rise in prices—if honest and not carried so far as to lose all its benefits in a severe reaction, is much to be desired, especially in new countries.

Our theory has led us so far as to make us believe that since values are largely future in their nature, there can be a general rise both in values and consequently, without unsoundness, also in prices; that is to say, possessors of useful property are enriched all round because there is a universal inclination to put forward more effort in the future to acquire a specific unit of property, than there was before.

Let us follow the course of a "boom" in a new or old

country under the hypothesis that the improvement in trade is not engineered in any dishonest way by underground financial powers. An observer would note, if he kept his head, that prices, while rising sharply all round, have risen in a certain order. A brisk demand for article A. entails a better demand for B. and so on down to K., P. or V. according to the duration of the "boom." It is a moral certainty that there will always be dealers in X., Y. and Z. who are outside the scope of the improvement in business or behind the times in equipment. One of these gentlemen will probably necessarily retire from business to become the financial critic of the community, possibly the local historian and even, perhaps, a philosopher.

Now the crucial fact about the "boom" is that all along the line there has been a margin, where a profit could be made in A. before B. and F. rose in price and dealers in B. and F. again made their turn before M. and R. became too expensive. Thus all who kept their sails well trimmed felt for a moment the favourable breeze before they were blanketed by others. Probably all well-equipped and progressive firms would have in the end a considerable residue of extra profit remaining and those who were so well organized as to have the power of rapid expansion would have made fortunes. Others in the ordinary ruck of traders should find themselves well through with a good profit, with improved methods and extended factories, with better-knit connections and reinforced reserves. There will have been a few failures, but those who fail during good times need not be reckoned as a loss to the community.

But without exaggerating the temporary and particular profits of a large number of individuals the "boom would have brought a more real and universal benefit to the community, which is more apt to evade observation. I refer to the effect of mutual encouragement to effort among all

classes, which prevails during the period of increased hopes and swift realizations. It is at this point that we find the real increment of value. Everyone works a little harder, a little more intelligently and with greater goodwill to secure immediate and helpful co-operation than in ordinary times. The resulting effects of such a common concentration of efficiency are out of all proportion to the sum total of the individual efforts put forth. All that part of business machinery which has the adjustment of relations in charge finds its task immeasurably simplified and the stimulus to fresh effort is enormous. Real values rise because within the area of influence the tendency to effort is increased four or fivefold. Prices follow values but often a little behind, leaving a moral gain to the community over and above the commercial one, a moral gain solidly embedded in a better organization, greater self-confidence and the advancement of a few specially talented leaders to the front.

But important as this element of futurity in values may be, it does not play such a large part in the ordinary machinery of commerce as the ordinary time-difference between the sacrifices of the seller and the sacrifices of the buyer. This time-difference, which is almost but not quite universal, is largely a result of the growth of civilization and the increase of complexity in our commercial relations. Time was, when all our ordering was, as the tailors would say, "bespoke." Nowadays we have to have all but our particular luxuries "ready made." In no other way can they be made cheap enough to meet modern needs. Fancy a yard of standard calico, which costs 3¾*d.* in Stockport, being "bespoke" at 100 yards at a time, which might be just about enough for Mr. Rockefeller's household. The cost would more probably be 2*s.* 6*d.* a yard.

No, the requirements of modern industry are great foresight to anticipate the demand for any class of goods,

considerable capital to supply the means of production for them and a still larger provision of capital to hold the stocks of goods ready for the market. And here we come to the edge of the great problem of our gigantic industrial system. If we open the sluices of modern productive resources, developed under the factory system in the last seventy years, goods pour out at an amazingly cheap and ever cheaper rate and the market is flooded beyond any possibility of commercial remuneration. The analogy is eminently appropriate without any labouring. No barriers of price could withstand the outflow and the resulting inundation would mean the waste of the product and the probable destruction of the means of supply. Modern industry therefore, besides the necessity of lowering the cost of production by a great expenditure of capital, has had to devote an even greater aggregate capital to a machinery for marketing the goods, a machinery which consists of a system of checks and barriers for the purpose of maintaining intermediate levels of price which are fairly comparable to a series of locks constructed to let flood waters slowly down to the level of the plain.

In order to avoid the appearance of paradox and to assert our seriousness let us look at a few facts. The town of Oldham with 100,000 inhabitants has spindle capacity enough to supply more than the regular needs of the whole of Europe in the common counts of yarn. To manipulate such an output and market it as well as the other output of Lancashire the merchants and warehousemen of Manchester and Liverpool, not to mention the marketing organization contained in other Lancashire towns, have a greater capital employed than that required in all the manufacturing industries of the cotton trade. It is roughly true to say that nowadays it costs more to sell most articles than to make them, even in the case of the most highly organized and most

eminently specialized industry in the world. This is a point to which I shall return later in the next chapter. For the moment I am concerned to inquire as briefly as possible into the nature of the difficulty, which creates so enormous a problem. It is evident that the old maxim derived from Mill's law of value will not help us here; mere cheapness and abundance will not by themselves sufficiently increase the demand. A little cheapness and a little abundance will gradually increase the demand and with this modification of the law of value we begin to come to grips with our problem. The two tasks of the producer have to be taken in hand together. On the one hand, he must make a huge outlay for modern economical production; on the other, he has himself or with the aid of middlemen and merchants to keep available a still larger amount of capital to be able to hold up the goods, to maintain his markets and to secure the price which is his necessary reward for both operations. The process has been best described for me in a single word by an American friend, who stated that the only way to meet demand was to allow it always to remain a force of suction. If demand is for a moment satisfied the suction disappears and the seller finds himself perilously near to the glut of the market.

Such a necessity for securing the suction of demand is only another way of putting the maintenance of values. Since demand consists of values and nothing else, the disappearance of values means the diminution and disappearance of demand. In my formulation of the laws of demand, such as I hope to make, we shall have to understand how and why values disappear and reappear and what means there are of preserving them, of creating them, and of re-creating them. There is no such thing economically speaking as "intrinsic value."

There is still a further element of futurity in value, which cannot here be determined until we have thoroughly analyzed cost and cost of selling, which we shall come to do in the next two chapters. A particular form of future value is described and discussed in Chapter X. under the heading of the law of recurring demand.*

* See p. 117.

CHAPTER VI

COST

To state, as I did at the end of the last chapter, that it probably required more capital to market the product of Oldham than was employed in manufacturing it may correctly describe a general fact, but it would be extremely difficult to prove it in detail. There will always be, however, prodigious difficulties to be faced in economics, the explanation of which must be a matter of inference, since the analysis of all the facts is admittedly beyond our powers. And one of the most remarkable is the predominance in wealth and capital of the mercantile as compared with the manufacturing cities of the world. This was no less true in the days of Tyre and of Carthage or during the commercial predominance of Florence, Genoa and Venice. Each of those mercantile queens had probably for purposes of military protection to make, as well as to market, some of her own wares, but it was the marketing that brought the profits. In our own day the great cities of Glasgow and Philadelphia, both of which are great ports as well as manufacturing centres, are nearer than most to the ancient model; neither are yet quite in the first rank and they stand noticeably behind the great commercial capitals, while the purely manufacturing centres are forgotten in some row still further back.

Let us take the great cotton industry already mentioned. A hundred years ago Liverpool was the selling and buying centre, while Manchester manufactured. There was a

certain rivalry between them with a balance of wealth in favour of Liverpool. Now Manchester with Salford and her continuous suburbs has a population of well over a million and stands the second city of the Empire; this place has been gained by her becoming the mercantile centre for cotton goods, as Liverpool remains for cotton, while Manchester cotton manufactures have left her for more special and less wealthy centres. Coarse yarns are spun at Oldham, finer counts at Bolton, the weaving centre is at Blackburn, while bleaching and calico-printing are carried on throughout the district wherever the water facilities are sufficient. But the two mercantile cities are incomparably more wealthy than any of their rivals and almost equal to all of them together.

We have another even more surprising instance in the greatest city the world has ever yet seen. London with an estimated contiguous population of well over seven millions, about equal at the present moment to that of the Dominion of Canada or of the wealthy country of Belgium, is often spoken of as a considerable manufacturing city. This is true in a limited sense, but her manufactures are of a minor order, and her chief industries are of the adjusting and accommodating type. Of the great trades she leads only in building and letterpress printing. She puts together machinery whose parts are largely made elsewhere. She turns out furniture, jewellery, watches, beer, chemicals and hand-made clothes and boots. Of industry in the modern sense, which uses "power" for production, she is almost ignorant. The proof of this odd fact I discovered in the report of the Commission on London Traffic, still only a few years old. There were then 638 factories in London registered as coming under the Factory Acts, with an average horse-power of 54. The total power employed within the London area under the Factory Acts, chiefly

used in newspaper printing, was 34·750 h.p. Just twice as much power as that is required to drive the S.S. *Mauretania* through the water.

Yet the wealth of London considerably exceeds that of the next twelve cities in the Empire taken together, and is vastly more than the combined wealth of the next twenty purely industrial towns, such as Coventry, Wolverhampton, Oldham, Bolton, Preston, Huddersfield or Toronto, to name only a few. The greatest and wealthiest city in the world grows ever fatter and richer without herself using more than a small fragment of modern industrial power. Only the equally commercial cities of New York and Chicago are likely to surpass her in the near future or in the more distant future Buenos Ayres or Montreal.

Such raw lumps of fact are staggering when thrown at one suddenly, and I confess that they defy complete analysis. We must be content with a broad inference or two, such as, that the productive power of modern industry is so tremendous that a comparatively small amount of capital laid down in some dozen suitable English, German and American towns with a well-trained industrial population will be able to produce most kinds of goods capable of indefinite multiplication, sufficient for the whole world. But we are now talking of such large quantities, as without further mercantile organization could never be profitably absorbed. It is not production that is costly, but marketing. Since apparently the greater part of the rewards of industry go to those members of our commercial organization, who are engaged in the adjusting duties of selling, buying and selling again, we have also to infer that there is some corresponding difficulty in these tasks which enables those engaged in them to gain their great rewards. It cannot be all chicanery and thievery.

It would be easier to unravel this difficulty of comparing

the cost of production and the cost of selling, if we could once arrive at a clear estimate of what the net cost of manufacture of any article may be, as distinct from the further cost of placing it on the market, with which it is generally overlaid. One, and the larger, part of the cost of selling may be approximately obtained by finding the difference between the first wholesale price of the completely finished article, and the final retail price at which it passes into the hands of the consumer. Such difference, however, is not by any means the whole of the selling cost of the named article, for the clear reason that there is no manufacturer in the world, who does not devote some of his capital, a part of his salaries and wages and the greater part of his own private energies to building up what he would call his "connection." In other words, the first manufacturer, before the prime product passes from his hands, has already spent on it indirectly in one way or another anything from one-fifth to one-tenth of the net manufacturing cost of the product in obtaining for it its first market. In America the proportion might very likely be greater, because the public there seem to enjoy high prices, and the manufacturers and middlemen have more margin in which to let themselves have their fling in advertising, semi-advertising and generally building up their connections. All of which costs money, and has to be added to the price. It has further to be remembered that many articles pass through more than one manufacturer's hands and each of these has his selling costs; again, most articles go through the hands of carriers by land and sea, each of whom has his selling costs; and, when finally the bantling typical commodity emerges into the hands of the first middleman, it finds the loading up of selling cost comparatively only at its beginning stage. The middlemen will have understood their duty badly, if they are not able to run up, as

we shall see, anything from 20 per cent. to 30 per cent. on the first wholesale net price. It is our final friend, the retailer, who succeeds in putting on the biggest increment, because he has the hardest task in selling to the consumer, and he also, I am told on high authority, is the last person to consent to any cutting down of his share of the plunder when times are bad, or when any scarcity of the prime cost of the material causes a disastrous fluctuation in the market.

Hitherto it has been the practice to mass all these complicated charges under the general term of "cost of production." But how unenlightening such a lazy avoidance of analysis has been we shall see when we come to ascertain whether demand has any, or what, influence on price. The whole problem of demand has been hidden away from economists by the hoary incrustations that have grown up round "cost of production." Of course, the words can be defined to mean anything and everything, if we choose to consider the article, as finally finished or produced, only when it is in the possession of the consumer. This is the easiest way out of the difficulty of defining the cost of production, but we shall see later on that it is fundamentally unsound.

Before passing on to this consideration I should like to dwell on the extraordinary value attached in any important trading community to the business connection or goodwill of any firm engaged in manufacturing or commerce. The construction of such a goodwill is the result of years of effort, expenditure and self-denial, and the want of it is the chief barrier against the establishment of a new manufacturing business. In fact, it has long ago been recognized that the simplest way of avoiding this initial difficulty of starting a new business was to creep into a "connection" by imitation of a trade mark or some course equivalent to

misrepresentation of the new firm's goods as being those of some established house. In the trade with the Far East such a crime has a reputed blackness only equal to that of horse-stealing in Arizona. I was told by a leading mining engineer that he had found it worth while on behalf of a company, which he represented, to buy up some Burmese lead mines, which had been worked out thirty years before, because their "hong" or mercantile connection, which included the right to use a certain stamp on their ingots, was still something to conjure with on the Canton River. All the immensely valuable properties included under the name of trade marks are really so much accumulated selling power, and their amount is the best proof we can find that what is now esteemed so highly must have cost a great deal in time, effort and money to build up. In point of fact, building up such a connection has to be taken as part of selling cost.

Another method of proof of such value, if one is wanted, can be obtained by starting a new business of modern manufacture after the most approved methods. Such a new venture has the one definite advantage of being able in all probability to fine down the net costs of production to some small extent by adopting the latest methods, but an experienced manager will know well that this is less than half the battle. He will have no chance of succeeding against established firms without either a great deal of one of the following advantages or, better still, some fair supply of each of them. First, he may have imported existing connections to the help of his new firm by getting influential investors to take a large stake in it. Secondly, he must be well provided with capital to stand his initial losses. Thirdly, he may find an exceptional opening for a popular novelty, which will establish a new connection for his own firm. I have watched new manufacturing

concerns start with a little of all these advantages and yet come to grief.

Let us come now to a few concrete cases covering both necessaries and luxuries. We have at first hand and up to date the report lately issued by the Department of Agriculture of the United States of America. The investigations were undertaken rather more than a year ago by the Government over fifty different cities selected as types, large, medium and small, in order to ascertain how much was added by the retailer to the cost of the various necessaries of life over and above the wholesale cost as they came into his hands. As the United States are still the largest producers of meat in the world let us take the case of a carcase of beef as being most worth detailed examination. The wholesale price for half such a carcase, weighing in the aggregate 289 lbs. delivered by rail in a small town in Pennsylvania will be $21.68 or 7½ cents a pound. The butcher will then divide this into twelve different cuts or items, so many pounds each of chuck, flank, plate, neck, rib, round, sirloin, suet, bones, offal, &c., each of which will have a different market rate, and he will receive for the aggregate $33.06 or at the rate of 11½ cents a pound. Such a case is an instance of an addition of 55 per cent. to the wholesale price, which was above the average, for the fifty cities, of 38 per cent. The smaller towns, on the whole, exceeded the average, and in eleven out of fifty the retailer added more than 50 per cent.

But this margin of 55 per cent. added to the wholesale cost of the beef in Pennsylvania is not the full total which must be called the selling price of beef. Before the meat came to its wayside station in Pennsylvania it had passed through a dozen hands, each of whom added his fragment of manufacture by feeding, killing, dressing, refrigerating and carrying, and in his demand of payment for these

services included in each case some charge to cover his own share of selling cost, not the least part of which, especially in the case of the packer, was the necessity of being provided with large capital to hold over stocks and control the market, when required.

The freight cost of the steer, who once owned, or was, the carcase of beef, from Texas to the stock farm in Kansas, and from Kansas to the wholesale meat packer in Chicago and thence in the shape of refrigerated beef to Pennsylvania, was estimated by the U.S.A. Department of Agriculture to be, including intermediate handling, about 1 cent a pound. The remaining 6½ cents a pound had to remunerate the ranch owner, the stockfeeder and the Chicago packer, each of whom had his goodwill to maintain out of his share of the proceeds. It would probably not be over-estimating this share of the selling cost undertaken by rancher, feeder, packer and railways to take it at a total of 1½ cents per pound of meat, although this can be nothing more than a hypothetical figure. On this assumption the net cost of production of a pound of beef must be taken as 6 cents, intermediate selling cost as 1½ cents, final selling costs as 4 cents, making an addition to the true cost of production of about 91⅔ per cent.

The American returns taken from the above and other sources, mostly Government reports on retail prices, show that the case of beef is more favourable than many others. Taking other articles at their final or retail selling costs only, without troubling to estimate, as above in the case of beef, what we have called the intermediate selling costs, we find that milk comes out at still worse rates. Here the dairyman gets 4 cents a quart, the carrier ½ cent, and the retailer 3½ cents out of a price of 8 cents to the consumer, so that the last selling stage puts on 70 per cent. instead of an average 38 per cent. as in the case of beef. Bottled

milk in New York also brings 8 cents a quart, of which the producer receives 2½ cents the carrier 1 cent and the retailer 4½ cents. This last item, as compared with milk in the can, seems to point to some undue manipulation of the market. With regard to potatoes, onions, water-melons and coffee, it was estimated by the Industrial Commission ten years ago that the consumer paid a price 200 per cent. higher than the wholesale cost; for poultry, apples, and strawberries about 100 per cent. more. In the most favourable case of butter, the producer received 85 per cent. of the gross price, a difference to be accounted for by supposing that here the original producer took the costs of selling largely on his own back by advertising and getting himself into direct touch with his ultimate customer. But without taking up the details of the American butter trade further analysis of this case is impossible.

In a private report issued in the interests of the American tariff party by a tame committee inspired by Senator Lodge a droll case was mentioned which can be accepted as true, and, if so, is very much to the point in a discussion of the costs of selling and of production. A certain merchant took up a new line of tea and received from the wholesaler the following alternative propositions: he could sell the tea at 27 cents a pound to the public taking his ordinary profit or he could sell it at 60 cents a pound and advertise the gift of a handsome present with so many pounds. Such a case is not without parallel in our own country and clearly here we have an artificial addition to the cost of selling a named number of pounds of tea, which is equivalent to the difference between the value of the gift and the higher price charged on so many pounds of tea under the gift system.

The American food prices are most interesting in this particular relation because we have the combined elements of the lowest possible cost of production and great difficulty

in reaching the customer without other complications, and it is fortunate that the statistics on the subject here are precise and authoritative. I can get no comprehensive comparisons between production and selling costs for foods in either England or Germany, the two other great progressive countries, and I can only offer a personal opinion based on inadequate figures and a small experience of trading in both countries. I am under the impression that for foodstuffs in great industrial centres of Germany, like Berlin and Cologne, high selling costs are approximating to the American standard, which in the country districts of Germany are checked by surviving customary prices. There is a most extraordinary disparity between retail prices of foodstuffs in different districts of Germany, but the general tendency is steadily upward. In Berlin I am frequently told by friends, who have direct opportunities of judging, that the expense of living, even for articles which should not be much affected by the tariff, is already higher than in London. In England selling costs of foods are probably lower than anywhere except perhaps in some small agricultural country, where the market of such towns as there are is eagerly competed for by agriculturists, who are poor in trading resources.

But we have in this country an excellent instance of a prime necessary of life, comparable even to food in its indispensable utility. Indeed, in the sense of the word "necessary of life," as we used it in the chapter on "Wants and Sacrifices," it is even more a universal "necessary" than any one kind of food. Because, while there are many alternative kinds of meats, grains and vegetables, which have different values according to local utilities, a yard of calico is almost the indispensable unit of cheap textiles throughout the world. Taking as a standard the quality sold in a small Lancashire town at 3¾*d.* per yard, I analyzed,

with the help of a manufacturer in a large way of business in several branches of the cotton trade, the several elements making up this figure, as closely as we together could. We were satisfied that we could get no nearer to detailed accuracy than to take the net cost of production at about one-half of this figure when cotton was at a medium price and rather more than that when cotton, whose price is unfortunately very variable, stood at a high figure. As the consumer's price stands generally at a stable figure, the fluctuations in the selling margin of 100 per cent. caused by the varying price of cotton have to be borne by the intermediate selling parties, each one except the retailer taking his share of the squeeze, of which the larger share falls to the manufacturer. The most interesting point in this phenomenon is the strong position held by the retailer, because he has hold of the last link in the final selling end of the chain, and I am strongly confirmed by it in the view I take as to the essential difficulty of final selling by the man who has to come face to face with the demand.

It would not be difficult to multiply instances of enormous increments to net cost of production made by the selling cost of luxuries. The prime cost of such commodities as soda-water, millinery, fancy stationery, confectionery or flowers bears very little relation to the ultimate price paid by the consumer. The chief cost of these articles is taken up by the elaborate organization necessary to convey them to the customer or to his notice or to attract him to come and inquire about them. On the seller of fancy luxuries the especial obligation lies of persuading the buyer that he is not buying one of a thousand or a million similar commodities, but just the one particular special exceptional article brought before his notice. Such persuasion is extremely expensive, but when well done brings a fortune. An American wit attributed the commercial success of the

"Waldorf-Astoria," a giant hotel in New York, to the fact that it provided exclusiveness for the million.

One of the most successful of modern selling devices, invented in England, perfected in America and now prevailing everywhere, has been, as an American Westerner would say, the idea of corralling the buyer within the four walls of a general store and of bewildering him there by offering him everything at once. The germ of the idea arose in the English co-operative stores, but now it has spread everywhere. We have Wanamaker's & Macy's and twenty others in America, the Grands Magazins du Louvre, the Galeries Lafayette and the Bon Marché in Paris, Whiteley's, Harrod's, Selfridge's in London, Tietz throughout Germany and Wertheim's Waarenhans in Berlin. Although under these conditions the cost of display is considerable and the amount paid in advertising colossal, yet the profits are handsome and sure. They have the large margin of the ordinary 30 to 80 per cent. of the retailer to cut into and in special cases even more. Mr. Selfridge, presiding in the spring of last year at the meeting of his company which owns a vast department store in London, stated that the cash discounts obtained by his firm were enough to pay the whole of his debenture interest, which included replacement of the capital value of his building and the cost of his lease.

One curious proof of the profits accruing out of retail selling arose in a case of the partial bankruptcy of a firm to be unnamed. It had been originally started to promote the sale of a commodity of general use whose special virtues were protected by a patent. The chief part of the company's capital was laid down in branch agencies for the sale of this speciality, branches which were also allowed to engage in general business in their own lines. After a time the sale of the patented commodity was shown to be small and

unprofitable, the capital of the company was exhausted and the business of the company passed into the hands of a receiver whose natural course of action would have been to close it down. But in the course of his investigation into the business of the company he found that the retail agencies were most of them making a profit on their general trading, so they were continued for the immediate benefit of the creditors and the ultimate profit of the company, which ultimately emerged from its state of liquidation and came later on to pay very handsome dividends to its shareholders.

Not to multiply instances we have seen enough to be aware that the old term, cost of production, in its comprehensive sense is really a function of two variables; one, the net or real cost of production, which may be taken to be the costs of material, labour and management; the other, the costs of selling or marketing under modern conditions. Of these the latter is generally at least equal to the former, occasionally only slightly below it and often far above it. Where there are great fluctuations in price we must look for them not so much in the net cost of production as in the selling cost, which has to take on itself all the duties of expansion and contraction to suit the market.

CHAPTER VII

ANALYSIS OF COST

EVEN if there were available a far greater number of instances than were given in the last chapter where selling costs are of great and decisive influence in determining price and probably more so than the cost of production (meaning by this term, the net cost of production without selling costs), it would not amount to evidence which has any inductive value. A sufficient record of facts to establish a theory of this kind is out of reach in two ways, because not only is the amount of detail required for proof too vast for human industry and knowledge to collect, but, more important still, the evidence from its nature cannot be verified. Businesses cannot be cut open like frogs. The few men who hold the threads of the great realities of business are too much concerned to keep their knowledge for their own profit and as a rule too much immersed in the details of practical life to have any regard for general ideas. Their instinct in dealing with the mere investigator and observer is to cover up their tracks as far as possible and encourage his general confusion of ideas. The only theories for which they have any use are those which will turn the stream of business in their own direction.

We must consequently look for proof in our investigation to what results may be given by the deductive method of reasoning, bearing in mind that such concrete instances as are brought forward are to be taken, like

the use of curves, as purely illustrative. Indeed, these concrete instances, from which one cannot altogether refrain, have a special peril of their own. The truer they are, like libels, the more dangerous is their publication. The facts of business are hard to handle in detail and often those who appeal to them have to be at pains in disguising them beyond possible identification or at least to make a decent pretence in covering up their sources of information. I should be timid in asking one manufacturer for the use of his books in order to ascertain his real cost of production; it would be absurd to expect any considerable number of people to give up this private information. As for finding out a merchant's margin of profit, it is very seldom that you can get any of them at the best of times to admit in the most general terms that they have made anything but a loss. If anyone wants to find a group of professed philanthropists working for nothing, or less, let him go some day and ask a few questions on any mercantile exchange.

Beginning our inquiry therefore at the other end, we may ask, what truth is there, theoretically speaking, in the old economic dictum that, in the case of those articles, which are capable of indefinite production and reproduction, where the law of diminishing returns does not come into operation, price tends "in the long run" to approximate to the cost of production? This is one of the most ancient of those phrases in economics which have tended to darken counsel. It can be made to resemble an axiom by narrowing down all the circumstances which tend to vary price and by enlarging the term, cost of production, until it covers also cost of selling, which is essentially something different. The prevalence of the phrase that "price depends on cost of production" is simply an indication that the general belief among economists remained for a long time that selling was a mechanical process

conducted on regular margins and that the sole variable was cost of manufacture.

However it is put, the dictum is really logically absurd, as we can see by assuming it to be true. The manufacturing cost of an article, where the law of increasing returns operates, depends very considerably on the total amount of the demand. That is to say, it is much cheaper to make certain articles by the thousand than by the dozen. Since bootmaking machinery, for instance, was introduced from America, the cost of making a single pair of boots of a certain grade, when 20,000 pairs are being made in one factory during the year, has been reduced probably to 5*s*., while formerly, with an output of 2,000 pairs a year, the cost was certainly not less than 9*s*. Cost of production therefore depends on demand. Demand also depends on price because more pairs of boots are sold at 9*s*. than formerly at 15*s*. Since we started with the assumption that price depends on the cost of production we have come back to the vicious circle that A. depends on B., which depends on C., which depends on the original A. It is the nursery game of a circle of people sitting on one another's knees.

We have already had an instance in the last chapter—rather a ridiculous one, we must admit—of the merchant who had the option of selling his tea, the same tea, at two prices : it is sufficient, however, to illustrate what is theoretically true, that the cost of making an article being x pounds and y being the normal selling costs, with a small profit, if the article is launched in the routine of trade with a normal demand, the price would normally be $x + y$. But if the firm be possessed of exceptional enterprise and the article be one capable of some novelty in description it is a naturally alternative policy to launch the article in question at a price $x + y + z$, where z represents a considerable sum spent in advertising, including also a special

extra profit to the firm as a reward for their enterprise. Where is the cost of production then? It has been the same x in both cases, while the price has varied from $x + y$ to $x + y + z$.

This latter case is so far from being absurd, that it is typical of a very characteristic difference in the cast of mind of traders on one and on the other side of the Atlantic. It is more frequently the American policy to aim at the higher profit and undertake the greater trouble and risk. I can elaborate the illustration from a business, which I select not so much that I have been personally engaged near enough to the fringe of it to be acquainted with some of its ins and outs as because it is specially interesting from the point of view of demand. I refer to the trade in machine tools. Machine tools are the necessary instruments of the manufacture of all iron and steel. They are therefore intermediate necessaries and the demand for them, because it is secondary,* is as nearly constant as one can expect to find. Fashions and empires may change, but the means of cutting and shaping iron and steel will be wanted in any case whether the ultimate purpose of the iron and the steel be one thing or the other.

The demand for machine tools is as constant as the general fluctuations of trade will allow. They are further used by an extremely able and well-informed set of men, whose interests are deeply engaged in putting into practice without delay every discovery or invention which cheapens the cost of manufacture. The buyers, therefore, in this case are eager enough to ascertain and adopt any novelty of merit and the pushing of the sale of such novelties has not the same initial difficulties as in other trades. Under these

* For definition of secondary demand, see Cap. XI., p. 128, and Handy Table.

actual conditions let us suppose that some useful novelty of design in, say, a milling machine has been discovered and adopted simultaneously by two firms, one in America and one in England. We will suppose further that, though the improvement is not distinctive enough to be patented, it offers a real and appreciable advantage.

It is possible and not unlikely that the two firms would each treat the new advantage in quite a different way. The Englishman would put it on his regular line of machines, add something or perhaps nothing to his price, and look for an increased profit through a larger number of sales and in an increase of the prestige of his firm. The odds are that the American would go differently to work. He would call his old machine, thus improved, by a new name, cover it with "talking points," to use commercial slang, and advertise the novelty for all it was worth and for a good deal more. It is true he would certainly have to charge a much higher price than the Englishman, but if he understood the selling part of his business well, his machine would be far better known and possibly have even a greater sale than that of his rival. You might come to see the two machines any day for sale side by side in Düsseldorf, the great mercantile centre for machine tools in Germany, one priced about 50 per cent. more than the other, but each, if you eliminated useless fripperies, fundamentally costing the same to make. How far did cost of production affect those prices?

I am indebted for a much more subtle class of cases to a paper read by Mr. Cowan, an electrical engineer, at the last meeting of the British Association. He attempted to deal with a case of great difficulty, simultaneous manufacture of almost identical articles under similar conditions where nevertheless custom sometimes allowed differences in the rate of charge. This is one of the cases where customary price has a striking influence on the result. To take as an

instance the seats of a theatre, there is very little difference between the cost of production of a stall at 7*s.* 6*d.* or a seat in the pit at 2*s.* 6*d.* What is sold is an opportunity of seeing an expensive performance on the other side of the footlights. But custom has made the division between classes of seats and as there are few demanding the favoured seats and many demanding the others, the selling cost to the small demand is greater and justifies a far higher price. So also in the case of railway travelling, first-class seats are hard to sell to a few people, and the railway company has to take this into account and charge accordingly. But the cost of carrying any individual is practically the same in one case as the other. In fact, the railway company loses on the higher priced seats and makes its losses up on the third-class traffic. It is only custom in this country which prevents the adoption of the American system of one class.

In a still more interesting field of investigation there are not as yet any customary prices to differentiate the values. The electrical companies have to supply one commodity, namely, electrical units for three different purposes—light, power and heat. Opinion in this country, having no tradition of different classes among consumers to help them, tends to make equal charges for each electrical unit, since the cost of production in each case is the same. Mr. Cowan's point is that though what is made is an electrical unit in all cases, what is sold is in one case a unit of light, in another a unit of power and in another a unit of heat. His argument amounts to this, that since the amount of light used is limited, the selling cost is high and the charge should be proportionate. Power has a better factor of demand and a lower charge is justified. Heat is a case where there is practically no demand at any but a low rate, but with a low rate the demand would be so great as

practically to abolish selling cost, thus justifying a rate very little above the cost of manufacture. Could we have a better instance of how selling cost, which is a function of demand, becomes the real determinant of price?

Mr. Cowan's views were not universally accepted, largely owing to mixed ideas prevalent about justice, fairness and the necessity of taking cost of production as the main determinant of price. But he had a triumphant answer to all this loose thinking. He showed that in practice the lowering of the price of a unit of power and the further lowering of the price of a unit of heat not only need not injure the consumer of light, whose payments remained at a rate justified by his demand, but might even in certain given circumstances benefit him. That is to say, it was within the bounds of probability that with a low charge for a unit of heat the demand for this form of electrical energy might increase to an extent, where the joint consumption would lower the whole cost of manufacture to a point where the original user of light might also benefit by lower rates. The easiest way of demonstrating this hypothesis will be to show Mr. Cowan's curves of the three variables.*

Before leaving this familiar dictum about the cost of production, which I confess is something of a bogey to me, I must criticise the use of the words "in the long run." We have had "a long run" since the Victorian 'forties and yet price is not still tending to the cost of manufacture, but jumping away from it.

The case seems to me one not so much of bad prophecy as of the evil results of attempting to wrest economics to suit a certain philosophical theory. But whether it was a consequence of Benthamism or owing to the fatal assumption of an economic man the early English economists and

* See Diagram II., p. 287.

some of their followers seem always dominated by a theory of perfectibility. They believed passionately in a possible state of perfection in the material world, in the power of mankind to recognize it and in a natural inclination to move in that direction.

All three are questionable propositions. Our vague wanderings on the earth and experiments with matter may be a preparation for something higher, but the road to it is not clearly pointed out by any progressive change in our habits. The general improvements in our physical condition and, if any, in our culture seem to have been reached not so much through idealism, as owing to an increasingly intelligent sensitiveness. It is difficult to be so confident about the present trend of our social and economical strivings as to continue to use the words "in the long run" with any boisterous hopefulness. Nor, on the other hand, need we be worried about what they represent. They stand to me for no more than a useless form of speculation in economics. If, as I believe, economics is a pedestrian form of psychology we may be sure that economic problems will have ample opportunity of being stated and restated in order to correspond with our perpetually modifying civilization. That is why we have come to a point when the generalizations, which were approximately true in 1850, already, some of them, require restating to suit modern conditions.

The close analysis of the constituent elements of cost is a matter of great difficulty, because all the factors of which it is composed are variables. There is one which is apparently constant, namely, the cost of manufacture, but, as we saw above, it is not really so until the total amount of demand has been estimated and the scale and rate of output determined. Even the manufacturer has thus to keep his eye on demand. But the output once fixed for a

given quantity the cost of manufacture becomes the lower limit, below which price cannot fall without discouraging production. Above this limit the rest of cost is included in selling costs, which are again susceptible of further analysis.

If we take the whole group of producers and sellers together, consisting severally of manufacturer, middlemen and retailer, we find that each has his part to play in meeting demand. The manufacturer has to determine the output, guided to some extent generally by the expert assistance in the form of orders of the middlemen. The middlemen are, as a rule, the largest capitalists of the whole group, and their function is to control supply by absorbing quantities of commodities at the receiving end of their chain and parting with them judiciously at the other end of their chain to the retailer. Their duties resemble those of locks which let the flood waters of production fall gradually down to the level where consumption is ready for them. For this purpose the resources required are considerable, but as the quantities which are handled are immense, each middleman's toll of profit on each article is small. The retailer who undertakes the final duty of sale to the customer has in the vast majority of cases little, if any, capital. His turnover is small and his labours are great, so that his proportion of profits on each article sold has to be comparatively high. Risks have to be covered at every stage. The aggregate payments for these services and risks are the selling costs of the commodity. They are, as we can see, including also the cost of manufacture, all functions of demand, which is therefore the chief determinant of price.

The complicated problem of selling will be continuously better understood, as the study of consumption becomes recognized to be the chief field still undeveloped in economics. When the waywardness of the consumer has

been fully grasped the immense task of the seller will be more generally appreciated. Something of its magnitude must be inferred from the mere wealth of the mercantile cities, arguing the employment of huge capital and the receiptof no inconsiderable income.

The complete duties of the sellers regarded as a consolidated group are not confined only to the mechanical one of holding back the immense output of modern production and allowing it to filter slowly through their hands. This may be called the control of supply. They have also to regulate and manipulate demand, which is quite a separate duty and requires very intensive study of its seasonal fluctuations. When we come to formulate the laws of demand it will become clear that the alternate disappearance and recurrence of demand for any commodity is its most characteristic feature. In general consumption there is not a single tide, as in the ocean, flowing and ebbing equally on either side of the globe, but endless competing fluctuations, some of which have interlinking influences on one another and others which are entirely independent. There are spring hats and autumn toques, summer flannels and winter overcoats; these are seasonal and universal. Other recurrent demand is diurnal and therefore practically perpetual, such as for food, and conveyance to work. But how about the demand for watches, jewellery, theatre tickets, portmanteaux, coffins, wedding dresses, &c.? For these the demand of any individual or any small group is so spasmodic, as to be incalculable, so that even the retail sellers of these commodities have to be provided with considerable capital and to keep large stocks and to rely on the building up of a goodwill sufficiently widely known in order to bring them a large number of occasional buyers. They could never depend on the regular demand of a limited group of clients.

The greatest difficulty is presented in the case of the sellers of professional services, where the waste of high attainments and even of human lives and energies is shocking and has to be paid for in the prices charged. The hit-and-miss character of the plan of allowing or rather requiring an expensively educated man to put up his name on the door and wait for business to come to him is the root cause of the unnecessary cost of much legal, medical and engineering services in this country. I should hesitate to say that our want of system in this respect is a reproach to us in the world, but it should be so. Apparently there is an inclination among us to glory in the few dazzling incomes made at the expense of much unmerited failure, as if they were the proof of exceptional talents in the nation. They are nothing of the kind.

Besides lying in wait for demand, so to speak, the sellers have often to go abroad and gather it in. Their most usual method of prosecuting this part of their business consists of advertising in its various forms and the great expense of this branch of selling enterprise is sometimes borne by all departments of sellers in varying shares, but is more often paid by one set in the chain of partners, whoever may have the largest amount of available capital for the purpose. The habits in this respect differ from trade to trade. For instance, if we examine the separate trades in this country we find that soaps, mustard, cocoa and chocolates, mineral waters and patent medicines are advertised chiefly by their manufacturers; wines, whiskies, tobaccos, teas and fancy goods by the great mercantile houses, some of whom are also retailers; while the great retail shops and stores advertise clothes, fashions, cutlery and a vast quantity of mixed necessaries. The object of very extensive advertising in all these branches is not only to attract the ultimate customer, but also by creating a

private goodwill for the firm which undertakes the expenditure to capture a larger share of the intermediate profits than would otherwise come to its share in the ordinary routine.

There are again other ways of attracting the ultimate consumer besides advertising. Some are perfectly legitimate, such as good salesmanship, canvassing, sending out commercial travellers and forward agents. Others are doubtfully so, such as giving away showy trash with a pound of tea. But the most successful are the out-and-out impostures. I am not speaking here of the dishonest branches of competition, such as secret commissions, bribery of agents, misrepresentation and adulteration, but of mere blatant humbuggery. Human nature has a real liking for being taken in and if the impostor is clever, his equals in ability see through him, but do not want to show him up or are deterred by the trouble of doing so and therefore are free to enjoy the spectacle of watching him impose on others. This is a kind of talent which has great openings in business and especially in finance, journalism and the sale of quack medicines. Economically speaking, these gains are the reward of exceptional selling skill where the character of the commodity offered is worthless or negligible.

Note to Second Impression on Mr. Cowan's Theory of Electrical Units.—It has been suggested that I have here neglected or ignored the influence of the load-factor on the cost of production of electrical units for lighting. The fact is that the influence of the load-factor had been considered and eliminated by Mr. Cowan in order that the question of mere quantity might be considered by itself. If we return to this question of load-factor, it will be seen that this operating influence is itself only a function of demand in another form. It can be analyzed into three elements: the periodicity of demand for light in large quantities; the regularity of demand at various periods for light in large and small quantities—whether, for instance, each day in the week has a fixed demand for a regular quantity; and the incidence of demand—whether by day or night and during which hours of the night. All these elements are supposed in the above argument to have been resolved into expressions for which due allowance has been made by Mr. Cowan. The consideration of mere quantities over a long period of time is then taken by itself and their influence is estimated in respect of three utilities—light, power, and heat.

CHAPTER VIII

THE LAWS OF SUPPLY

It is at first glance remarkable that of the several departments of industry the most complicated should have been the earliest developed. The perfection of the machinery of exchange antedated a long time the institution of rapid methods of production. The use of instruments of credit and of a banking system were doubtless known to the Greeks and Phœnicians as they certainly were to the Romans, and from antiquity onwards up to the beginning of the nineteenth century step by step improvements were made until we had a full-fledged equipment of exchange ready and waiting for the industrial revolution which was to be brought about by the rapidity and cheapness of modern manufacture. I can call to mind only two institutions, which may be called inventions in the sphere of exchange, the Bankers' Clearing House and the establishment of joint stock corporations with limited liability to their shareholders, whose origin cannot be attributed to the period before the Napoleonic wars.

On the other hand, cast an eye over production then and now. What article of common use has not been incredibly cheapened in cost of manufacture? How many novel rarities and old luxuries are now plentiful which were formerly unknown or hardly procurable! Even sleepy agriculture has gone forward to a point where old methods of production have been driven out of competition. That is not to say, that there was no cheapness then and no luxury.

But the cheapness of pre-Victorian days was not due to plenty, but to restricted markets for selling. Country produce was cheap and good in the country because it was impossible to carry it far to the great towns except at a great cost.

The reversal of this was due solely to physical causes. The genie of "power" was unchained and commenced to turn out clothes, furniture and, later on, food at a furious rate, and not only was freely producing them, but fifty years later was carrying them at an incredibly cheap rate everywhere over land and sea. The world, the economic world, which had formerly been a series of microcosms, where prices of various commodities were locally governed by alternate monopolies and gluts within little rings with only occasional communications outside, became at once a series of national worlds and then rapidly a world-world, using one of these two terms in the German adjectival sense. The new facts were so alarming that many nations ran to cover, so to speak, behind tariff walls, which necessity compelled them to build up higher and higher.

The improvement never stopped, indeed, it may well be that we are still only at the beginning of it. The telegraph and telephone have perhaps done more to broaden out a world market for staple commodities than was ever done by railway and the steamship. In Manchester they still speak of a merchant prince who was caught at the turn of this crisis. By perfecting the accepted means of communication and securing exclusive early information he had successfully cornered the cotton market for one if not for two years. But proceeding with his old-fashioned methods he was defeated and ruined in another year through underestimating the novel utility of telegraphed messages. From being two or three days ahead of the market he found himself a fortnight behind it and subsided under spectacular circumstances.

It was just at this time, and principally on account of this phenomenal change, that economic science underwent its greatest development. The chief fact that stared economists in the face was a change for the better in the rate of production. What was not so obvious was that there was also a retardatory change in the rate of improvement in the cost of production and marketing. There was an imaginary curve of price rapidly approaching an imaginary straight line representing the ultimate minimum, which consisted of interest, material and wages. But while rapidly approaching it, the curve was really asymptotic to the straight line, in other words it was approaching it at a gradually decreasing rate. On a superficial view of the facts it became easy to adopt a theory of perfectibility in economic science and to follow it up with the further deduction which we examined in the last chapter and found to be erroneous, that price tends in the long run to approximate to the cost of production.

It was only by going too far that some of the economists went wrong or more exactly by their sanguinely assuming that existing tendencies would be extended in the same direction. It was an easy mistake to make, not unconnected with the moral theories of the time, but it was the last mistake they should have made, if they had duly preserved the historic sense. To have lived through one great change is an *a priori* argument that another is possible, if not probable. As a matter of fact, the ever-increasing facilities of production, which they only saw in their beginning, became the instrument which worked out the defeat of their own assumptions.

The economists of the 'forties were quite right in understanding so much of the change as they actually saw going on before them, and they largely explained it in the two laws of supply, which were then formulated. The law of

diminishing return lays it down, that successive equal increments of labour and capital applied to an estate or a business will yield successively smaller returns in the way of interest and profit in certain industries, until finally the return falls below the replacement point. This law is supposed, and rightly so, especially to apply to agriculture, but there are many spheres of its operation. It will apply also to manufacture wherever any important necessity of the business is or may become restricted. The contrary law of increasing return is the exact reverse and operates generally in all manufactures where the conditions are not restricted.

Economists have widely remarked that these laws may come successively into operation, and, in fact, generally do, in nearly all businesses of all kinds. In developing an agricultural estate the returns on effort and expenditure increase up to a certain time, then rapidly fall away. So also the profits on a manufacturing or commercial business may expand at a rate quite out of proportion to the successive accretions of capital and may promise to do so indefinitely in the future until some restricting circumstance comes into play, such as a scarcity or corner of the raw material, the exhaustion of a water supply or the loss of a market through a tariff.

Those who follow economists, or rather those who do not so much follow economists as repeat the odds and ends which they hear from them, have invented a new use for these two laws, which has some justification in analogy, yet will not bear strict logical examination. It is common to hear such a remark with regard to the industry of agriculture, for instance, as that after having been subject generally to the law of diminishing return, it has now become subject to the law of increasing return. Something very similar to this was said in an important parliamentary debate not long

ago by one of our leading statesmen. This inaccurate use of economic terms conveys quite a definite and reasonable meaning, which roughly may be summarized as follows: that at present it pays a man to put his money into land and agriculture, whereas a short time ago it did not do so. The latter form is correct and clear, whereas the former way of putting it is wrong and pretentious.

To be accurate we must distinguish, as in the case of Mill's law of value, as to the sphere of operation of these two laws of supply. On a small scale they are true. They do not apply on the large scale, because they do not come into operation, but their place is taken by two very important laws which greatly resemble them in their effect, but strictly speaking are different from them.

Let us pull to pieces this case about agriculture. It is still as true as ever it was that agriculture remains predominantly under the operation of the law of diminishing return. Now, as before, successive increments of capital, &c., applied to an estate will only for a short time bring in increasing returns until the law is speedily reversed. Yet it is equally true to say that the lands of the world are being exploited at a still increasing profit. The explanation is that one case, the latter, includes ever so many more circumstances than the other.* It includes the building of railways and steamships, the irrigation of deserts, the raising of heavy loans, the promotion of

* In this connection it may be remarked that the above distinction effectively disposes of the controversy between Mill and Carey (see J. S. Mill, "Principles of Pol. Econ.," Book I., Cap. XII.), where both economists were in a sense right, because each was speaking of different industries, Mill of agriculture, Carey of the development of territory. Carey's deductions from his theory are vitiated by his not recognizing that he was really surveying not agriculture, but something greater of which agriculture is only a part.

emigrant offices and largely also the use of the machinery of State Governments. All these conglomerated facts are too big to be included within the little laws of increasing and diminishing return. These laws have served by way of analogy as useful terms for want of a better. The larger laws have not yet been formulated, a task which I am having the temerity to undertake.

The two laws which govern supply on the large scale may be termed the laws of contracting or expanding facilities of production. One is a complement of the other, and the statement of one varies only slightly from that of the other.

THE LAW OF CONTRACTING FACILITIES OF PRODUCTION.

"When the natural facilities of production in any industry are contracting there will be diminishing returns on successive increments of capital and labour applied to it until these natural facilities are restored."

THE LAW OF EXPANDING FACILITIES OF PRODUCTION.

"When the natural facilities of production in any industry are expanding in one or in more directions, provided that there is no contraction in others, successive increments of capital and labour applied to that industry will obtain increasing returns until this expansion has exhausted itself in all directions."

It is evident that the full statement of these two laws includes those formerly known as the laws of diminishing and increasing return, the two latter being no more than the statement of particular cases, which come under the two former. It will also be obvious that expanding and shrinking natural facilities in any industry will normally succeed each other alternately to an indefinite extent. It

is also true, although not so obvious, that natural facilities in any industry may be contracting in one direction, while they are being rapidly developed in another. Of this peculiar case, not so much a rare one as one difficult to analyze, we shall examine a most remarkable instance very shortly.

To return for a moment to the immemorial fluctuations of natural facilities in the case of agriculture. Here we have on the whole the best instance of the alternating operation of these two laws on the world scale. Let us take as an imaginary instance some small town in Germany during the Middle Ages, large enough to have a municipal existence within its fortifications, equipped with some fifteen square miles of arable land with doubtful water communication with some large town and still more distant and expensive water communication with the world outside. Such a town in my fancy might have been Dilberg, a little walled town about twenty miles above Heidelberg on the Neckar, with a small domain of grain-bearing fields set in the midst of forest-clothed mountains. The swift-flowing river could offer precarious traffic with Heidelberg and the Rhine still more occasional communication with Westphalia, Holland and England at the edge of the world.

Now the cultivation of grain-foods in the district of Dilberg and the supply of food to its present dwindled population would be governed in strict alternation by the laws of contracting and expanding facilities of production In ruder times it might have been fairly easy to ship small cargoes down the rapid Neckar, but difficult to bring them back. Dilberg would then live on its own domain and agriculture would yield a steadily diminishing return. With the growth in wealth of Heidelberg under its Protestant Electors there would appear a steady market for foodstuffs from Dilberg, which would overcome transportation costs and agriculture would yield increasing returns. But the

invasion of the Palatinate by Tilly and the ruin of Heidelberg would induce an opposite reaction. Again, the general devastation of Germany in the Thirty Years' War would offer a fine field of trade for those communities which survived annihilation. As Dilberg, I believe, successfully resisted Tilly and obtained good terms, no doubt a moderate measure of prosperity returned to it, until the devastation of the Palatinate by the French.

In modern times Dilberg would share the fate of small and expensively equipped communities everywhere. Its outside markets would be supplied from the rich Rhineland; its local market would be continuously narrowed by improved communications spreading up to its doors. At last the conclusion of the Zollverein and the growth of railways shut up Dilberg within itself to be a decaying and ruined town. Dilberg can buy wheat or rye cheaper than ever, but it has nothing to buy it with.

The world market has come with railways, and to all appearance wheat has settled steadily down to what we may call Western prairie prices with a selling margin. But the fluctuations, although not so intelligible, still go on. Every railway thrown across the Rockies makes rich lands available and cheap. Farmers are attracted to settle and cultivate, and increasing returns are the motto of the time. Then the supply of cheap land narrows down and a reversal occurs.

At the present moment we have seen the best lands in the United States already settled and become, so to speak, part of the national domain and marked for home use. But we are watching new railways creeping across the Argentine and up to the Canadian north-north-west.* The finest

* Writing on June 30, 1911, the *Times* correspondent in Manitoba reports a grand total of 17,043,317 acres under grain in the Canadian North-West with about 10,200,000 acres under wheat. The value of

wheat lands in the world will be fairly cheap for another generation, especially with the modern plan of State and Colonial Governments entering into the emigration business and tumbling over each other to get agricultural recruits. The reaction will be all the more sharp when it comes.

So we see that at this precise moment Dilberg with its fifteen square miles lies under the operation of the law of diminishing returns, while the world market for wheat is enjoying the benefits of the law of expanding natural facilities of production.

Now let us turn to a novel and still more complicated instance of the simultaneous and conflicting operation of the two laws of supply in regard to the production of the same material from two different sources of supply, these two sources of supply being governed by opposite tendencies. In order to make the illustration as realistic as possible I have taken the statement of supposed facts, past, present and future, from the expert estimates of a financial paper which has been hitherto singularly successful in its judgment of the course of production of rubber. And here I have to guard myself against a double danger. First, as in a former chapter, no statement of facts must be taken as if it were offered in the guise of material for inductive proof. The argument stands or falls by itself. Secondly, this analysis of the rubber position is not a scientific study of known facts, but an estimate of the

the wheat crop last year was $91,350,000. There remain according to his calculation another 340,000,000 acres still available for agricultural purposes. He adds that the progress in bringing these remaining acres under cultivation will be far more rapid in the next five years than it has been in the past as the use of agricultural tractors driven by petrol motors has now made possible the successful cultivation of farms as large as 10,000 and even 50,000 acres.

present and future position of the commodity made by an expert in the ordinary way of day-to-day criticism of trade. Should the forecast of the future turn out to be incorrect, it is not to be held to vitiate the argument.

The rubber trade is now in a very peculiar position, one quite unique in my own limited experience and knowledge. It deals with a substance which has an absolute monopoly for certain specific and valuable uses, and though vast sums of money have been spent in order to produce it artificially or to obtain a reliable substitute, experts both financial and scientific now recognize that neither of these resources is yet possible on commercial lines. Synthetic rubber can be easily made—friends of mine have made it—but not at 1*s*. 6*d*. a pound.

The world supply of rubber for 1910 was estimated at 80,000 tons of which 8,000 tons came from the plantations of Malaysia and Ceylon and the balance preponderantly from Brazil with a few thousand tons of inferior rubber from Africa. It is anticipated that the supply of rubber from plantation sources will steadily increase, while that of Africa will probably cease on account of its poor quality, which will not be able to hold its own in the coming severe competition. The supply of rubber from Brazil, as from Africa, is wild and cannot be indefinitely increased. For the purposes of our present illustration let us take the existing supply as 60,000 tons of wild rubber from Brazil, 10,000 tons of cultivated rubber, coming mainly from the East, and another 10,000 tons of negligible miscellaneous supplies which need not enter into our present consideration. The future of the supply of rubber will depend on the competition between the wild rubber of Brazil and rubber cultivated under the most favourable circumstances elsewhere.

The production of the 60,000 tons of wild rubber from

Brazil is at present governed by the law of contracting natural facilities of production. The wild rubber trees are not being replaced as they are exhausted. Their number can only be multiplied by going deeper into the forests subject to the limits imposed by transportation, limits which have been pretty well reached already. The supply of skilled labour is also limited. The native tapper or "seringueiro" is to some extent born and only partly made. He has not only to collect the rubber and be an expert searcher for trees and able to plan an economical tapping round, but he must have the traditional knowledge of smoking it and manufacturing it into the huge round balls of hard Pará. Increased demand for his services will put up their cost to an extent which the price of rubber cannot bear. Add to these rigid restrictions the disadvantage of a bad financing system, rubber being collected on advances made by small capitalists who have to rely unduly on banking credit, as well as the heavy taxation of a Government which depends on its rubber revenues.

So serious is this financial side of the question under a Government which has discredited itself by "valorising" coffee—apparently a pretentious name for going into the wholesale grocery trade—that the selling cost of Brazil rubber must be put much higher than that of rubber from the East. A comparison of two or three estimates puts the minimum cost of obtaining Brazil rubber at 1*s.* 9*d.* a pound and of paying taxation and selling it at not less than 1*s.* 3*d.* a pound, a total of 3*s.* a pound wholesale.

During the last five or six years between £40,000,000 and £50,000,000 has been invested in planting *hevea bresiliensis* on estates chiefly situated in the British Malay peninsula. Not all of this money has been wisely spent, but some companies have made colossal profits and most of these plantations may reasonably hope to earn a

living during the near future. The production of rubber under these conditions has been and may be for some time subject to the law of expanding facilities of production, and if the present price (about 5*s.* a pound) remained stable, would certainly continue to do so. But the price will not remain stable.

Plantation rubber can be produced on the best estates at 6*d.* per pound and marketed at 1*s.* What is assumed by experts to be the average cost of production of rubber on those estates, which have been wisely planted and continue to be well enough managed in the future to stand the stress of competition, is 1*s.* per pound net and 1*s.* 6*d.* on wholesale market.

Such are the resources of these two variously equipped competitors, and it is difficult to forecast the resulting prices except that they will be wildly fluctuating. Already within three years rubber has been within calling distance of 12*s.* and of 2*s.* per pound. Assuming the operation of the law of increasing facilities of production, plantation rubber will come more and more on the market in each succeeding year. The supply in sight from the plantations has been conservatively estimated at 25,000 tons for 1912, 40,000 tons for 1913, 70,000 tons in 1915. So long as Brazil continues to turn out her 60,000 tons per annum such a supply would create a stupendous glut of the market.

But we have seen already that Brazil will not be able to do this. With prices breaking from their present level the law of contracting facilities of the production of wild rubber will come severely into operation. With 4*s.* rubber, nearly all the remoter tapping rounds up the Amazon rivers will have to be deserted and the shortage of labour will be relieved. But the planters will not be denied, and in a year or two rubber will be driven down to 3*s.* a pound, when perhaps only 50,000 tons of Brazil rubber will be

collected at a profit. This will be a stable point for a year or two when a world supply of perhaps 100,000 tons may be drawn equally at 3*s.* per pound from Brazil and from the East.

But it is inevitable that, while the well-managed plantation can produce rubber, as we are told, at 1*s.* 6*d.* per pound, the rush of the cultivated supplies must press down the price, at any rate temporarily, to 2*s.*, at which point Brazil will go out of business except for a paltry 10,000 tons, and the trade of a "seringueiro" will be a decaying one and finally become a lost art. Brazil will finally have to rely on her own plantations, if it is not then too late for her to enter that branch of the rubber industry.

Such a result is apparently inevitable on our present *data*, but no doubt it is still ten to fifteen years off after many fluctuations, because every failure of the Brazil supply will send the price up and bring in Brazil again next year until finally the accumulated experience of the wild rubber industry is gradually wrecked and can no more be reorganized to meet a temporary demand.

CHAPTER IX

MONOPOLY AND GLUT

It is regrettable that there should not be in the English language, or for the matter of that, so far as I know, in any other, terms specifically describing either the stringency caused by a shortage of supplies in any market on the one hand or the weakness of prices caused by a plethora of any commodity on the other. The words, monopoly and glut, are both extreme states of either one or the other, and should not, properly speaking, be used to cover the infinite gradations between the central point of a natural equilibrium of supply and demand and the ultimate opposite points on either hand. Each word is limited by its unfortunate derivation. "Monopoly" presupposes one seller and many buyers, but this mere numerical statement does not characterize the degree of stringency. We are therefore allowed to suppose that there are gradations of stringency legitimately covered by the word, monopoly. Similarly the word "glut" is an ugly metaphor, referring to the possibility of physical satiety in men and animals; but, since there are degrees of satiety and even provision in certain animals for regulating these degrees, the word, glut, may be held to be a term of multitude importing several quantitative degrees of repletion.

Since we are thus without duly representative terms covering all the infinite gradations of hungering want or of growing satisfaction, we are legitimately driven to employ these two terms, "monopoly" and "glut," which, properly

speaking, should be used to cover only rather abnormal states, to include also all the minor gradations intermediate between the two extremes and the central point of equilibrium. For instance, I shall reluctantly use the term, temporary or partial monopoly, to cover even so small a difference as 1*d.* per pound between the price of new potatoes in the week ending May 20 as compared with their price in the week ending May 27, 1911, when they are, as a housewife would say, "coming in." On the other side, I shall use the words, glut or partial glut, in a technical sense, to describe the cause of the fall of the price of cotton as soon as the United States Government bureau's estimate of the cotton crop has been found to be, as it often is, from half a million to one million short of the crop in sight. This is far from being literally a glut, but economically it is the beginning of one, and the degree of it can be precisely measured.

Used in this precisely defined sense it is correct to say that all the markets in the world tend to rush violently from glut to monopoly and the degree of violence with which they do so depends on their crudity and the extent to which they lack the balancing and controlling machinery constructed by modern capitalism. This degree of violence is also affected by the size of the market and modified by the existence of a partial common fluidity with other markets. To elaborate this analogy we must imagine the small markets as being centres of extreme fluidity in an encompassing medium of lesser but partial fluidity, so that local agitations can affect the slower-moving enveloping medium, and carry intermediate vibrations to other local centres. So also may many concurrent local agitations ultimately bring about a general agitation in the whole mass. The task of modern commercial organization has been to enlarge the local units, to link them up and to establish

almost as perfect a fluidity between each of them as they have within themselves.

Let us revert to the supposed situation of a place like Dilberg in the Middle Ages, where for grain and wine and almost every commodity produced locally alternate plethora and scarcity would be the general rule. But on the whole scarcity would predominate owing to the poor productive power of that period, and, wherever scarcity predominates, appetites themselves acquire a considerable degree of elasticity; that is to say, after two years of want, one year of plenty can be absorbed without exciting satiety. Or to put it in another way, we may say that with poor productive power the suction of demand in a market remains considerable even where the fluctuations of supply are great. This makes for a comparative steadiness of prices, and is a partial but not adequate substitute for the artificial balancing power which governs modern markets. And the reason why it is only partially and inadequately a substitute is because, while prevailing want keeps prices up steadily against minor fluctuations, it is powerless to deal with great ones. The primitive market was not very sensitive to small storms, and that is why it was easily wrecked by great ones. Without the power of holding reserves four or five superlatively good harvests would seriously disturb the finances of a primitive agricultural community. In Egypt, until Joseph appeared, the Pharaohs possibly allowed their surplus harvests to go to waste.

But it is otherwise in the world market to-day after the industrial revolution of the last century. Productive power has outstripped desire, *i.e.*, that desire which is economically effective and equipped with power to reward the producer. Whereas formerly a balance of unsatisfied want in the consumer brought a partial stability to prices which could only be upset by abnormal conditions, now there is a universal

glut of all commodities calling for immense resources and untiring ingenuity in order to maintain prices at the paying level for the producer and the seller. But this position of equilibrium, while expensive to maintain, is far more stable than that existing in any mediæval or ancient market. Our little "slumps" and "booms" are paltry things compared with the ups and downs of Mississippi shares or South Sea stock, or with the fall in currency after the discovery of the New World. We have got the whole world linked up in the market for staple commodities, and we have every corner ransacked for metals, minerals and good wheat-growing territory. Probably nothing could disturb us seriously except an attack on the narrow foundation of our currency, such as the discovery of a mountain of gold or the outbreak of a gigantic war.

Before attempting to formulate the laws of demand, a point which we are rapidly approaching, let us examine monopoly and glut *seriatim*, considering first the extreme cases and then the gradations of more normal ones. A complete study of this subject would involve a book constituting the foundation of a new branch of economics which would have to recognize that problems of production are now surpassed in interest by those of selling, as I prefer to call them, rather than of distribution.* It has become now not so difficult to produce adequately for the world's needs as to secure that the producer and his ally the seller should be properly paid for their work.

The vagaries of glut and monopoly have been inadequately handled largely owing to the fact that the two words have unfortunate connotations, and signify to most people extreme states of unusual conditions, but more, perhaps, because the

* Distribution proper is the mechanical conveyance of commodities to the prospective consumer; selling is the inducing him to give an adequate equivalent for them.

assumption among economists was universal that the dwelling of price at or near the equilibrium point, in accordance with the law of values, was natural, and that the aberrations from it were abnormal. My point, so far as I have made it clear, is this, that the natural course of prices is a violent oscillation about an unstable equilibrium and that the comparative usual stability of prices in practice round about the neighbourhood of the equilibrium point or points is the result of an elaborate and costly commercial system. Very occasionally the system collapses in some local area, and disastrous consequences would ensue except for the fact that the whole civilized world is now braced together to enable markets to render each other mutual assistance in balancing and propping up their weakest members. The central buffer which receives the ultimate shocks and adjusts the balancing of all the markets is, of course, finance. Under this view of our commercial system the phenomena of monopoly and glut are of primary importance in all their stages and gradations and it is easily recognizable that their essence lies at the basis of value.

Value, it has been generally said, is compounded of utility and restriction of supply. Neither daylight nor earthquakes are supposed to have any value, although one is indispensable and the other is fortunately rare. But it is not generally recognized that there is another condition required to give value, and that is the power of calling in physical force either in person or through the state for the exaction of the required compensation. Mankind has always bitterly resented a monopoly and been quick to combine against it. Consequently certain invaluable commodities have been partially excluded from the area of private exploitation, where values are created. Water is thus treated in nearly all countries, and its price seldom varies from the cost of making it available. Land is being

gradually withdrawn in the most civilized countries from the sphere of private property, and the means of transportation also are tending to come into the hands of municipalities and states.

The state, on the other hand, has to intervene to create or make possible values in cases, where the utility is considerable and the bargaining power of the possessors is insufficient to secure their adequate reward. In many countries a State Church is maintained, in nearly all learning is encouraged and endowed and military abilities are fostered and heavily rewarded. An inadequate attempt to reward brains is the basis of the state monopolies granted to certain intellectual products in the form of literary and artistic copyright, patents and trade marks. A few pensions come under the same heading.

An intermediate case, where monopoly is partly permitted and partly abolished, can be found in the case of medical services. Primitive communities will never permit the holding back of these services for an extravagant reward, and our own poor indirectly exact similar privileges. They are treated free or at low cost, and the specialist is paid by the rich, and now this branch also of human endeavour seems passing gradually into the service of the state.

We have a lovely English word, priceless, to denote what is the best of everything, which yet has little or no commercial value. The power of devotion of many women, the disinterested integrity of some men, the spiritual gifts of a rare few are of an unsurpassable utility to a nation, and they are also restricted in supply. Add to this such personal qualities as devotion to duty, the power of endurance, habits of industry and perseverance and the highest flights of intellectual endeavour, and we have here pearls and jewels which mysteriously are part of a nation's wealth yet can only occasionally and indirectly bring

material reward to their possessor. The characteristic of such a reward to the individual for the possession of a natural monopoly of this kind is that it may come to him in rare cases wholly or partially, but that it cannot be exacted. In other words, property in these exceptional gifts and qualities has not been successfully created.

The exaction of the full profits of a monopoly even under strict commercial conditions is rare and difficult. It is probably more easily and completely effected in the market for stocks and shares than in any other.* Human feeling revolts against it, and prejudice and animosity combat it with every social and personal influence. Then there remains the human reluctance of the seller to exact the pound of flesh. Still, it is successfully done once in a way by an exceptional man who is determined, far-seeing and indifferent to opinion. The analysis of such an operation is, putting moral considerations aside, one of the most fascinating subjects for intellectual contemplation.

The only supremely successful practical achievement which can compare with the capture and maintenance of control over the trade in refined oil throughout half the world by Mr. John D. Rockefeller is, in my opinion, Frederick the Great's victory over the Austrians at Leuthen. The method is exactly similar, and equally overwhelming in its result. It will be remembered that Frederick, marching triumphantly across Germany after the victory of Rosbach, came across the Austrian army of 60,000 men stretched composedly over a line six miles long. With instant strategy, and by brilliant tactics, he unexpectedly placed his 35,000 Prussians, so that they overlapped the end of the Austrian line before the Austrians could concentrate, and he thereby could attack them at their

* For a good illustration of this in fiction, see the late Harold Frederic's "The Market Place."

extreme flank and roll up their line by having always two Prussians to one Austrian at the fighting point. That was, as I understand it, similar to Mr. Rockefeller's method. He knew at every moment before his opponents, where the next point of contest would be, and there he always was prepared beforehand with superior financial strength.

Mr. Rockefeller, generally supposed to be the richest man in the world, presents himself to English imaginations as one who successfully struck oil somewhere near Pittsburg, or, at least, as one who possessed originally considerable capital to enable him to purchase the control of large supplies of it. Mr. Rockefeller never wasted much time looking for oil; he knew there was too much of it in Pennsylvania already, and, as for cornering the supplies of it, he saw very much earlier than anyone else that such an enterprise was impossible. Besides, he started in life with no money. His equipment included the strategical insight of Napoleon, the persuasive eloquence of an American commercial traveller and the instincts and feelings of a sea-squid. All these qualities were necessary to his ultimate success. Although he had no capital, his persuasive powers and the soundness of his plans, so far as he disclosed them, always enabled him to borrow as much as he required for his purposes.

The dominant feature of the oil situation, when Mr. Rockefeller took hold of it, was the glut of crude oil in Pennsylvania in the 'sixties. It was too rapidly produced, and its rate of production was being rapidly increased. No effective combination was possible among the oil men, as the owners of the wells were called, because new wells were being developed everywhere, which would naturally be outside the combining group. There was not among them sufficient capital to hold back supplies; the oil could not be left in the earth; it had to be gathered and packed in

barrels; it became impossible to market it at a price remunerative to the producers. Under these circumstances some general controlling influence was an absolute necessity, and everyone interested in oil became *ipso facto* an ally, however unwilling, of anyone who showed himself capable of governing the situation. The oil men, the refiners and the railways, or railroads, as they call them in America, all had in their turn to help Mr. Rockefeller in his schemes, even though they never ceased to complain later on of the share of profit which he ultimately left them.

Mr. Rockefeller's commanding eye saw that the sluice which controlled this flood of production was the manufacturing or refining end of the business* and that of the three natural centres of this industry, New York, Pittsburg and Cleveland, the latter was by far the best point for strategic purposes.

New York, which otherwise had the advantage of being a good selling depôt, was put out of competition as a refining centre by its distance from the oil fields because crude oil was not valuable enough to bear the freight charges over the railroads, which were then the only means of transportation. Pittsburg and Cleveland were almost equally distant from the oil fields, but Pittsburg was in the hands of the Pennsylvania R.R. both for supplies of crude oil and for the carriage of refined oil to its market on the coast. Cleveland had two railway lines, if not three, to the Atlantic and the alternative of water carriage by the Great Lakes and the St. Lawrence to the sea. That was a crucial

* This was not because of the profit in the manufacture but because at first the refiners controlled all the sales. Later on Mr. Rockefeller saw the power that was coming into the hands of the oil merchants and made it his business to acquire predominant control of them too, a control still retained by the Standard Oil Trust in spite of its nominal dissolution under the Sherman Act.

advantage in itself, but the decisive superiority of Cleveland lay in the fact that it had water-carriage not only to the Atlantic, but westward over the lakes to the Great West. Mr. Rockefeller could put down refined oil at Chicago and Duluth at a price which no one in Pittsburg or New York could touch. He and his associate Cleveland refiners had always a monopoly of this considerable growing western trade. It was from this source that he drew his reserve strength.

In endeavouring to give in brief summary the chief points of one of the most complicated commercial struggles which have ever taken place, I am forced to compress and group facts to a dangerous extent. I shall also have to follow a logical rather than a time sequence and to represent, as successive, various phases of these bitter struggles, which as a matter of fact were often simultaneous. The fights between Mr. Rockefeller and his rivals were so prolonged that several of them were all going on together about various issues. I also assume Mr. Rockefeller's intention, as I am entitled to do, wherever results appear to confirm it; so nimble-minded, as well as far-seeing a man would, like Napoleon, use every accidental advantage and yet must be held to have intended not only the whole, but the parts and the consequences of his general policy.

Mr. Rockefeller took hold of the oil trade, as Americans would say, by starting a refinery in Cleveland. His business was well managed, but not in so superlative a degree as to drive his competitors in Cleveland out of the trade and leave him in control of all the refineries. He had to control these in another way by forming, with the assistance of the Lake Shore R.R. magnates and others and with borrowed money, a combination called the South Improvement Co. This combination, which was constructed, as I believe, on an entirely novel plan, must be considered as the parent of

all the trusts, and to the credit of its enemies and of the State of Ohio it was immediately recognized as such and ultimately by legal process suppressed. But its dissolution left Mr. Rockefeller with his first forged weapon, the majority of stock in the chief refineries of Cleveland and the control of the oil-refining business on the Great Lakes.

Entrenched in his central stronghold of Cleveland with the western oil trade behind him as a reserve Mr. Rockefeller turned his attention to the railroads. What he wanted from them were two things, one a vital necessity, preference in rates for crude oil from the fields to his refineries, the other a selling advantage in preferential rates for his refined oil to New York. As a weapon he could play off the two direct lines, the Lake Shore R.R. with its ally the New York Central R.R. and the Erie R.R. against one another, with the Pennsylvania R.R. to be brought in as an outsider to cut rates should the two former combine. Against all three he could use the threat of water-carriage down the lakes and river to Montreal. Besides he had always some western traffic to give away which none of his competitors could interfere with.

It is still difficult for us to understand how even such great advantages could be pressed home, as they were by Mr. Rockefeller to so extreme a length. One has to suppose that a certain regular amount of the heavy oil traffic was necessary to each railroad to pay working expenses and that the threat to ship by river and sea was decisive. But even so the terms exacted by Mr. Rockefeller from all the railroads are almost incredible, although there is clear record of them in correspondence. He not only had his crude oil brought to Cleveland and his refined oil carried to New York at a secret preferential rate, but he exacted repayment from the railroads of 20 cents a barrel on every barrel of crude oil sent by his competitors. He thus made a profit

on his own business and also a profit on theirs. In return he divided his traffic equally between the three routes.

The argument he ostensibly used to secure his secret rebates was that being incomparably the largest and most regular customer he was entitled to the economies effected by handling his traffic in bulk, as compared with the heavy charges entailed in handling small and occasional shipments. The real argument, which is not on record, but was no doubt used by him and was present in the mind of his opponents, was that the oil trade had to be controlled by some one to prevent glut and ruin, that no one could control the oil trade without the Cleveland refineries and no one could control Cleveland without the Standard Oil Co. and Mr. Rockefeller. The general necessity was so great that a comparatively small advantage gave an opening for a pressure that was crushing.

Crushing and no less must be the word for it. The shame and meanness of such terms, secret though they were, were not accepted by the railroads without a struggle. In Miss Tarbell's book* there is evidence that repeated fights were made by the railway magnates, who were notabilities in their way and claimed to have a decent standard of living. But it was of no use; Mr. Rockefeller enforced his own terms.

These preferential rates were not publicly exposed until long afterwards, but they soon became a matter of just suspicion to Mr. Rockefeller's enemies, who had become by this time an irregular group of Adullamites, composed of Philadelphia merchants, Pittsburg refiners and the oil men. They knew no more than that they were at a serious disadvantage in cost of transportation as compared with the Standard Oil Co. of Cleveland. To turn his flank they set to

* Miss Ida Tarbell. "The Standard Oil Co. of New Jersey."

work to convey oil mechanically, both the crude oil in small pipe lines to the refineries and later on to convey the refined oil in large pipes under pressure in spite of severe engineering difficulties to the seaboard for sale. Mr. Rockefeller's policy in both these cases was exactly the same. Neither improvement was of any advantage to him and his group, who would lose their secret preferential advantages, or to the railroads, who would lose the traffic at remunerative rates. So he used the railroads to fight to the bitter end against any improvement in mechanical transportation and, when at last the new methods became inevitable, he made his own lines or secured partial control of theirs.

Meanwhile Mr. Rockefeller neglected no opportunity of extending his hold over all the selling agencies that he could buy or combine with both in New York or on the coast. He recognized practically thirty years ago, what it is one of the objects of this book to bring into the light of public discussion, that it is more difficult to sell than to produce. He was content with the control of the refineries in Cleveland at first, because they gave him the selling power in the west and through his control of transportation rates gave him a winning advantage in the markets of the east. But the advent of the pipe lines annihilated his decisive superiority.

It is here that Mr. Rockefeller's generalship rose from the rank of that of Hannibal to equal that of Cæsar. I do not suppose Mr. Rockefeller had ever read about Dyrrachium. That would make him the more original. But he was one of those men, whom the rocking of his world cannot divert from his desire for decisive dominion. And, like Cæsar, he was prepared for the catastrophe when it came. With the enormous profits earned by himself and with his modest tax of 20 cents a barrel levied on his competitors, he was in a position to buy up or amalgamate with the great

mercantile houses in the oil trade. In this way he took in the firms of Charles Pratt & Co., H. L. Taylor Co., Lockhart and others, and ultimately formed the larger combination of the Standard Oil Co. of New Jersey, whose modest profits have been £8,000,000 a year for some time past.

When the transportation question was no longer the critical feature of the oil situation the company moved its headquarters to New York and its chief depôt to Bayou Point in New Jersey State. There under the right hand of the Statue of Liberty and to the left hand of the spectator as he comes through the Narrows into the magnificent harbour of New York lie massed the squat round reservoirs which hold the wealth of the greatest commercial monopoly which has ever been formed or ever may be.

The story of the Standard Oil Co. illustrates the compelling effect of a glut, the method of securing a partial and ultimately an almost complete monopoly and finally the doctrine that in any difference of interests the selling end of a business has the whip hand over the producing end, because in merchandizing lies the harder task. In this connection it is to be observed that neither at the beginning of their career nor at the present moment, when the Standard Oil group are richer and more powerful than ever before, did they completely control the output of raw material. They began by being the largest group of middlemen in the most favourably situated centre for transportation. With all their wealth they never controlled at any time more than a bare half of the output of Pennsylvania and now that the Californian oil fields have sprung into existence the Standard Oil Co. probably controls only 30 per cent. of the oil *output* of America. But by holding the selling end of the business, both wholesale and retail, the Standard Oil Co. is estimated to control 80 per cent. of the oil *trade* of the country. What that means in

the way of profit can be seen in the fact that during one or two years, when the competition of outside producers brought the profits down on ordinary refined petroleum, the company continued to sell the ordinary oils at no profit at all, but paid handsome dividends on its stock by its monopoly on all the high-priced patented and advertised oils, which it had acquired through its control of the mercantile houses.*

The use of the word, monopoly, has probably been more frequent in discussing the question of land than in any other branch of economics. Land, strictly speaking, as a whole is not yet the subject of a monopoly and it is still far from becoming so, when we regard the immense probable development of rich new countries. But it may become a monopoly under a variety of special circumstances such as those in which England was placed during the Napoleonic wars or in a small country with a high tariff on food products. Certain grades of land have always been transferred at monopoly prices and particular town sites are now recognized as the most valuable of all forms of property.

The payment for the use of any kind of land is always called rent and rent has been the subject of the most famous economic generalization ever made. The term "rent" also covers payment for the use of buildings and even of machinery and power, all very different forms of property from land. The word is also creeping insidiously into frequent use in economics to show that annual returns from certain forms of property or annual increments of profit are by analogy subject to some law which greatly resembles Ricardo's.† The use of the words "quasi-rent," "consumer's

* I believe these facts are not materially altered by the compulsory breaking up of the company, as the subsidiary companies will probably continue their co-operation under a common policy.

† On this point see W. S. Jevons, "Theory of Political Economy," Preface, p. 56, and J. S. Mill, "Principles of Political Economy," Book VII., Cap. V.

rent," "rent of superior ability," &c., is not only objectionable because it is contrary to common practice and therefore likely to degenerate into a technical jargon, but also because it is inspired by an idea, which is really unsound. I have a suspicion that Ricardo's law, which, by the way, is very variously stated, is itself only a particular form of a much wider law, which some one may be fortunate enough to discover.

As it is, Ricardo's law covers only the rent of agricultural land in settled countries, where competition is free of custom. And even here its influence is diminishing in importance, for the capital value of land in many places is quite out of relation to its annual value. Only last summer the Duke of Bedford sold some of his Devonshire farms for something like forty years' purchase, an estimate of value quite divorced from mere income-bearing considerations.

The real criterion as to the value of land is whether it is subject to primary or secondary demand, a distinction the analysis of which we must leave until a later chapter.* But we can say briefly that primary demand for land is demand for the purpose of non-commercial use or pleasure or mere distinction, that is to say, where the possession of the land is desired in itself. In this country there is very little agricultural land, where there is not some increment of value from this source over and above the capitalized value of its annual income. Secondary demand for land is where it is used as an instrument and its value is determined by its income-bearing power. In the case of town sites the line between the two is more clearly and sharply drawn for us according to the purpose for which the buildings erected on them are to be used, either as residential property or as commercial premises. The

* See Cap. XI. on "Secondary Demand."

origin of the demand, which creates the value of commercial premises, is solely its power of bearing income directly or indirectly, whether they are used for manufacturing, trading or offices. The origin of value in residential property is chiefly a value of taste and choice with utility very much in the background. The distinction is a snare to valuers, particularly in London, where whole districts are always changing from one character to the other, which has brought many a good man to grief. There are few things so speculative as town sites in most cities; residential property going up slowly in value with the possibility of coming down quickly; business premises coming rapidly into appreciation and very slowly losing their income-bearing power.

Another form of partial monopoly where the produce is seldom or never sold outright except in the form of contracts for varying periods is the possession of special talents. Services,* abilities, talents and even genius are commodities with their own market and therefore subject to the laws of supply and demand. They are usually paid for under contracts by the week, quarter or year. The lower grades of labour below trade union level are hardly subject to restriction of supply, and their remuneration tends to sink to the level of what is in those circles considered a living wage. Trade unions introduced partial monopoly into the skilled grades of labour; the need for an expensive education limits competition in supply amongst the professional classes; in the commercial classes general competitive talent has sufficient free play to distribute rewards according to abilities to a certain extent. In all the grades partial monopoly exists and is more or less enforced by competition

* This subject is more elaborately treated in Cap. XVIII. on "The Sale of Labour." It is only briefly referred to here as a conspicuous instance of partial monopoly.

and the method of its enforcement is approximately governed by the following law:—

THE LAW OF GRADUATED RETURNS ON PARTIAL MONOPOLY.*

"In the case of a commodity, which is naturally limited in supply and capable of being supplied in various grades of quality, the prices in each grade are the result of a double competition, that is to say, of a competition between the various grades and also of a competition according to the laws of supply and demand between the units of each grade. Wherever the grades have become stereotyped the competition within the grade is much more influential in determining price than the competition between the grades."

Practice in this case has very much anticipated theory as the policy of the trade union leaders has long been directed to secure partial monopoly on these lines. Their first care was to establish grades of labour and to prevent the overflow of men casually from one grade to another, a refinement which is being daily improved upon. Then by limiting the number of apprentices as they do in certain trades and have tried to do in all, they to some extent control the amount of selling competition in each grade.

This law is the sole justification for, or, perhaps it would be better to say, the easiest explanation of the comparative injustices as between man and man in rewards for services. Merit is a subordinate consideration in fixing the scale of these rewards, although very few successful men would like

* I have been tempted to narrow down this law and call it simply the law of the rewards of services and talents and I may be wrong in not doing so. But I believe at present that this law or something like it is essentially of much wider application, and even that Ricardo's law may turn out to be a special form of it. I am very much open to correction in the matter.

to think so. The qualities that are the highest paid are those which are rarest in their grade, subject to the general utility of the grade to the industry. Thus the modern demand for good selling ability and the comparatively small number of men, who can do it well and like doing it, is raising the remuneration of this branch of talent to a surprising extent in progressive countries.

This law accounts for much that appears to the moralist and to the socialist to be puzzling and reprehensible in our commercial system. Why should one man get £100 a year and the other £1,000? The answer is not the obvious one that the labour of one is worth ten times that of the other. That may or may not be the case; in the majority of cases it is far from being so. The economic fact underlying the difference in reward is this, that the second man, having the scarcer talent, can exact in competition with the units of his own grade and by and with the joint assistance of the units in his own grade in competition with other grades, just £900 a year more than the first man, quite independent of the absolute degrees of utility of either. There is no intrinsic value in talents any more than there is in commodities.

Glut and partial glut have been excellently illustrated in the history of the Standard Oil Co. The keynote of this mystery lies in the paradox that the part is often greater in value than the whole, a truth long ago discovered by the Dutch who sometimes destroyed a whole year's produce of their spice islands in order to keep up prices, as Friedrich List noted. But the consideration of glut leads us directly on to the laws of demand.

CHAPTER X

THE LAWS OF DEMAND

On the threshold of the centre of our subject we may pause to sum up the conclusions at which we have already arrived. First, logically, that is to say, we find that the rise and fall of prices in the modern world, though not independent of other important factors, is chiefly determined by demand. Secondly, demand appears to be a group of values, and while generally used as a collective term implying more usually a large than a small group of values, it may quite correctly describe a single value which would be the demand of one individual for one single article. The situation even arises when the single article may be unique and there may be only one possible purchaser for it. Thirdly, since demand chiefly determines price and demand is essentially a psychological state of one or more individuals,* then the science of exchange and the economic science, of which it is a part, are themselves no more than a branch of the study of psychology and ethics and any attempt to erect a barrier between ethics and economics is erroneous in theory and leads to fatal results in practice.

The six laws of demand, which I here put forward as the result of my analysis of the state of mind of the prospective buyer or buyers, reduce this state of mind to a very simple form. In its essence it strikingly resembles the habitual rule of life which most of us adopt between the ages of

* Note that supply has also been determined to be the same thing. See p. 38.

eleven and fifteen months, according to our relative precocity, which may be described briefly, as follows: that we want most, what we cannot get, and that we cease to want or to esteem very much, whatever has come into our possession. It is only those things, which appear to come to us, as means to further ends, that we continue to cherish. Our chief efforts, economically speaking, are therefore not so much directed to enjoyment, as to obtain secondary objects, which are related to prospective future enjoyments.

The Law of Rising Demand.—I.

"Demand,* when unsatisfied, tends to increase to the limit of capacity† and desire, these latter being allied factors not always present in the same proportion."

Note.—In this law the capacity of the individual for providing the equivalent in exchange is the more stable of the two determining factors and is of course the mark of the ultimate limit of demand; desire is a variable factor owing to the nature of alternative wants, there being comparatively few ordinary desires for which some alternative satisfaction cannot be procured. When no alternative satisfaction can be procured the invariable tendency is for

* It will be remarked here, and in the statement of Law II., that the word "demand" is used to signify something short of "efficient economic demand," a higher stage, which it may or may not reach. At the same time it is something more developed than mere desire, because it has come to market with money in its pocket, even if that money may not be enough. To make this point clear we must refer back to our definition of value (see p. 32), and then we see that values, of which demand is composed, have a real existence, even where they fall short of price and therefore never become crystallized in a transaction of sale and purchase. I have expressed this in the definition of demand, by saying that demand consists of those values, which come within the operating field of a market.

† Capacity here means capacity to pay the required price.

demand to increase up to the limit of capacity. On this law is founded monopoly.

The law of rising demand, as I prefer to call it, is really the law of monopoly. That is to say, it covers every case of value, which is enhanced or is in the course of being enhanced by any degree of scarcity or anticipated scarcity. Wherever the supply is kept under sufficient control to secure the suction of demand this law comes gently into operation, enough to maintain prices in the condition which is called firm, that is, under circumstances where considerable quantities can be disposed of without lowering values. In cases of a naturally restricted supply of products or properties of the same kind and of varying degrees of value, due to the partial influence of monopoly, these values are determined in strictly graduated increments by custom in accordance with the law of graduated returns on partial monopoly. Such custom has long ago over most of the globe fixed the larger part of those payments known as rent, salaries or wages.

The critical point in the correct statement of the law of rising demand is that the tendency of demand to increase indefinitely, until satisfied, is always present. Demand, being generally a group of values, but not necessarily more than one, is always tending upwards so long as it remains unsatisfied. What arrests this tendency is usually the disinclination or incapacity of the buyer to pay the required price. Where the incapacity is absolute, demand is necessarily abortive, but if it be a mere matter of disinclination the arts of the seller may modify or remove the barrier. Nothing then remains to protect the seller except the satisfaction of an alternative want.

The doctrine of alternative wants* is something more than and quite different from the mere statement that the

* See Cap. III., p. 21 and Handy Table.

buyer has generally several sellers offering him goods in competition. For the present case we are assuming that the selling agencies are combined or limited. By alternative wants I mean, that behind his wants every man has a purpose, which in matters of material need is flexible and can be satisfied in more ways than one. Thus a man in buying clothes seeks warmth and decency; in buying a piano he pursues perhaps recreation, perhaps merely peace at home, generally improved social status; and in buying a house and land he hopes to obtain security, or isolation or a position in the county. In all these cases a severe rebuff in the matter of price by the seller will make him reconsider his position sufficiently to question whether the denied immediate want is really the shortest road to his ulterior purpose. His demand will then be extinguished by the satisfaction of an alternative want. Owing to this counteracting and limiting tendency of alternative satisfaction, by far the greater number of ordinary transactions are removed out of the sphere of stringency. But the attraction of unsatisfied desire, even if dormant, is normal, steady and curiously cumulative in its force, if not diverted.

De Quincy has given us, and Mill has quoted the classical instance of a temporary absolute monopoly. The lavish luxury of modern times would have furnished him with even more appropriate examples. Money considerations are now hardly any limitation to the desires of the very rich, and skilful dealers are not slow in being educated up to higher levels of extractive power year by year. Doubtless a later generation of curio merchants with a finer understanding of human weakness will look back with pity on the moderate fortunes now being amassed in their business.

The particular luxuries, which command the very highest prices and exhibit the extreme operation of this law are those where the advantage of natural or artificial rarity is

enhanced by sentimental, historic or artistic attractions. Such interlacing of the issues is useful to the purposes of the seller, but not essential. What he requires is absolute limitation of the supply and the assurance that human habit and fashion are setting in his direction and the rest is all, not leather, but prunella. Given these conditions a good salesman will get his own price for anything you please, postage stamps, bulbs, carnations, roses, birds' eggs, butterflies, puppies, horses, violins, prima donnas, antique books, diamonds, bronzes, enamels or pictures. Merit is no bar to high value; it is surprising how little it adds to it. If, for instance, the famous picture, which crossed the Atlantic recently for £100,000, should turn out to be, not a historic Rembrandt, but, as some critics thought, one o the most beautiful landscapes ever painted by De Koninck or Seghers, there would be a terrible shrinkage in its dollar value, while the merit of the picture would remain as high as ever.*

THE LAW OF SUBSTITUTED DEMAND.—II.

"Where demand remains unsatisfied through want of capacity it commonly becomes efficient demand for any

* In this connection it is interesting to remark that the United States Government, according to credible report, recently assumed, in prosecuting a well-known firm of art dealers in New York, that the sale price is the right measure of import value. If my theories are sound, this is an entirely incorrect assumption whenever the works of art are first imported and afterwards sold. The true value of works of art imported into America must be something quite different from the ultimate price. As the class of customer who pays the very highest prices knows probably little of artistic worth and cares chiefly for commercial value, the selling cost in this business must be necessarily high, and should be taken at not less than 50 per cent. in addition to the import value. The price to the buyer should include both. It seems possible that injustice was done in this particular case through the influence of a mistaken theory.

colourable substitute for the original object at a lower price."

Note.—This law deals with those cases, where desire is not quenched by substituting for it the satisfaction of an alternative want, but where desire continues to press and remains without the capacity to achieve its original end. If it is not then put aside by the will, it passes into the stage of becoming efficient demand for one of two things, either the "next best" or the "just as good."

Observe that here there are three courses open, of which the best is the first but has been so little esteemed by mankind for its wisdom as to be the continued object of ridicule under the guise of the fable of the fox and the grapes. The greater number of us, often unconsciously, regulate our pleasurable expenditure by buying colourable substitutes for what we want but cannot get. In this pursuit we divide ourselves into two unequal camps. There are those who resign a portion of their aspirations, accept a second quality and see that they get their money's worth. By far the more numerous crowd are willing to accept a third or fourth quality, so long as they are persuaded that it is really the best.

Regretful reflection will realize that this law, petty in its action as it is, is at the root of the widespread insincerity, which colours nearly all those branches of business, whose function it is to appeal directly to the public. It has perverted the language of advertising and the morality of the shopkeeper. Deceit remains a habit even where its utility has become doubtful or negative. I do not intend here to refer to direct cheating or intentional misrepresentation, but to a clinging vice which is much more subtle and demoralizing. It is, strictly speaking, a conspiracy between the customer and the seller for the latter to organize a hollow deception for the enchantment

of the former, for which the victim must chiefly be held responsible.

Beyond this paltry and useless mystification, at which, I frankly confess, we all more or less connive, there exists a world of intentional misrepresentation in which the capital involved beggars the imagination. The rate of profit in this business remains high because many decent people do not choose to embark in it. Large organizations are built up to supply the fraudulent imitation or the quack remedy. In this vanity fair it is again curious to note how willingly the customer lends himself to perpetuate a deception, which a very small amount of investigation on his part would break down. There seems to be something in his sub-consciousness, which distrusts the probability of any simple satisfaction of his want or remedy for his troubles; perhaps, like Naaman, his vanity would be offended by it.

The trade acquired by large firms under these conditions is extraordinarily stable. Wherever the satisfaction of the buyer is in the nature of things impossible, the law of vanishing demand (law III.) can never apply. A man will buy only two or three boxes of pills, which can and do really cure him of an ailment, but he will continue to buy for years those remedies which never do him any good. This is quite a usual practice.

The Law of Vanishing Demand.—III.

"Demand tends to vanish after every completed transaction and, though after the extinction of demand from one source or in the course of it it may reappear from another, there is always an underlying and ultimately cumulative tendency for successive extinctions of demand to diminish the probability of its reappearance."

Note.—The application of this law is generally obscured

by the self-restraint or manipulations of the selling agency, but, wherever the control of supply gets out of hand, the law comes violently and with great suddenness into operation, as is shown by the collapse of prices in a market, which has been overfed, before the law of recurring demand (law IV.) has had time to be felt.

The law of vanishing demand is equivalent to the law of glut and has a great resemblance in its operation to that of the law of rising demand. In each case the tendencies to monopoly or glut are permanent and underlying, while often prevented in their operation by others more immediate, if less far-reaching, in their effects. The proof of the permanence of these two tendencies of values and prices, wherever either scarcity or plenty make themselves visible, is the suddenness and violence with which they come into operation when not controlled or anticipated. While normally exercising only quiet and secret pressure, their occasional declared appearances produce phenomena which are unusual and therefore seldom properly appreciated.

The distinctive features of glut do not furnish such remarkably picturesque romances of business as the sales of great pictures, the rise in value of real estate, or the sensational fees obtained for legal and medical services. They only attract general attention to themselves when they become the basis of an organized monopoly as in the case, already cited, of the Pennsylvania oil business or the diamond trade in South Africa. But if my view of the historic condition of the world's productive power in the present century be the true one, tendency to glut covers the field of an infinitely greater number of transactions at the present moment than does monopoly, using both words in the special sense defined in Chapter IX. Modern production not only enables us to provide, but requires us to have on hand a greater quantity of nearly all commodities

than can profitably be marketed by what two centuries ago would have been called natural methods.

Where the tendency to glut is most likely to appear and make a marked change in prices is in the case of all those articles which directly appeal to our lighter enjoyments, whose demand therefore is regulated only nominally by the semblance of utility, but really by fashion and caprice. The enormous sums spent annually on ladies' clothes and millinery are of this the most conspicuous examples. A fashion commands a high price only for the brief moment, while it is still new and rare, and in a month or so it has glutted its original market. It is then either discarded or, according to the law of the stratification of demand (law VI.), it charms Kensington as the latest thing from Mayfair and so on downwards to Bloomsbury, Brixton, Bethnal Green and Mile End.

Let us now examine the two laws, whose operation arrests the imminent consequences of this law, and with the aid of an expensive and elaborate commercial structure maintains values and prices within easy reach of an intermediate equilibrium between the two extremes.

The Law of Recurring Demand.—IV.

"Demand after extinction from one source tends to recur from the same source after a longer or shorter interval."

Note.—The action of this law is most important and helps in conjunction with the law of anticipated recurrence of demand (law V.) to modify the distinctive operation of the law of vanishing demand. It is obvious both in the demand of one individual and in the demand of a group. It introduces into all successions of transactions of sale and purchase the important element of time as a constituent of value, so that the proper comprehension of the periodicity of

recurrence is the chief requirement of all sellers who would maintain a stable market.

The simplicity of this law hardly needs elaboration. It offers the guiding principle for the study of consumption and in this connection has been touched upon in Chapter III. in the discussion of human wants. There is a different period of recurrence in the demand of a single individual for such commodities as food, dress, horses, houses, portmanteaux, pictures and wedding rings. Even when many individuals are taken together this seasonal influence is not abolished. The scientific way of assessing this force is to take it as a function of the demand of one individual for each single commodity, and that, in effect, is what has to be done unconsciously by traders, because, as we shall see in considering our next law, recurring demand seldom acts directly on a market, but is provided for in advance by the trader, who has empirically to discover for himself how the periodicity of demand for each article affects the stability of its market.

THE LAW OF ANTICIPATED RECURRENCE OF DEMAND.—V.

"Demand after extinction or during the course of extinction and before recurrence may be anticipated."

Note.—The extent of the operation of this law only becomes apparent from reflection on the vast majority of cases where the laws of vanishing and recurring demand do not seem directly to apply. In the majority of cases these two laws are latent in their action, and apply only indirectly because all the transactions of trading and business are systematized to modify their operation. Thus an individual or group whose demand is fully satisfied may anticipate his or their own future demand by making a reserve, by buying for stock or by buying futures. Further, the whole body of traders, merchants and exchangers for gain are profes-

sionally engaged in the occupation of anticipating future recurrent demand in order to make a profit by reselling to others later on at a higher price when demand recurs in the natural course and renews the pressure of immediate desire for consumption.

This law may be said, therefore, to cover those two great groups of transactions: (1) buying for reserve, and (2) buying for profit. It also leads us to the important conclusion that, from the trader's point of view, every commodity has two values, an immediate value and a future value dated according to the periodicity of recurrence of demand for the article in question. These two values are exchangeable at a rate sufficiently favourable to the former to allow for trader's risk, trader's profit and interest on capital for the usual period of recurrence. Just as on the London Stock Exchange the carry-over rate on Home Railways is smaller than it would be for Mexico Light and Power or for the shares of a new rubber company, because the market for the former is better and steadier, so we may say by analogy that the carry-over rate for a shopful of groceries from week to week would be a smaller percentage of the immediate value than in the case of diamonds or landed estate. This is another way of saying and of partly explaining the fact, that very much more capital is required in carrying on one of these business than the other.

As Professor Böhm-Bawerk* says, writing of goods in general: "Present goods possess an 'agio' in future goods;" so also it is true of any particular commodity that its present value has a "periodicity-agio" in its future value. The average amount of this "periodicity-agio" and the ratio between the period of recurrence of demand for and the period of perishability of any commodity is a very

* Böhm-Bawerk, "Capital and Interest," p. 259.

considerable factor of the selling cost and therefore of the price. It is only in this latter aspect that future values of this particular kind have any interests for the consumer.

This particular future value of a commodity is not of the same nature as an ordinary "future," which, though nominally a transaction of sale and purchase of goods, partakes more really of a financial deal and regards very little the life or quality of the goods, which are a mere counter.

THE LAW OF THE STRATIFICATION OF DEMAND.—VI.

"Demand, after having been exhausted in one group of individuals, may with rapidly falling prices be renewed from another group and again perhaps from another in such a way as to suggest that there are layers or strata of demand in any society, capable of absorbing immense quantities of commodities, whenever their cost of production is sufficiently lowered."

Note.—This law is to some extent the reversal of the law of substituted demand because it shows that, where the price has to be lowered as the result of glut or can be reduced on account of improved and cheaper manufacture, there are hungry markets waiting for it in layers composed of people who have hitherto been content with passable imitations of the real thing. This is not invariably the case because habit in the lower markets has sometimes engendered a stable preference for the imitation article. But, as a rule, the expectation of widening markets as a result of decreasing cost of manufacture is a reasonable one. The effect of this law is to counteract the action of the law of vanishing demand more quickly than is done by the law of recurring demand, whose action is to some extent supplanted and perhaps stopped by it. It is especially operative in the world of fashion.

As we noted in considering the law of vanishing demand, the expensive fashions are short-lived, but while they are costly to sell at first they are cheap to imitate afterwards and with every stage of their degradation they find continuously wider markets implying diminished selling costs and lower prices. While the little fashions have their day, they do not necessarily cease to be; in fact they undergo marvellous rejuvenations and every reincarnation helps to lessen the cost of production of the whole series.

While men laugh easily at the vagaries of women's fashions in dress, they are generally unobservant of their own slavery to the same dull god. Yet they drink their wines and smoke their cigars also under the spreading branches of the tree of fashion and buy motors cars, pictures, furniture, yachts and varied amusements under the same interested inspiration. Still, on the whole, between class and class, men are much less imitative than women so that the stratification of demand is less perfect in their habits of expenditure than in the case of women's toys and fashions. There is in both cases, however, one universal phenomenon accompanying this stratification of demand and that is, that the old gaud or plaything is dropped like a hot potato by the upper set, as soon as the lower set has a chance of adopting its use.

One of the most interesting case of a double demand* in a trade has been the bicycle industry in this country. From 1890 onwards there has been a steadily increasing utility-demand for bicycles as a means of exercise and locomotion. This has widened steadily with every improvement of quality and every lowering of price. But about the year 1896, there was superimposed on this solid demand a society craze for taking exercise on a bicycle by a few fashionable

* Compare this with the opposite phenomenon of a double supply in the rubber trade (see p. 84).

ladies and one remembers fine people of both sexes taking their new bicyles as seriously at one time as the middle-classes now do their motor cars. So the bicycle trade underwent successive waves of fashion, which almost killed it during the years 1900-4, because the utility trade was continually being swamped by the failures from the fashionable section. It was saved and is now flourishing because artizans and domestic servants found that a good machine had come within their means of purchase and their demand by its quantity was sufficient to outweigh in ultimate advantage all the profits of a smaller demand at a higher price.

CHAPTER XI

INTERMEDIATE AND SECONDARY DEMAND

The influence in determining prices of the six laws of demand, which we have examined, is very largely obscured by the plain fact that their simple and direct action is apparent in only a comparatively small number of cases. They are the laws that chiefly govern demand in the last instance, whenever any commodity passes finally into the hands of the consumer or intentional consumer, because a man must be considered as buying an article for consumption, if that is his purpose at the time, even if he may change his mind later. But out of the total number of transactions of sale and purchase through which any article passes on the way from the producer to the consumer there are probably at least four or five before the final transfer and these four or five preliminary transfers are indirectly affected by the expectation of the final transfer. The demand in these four or five preliminary transactions must be considered intermediate demand; that is to say, they are not demand for consumption, but trading demand looking to a final demand for consumption in the background.

Again there is a large class of cases, where articles change hands for a consumption which is provisional in its nature and undertaken for an ulterior purpose, such as the construction or manufacture or the mere handling and transport of some other article or articles destined to consumption for their own sakes. This demand may be called for want of a better name secondary demand, because it is determined

in its nature by a distant consumptive demand which in this aspect is the primary demand conditioning the existence of the other. Secondary demand covers the cases of tools, implements, machinery and of all the instruments of production.

I confess myself here in some difficulty about terminology with reference to this point because the characteristics of "demand" as considered in the last chapter can be described by epithets which, while suitable to its various aspects, are apparently contradictory. For instance, the "simple demand," to which I here refer, meaning thereby the demand for an article by that individual who intends to consume it, may be well termed "final demand," when regard is had to the order of time, because the consumer is the last link in the chain of hands through which the article passes. But it may equally well and perhaps even more correctly be termed "primary demand," because, in the logical order, the demand of the ultimate consumer is the evoking cause of the production of the article. Since both these terms may legitimately be used, but neither is fully descriptive of consumptive demand it is perhaps better for the sake of strictness to allow this, the most important aspect of demand, to be regarded as "demand," in the absolute sense of the term, allotting qualifying epithets to other cases or series of cases.

"Intermediate demand" is the term which covers the demand of all the buyers in the linked chain from producer to consumer except the last, and it is characteristic of intermediate demand that each buyer in the chain has to attend not only to his own business, but also to keep his eye on the final consumer, whose desires and wants and capacities are the most powerful factor in determining the general prosperity of the series of markets interested in the particular commodity. While casting about for a common illustration

with some resemblance to this phenomenon I happened to see last summer the unloading of a cargo of strawberry baskets from a Guernsey steamer in Southampton docks. The cargo hardly called for elaborate appliances, as it was small, and the work was done by a string of seven or eight men, who stationed themselves in a line between the steamer's hold and the railway truck, passing each basket from one hand to another up to the packer who stacked them in the truck. After the first pass or two each man concentrated himself on his two neighbours, as if he were buying from one man and selling to the other, exercising a mechanical duty until the truck was full. Then they all seemed to awake and discover that they were in reality packing a truck. It needs but little addition to the picture to imagine that each man as he passed a basket held the financial responsibility for it, and you will have an exact parallel to the world's markets, as they are from day to day carried on.

Let us examine more closely the case of the beef from Texas, whose course we followed in Chapter VI.* It passed from the hands of the ranchman through those of the cattle-buyer, stock-raiser, Chicago buyer, Chicago butcher, the refrigerating company and the railway, the retail butcher in Grantown, Penn., to the consumer. But supposing in Chicago it had been packed in tins for the European market, then instead of passing to the wholesale butcher it would have been taken up by Swift's or Armour's and sent to their agent in New York and on to their agent in Liverpool, there bought by the wholesale grocer in London and sold by him to the retail grocer in Brixton and finally to the consumer there or it might have passed through yet other pairs of hands to a small town and then a small village in Hampshire. That is not a very

* See p. 56.

complicated case; we could easily make it more so by re-exporting the beef from London to Denmark or to India, but in the first instance there were eight parties to the transaction and in the second there were certainly ten. One or two of the links might be mere agents, but most of them would be principals buying outright and selling outright for bills or cash.

Out of the two groups which we have selected in one instance, six out of seven and in the other eight of nine buyers will represent intermediate demand; that is to say, they will be buying not for themselves, but as agents for the ultimate consumer. Now if we take any individual in the series, say the Chicago butcher or packer, for eleven months of the year this individual will be wholly engrossed in buying steers cheaply and selling his meat to Liverpool or elsewhere as dearly as possible. The two markets he is engaged in represent his little world and engross his attention. But being a man with a large capital and a large trade he will occasionally look further afield and keep his eye on the general features of trade in Europe and at home. Some paragraph in his paper will warn him that recurring strikes in France and England will affect his ultimate market and that the influence will not take long in working its way back to him. He will at once give orders to diminish his buying and press on his selling as much as possible. But whether he is an intelligent and provident man, who anticipates these influences, or whether he is a narrow man of routine, whose only remedy for bad trade is a grumble, these backward influences from the consumer will inevitably affect him and all his fellow buyers along the line. That is to say, that intermediate demand is subject to all the fluctuations of its own local situation and responsive also to the more powerful influences which are set going by demand of the consumer.

To differentiate the effect of the laws of demand on intermediate demand as contrasted with that on demand, pure and simple, I suggest that the following law of intermediate demand covers the facts of the case :—

THE LAW OF INTERMEDIATE DEMAND.

"In the linked chain of traders through whose hands a single commodity passes to the consumer the 'intermediate' demand of each trader for the supply of this commodity is not only determined directly by the laws of demand as between him and the sellers from whom he buys, but at the same time it is subject also indirectly to the influence of the laws governing the 'final demand' of the consumer."

It will be noted that the term "final demand" is used here to denote simple demand from the point of view of its sequence in time. The influence of the consumer's demand is exercised by anticipation because in our modern commercial organization supply comes first and very seldom keeps demand waiting. The gradations and complexities of the system are the guarantee of its smooth working. Every wheel of the machine runs on a centre which can give under pressure and react when the pressure is removed. It is as if our strawberry baskets were passed along so rapidly that a truck was filled every few minutes and during the brief interval in which another empty truck was being put in place the line of men had to go on handling baskets so that every porter came to hold three or four in his arms during a temporary plethora of strawberry baskets. In business practice it is not every man, who has to hold back large reserves of supply when there is a threatened glut. The chief share of the task falls on one or two great capitalists, who reap the chief profits by doing so. But even the pettiest trader has to take some small share in controlling supply, perhaps by standing out of his money a little longer

than usual or by working a good deal harder to get his stock off his hands.

The separate identity of "secondary demand" is somewhat harder to grasp than that of intermediate demand. This is because secondary demand is, in a way, demand for consumption, but yet it is not demand for consumption in and for itself. The consumption it serves is a consumption devoted to the creation of further commodities and ultimately to further consumption. We do not buy hammers and chisels for the pleasure of consuming them nor do we acquire orchards in order to consume orchards, but for the sake of having apples, cherries and pears. The field covered by secondary demand is enormous and certainly exceeds in variety of articles the field covered by simple demand itself. It becomes, therefore, increasingly difficult to establish it as a fact that secondary demand is, like intermediate demand, but a creature and a follower of simple primary demand. Yet such is the case.

Let us again recur to an instance brought forward in Chapter VII. of a class of goods, which are especially the subject of secondary demand, machine tools, which are used in the construction of iron and steel machinery of all kinds. The demand for machine tools is absolutely secondary, because it can in no sense be primary, as their consumption cannot directly serve the pleasure or immediate needs of an individual. It may, on the other hand, be secondary demand to the third degree as would be the case where machine tools were bought by a foundry in Sheffield in order to make a rolling-mill; the rolling-mill would turn out plates for a ship to be built in Birkenhead; the ship would be engaged in the trade of carrying miscellaneous manufactures from Liverpool to New York, bringing back grain, cattle and other necessaries of life. Owing to the immensely wide range of utility of these machine tools they

become the subject of secondary demand in a vast number of trades, whose fortunes may each have their separate ebb and flow at widely different periods. The secondary demand for machine tools should therefore be as stable as any kind of demand can be. The trade in machine tools, however, has its fluctuations, its good and bad times, very much the same as any other. If we examine these fluctuations in spite of the peculiar complexities of this trade we find that they resolve themselves as due to two causes, which act with equal force. First, the accidents of the trade itself due to temporary loss of balance between the productions and efforts of the sellers on the one hand and the calculated resistance of the buyers on the other. Secondly, there is the general pull of the industries, which require machine tools for their own use, of which the number is so considerable that only perhaps two, shipbuilding and the manufacture of motor cars, stand out sufficiently by themselves to be recognizable by their effects. To be inside this trade is to be engaged in a daily struggle between seller on one side and buyer on the other with a momentary halt during a time of stress for all to hold up stocks against a threatened oversupply and depreciation.

An even more complex case is presented by the demand for land. This may be primary for housing or pleasure or secondary for agriculture or industry. Both these demands are steadily concurrent and competing. But in so far as the demand for land is secondary it is affected by all that influences the primary demand caused by the purpose for which the land is acquired. There is much personal demand for commodities, that is on the margin between primary and secondary, as, for instance, for the house and establishment of a doctor, the equipment and adornment of women in a good position, the use of motor cars for pleasure and business.

The case of secondary is not so simple as that of intermediate demand and the dependence of secondary demand on primary is not so separate nor complete. We can get no nearer to formulating a general law than as follows:—

THE LAW OF SECONDARY DEMAND.

"Demand for a commodity may be considered 'secondary,' where it is primarily conditioned by the demand for one or more other commodities. Secondary demand for any commodity is therefore not only governed directly by the laws of demand in the transactions between the sellers and purchasers of this commodity, but also indirectly by the laws of demand, which affect the 'primary demand' for the other commodities in the construction, manufacture or manipulation of which the first-named commodity is required."

Note here, as before, that the term "primary demand" is used to indicate only another aspect of simple demand. The law seems a very cumbrous way of stating the obvious truth that the demand for bootbrushes will be affected by the demand for boots. But what is quite a simple statement of fact when confined to one series of transactions has to be more cumbrously framed, when it is a generalization that covers three-quarters of all the transactions of sale or purchase that are carried on on the globe. When to this number is added at least four-fifths of the remaining transactions of this kind, which come under the operation of the law of intermediate demand, it is approximately safe to say that the simple and direct operation of the laws of demand, as formulated in the last chapter, is confined to not more than the remaining one-twentieth of these cases. Yet the laws that govern directly this small number of transactions govern also through them indirectly all transactions of all kinds.

The reader must good-naturedly accept from me an apology for having laboured this matter at rather a wearisome length. I have been forced into it by my reflection on the apparently paradoxical nature of these laws of demand themselves. If these things be really so, how is it that we see their unbiassed operation so seldom and then chiefly in cases which have generally been considered abnormal? The only reply to this question is to ascertain, what are the limits of the field of their pure operation and careful investigation discovers it to be extremely small, probably even smaller than I have stated. It is equally true to say that the field of their indirect operation is universal and that is the real basis of their importance.

We may now consider it demonstrated, that the whole field of all commercial transactions, some directly and some both directly and indirectly, come within the operation of the laws of demand. We begin to perceive the universally compelling attraction of the consumer's demand through all the complexity of the organization of trade. However distant the ultimate consumer of the finished commodity may be from the sources of supply and however long and involved the way to him is with the aid of countless intermediaries, through all these channels, where the streams of goods flow, he and his fellow consumers exercise a steadfast suction, which must be of approximately equal pressure through the whole system. A market, a complete world market, has only one pressure throughout its extent. That equal pressure is obtained by the fluctuations of price continually kept in motion by the eagerness of gain. The price in the world market of cotton goods must tend to be equal everywhere for the same quantities and qualities subject to the special increment for local expenses which have to be added on, including freights, duties and special selling costs.

So we find that the amount of cotton-seed used in the Mississippi valley is settled every year by a rude unconscious calculation of the amount of grey, bleached and printed goods to be used in America, Europe, tropical Africa, India and up over the remotest "likin"* barrier on the Yang-tse-kiang. It may be called unconscious, because the whole calculation very seldom comes into a single mind, but it is the outcome of the automatic hint and instruction given by each link in the chain to the other. The vehicle of that automatic hint is price, which is very different from and often directly opposed to the verbal information, which the buyer may give to the seller. The Manchester merchant may talk of a threatened glut of cotton goods at Shanghai and Canton, yet, should he be all the while buying steadily for the Eastern trade with cotton at 7*d.* a pound, there will be an apparent contradiction between his theory and practice, which the experienced man of business will not be slow to detect.

One of the results of our present study we may take to be the right appreciation of the enormous and costly selling machinery required in all trades and the vital utility of the information thus expensively obtained by the linked chain of intermediaries from the consumer and handed on to the producer. The result is the simplification of function by the elaboration and perfection of the instruments. Looked at as organized human machinery the system is more complex than any other product of our civilization and vastly more so than our inefficient and calculated institutions for the purpose of war or government. It is directed automatically by a subconscious intelligence, which, as a whole, is greater than the most highly perfected mental factor in the long series of its parts. The final purpose of

* Chinese provincial duties.

this intelligence, which it pursues with an intense energy and tenacity with only occasional faltering from success, is the maintenance of the balance between the sacrifices of the producer or seller and those of the buyer or consumer, a purpose, which it carries out by a double method, by the control of supply and by the manipulation of demand.

CHAPTER XII

THE LAW OF THE EQUATION OF SUPPLY AND DEMAND

HAVING now come to the crowning point of our argument, before we begin to examine the elaborate selling machinery of the commercial world let us recapitulate what we have ascertained to be the true function, the necessity and the field of operation of this balancing power. Taking these in reverse order, the field of operation covers all transactions of sale and purchase whether governed by simple, secondary or intermediate demand. The necessity for its exercise is the erratic and often incalculable nature of the laws of demand, which in a preponderating number of cases check and balance each other, but in a large minority of them require to be controlled by professional agencies. The function of this machinery is the maintenance of the terms of the great bargain between the sacrifice of the producer and the sacrifice of the consumer within such limits as are supposed to be covered by the ordinary law of value, as stated by Mill.

We have to picture our present situation as growing both logically and historically from the direct bargain between one and one. Each individual then exchanged great exertions for little satisfaction and the process was psychologically complex. Afterwards the mental process became simplified by the elaboration of the mechanism. Formerly one man would exchange a spade for the sheep of another and neither had many choices. Nowadays a working man will exchange two hours' work over a lathe for a couple of pounds of beef-steak, or a seat at the theatre or

a month's insurance. A banker can exchange three hours in an office for a motor car or a summer's holiday or a thousand other things. The evolution of our civilized industrial and commercial system imports increased satisfaction in consumption, diminished exertion in production and greater stability.

But the stability is not absolute. It is usual and we are accustomed to see it, and we have very little appreciation of the forces arranged to preserve it. Commercially we are in a condition of stable equilibrium within certain limits and unstable equilibrium beyond them. Our system resembles those natural phenomena called rocking stones which can be swayed by the hand of a child until they topple over, when it would require immense mechanical force to restore them to their original position. Continual fluctuations are the law of our economic being in order to meet the characteristic requirements of human nature* and these perpetual changes have to be watched by powerful and untiring agencies to guard against their accidental coalescence in any direction toward a fatal tendency to overturn.

Over the area of these fluctuations something like Mill's law of value presides, so long as fair weather continues, but when storms arise its influence vanishes and more natural and more violent conditions prevail. It describes the operation of what has become a commercial habit, which is not simple and due to natural causes, but is essentially complex and maintained only with the aid of outside artificial support. Its terms are right† neither in letter nor in spirit. The economic theory, of which it is

* See Cap. I., p. 10, and also the law of final bargaining -Handy Table, p. 276.

† I cannot here interrupt my argument in the text, which tends to show what are the limitations of Mill's law of value. But it is

the central point, posits competition as universal and regulative, whereas the latter is often disrupting and artificially limited in many directions. In short, its fundamental principles presuppose an economic perfectibility based on purely theoretic grounds, they predict by implication a tendency, which historically is not being realized, and they logically assume, as universal, an apparent order of things the true description of which requires much deeper analysis. As I find myself forced by the argument into an attack on what has been for long the corner-stone of English political economy, I must at least restate it for consideration. Mill's law of value declares, that "demand and supply, the quantity demanded and the quantity supplied, will be made equal. If unequal at any time competition equalizes them." The process of competition is further described as being one that brings fresh buyers, as prices fall, and brings fresh sellers, as

equally true that the law itself is a self-proved absurdity, as it is stated. Take the crucial statement that demand and supply will be made equal. By implication, therefore, they may be unequal, and this supposition is made immediately afterwards. The law also defines demand as being the quantity demanded. Now, it is a well-known maxim of economics that economic demand is not mere want, but effective demand—that is, demand with money in its pocket. Further, at any given moment economic demand, in so far as it is a quantity, must be equal to the quantity of supply, otherwise it is no longer effective. Mill's proposition, therefore, amounts to this: two things are so defined that they are necessarily equal, but are also presumed to be sometimes unequal; when the eventuality so defined, as impossible, occurs, it must be rectified by a process which, as described, is contrary to general experience in a large number of cases. There is no definition of demand possible, which does not ultimately make it equal to supply, and therefore the same as supply, unless the fact is recognized, that demand is not a quantity, but a psychological state of mind in the buyer or buyers. When demand is properly defined, Mill's law becomes valid within the limits, as stated in the text.

prices rise. If this means anything, it means that to get more buyers you must continue to lower prices and to get more sellers you must continue to raise prices.

Now every business man knows without thinking that these propositions are true within limits. But we may say further, that every business man has it bred in his bones, that either in buying or selling there is a limit, where the law in each case ceases to be true, and, that to determine that limit is more important for him than to realize the truth of the law itself. All prices are continually fluctuating from a series, which is in a condition of stable, to one, which is in unstable equilbrium. The criterion of the passage from one to the other is the rate of change.

If a seller having a large stock wishes to attract more buyers, he tries a small lowering of price and may attract a great increase of custom. The market, he knows then, is so far stable. If he repeats the process and attracts fewer customers, he takes it as a note of warning. If he goes on to make a great cut in prices and gets a disappointing demand, he recognizes that the market is becoming unstable. Should he be forced by outside considerations to throw his whole stock on the market, he will break prices altogether and get no buyers except professional bargain hunters. Supposing, however, that the dealer has a moderate stock and finds that the demand is firm and that there is no outside competition, he will test his market by raising prices, at first tentatively and afterwards by bold instalments. The first small increases will discourage weak demand, but the bold advances will probably encourage it. That is to say, the market becomes unstable in the other direction. Buyers, knowing that they have to buy, and not seeing any other source of supply, will be eager not to be left out and there will be a rush, which may take prices anywhere. Neither of these supposed

situations are extraordinary imaginative perversions. They happen every day.

If we repeat the double hypothesis the other way, that is, from the buyer's point of view, let us suppose a large buyer with great and immediate needs, which he attempts to conceal, going into a market, which has ample supplies for his purpose offered at ordinary prices. So long as he can buy steadily* in moderate quantitites, he can absorb all he wants without raising prices greatly, but any impatient offer of higher rates may combine the whole market against him and prices will rise indefinitely. In other words, the market will become unstable against him. Let us suppose the same buyer, but with needs not quite so pressing and with more acumen, besides courage and capital, going in to the same market and, where, as in the case of a public exchange of stocks and shares or wheat or iron, he can affect prices by taking the initiative, he may succeed in breaking the market by "bear" sales and thus in lowering the quotations instead of raising them. He will then be able to buy back again and secure all he wants at lower levels of price. In other words, he will succeed, if he can produce in the direction favourable to himself a state of unstable instead of stable equilibrium in his market.

Mill failed to realize the abiding conditions of a much

* An instance of this kind of difficulty successfully surmounted appears in the transactions of a certain Government, which shall be nameless. This Government, having need to buy soldiers' clothing in vast quantities, sent a representative to Bradford to ask for tenders on a large scale. A trial order for 100,000 was offered on the understanding that a great deal more would be required, and that the lowest tenders would be most favoured. Tenders were sent in, I am told, by twelve or thirteen firms, and they were all accepted. As the tenders for 100,000 units were each made on the basis of a possible order for a million, there was a general loss made by the firms fulfilling the orders.

vaster world than the small area, which is covered by the operation of his law. The markets, whose movements he attempted to describe, are hedged in by heights, beyond which he never saw. He never recognized outside the long but narrow stadium of tame competition the two extremes of security on the edge of which prices perilously balance themselves. Much less could he postulate the existence of any critical distinction, determining the approach to either of them. So his law is useless in practice, because it does not acknowledge or even suggest its limits. It fails by not stating these limits and by not offering a criterion whereby they could be inferred.

A proper statement of this law with its limits would most likely attract many men, now wholly absorbed in practical life, to give serious attention to economic science, for the simple reason that the determination of these limits accurately day by day is the chief problem of the business of the buyer and of the seller. Can the seller dispose of his stuff without weakening the market? Can the buyer conceal his needs and satisfy his wants without making the market unstable against himself? These are the problems of the big seller and the big buyer, which govern markets and incidentally also affect the fortunes of the smaller men.

It is a well-known practical maxim for the seller that an article, particularly a new one, must not be put on the market too cheap or there will be no demand for it at all. This is the secret of the success of many wild-cat companies, whose shares, if offered to the public at par, would not be looked at, but when quoted at three or four times their nominal value are often eagerly taken up. Again, in order to avoid the appearance of paradox, let me quote from a book* on stocks and shares, recently written by Mr. Hartley

* See "Stocks and Shares," by Hartley Withers, p. 288; also Mr. F. W. Hirst, "The Stock Exchange," p. 165. "A man really seems

Withers, as follows: "All securities, even the soberest and steadiest, are affected more or less by this economic eccentricity which makes folk inclined to buy them when they are rising and to sell them when they are falling; the eccentricity arises from the complication by which human feeling plays so important a part in the price of securities." He need not have written as if this eccentricity of our unconscious valuations was confined solely to securities. It governs all our buying whenever we have to make separate and personal estimates of value and it would be more conspicuously apparent, if so many of our purchases were not simply a matter of habit. The dominion of habit dulls the individual judgment and lessens its vagaries. Besides, a large part of our expenditure is not devoted to the satisfaction of direct enjoyment, but seeks remoter ends, and, since so many transactions of sale and purchase are due to secondary or intermediate demand, these cases come more under the influence of routine and are less the subject of separate personal estimates of value.

It is extremely difficult to bring these human eccentricities, common as they are, within the limits of a generalization which shall also include Mill's law of value. The attempt I am now making to formulate a comprehensive law I regard as extremely unsatisfactory on account of its length and wordiness, but there is every reason to suppose that, if it is accepted by economists as covering the essential facts of the case, it will not be long before a shorter and more satisfactory expression of it can be found. For the present I am less concerned to be succinct than to be sure of omitting no aspect of the vagaries of prices in this group of transactions.

to require a great and unusual amount of courage to buy freely when securities are cheap, and none at all to buy when they are dear."

THE LAW OF THE EQUATION OF SUPPLY AND DEMAND.

"When in any market there is a condition of stable equilibrium, that is to say, where supply, or the quantities of goods offered for sale, is approximately, but not exactly, equal to demand, or the self-estimated requirements of buyers at reputed prices, any excess of the former is met by fluctuating prices tending to fall, which will increase demand, and any excess of the latter by fluctuating prices tending to rise, which will increase supply. When in any market there is a great excess of supply, the equilibrium of the market can only be restored by withdrawing and reserving a large part of supply, otherwise falling prices will not continue to increase demand. When in any market there is a great excess of demand at reputed prices, and supply is either naturally or artificially restricted, while a large part of this demand will be diverted at first by rising prices according to the laws of demand, in the end demand will not continue to decrease, but will become insistent up to the limit of capacity."

The law states three propositions, of which the first deals with a state of stable equilibrium and the two latter with states of unstable equilibrium having tendencies in opposite directions. Of these two latter cases, the reversal of Mill's law of value is obvious in one, whenever a state of glut is reached in the market; that is, falling prices will attract buyers up to a certain point, when suddenly there will be no buyers at all. In the case of an excess of demand, the reversal is more difficult to perceive because we cannot state demand in quantities until actual sales occur. Demand, until that moment, can only be estimated, nor can demand be consciously and concertedly withdrawn, as happens in the case of supply, when the opposite eventuality takes place. Yet the reversal certainly comes with rising prices, similarly as in the case of falling prices, as every

experienced dealer knows. With a short supply and an eager demand, a slight rise in price will choke off a few indifferent buyers; a further sharp rise in price will exclude at once that portion of demand which is not sufficiently well equipped with means to make a purchase; then the dealer will find himself face to face with a steady group of buyers, able to pay well and determined, perhaps forced, to buy at almost any price. Here is where the reversal occurs. A further rise in price will not diminish demand; it may very likely increase it by drawing the attention of remoter buyers to the danger of a threatened scarcity. The series of transactions then comes directly under the operation of the law of rising demand; in other words, monopoly has set in. The further course of prices is now controlled by no more than the capacity of the buyers. The dealer having, we will say, 800 articles to dispose of and 1,000 buyers has only to mark prices up by large increments until one by one 200 buyers find themselves excluded from competition by want of money.

Mill's law fails because it explains neither glut nor monopoly.* By inference it classes both as abnormal occurrences, whereas essentially they are natural and, if not guarded against, alternately prevalent. But the whole organization of trade is devoted to regulate supplies and manipulate demand on one side, and buyers on the other side have trained themselves to forced abstention or to turn to the satisfaction of alternative wants, so that between the efforts of both the stormy waters on either extreme are avoided and the preponderating number of transactions take place in the little smooth pond which is governed by what has been called the law of value.

* In order to exhibit graphically the process of operation of the reversal of Mill's law of value in both directions, I have included a chart or diagram illustrating the movements of supply and demand, with instances of glut and monopoly. See p. 282.

CHAPTER XIII

CONTROL OF SUPPLY

So long as it was a question of developing the argument, the units whose actions we had to examine were more useful when small and in all questions of demand the unit generally taken was the individual. But now that our theory is presumably established, we shall get a clearer insight by examining the mass movements of the largest possible number of buyers and sellers, and taking by preference our instances from the most highly developed trades. If the instances on a large scale and in the most highly organized forms of industry confirm the deductive reasoning which the study of human nature in little led us to believe to be right, it will go far to prove that our conclusions are just and sound. And, logically speaking, that is as far as we can go. With human efforts and human wills, the experimental method is impossible. A commercial enterprise is and must be undertaken for gain and not for advancement of knowledge. The conditions under which it is carried on either to ultimate success or failure are necessarily so complicated that the causes of either issue remain within the sphere of practical judgment and are not amenable to scientific test.

The control of supply is one of the two ways in which the group of sellers endeavour to prevent a condition of unstable equilibrium being established to their own disadvantage. It is the more important of these two ways, although the other, manipulation of demand, is, as we shall see in a later

chapter, a much greater object of preoccupation to the group of sellers than is generally supposed. But although manipulation of demand is conscious, persistent and universal in its application to markets, it cannot compare in its influence on prices with the force and complete effectiveness of operation, which can be brought about by efficient control of supply. The cause of this powerful influence is seated deep in human nature as we have expressed it in the law of rising demand. The prospective buyer has no protection from his own desires or necessities except the rather precarious one of his own will and self-restraint or the more frequent one of his incapacity to furnish the desired equivalent.

It stands to reason that if the control of supply is so efficient a weapon in the hands of the sellers, wherever it can be effectively brought about, it becomes available for purposes of offence as well as defence. Such a distinction touches the root of one of the most, if not actually the most, interesting question in all economics and one which is therefore largely confused or intentionally complicated by moral considerations. Since the avoidance of all confusion of thought is the most vital necessity of economic inquiry, I am led to observe that the use of two words is here unavoidable, which usually import a moral judgment, a connotation which I therefore expressly disclaim. When I say that the control of supply may be legitimately and illegitimately exercised, I refer only to economic laws and not to political enactments nor to moral requirements.

To be more precise, on the assumption that our whole commercial organization, with its elaborate mechanism constructed for the purpose of maintaining the stable equilibrium of markets, fulfils the reasonable and beneficial purpose of securing as nearly as possible equal rewards for equal sacrifices, it is right to say that the

exercise of any forces so far as they tend to maintain such an equilibrium is legitimate and the use of all forces to an extent, which tends to disturb it, is illegitimate. These words in economics are to imply no moral meaning whatever. It is therefore clear that a co-operation or combination to control supply may be called legitimate, when it tends to support a market, which threatens to "slump,"* and illegitimate, when it goes beyond and tends to actual stringency, without suggesting praise or blame to the parties operating in either case.

One can imagine in any market price balanced like a huge rock in a small cup on the top of a hill with all the sellers in the world pushing it on one side and all the buyers in the world pushing it on the other. There is a large professional element whose influence can be exerted either way. So far as the system has any conscious intention, which is doubtful, it would aim at keeping price rolling from side to side of the cup without going over the edge and downhill on one side or the other. Supposing, however, that the sellers could obtain such an unexpected accession of strength on their side as to overcome the normal forces of the buyers together with the normal and automatic assistance to the other side of the balancing professional interests, they would, and sometimes do, turn a condition of stable equilibrium into an unstable one in their own favour and send the rock rolling downhill on the further side. Such an accession of force may be obtained by an effective control of supply, and it is very

* It seems to me pedantic not to use words like "slump" and "boom" which are definite, exactly descriptive and already in common use in business. But in deference to those who may still be sufficiently unacquainted with them to regard them as slang I have placed them in quotation marks, so as not to damage the appearance of seriousness in my argument. It is easier to rely on some business slang for an exact meaning than on that of some economic jargon.

evident that the use of this force may pass from the legitimate to the illegitimate stage either gradually and imperceptibly or suddenly and with great violence. As a rule the exact moment of transition is imperceptible and the violent effects are only seen later. We must study the habits of these forces with some minuteness in order to be able to distinguish between their legitimate and illegitimate exercise.

As complete control of supply seldom or never comes into the hands of any one individual or firm in the case of the great staple industries, it is generally effected to a partial extent by the co-operation or combination of sellers. It must be made clear that control of supply is and remains a very different thing from monopoly, which is only an extreme form of it. Some measure of control is necessary in every form of production; but control of supply to this degree is not always a conscious effort, it is more often an automatic and unconscious effort amongst a whole group, the stimulus to which is received by each individual of the group separately and distinctly from the fluctuations of price in his own particular section of the market.

In a former chapter* we spoke of production and selling being the joint work of a series of individuals or firms who handed the commodity, in which their common interests were involved, from one to the other like porters handing up baskets of fruit from the hold of a ship. This collection of individuals are to some extent a group, called a trade, with common interests represented by their own newspapers and methods of ascertaining quotations and prices, and also to some extent a series, where each unit has relations with only one unit on each side of him. The control of supply is effected to some extent by common action and common opinion. The whole trade estimates the ultimate

* See Cap. XI., p. 123.

consumer's needs and adjusts its supply by communicating the news of the markets' requirements to the ultimate producer. A more important factor in regulating supply, however, is the necessity of each man to maintain his own margin of profit, every link being a capitalist to some slight extent and able to hold small reserve stocks when the market goes against him. Thus the shock of a falling price caused by over-supply or under-demand is partly absorbed in each link and partly transmitted to the next, until it reaches the producer who has to shut down his works or accumulate stocks according to his financial capacity. The reserve force in this group, regarded as a group, can be drawn from two directions; first, from the general financial standing of the trade, which is partly the sum of their individual credits and partly a function of the strength of their weakest link; secondly, from the separate and individual staying power of the strongest individual link of the trade, regarded as a series. It would be well here to remind ourselves that we have been speaking of one series and one group for purposes of simplicity of language, while in practice there are hundreds of parallel series in a big industry, and besides the whole group or trade any amount of minor groups according to the way in which we wish to classify them. In these co-ordinate series ranging from manufacturer to retailer there is generally a group of special traders, each exercising the same function in his own series, who either by custom or as the result of some internal struggle have acquired a predominance over other individuals in their series, through their control of the largest supply of capital. We may call this link the strongest in the series, whose function it is to absorb more of the shock of falling price and to accumulate larger stocks, when required, than any other. The risks of these strong links are greater than those of

others, but their profits are much higher. As their position is so responsible, their control of supply is less automatic than with small traders, and becomes a conscious estimating of market tendencies. They become the brains of the trade and to a large extent they fix the initial prices in any market, thereby exercising considerable influence.

This dominant force in a trade may exist anywhere along the line. Very seldom it is to be found with the producer of the raw material or with the original manufacturer or with the final retailer. More often it lies in one group of merchants, such as the Manchester exporters of cotton goods or the London importers of produce. Or again, it may reside, and very commonly does, in a group of finishing manufacturers, where large stocks are necessarily held so as to go cheaply through one final operation. Under this instance would come the oil refiners of Cleveland and New York, the beef packers of Chicago and before the recent revival of English milling the great wheat milling houses of the middle-west of the United States.

This elaborate and automatic system, largely sub-conscious in its operation, is the central feature of our modern industrial system. I say, modern, advisedly, because although very highly developed mercantile communities existed in ancient and mediæval times they were never the central point of their economic world. Agriculture was the all-important industry until the eighteenth century and agricultural produce could easily market itself in the hungry days, since the suction of the demand for food was constant. With the rise of the factory system of production, coincident with a perfected system of communication bringing cheap grain to our doors, the suction both for miscellaneous goods and food became unstable and intermittent. The period of transition may be said to have

lasted for fifty years from the close of the Napoleonic wars, and during this period the English school of economics was developed and through its adherence to mistaken assumptions stereotyped itself. The classical English economists never knew the real modern system, where the selling of commodities has become more and more difficult and expensive. It would be rash to say that we are not now going through another period of transition,* but whether that be the case or no it is certain that some kind of automatic and highly organized selling mechanism will always be required, so as to secure that the anticipatory sacrifices of the producer shall not be over-discounted by the indifference of the consumer, when commodities have to be offered in large quantities on the market.

It is impossible to exaggerate the compelling influence of this unconscious or semi-conscious system on our economic life. It dominates every trade separately and all the trades together. The adjusting organism of finance is only a general department of the system, specialized to handle

* The transition I speak of would be some important economic change involving a new principle, which might transform or dispense with our selling mechanism. At present I cannot see the direction which this reform, if it be a reform, would take, as I am convinced that the Socialist solution would be quite inadequate in this respect, even supposing that their system did not break down elsewhere, as in production. No Socialist, so far as I know, has yet shown, that he understood the function of capital in regulating supplies, as I have endeavoured to demonstrate it in this chapter, and the system must be understood before it can be replaced. In another and a minor sense I feel sure that we are going through a period of transition. The general rise in prices in England (see 14th Abstract of Labour Statistics in the United Kingdom, August 24, 1911), as elsewhere, cannot be entirely explained by a fall in the value of gold. I feel convinced that the world's selling mechanism has become temporarily too expensive. This point is more fully dealt with in a later chapter on "Trade Crises."

what is only an important detail of exchange. Production has become its servant and waits for its orders. In fact, most producers are forced to take a share in it themselves and spend as much thought in selling their produce as in making it. New industries rise up at its command or are extinguished by its indifference. When it is working smoothly and strenuously and its financial pulse beats with a regularity that is monotonous we have steady trade; in other words, the producer is being adequately rewarded for his sacrifices by the buyer and soberly plans further developments for cheaper production. But sometimes the pulse is feverish, prices are "booming" after some temporary shortage of commodities and the unwary producer pronounces that trade is what he calls good and proceeds to over-extend his capacity of output and strain his credit. The inevitable reaction finds him in a weak position, obliged to force goods on an unwilling market, and then it is that the organized buffers of the selling system receive and distribute the shock of falling prices and by dividing the risks and losses prevent as far as possible all but their very weakest members from falling into bankruptcy. But we must postpone the consideration of these recurring cycles of exaltation and depression until we have time to consider them specially in our chapters on "Over-production" and "Trade Crises."

The special function of the colossal selling organism of the economic world is the correct interpretation of the laws of demand, the calculation of the period of recurrence of demand, the early prevision of changes in values with the estimate of their extent and the proper appreciation of the rate of change in prices as the chief criterion of coming changes in values. These exacting problems have to be solved day by day, as a task of the practical judgment, and it is needless to say that the experience obtained by these

solutions is of a hit-or-miss character. In other words, the practical judgment acquires sub-conscious skill independent of any theory, and so far no theory to my mind has ever yet accurately described the process, much less has it been of any practical help in guiding policy. After the practical judgment of the state of the market has been formed by those, whose skill entitles them, or those, whose responsibility forces them, to act on their own opinion, the practical duty of the selling parties is to keep supply just short of the demand of the moment and, as that is always difficult in modern industry, where vast stocks of commodities are begging to be converted into cash, at any rate to maintain the appearance of doing so. This is the field of operation where the great speculators in staple goods, the most exquisitely trained brains of the selling and buying world, are exercised. Although these elaborate financial operations are not generally included in the term, industry, and in popular language are often represented as radically opposed to honest toil, they are not essentially so and to the philosophic eye are its most perfectly developed form. On the cotton, wheat and sugar exchanges of the world the great battles of the world are fought out to determine, whether the producer is to be underpaid for his sacrifices, or the consumer be seduced into paying too much, or whether on the whole the sweat of a negro in the cotton belt shall be exchanged for a fair equivalent in amount of the sweat of a Chinese coolie in Singapore.* If one takes the extreme units so far apart, so different in nature, each so wayward in his self-estimates, one can realize that, complicated as the machinery is and skilled as its operators may be, it is very probably still beneath its task and capable of infinite improvement and development. I cannot resist the

* This is what I have called elsewhere the "great exchange." See Cap. XX., p. 266, and Handy Table.

recognition of some nobility in an effort so colossal made by mankind, ignoble as the details of its transactions are and sordid as so much of the motives of the innumerable subordinate agents must be.

Control of supply is legitimate where it is just sufficient to maintain the suction of demand in a market. It is compelled to guard against the important psychological change that takes place in the consumer or his agent, which is known as the blunting of the edge of desire, an occurrence which makes a critical change in values. This change is critical, because it is the mark of the passing of demand under the operation of the law of vanishing demand, where with every regular decrement of price it becomes apparent that the rate of change in values is accelerating in a downward direction. It means that with a sluggish demand in a market for wheat a fixed number of quarters marked down by a shilling at a time per quarter will, down to a point, bring in more buyers steadily, but beyond that point prices marked down rapidly by many points will find few takers.

Control of supply may also be legitimately exercised to bring about a stringency even greater than that required just to maintain the suction of demand. But here we begin to get on dangerous ground. In order to get limitation of supply at its source, which is the only point at which we can rely upon it, so high a degree of intelligence, self-restraint and abnegation are demanded, as are generally to be obtained only by the promise of some exceptional reward, so that the general result of any combinations in restraint of output is either that they are insufficiently enforced and therefore fail in their object or that, if they are well enough organized under efficient leaders to curtail supply and raise price, they are generally in a position to go further and take advantage of the public by establishing a temporary monopoly or permanent stringency. It then becomes a

question of mere prudence for the leaders to determine, whether they will take all they can for the present and drop off gorged or follow a longer-sighted policy by never raising prices so much as to attract competition from outside their ring and thus secure a comfortable permanent partial monopoly for their associates.

An instance of conscious control of supply, which remains undeniably within legitimate limits, is often resorted to in the Lancashire cotton trade and also, I daresay, elsewhere. The Lancashire cotton industry is very highly organized and the federations of employers and employed stand over against one another ready to dispute about their several rights or co-operate for the common good as the case may require. Now, there is one feature about the cotton industry, which is unfortunate for Lancashire, and serves to maintain this staple trade necessarily at a high pitch of efficiency combined with great elasticity of organization and that is the narrow source of supply for the greater part of the mills which spin a certain style of yarn. They depend absolutely at present on a limited area of territory in the United States, an area which is controlled by similar climatic conditions and therefore is subject all over to exactly the same good and evil fortune governing the whole supply of raw material. The cotton crop is the better for a slight touch of frost, which seems to fine it and give it a strong fibre, but too much frost involves great destruction. Under these circumstances, where the size of the crop is easily ascertained, and given experienced skill among New Orleans and New York brokers in cornering supplies, it follows that a small shortage in the crop might involve a great increase in the price. This would be the case if the Lancashire mills, requiring a crop of 10,000,000 bales, were to compete with each other for a crop of only 9,000,000 bales. This course in the past

they have often followed, but experience has taught them to do better. They know that if the price of cotton is forced up to 7*d.* a pound the corresponding prices for yarn, grey, bleached and printed cloths will be more than their own markets can swallow in any large quantity. So the various groups of manufacturers find themselves between a corner of their raw material and a probable glut of their manufactured goods at the advanced prices; about as uncomfortable a position for a trader, as one can imagine.

The situation is a special one, and quite beyond the power of control of any automatic adjustment such as we have pictured as covering the ordinary vicissitudes of most trades. Stocks cannot under these circumstances be accumulated, because goods made out of 7*d.* cotton in 1911 cannot be sold in 1912 in competition with new goods made out of 6*d.*, 5*d.* or even 4*d.* cotton. No, the production for that single year must be curtailed and the system chosen must be as little harmful to individuals as possible or else a cut-throat competition will break out. That is to say, since only nine-tenths of Lancashire's ordinary cotton requirements of cotton are available, it will not do for nine-tenths of the traders to produce their full output while the remaining tenth remain idle and lose their trade connections and are ruined. Rather than suffer this the latter would be forced to return into the competition and prices would again be forced up to a ruinous figure.

The solution has to be absolutely just all round or it could not be successfully carried out. Another condition of its success is the consent of the operatives, who in this industry are well enough educated in trade realities to understand what the exigencies of international competition may be. First, there is a conference between the leaders of masters and of men, in which the trade situation is

discussed, and, provided that a case for its necessity is made out, all the mills controlled by the federations are ordered to go on short time. That is to say, the mills will simultaneously check their output and the loss is equally shared in small quantities by all concerned. Provision is even made for those mills within the combination, who are working on unexpired contracts, and they are permitted to run on as usual on payment of a fine, which is adjusted so as to bring them also fairly within the scale of general contribution to the common welfare.

It is an admirable system and, considering that the combined working arrangement is carried out often for considerable periods of time between elements which in ordinary circumstances are in fierce competition with each other on more planes than one, I conceive it to be the finest achievement of industrial co-operation that the world can show. They are held together by no cartel, syndicate or trust. The combination is absolutely free from the danger of acquiring an illegitimate control of supply for the simple reason, that the operatives who know trade conditions nearly as well as their masters would never consent to accept losses, while their employers were piling up profits. Lastly, it is an absolutely sound remedy for both the ills from which the trade has simultaneously to suffer. Short time at the mills tends to keep up the price of cotton goods by restricting the supply, and by moderating the competition for raw cotton it prevents undue speculation in cotton and tends to lower cotton prices. It is the great defence that Lancashire manufacturers have against an artificial cotton corner, as distinguished from the stoppage of the supply of cotton, such as they suffered in the early 'sixties. The latter is a disaster for which there is at present no adequate remedy.

I ought not to close this chapter without mentioning one

form of action to control supply, apart from the action of combinations which are considered in the next, and that is the occasional action of governments in this direction. Joseph's granaries in Egypt are probably the earliest example of this attempt, which has been so seldom followed in modern times that it would be hardly worth while mentioning in an economic work except that it has actually been done in the last few years by the Brazilian Government. What is oddly called the "valorization" of coffee is really the lending of the support of the State to a body of weak holders of coffee in order to enable them to retain and control supply. It is, of course, an unwarrantably perilous staking of the State's credit on speculative dealings.

CHAPTER XIV

COMBINATIONS TO CONTROL SUPPLY

No one would go so far as to say that all forms of combination to control supply and raise prices are necessarily illegitimate, yet any distinction, which would class some combinations of this kind as essentially different from others, would lack foundation. These bodies do not differ so much in kind as in degree and the motives which guide their policy are exactly the same as those which govern the actions of individuals or private firms. Their history is at first remarkably uniform and they become differentiated later on according to the degree of strength they acquire, the extent and amount of the transactions over which their influence extends and the ultimate aim at which their efforts are directed. We can go no further in characterizing them than to say, as in the last chapter, that, economically speaking, those efforts are legitimate which tend towards establishing and maintaining a stable equilibrium in a market, and those are illegitimate which aim at some other object. Such a conclusion sounds tame and unenlightening, but, as far as terminology goes, it is more scientific than the definition of illegality under the Sherman law in America, where the test offered to determine the character of a combination is laid down to be as to whether or not it is "in restraint of trade." What trade combination is not "in restraint of trade," and what is "trade" that it should not be restrained? If our assumptions are correct that trade is not in its essence

self-regulative, that its tendencies are disruptive and swing when uncontrolled from monopoly to glut, and that our developing civilization has worked no greater economic good than the provision of elaborate restraints to counteract its eccentric forces, then such a criterion of the legality of a combination is, if not impossible, at least absurdly expressed.

As to the exact interpretation of this phrase, which lies at the root of the endless discussions of this subject, a good deal turns on what one takes to be the meaning of the word "trade," both absolutely and in the Sherman law. It seems natural to suppose that "trade" includes the whole sphere of commercial transactions, within which combinations take their share with others, as an individual would, whose efforts may be regulating up to a certain point and disrupting beyond that point. Apparently the Sherman law regards "trade" as a system of traffic between *individuals of a certain size*, and any group of individuals conspiring to make themselves *beyond a certain size*, although otherwise acting as individuals, count themselves outside the system. On this assumption only can combinations be held to be "in restraint of trade," that they have conspired to put themselves outside the commercial pale by taking thought to add to their stature. The makers of the Sherman law in effect were striving to emulate the legislation of the White King in "Alice in Wonderland," when he wrote Rule 1: "All persons more than a mile high to leave the court."

Combinations to control supply have generally been unpopular, because the most prominent of them are associated with monopoly and such is supposed to be their universal tendency, a notion which is true only with certain limitations. Apart from a certain class, which have been the offspring of foolish or knavish financial operations, it is

not difficult to show that their origin was in nearly all cases dictated chiefly by the necessity of self-defence in the face of a glut, that they have had great difficulty in succeeding on those lines owing to the natural weakness of combinations, and that, where the comparatively few, which have weathered these storms, have established themselves with sufficient force to control supply and affect prices, these combinations have then found the next step only too easy, and have followed their own interests in defiance of what other people might consider to be an illegitimate control of prices. After pushing the ball uphill it is easy to push it down on the other side, and not difficult to dominate forces which now in their turn have to undertake the task of pushing up hill.

It is important to emphasize, in this definition of what is legitimate in combined action to control supply, that the criterion is not the maintenance of stability of prices but of a condition of stable equilibrium in a market. The distinction is vital. Prices may be stable through the counteraction of a large number of controlled forces, and then the market is in a condition of stable equilibrium ; in other words, competition is within limits allowed free play. Prices may again be stable through the dominance of one supreme controlling force, which can exclude competition or render it negligible, and may remain stable so long as the controlling power has the self-restraint not to exact exorbitant profits for itself. The market is then unstable in spite of stable prices, and is less able to meet outside fluctuations.*

Another way of presenting the two opposed cases is to

* The danger to a market from outside influences is so great that very few combinations are successfully maintained, unless there is some limitation of area, as by a tariff, within which competition can be crushed and from outside which it is excluded.

say that, economically speaking, the danger to any particular trade and through its influence on finance to trade in general, is much less when the stability of prices depends on many controlled forces, whose opposing interests are alive to check one another, than when the market is in the hands of a single interest, with no check except its own estimate of the possible limit of extortion. Extortion is not necessarily the object of a successful combination, because it is unwise, but some small measure of it is very often the result, wherever the dominant power feels it can safely attempt it. It is the possibility and the fear of this extortion, which has caused mankind universally to regard any large combination to control supply with suspicion and to brand their action, generally, as oppressive. All combinations start by claiming for their object the establishment of stability in prices on the assumption that that condition is a good thing in itself. For the capitalist, who has to plan his rate of production and estimate his costs, it undoubtedly is so, but not necessarily so, for the trade in general nor for all capitalists in a country taken together. To ensure stability of prices and secure the suction of demand, some method of controlling output is absolutely essential.

In the last chapter we discussed the normal, automatic and half-conscious system of doing this carried out in all trades. We have now to consider cases of greater difficulty, where this system is reinforced by conscious combinations and the various methods of effecting them. This may be done simply and directly by assigning within the body of combining manufacturers certain quantities which each is bound not to exceed, or indirectly, in various ways. The most usual, but not generally the most effective, because it does not directly control output, but only discourages it without sufficient check as to specific performance, is an

agreement to maintain minimum prices for various grades of commodities. If faithfully carried out, it would ultimately check output by diminishing demand, but in practice the larger output is continued too long, secret discounts are given to customers by weak members who are overstocked and the combination generally breaks down. One trade, which is in the peculiar position of not being able to reduce its output, except by laying up ships, has successfully followed this method. The steamship lines operating to South Africa or China respectively, unite themselves in temporary agreements, which they call "conferences" and outsiders call "rings," binding each other mutually to minimum rates for passengers and freight. These minimum rates diminish trade, as a whole, but, wherever a close market is to be relied upon, secure heavy profits through the elimination of competition. For instance, the rate on a ton of cotton goods from Liverpool to Shanghai has often been considerably higher than the same lines will quote for delivery from Antwerp. The explanation is that the "conference" has a monopoly of Liverpool freights, while at Antwerp it has to compete with the German lines and others. The Manchester merchant has been held to characterize this as oppressive. Again, a safer device, which is often successfully carried out in a protected country and sometimes between groups of exporting houses in England and the Continent, is the division of territory. This policy will lead indirectly to control of output as each section comes to know with precision what amount of production its own market will absorb without diminishing the suction of demand.

The mention of the words "conference" and "ring" brings us on to the interesting and perplexing question of nomenclature. The great public have always had a peculiar hatred of monopolists, regraters or forestallers

and they have never hesitated to fix without delay an unpleasant connotation on any term by which great combinations of traders formed to limit supply have chosen to be called. The consequence is that there is a rapid degeneration in terms originally innocent and fair-sounding, and bodies of this kind are driven to discard each name successively and invent others. An amusing instance of this is still under discussion in the iron and steel world. At the conference of these trades in Brussels in last June, about which I shall have some more to say later, Judge Gary, president of the United States Steel Corporation, advocated a philanthropic association of all the steel manufacturers in the world for the pursuit of science, for the maintenance of the stability of steel prices and generally for the benefit of mankind. For a combination of this high class "association" was held to be too opprobrious a term, owing to the delicacy of public opinion in these matters and "institute" was considered to be a better guarantee of high motives. Unfortunately for this purpose the British Iron and Steel Institute, which is an old-established society pursuing only technical and scientific aims, has objected to lending the reflection of a well-established character to a body, whose future is indefinite, and claims a kind of copyright in the title. The dispute was still in the month of August not yet terminated.

Of all the words which have gone through the fire of public reprobation in this relation, probably the French term, syndicat or syndicate, has best succeeded in retaining a kind of colourless respectability. This is due, not so much to the fact that it is in general use in a variety of senses, because similar circumstances have not saved the word, trust, from ignominy, but rather because the French genius lacks that imperious passion for universal control, which is almost the disease of American business

and is present amongst many able and progressive men in Germany and England. Consequently French syndicates have never been ambitious to press their success too far and some useful little syndicates have been probably instrumental in saving infant industries from extinction, of which the Aluminium Syndicate is a favourable instance.

The old French word, cartel, meaning a flag of truce, was currently used, under the form of kartel, in Germany to denote an association of manufacturers to limit competition and maintain prices, but the term fell under the same suspicion as rings and trusts and fell into disuse. The tendency in Germany is to use common terms denoting association such as the Stahl-Verband or Steel Union to which no specially offensive meaning is, as yet, attached The Stahl-Verband, whose agreement lapses and has to be renewed next spring, is not a combination of manufacturers in the English sense holding property in common, but an alliance between independents fixing prices, allotting territory and limiting output. This union, with headquarters at Düsseldorf and a membership of thirty firms in Germany, is probably the largest in a country where these associations or modified combinations especially flourish. In the Government return of kartels made in 1906 it was stated that there were then over 400, of which sixty-six existed in the metal trades. Russia alone in Europe can show a large aggregation of the American type for this special purpose in the great Metal Union, called the Prodameta, with a capital of £18,000,000. The Continental combinations are on the whole conservative in their policy and they do not lend themselves so freely to stock-jobbing operations as do the big American trusts.

It is only lately in England that the process of amalgamating or combining rival firms in order to eliminate competition has been attempted and that with almost

uniform unsuccess. The most conspicuous exception was the gradual absorption of the leading thread spinners by the firm of J. & P. Coats, of Glasgow, an example which was distantly followed by the Fine Spinners, Calico Printers, Bleachers, in Lancashire, and others, such as the Bradford Dyers, in Yorkshire. Only in the case of the sewing cotton trade was any control of the market obtained, and it is questionable whether this had not gradually grown up before the amalgamation and cannot be described to be the effect of the latter. Such success as the other combines have had has been due solely to economies in management and better co-operation among the mills constituting the parent firm than was possible before. In all these cases the combinations have been effected by the formation of a parent company with money from the public, and these financial necessities have always been a serious bar to progress. Perhaps the most successful of all these movements has been the amalgamation of provincial and private banks into great joint-stock concerns dominated by London. This has contributed to stability of credit, without seriously diminishing competition, but it has been a material loss to the provinces, where the industries of the country are carried on. The financial reins have been drawn a good deal tighter by London partly owing to conservative tradition, but more through ignorance of industry itself and the local conditions under which it is carried on.

America is still the happy hunting ground of combinations, which suit the American genius for control and receive all the help they require from the Government. Of these in America, as far as I can unravel them, there are three types, which may be called the pool, the merger and the trust. The name, pool, is borrowed from games of chance and is a rough-and-ready way of sharing gains and risks conducted under circumstances where private

enrichment at the expense of other members is difficult owing to the return of open accounts and where each is to some extent interested in the gain of all the others. The terms of agreement in each case vary, but they generally include a division of territory and an allotment of output with the paying in of all profits to the central pool. As the central pool is divided among the members according to a fixed proportion it very soon becomes the interest of the ablest and most energetic members to leave the pool unless they can control it in their own interests. The merger, like an English combine, is the coalition of all the constituent members in the hands of a central concern, whose shares are to some extent redistributed to its members and largely sold to the public. Such a combination is immensely powerful in some ways, but the fact, that its origin depends so much on finance and also because speculation in its shares becomes so important a factor of management, renders its conduct quite as much a branch of financial handling as of commercial enterprise. It does not therefore become such a formidable industrial giant to its competitors as mere size would seem to threaten, a conclusion, which we can draw to some extent from the fate which befell similar enterprises in England.

The trust is, of course, the peculiar invention of America, and a good early instance of it was Mr. Rockefeller's South Improvement Co., afterwards suppressed by the State of Ohio as illegal. The name, trust, is, of course, as old as the hills and was probably first used in England in connection with public companies to denote companies holding money for purposes of investments in securities of a particular kind, such as mortgages and debentures, or in particular parts of the world where the directors and managers had special knowledge. Its use in these cases was appropriate as describing a fiduciary discretion

allowed to the managers entitling them to enter a wider field of investment than banks would enjoy. Some were faithfully and competently administered, while others degenerated into mere speculation; none, so far as I know, made any astonishing fortunes. In New England there grew up another kind of trust, only superficially similar to its English namesake, which tended on the whole, especially in Boston, to more conservative courses and ended up by being more banking than financial houses. This style of house was largely imitated in New York, where a number of trust companies were launched to undertake the duties without incurring the ordinary legal obligations of bankers. These degenerated into a stereotyped abuse, as they became a speculative ring unduly bolstering up each other's credit until the failure of one or two of them in 1907 brought American credit to its lowest ebb since the time of the war. Since 1907 they have been brought under some sort of legal control.

The name, however, had stood in America for what, on the whole, used to be considered as conservative finance, and Mr. Rockefeller found his uses for it in binding together his various interests in oil refineries, merchants' houses, pipe lines, railroads and storage companies which he wished safely to weld together. He had always found it economical to buy up 55 per cent. instead of the whole of any business he wanted, and he looked round for a financial device which would enable him to control everything, while he only owned a minor part of it, because the sums required were gigantic and beyond his utmost resources. He therefore formed the Standard Oil Trust, transferring to the new company sufficient of each of the stock of the subsidiary companies to secure control, which were to be held in trust for the use of the management. He himself held about a quarter of the stock of the parent company and his actual

working associates who were under his influence, held the necessary complement to prevent any outsiders having any say in the matter. I hardly know whether he actually was the first to employ this device of a trust to hold the controlling shares of subsidiary companies, but certainly he raised it to a world-wide significance. Its power and flexibility exceed those of any other conceivable instrument for managing large masses of men. The subsidiary firms kept their individuality and used the local aid and experience of subordinate shareholders. But complete efficiency was exacted from them in management and implicit obedience in all matters of high policy and on all questions of prices. In return they naturally reaped dividends beyond the expectations of any merely private firm.

I doubt whether there exists any word in any language, not typifying actual criminal or obscene action, which has come to signify in many countries and in more languages than are used in Europe anything quite so universally detestable and abhorrent to mankind as this word "trust" in the special sense invented for it by one of the world's most remarkable men. No corporation, however rich and great, will bear the brand of it willingly. In August of last year, Mr. Charles M. Schwab, giving evidence before the Stanley Committee in Washington, appointed to investigate the affairs of the United States Steel Corporation, ardently disclaimed for the combination which he had, perhaps, been the chief means of forming, that it was a trust in the usual sense. He claimed that the chief advantage attending the formation of his corporation was in economy of operation. "My definition of a trust," said Mr. Schwab, "is a combination for the purpose of limiting the output and fixing prices. That is the evil that lurks in the trust. If there were 100 manufacturers of a commodity in the United States and 95 consolidated and raised the price and

sustained it, that is what I would call a trust." The definition is succinct and seems to approach very much to what we have called a combination strong enough and willing to use its powers illegitimately; but observe that he has no distinctive test of a "trust" but one of degree, and that there is nothing at the present time except incapacity and the exceptional restraint and benevolence of its leaders to prevent the United States Steel Corporation from degenerating into the unspeakable monstrosity before mentioned.

We have had occasion before to examine the history and conduct of the great Standard Oil Trust and recent circumstances have curiously enough placed before us pretty complete evidence of the inception and formation of an even greater, if not so celebrated or so successful, a commercial enterprise. The Stanley Committee in Washington has already published a considerable amount of the evidence taken before it on the great steel merger or United States Steel Corporation. Some of it is authoritative and well-informed and some of it there is no reason to disbelieve. We have also the first instalment of the report of Mr. H. K. Smith, Commissioner of Corporations, upon his investigation of that corporation at the instance of the Bureau of Corporations, an official body, supplemented by Mr. Smith's own evidence before the Stanley Commission. We have, besides, as later history, the reports from the *Ironmonger*, which I am kindly allowed to quote, of an interesting endeavour on the part of Judge Gary, chairman of the board of directors of the United States Steel Corporation, to induce the leading European steel-makers to come within the scope of a still more gigantic world combination. Although the evidence is not, and possibly never will be, complete enough to afford materials for an authoritative history, there is ample material for a sketch, used by way of

illustration, of the circumstances, which brought about its formation, and a very considerable amount of information as to its subsequent course.

According to Mr. H. K. Smith, the United States Steel Corporation " was the culmination and result of a remarkable and even dramatic period in the steel industry. Until about 1898 the bulk of the business was distributed among a very considerable number of concerns. There was sharp competition, modified by frequent pools and price agreements of greater or less duration and effectiveness." In other words, there was the usual herald of a combination, aggressive over-production and competition, a glut of products and an inadequate attempt to limit output by mutual consent. This led on to more intimate combinations, and the smaller companies became merged into consolidations with capitals of thirty to one hundred million dollars. Competition was not, however, stamped out and took a new and more severe form. The great corporations aspired to swallow the smaller and then each other.

During the years 1899–1900 a movement began towards " integration," as it was called; that is, the great companies aspired to control the whole product from start to finish. Hitherto there had been three great steel-producing companies—the Carnegie Co., the Federal Steel Co. and the National Steel Co., who may be called the primary group. Another group comprised six large producers of secondary products—the American Steel and Wire Co., the American Tin Plate Co., the American Steel Hoop Co., the American Sheet Steel Co., the National Tube Co. and the American Bridge Co. The two groups were interdependent and no one concern was entirely self-sufficient. This was broken up by a general movement towards integration, which once undertaken by one company had to be attempted by others in self-defence. Apparently the secondary concerns began

the contest by attempting to reach back by buying ore supplies and making their own steel, which was planned by the Steel and Wire Co. and the National Tube Co. The Carnegie Co. retaliated by preparing to erect their own tube factory at Cleveland. There was again open war.

At this point testimony becomes conflicting, since personal questions were introduced. Mr. J. D. Gates, of the Steel and Wire Co., represented the formation of the United States Steel Corporation as the only way to get rid of Mr. Carnegie. Mr. Gates is now dead, and his evidence is controverted by Mr. Schwab, who gives a different version of the cause which led to the final result. But the evidence of both are reconcilable when we recognize that there were two movements, which developed independently, towards a merging combination as the only means of averting complete disaster. It must not be forgotten that the end of 1899 saw the outbreak of the South African war, and early in 1900 the Boer victories had brought a general European war in sight, while trade everywhere went to pieces.

But previously to that both the movements towards amalgamation were well advanced or they could hardly have matured so quickly. The first was a defensive manufacturing pool formed by the Carnegie Co., the Steel and Wire Co., Jones & Laughlin and eight others. I mention the first three as parties, who subsequently followed different policies. The Stanley Committee has not yet unearthed the original evidence about this pool, which is characterized as a "gentlemen's agreement," whose purpose was to associate "for mutual interest and to enable them (the companies) to pay liberal wages to their workmen." Apparently it was an agreement to limit the output of each to a certain percentage of a fixed amount of which the Carnegie Co. had nearly half, with a specified fine per pound for any excess of the allotted output. Mr. Schwab, who ought to have known the terms,

as the Carnegie manager, seemed to have fogotten all about it the other day. At any rate, this agreement among gentlemen did not last nine months.

Meanwhile there had been going on a much more powerful combination based on finance and the prospect of the control of all the ore and coking coal deposits in the United States. These were together in the hands of a dozen concerns and a monopoly seemed within reach. This side argument may have helped Mr. Schwab in approaching the New York bankers, who were now to take a hand in the game, although, as he said in his evidence the other day, his own thoughts were solely fixed on economy of management. At some time towards the end of 1899 Mr. Schwab was empowered by Mr. Morgan, representing a moneyed group, to ask a price from Mr. Carnegie for his properties, which constituted the most powerful interest in the trade. His price was accepted, a combination of others was formed and the amalgamated businesses resold to the gigantic United States Steel Corporation with an issue of common and preferred stock of $1,018,386,322 and a bond issue of $382,799,838.

As for the "gentlemen's agreement," since some of its members were thus absorbed elsewhere, it vanished so completely that no one now seems to recollect anything about it. It was probably breaking up of itself, because Mr. Gates, controlling the American Steel and Wire Co., appears to have taken a prominent part in forming the Steel Corporation, while Jones & Laughlin, on the other hand, were contented or discontented enough to remain out. The Carnegie Co. had its chief shareholder bought out and came within the combination.

Thus was formed the largest manufacturing combination ever known. It arose by the coalition of two movements, the one to limit manufacturing output, the other to control

the supplies of all the raw material. As we shall see, any attempt to draw lessons from its inception and operation will be useless without carefully following the development of these two tendencies, even after they have been apparently confused by coalition. I shall hazard the criticism that the manufacturing combination has practically failed, as from its nature it was bound to do, and that such financial success as the Corporation has attained has been due solely to the partial monopoly which it has obtained and held in controlling supplies of raw material. Whether this partial monopoly may not in future be drawn tighter so as to leave independent manufacturers at the mercy of their great competitor, is one of the problems of the future.

The manufacturing side has never been free from overhanging financial considerations, which fortunately for the corporation have been handled in the finest spirit of conservative foresight. In its flotation there was allowed an underwriting profit of $62,500,000, and the Bureau of Corporations estimates that at this time the tangible value of its assets was about $700,000,000 including ore reserves, about the value of which there was dispute, or not far off half its capitalization. Within a few years of its start the common stock touched $9, in 1910 it reached about $95, while during the summer of 1911 it very nearly came down to $50; so it will be seen that finance has always been rather an anxiety to those who have had to care at the same time for its management, as an industrial concern. On the whole, the physical efficiency of its gigantic plant and organization has been well looked after and most of the water has been squeezed out of the stock by judicious and even lavish depreciation; yet in competition with independent manufacturers it has been losing rather than gaining ground.

In 1901 it produced 43·2 per cent. of the national output of pig iron and 66 per cent. of the steel; in 1910 its

percentage was 43·4 per cent. of one and only 54 per cent. of the other. This is a condition which is sufficiently serious when allowance has been made for its superior facilities and better supplies. To use a common American expression, it has not been a conspicuous success as a manufacturing proposition, because it has not controlled the output and is losing ground in such control as it once had.

The same conclusion is borne out by the rather conspicuous attempts made by Judge Gary, supported, we may presume, by his co-directors, to establish an understanding of a friendly kind with European iron and steel manufacturers. At a "series of Gary dinners," as the *Ironmonger* called them, there was a great deal of brotherly love shed in public, but the specific business proposals were only made at sittings of the Brussels conference from which the press was excluded. But as the German Stahl-Verband and the leading British manufacturers seem to regard the present movement with polite indifference and are careful to minimize its scope, it does not look as if much would come of it. It is only interesting to us, as seeming to show a distinct weakness in the United States Steel Corporation in the face of competition.

There remains the other factor, on which this combination was originally founded, of the control of supplies, a question which, as present information seems to show, remains still unsolved. Steel and iron manufacture lend themselves to partial monopoly, because cheap production requires large quantities of ore, of limestone and of coking coal in near proximity to each other. All these products being bulky will not bear transportation for any distance on account of freight charges, so the carriage of each to one another is a possible heavy and necessary cost. In the United States this question of transportation was long the obstacle to the development of the iron and steel industry. Suitable fuel and fluxing material were side by side at

Pittsburg and in the district, but iron was far off, and it was not until a magnificent system of transport with modern economical handling was developed by rail and steamer that the vast reserves of Lake Superior ores were successfully tapped. In Northern Minnesota there are some hills called the Mesabie range, which are practically made of iron, and it was the concentration of these hills in a few hands, which made the organization of the United States Steel Corporation possible. They were in 1900 the only large supplies of iron ore within economic distance of coal and flux.

Within a brief period came a dramatic event, which was hailed hysterically as "the act of God to relieve the independents";* some one discovered large quantities of self-fluxing ores in the South, which developed the open-hearth system and cleared the way for competition by the outsiders with the Bessemer ores of the Lake Superior region, controlled by the United States Steel Corporation. Of these new ores about 80 per cent. were controlled by the Tennessee Coal and Iron Co.

In 1907 came a reversal of fortune quite as dramatic. The overwhelming financial crisis of November of that year found the Tennessee Coal and Iron Co. practically a derelict with only one possible buyer, the Morgan interests, which were centred in the United States Steel Corporation. So the most important bed of Southern ores passed over to the great combination. It is now estimated to have 75 per cent. of Lake Superior ores and 80 per cent. of Southern ores. In coking coal it has as yet no monopoly.† The old recalcitrants, Jones & Laughlin, and

* *Vide* Mr. Stanley, at the Stanley Commission, July, 1911.

† In connection with the above and showing how rapidly events march in these gigantic deals, I append a cutting from an American trade paper, which has appeared since the above lines were written.

another firm actually hold more acreage of this coal within the area that makes it available for steel manufacture than the Steel Corporation itself.

It is evident that while the independent American manufacturers have a commercial advantage over their great rival, the latter has recovered himself by the aid of his partial monopoly of supplies and his control of superior financial resources. But the many are perilously near becoming totally dependent on the one for all their supplies, in which case they will have to come to his terms, because any revision of the tariff would be equally unfortunate for both. It is this exactly even balancing of the situation which gives it in the summer of 1911* its peculiar immediate interest, apart from the general lessons which we are entitled to draw from it.

It shows that the policy of securing all the supplies of raw material is being steadily pursued by the United States Steel Corporation. "The Connellsville Coke Trade has been in an unsatisfactory condition for the past few months, from the standpoint of the operators. This is always the case when the iron industry is not in full blast as the swings in the coke trade, particularly as to prices, are of much greater amplitude than the swings in the iron trade. Prompt furnace coke averaged $1·50 at ovens in the early months of the year, but lately has dropped to $1·40. Contracts for the second half of the year have generally not been made at under $1·65. The sale of the Pittsburg Coal Co.'s coking coal properties to the Steel Corporation, a trifle over 7,000 acres of unmined coal, and a trifle less than 1,000 ovens, was on the basis of about $1,000 an acre for the coal, less than half what the enthusiastic coal owners claimed a few years ago the Connellsville seam was worth. The transaction was a good one for both parties, as the Steel Corporation *can afford to hold the coal*, while the Pittsburg Coal Co. was not in position to develop the coal fast enough to obtain an adequate annual return and besides the market would not have absorbed the increased production."

* In the late autumn the United States Government on October 27, 1911, finally decided to take proceedings against the United States Steel Corporation under the Sherman law. The action will probably last two years.

The experience of this great combination in manufacture seems to point to the same conclusion to which deductive reasoning would naturally take us, and that is, that without some means of holding back outside supply by withdrawing money or raw material, one gigantic competitor is at a disadvantage in a contest with several smaller ones, provided that the latter are large enough and wealthy enough to be industrially efficient. Under these circumstances there are two reasons, which overlap and reinforce one another, why the large single competitor, who is apparently a monopolist, must necessarily help his own rivals by being forced to take on himself the whole weight of certain expenses, of which they would naturally in ordinary circumstances incur a part. It is the result chiefly of his mere size and also of the weight of the general prejudice against him that he has to carry all the burden of surplus stocks on the market and control his supply before anyone else thinks of controlling theirs. He also helps them by taking off their shoulders a large part of their selling costs. Let us take these points separately.

In the first case the combination has far more to fear from a glut than have the independents and has consequently to employ a far larger proportion of capital to hold back surplus stocks than they do, when the market is weak. So, too, the combination has to be the first to restrict supply. Smaller firms, which under circumstances of free competition would have to take their share of this burden, now recklessly leave this duty to their swollen competitor, knowing that he must perforce undertake it. Thus it happens that during times of bad trade in America the independents often merrily work at their full capacity, while the United States Steel Corporation has to close a third of its plants at enormous cost.

In the second case small firms are largely relieved of

the expensive duty of fixing their own grades and getting them launched on the market. Every manufacturer knows that where standard qualities and grades are not prevalent, in other words, where the most profitable business is generally to be done, it is a long and costly thing to establish a reputation for your own specialities. But working under the lea of a great corporation half of this work is done for the small people, who adopt its grades and qualities and offer their own products as guaranteed to equal them at 5 per cent. or 10 per cent. reduction in price. Those who have followed our argument in this book as to the unexpected expense of selling will realize that no economy in management will equal the economy in this particular. Selling costs to the small man are also immensely eased by the general prejudice against the reputed monopolists, so that independent firms always get an easy and favourable hearing for anything they have to offer. It thus results that a combination has often to resign competition with many of its small antagonists and to confine itself to handling chiefly those big lines of goods where the advantage of their great resources is decisive.

Economically speaking, combinations to manufacture are at a disadvantage over their rivals, unless they cover the whole field, with some outside protection.* Combinations to control raw material have a very great power, but they are particularly liable to political attack. Combinations which control all the channels of the selling agencies are those which have been most successful, because they are in

* In this respect I expressly exclude from consideration some important combinations in America, which owe their prosperity to the protecting arm of a tariff. I have no space to discuss the effects of a tariff in the present work and the general theory of combinations to control supply is not dependent on such a discussion.

a position of great advantage as against outside competition, and they are practically beyond the reach of any action taken by the State.

There is one particular respect in which all combinations constitute a great danger in the community in which they are encouraged or permitted to exist, and that is due to the fact that by their very nature and in order that they may secure the profits, which are the final cause of their existence, they tend to drive markets into a condition of unstable equilibrium and to maintain prices at such a high level as to keep them outside the play of the ordinary competitive forces, which would sustain them in natural equilibrium. The consequence is that the stability of prices becomes dependent in times of crisis solely on the withholding power and on the financial resources of the great selling combinations. During the crisis it is always a question whether the holding power of the combinations may be too weak and so let prices rush away to nowhere, or whether their hold on financial resources may be strong enough to allow them to make calls to an indefinite extent on the public currency. Either way they constitute a public danger. A combination which has maintained prices for a long time in a condition of unstable equilibrium has crushed out healthy competition, and has taken the whole burden of solvency for the trade on its own shoulders. Where there are several combinations acting in union, as in America, their power is greater and the danger of their failure is more imminent. They must either go bankrupt or else make a general drain on public financial resources. Supposing, as in times of crisis often happens, that several powerful corporations exercise their power together of drawing from banks, which they own, their own deposits and also those of others and at the same time frighten by their action a whole community of weak speculators, who

are dependent on the same banks for loans on call, the result may be a frightful drain on currency, having results far and away beyond the mere immediate need of money required by those who set in motion the machinery of exhaustion. There are many people who believe that something similar was the cause of the disastrous crisis in November, 1907. which started in New York.

CHAPTER XV.

THE MANIPULATION OF DEMAND

THE doctrine of business procedure evolved from our argument is this, that with the advance of the world towards ever greater and cheaper productiveness, requiring always larger aggregates of capital, the initiative in exchange has to be taken more and more by the seller. This is true whether the initiative is taken by producing goods, as in agriculture and the textile trades, or whether, as in shipbuilding and engineering, there are immense plants and highly trained mental and manual operatives kept waiting for orders, or again, as in the learned professions, the product of able and expensively trained brains is offered for sale. Under all circumstances the seller has to take the risk and wait cap in hand to be employed or to dispose of his goods. It is quite characteristic of our world that appearances should be often the reverse. Everywhere the sellers are consciously or unconsciously organized together to conceal their natural weakness; they have to be. The consumers, on the other hand, secure in their confidence that the other players will have ultimately to lead up to their *tenace*, remain with exceedingly few exceptions unorganized in their masses; they are the general public.

We have considered in the last two chapters that part of the sellers' task which consists in holding back stocks or checking supply either by automatic and half-conscious co-operation or by avowed combination. We have now to consider a part of their duty which is not independent of, but

is supplementary to the other, and when well done renders it to a great extent less necessary. This duty is the scientific study of and solicitation of demand. In Chapter II. I had occasion to remark that "if demand were left to itself, supply in business could be undertaken only by very rich individuals or by powerful corporations." By that I meant that although control of supply is the most effective and in any crisis the only effective way of stimulating demand and maintaining prices, yet the method is often so expensive, and the capital required so large, that without some power of influencing demand the small producer, except perhaps in agriculture, would be extinguished. The small producer is always to some extent being, and in many trades has been entirely, superseded by large corporations, yet he still holds his own in others, and will continue to do so from the fact that he is able more easily to follow the minor vagaries of demand and to maintain the personal touch with his customers, which the large firm can never do. In fact, there are many industries requiring considerable capital in the aggregate, where the large producer is at a disadvantage, and sometimes cannot maintain his footing, such as photography, millinery, market and nursery gardening, high-class tailoring and shoemaking, and many others. It is in these trades especially that the art of understanding the customer's wants and of soliciting his attention has been raised to what would be considered, if it were a liberal study, to be a high level of psychological analysis.

One of the causes why scientific economics seem so unreal to the practical man, apart from errors in theory, which he might not himself be able to correct, although he might suspect their existence, is the strangeness of an atmosphere, where selling things is taken for granted. In the imagined world of the books, goods which are produced pass to the consumer without comment. In the practical world of commerce

the prevailing impression conveyed by the perpetual efforts of everyone is that goods are everywhere and that customers have hidden themselves. Take, for instance, the universally current expression of "getting business"; that does not mean making shoes or marble clocks or cocoa, but finding customers for shoes, clocks and cocoa. It shows the prevailing mental pre-occupation of everyone that a man who is reputed to be "good at getting business" has *ipso facto* a ready market for his services in any line of commerce that he cares to undertake. The man who has that capacity and can plan to make production subservient to it has an easy road to fortune before him. It is the most valued talent in business and no one can be entirely without it who wishes to avoid failure. A few have the talent inborn in them,* but most of us have to train our judgment painfully by experience to recognize where, when and how to sell the things we find it easy to make. A manufacturer starting a mill or extending his plant has to rely on this faculty in another form, because if he commits himself largely to capital expenditure in producing for a market, which will not be able to absorb his goods, ruin and no less is inevitable. I imagine that the financiers who formed the United States Steel Corporation, which we considered in the last chapter, would have made a much better bargain if they could have bought Mr. Carnegie instead of buying from him his business.

The ability to judge a good market and to supply it judiciously is, however, a higher order of this talent and can hardly be included within the phrase "the manipulation of

* A humorous exaggeration of this is contained in a story related very likely untruly, of a man who made a large fortune. He is supposed to have said of himself: "Some people think me not very bright; and I can not make a good speech, nor tell a good story, but I can sell a man a bad picture, which he doesn't want."

demand." This term should appropriately be applied to the more common mechanism of securing, retaining and humouring customers. One can classify the methods of doing this as three. The first is to live with your customers, make them your friends and build up a personal connection by exchange of favours, custom and hospitality. This was probably at one time the universal and sole way of doing business and largely prevails still in old-fashioned countries and small communities; but it is being rapidly broken down by the abundance of modern production and the vast sphere of exchange which is required by the modern system. Another method is to seek out your customer, wherever he be, either personally or by means of an agent or employé. The third is to use all the known arts of inducing him to come to you.

Seeking out the customer is generally adopted, when the individual transaction brings a profit, which makes it worth while, and such a method, therefore, can be employed only to sell high-priced articles such as ships, engines, guns, advertising, &c., or in the case of goods ordered in large quantities by wholesale houses. It used to be called commercial travelling, canvassing or drumming, but these terms have become vulgarized, so that the higher branches of the occupation, where high salaries and commissions are earned, choose non-committal titles such as "representative" or very commonly work on their own private cards. The calling is an unpleasant and laborious one and requires more pertinacity than any regular occupation that I know of, but it is the backbone of wholesale lines of business and of all the richer trades. At the present moment there is no respect in which Great Britain is at such a disadvantage with her two aggressive competitors, America and Germany, than in her comparative lack of highly educated adaptable young men to open up new industries for new markets and

to extend the old ones. In the case of Germany there is a large supply of well-taught semi-cosmopolitan young men ready to work laboriously for moderate salaries. In the case of America eminence in this occupation is lavishly rewarded and attracts a class of superior talent such as would not for a moment undertake such work in this country. Besides it is one for which our present university education is peculiarly unfitted.

Attracting the customer to the seller certainly absorbs annually more expenditure that can be conceived possible by the uninitiated. I have myself made various estimates from data open to all men in the newspaper business, but found none which satisfied me as covering the whole ground. The art of advertising is not confined only to newspapers, it embraces countless forms of printing—the poster, the leaflet the pamphlet and the catalogue. It does not shrink from using hoardings, walls, rocks, trees, the scenes of theatres, the interiors of our books, houses and travelling carriages. It often appeals through the ear as well as through the eye, so that to track down the immense sums regularly spent every year in each branch of advertising is simply impossible. I can say no more than that it is difficult to over-estimate it. Taking only the daily newspapers in London, of which there are about twenty, I have calculated that their advertising revenue was at least £1,000,000 a year, and from separate figures, which I have seen, of advertising space used in Chicago dailies I think the revenue there is very much the same. In New York the revenue would be still more than in either. The revenue of the weekly papers in all three cities would be larger still, as there are an immense number of them and trade and technical organs, as well, have revenues that sometimes nearly equal those of the richest daily papers. As I should calculate the whole annual newspaper advertising revenue

of London publications to be not far short of £10,000,000, I am quite prepared to believe that Mr. Thomas Russell, president of the Incorporated Society of Advertisement Consultants, was not very wide of the mark in estimating that a hundred millions sterling are spent annually on advertising in this country. That is a very considerable figure and it appears still larger when we note that the total engineering industries of this country, including shipbuilding and motor factories, had an output for 1909 in round figures of £150,000,000, of which £70,000,000 was due to the cost of material. Their net output of £80,000,000 is less than the advertising bill of the United Kingdom.

It is probable that the United States and Canada together, with more than double our population, an immense area to cover and a pronounced aggressiveness in business methods, would spend at least £250,000,000*; and taking Germany, with Switzerland and industrial Austria, as one unit about equal to this country, and the rest of Europe as another unit of the same size, we may reckon a gross total of £550,000,000 per annum as expenditure in advertising for Europe and North America alone. As I should consider the amount spent in advertising pure and simple to be probably less than half the total selling costs on the average—because we must remember that many articles are only lightly, if at all, advertised, which yet have considerable selling costs—we arrive at a minimum of £1,200,000,000 as the annual selling costs of the manufactures of the predominantly producing part of the globe. Of that part of the world which we have left out of our reckoning only South Africa, Australia, parts of Japan and South America can be considered to be organized commercially after the modern

* On this point I have been able, since writing the above, to consult two American advertising experts on this figure and they told me that they would put the amount much higher.

fashion with great productive power and free modern habits of exchange.

Beyond putting forward this rough guess at a gross figure, we need not now go back to consider other selling costs, which have been dealt with elsewhere, but turn to ascertain, if possible, the meaning and aim of the six or seven hundred millions a year which the world spends in advertising its productions to itself. It is the greatest mystery in business. It would surprise the ordinary layman to know the immense amount of thought and pains, which are steadily given to this great industry, an industry which is carried on under similar conditions in all the countries of the globe. Why is it necessary? he would be inclined to ask, if he knew only the outside of the facts; or again, could not some central organization be contrived which would do the work for far less cost? He would suspect, and quite rightly, that a large amount of money spent in this way had gone to waste, and yet he would be surprised to learn that those best entitled to an opinion on the value of this product or commodity of publicity would reckon that though millions of pounds are annually wasted through bad handling, yet the net gain obtained by this expenditure was of great benefit to all. Even the bunglers make something out of it, and, if their own advertising does not help them much to sell their goods, they are continually being helped by the advertising of their rivals.

Let us consider a case that we often hear put forward on this question, and that is, that advertising is only a bad habit which has grown up unnecessarily through the greed of individuals attempting to overreach one another, that it is a disease which has created its own want and that there would be a great gain of wealth to the state, if by one sweep it were abolished and all buying and selling should be done through immense official catalogues issued by the Board

of Trade or some state department in each country. My reply to this would be that no state department could undertake so complex a work efficiently, and that during the first fortnight in which it was attempted indirect and direct advertising would rise up right and left in the teeth of any enactments or even of penal legislation. Even if we all of us acquired our goods from state-producing agencies, we should begin exchanging them in a week; for successful exchange persuasion is needed, and advertising is nothing more than an extremely artistic form of persuasion. How paradoxically successful it is anyone can realize, if he likes to ascertain how many articles he is using habitually at home, whose names he has long learned to detest from odious advertisements. Let him try to stop using them once for all, and see how long the effort will be successful.

What may be called the philosophy of publicity is a very difficult thing to grasp. Its power is not confined to business, as it is the essential requirement of a public career, and it exercises immense influence in politics, literature, the arts and the learned professions. With regard to its influence on business, which is obviously immense, it is rather puzzling to see how comparatively modern an organized system of securing publicity appears to be. It seems to have grown to great dimensions rather later than the development of the factory system of production, and to be therefore not necessarily connected with it. My own inclination is to regard advertising in its modern extent as an outcome of the increased cost of selling, which came not immediately after great producing developments but in the next generation. It is the accompaniment rather of our second stage of development, when vastly improved communications brought together all the markets of the great staple products in the world. Then began the days when

a glut was not an occasional and unintelligible accident, but a daily present danger, which had to be met and understood.

Abundant production did not at first exhaust the absorptive power of the world. The world was still hungry. Even when the civilized centres of the old countries came to be satiated there were dependent centres still hungry and after Europe was no longer responsive to the productive flood, eager exploiters had some pleasant years chasing the remaining hunger of the world and its attendant security of profit for themselves into odd corners of the East. Those were the great days for the Manchester merchants. In that distant time a yard of calico was still a yard of cloth, something not too familiar to be valuable, nor too new and strange for the peasant to appreciate, but quite good enough to remind him of what was worn by kings and princes. Those were the days when, as Turgenieff said of his own country, if two and two did not exactly make five, still they made four more magnificently than they did in the sophisticated West.

Modern advertising was probably less valuable and almost useless in the golden days, when there were still hungry markets. Goods found their advertisements waiting for them. The necessaries and mild luxuries of life were scarce enough for any moderate supply of them to be a sensation, which was carried from village to village even more quickly than the eager traders could go. The profits of this early trading were enough to override duties and likins and all the uncertainties of fluctuating currency. But all good things have an end, and competition began to reach the remote as well as the nearer East. Home markets were already supplied, and then the struggle began between the producers themselves for what custom they could get from the inadequate markets of the world. How this difficulty

was solved in its severer stage we have seen in the last chapter: it was met by the control and restriction of supply. But side by side with the schemes for control grew up all the devices of advertising, an art which has steadily increased in importance, and absorbed greater capital and greater annual expenditure in every year since modern industry has become what it is. I see no limit to the amount of money that can be spent in advertising, so long as the world continues to grow richer. While it seems to be costing more and more to sell things, it is equally true that the more that is spent in selling them the more profit is made.

Advertising began by aiming at mere publicity; then it became combative and assertive of individual superiority over rivals; as this grew stale it assumed blandishing and seductive methods, flattering the customer and appealing to his intelligence, as if this would be likely to reach any one who had any. Later it grew to trust largely to bulk, mass and the impetus of astonishment. I wish I could stop here in the catalogue of doubtful devices, but it is undeniably true that, with the customer's connivance and largely in order to suit his natural weakness, misrepresentation has become a chief part of the advertiser's stock-in-trade. While, however, I use a term with a disreputable connotation, I expressly exclude from present consideration all dishonest advertising, of which there is unfortunately a good deal, and regard only those forms of misrepresentation which the customer himself invites and habitually assists in carrying out. With the name and brand of the article known, with curiosity aroused, desire must be stimulated and a quite innocent form of misrepresentation is employed, which is nothing worse than vulgar, and would seem to be stupid, if one could not perceive the psychological process behind it. The article must be described as "the best."

Now about the real thing, which can correctly be described as "the best" of everything, it is obvious that in every case it is limited in quantity and could not possibly be served out to all customers. It is not so obvious, but still in nearly all cases true, that the majority of customers do not need or want "the best" of everything. Their circumstances have never enabled them to be educated up to appreciate or even to tolerate it. What they require is something quite different: a sound and reliable quality of goods, to which they have become accustomed. But many of them will throw away their money rather than admit that they wanted anything but "the best," * thus inverting the real proposition, which is at the bottom of their minds in every case, that the kind and quality of any article which they themselves want is necessarily the best. It is the continued statement of this proposition, without the qualifications which could make it absolutely instead of relatively true, that the customer requires from the trade.

And in that way nearly all trade is from a psychological necessity dependent on a habit of misrepresentation, which is both absurd and dangerous. It opens a door to an insincerity which, properly understood, is quite harmless, but misunderstood becomes the own sister to cheating and dishonesty. It gives a rank flavour to the forms of business and is one of the reasons why, when we meet anyone connected in the most vague way with

* This is painfully true of the poor. Whenever they go outside their own routine of expenditure, where they can judge goods for themselves, their wilful extravagance is only explained by their pathetic desire to be sure that, if they risk money on luxuries which they do not understand, nothing less than the best is good enough for them. In America, where the skilled artizan rises rapidly to comfort and more, his extravagance, when he spends, is amazing. A common phrase on his lips is: "The best is good enough for me." But the article is rarer than the expression.

a name well advertised in trade, we summarily convict him of vulgarity, until at least we know him better.

It is the same natural human weakness, which I have touched upon already in considering the law of substituted demand,* but it affects many more transactions than those which are covered by that law. In the case of substituted demand the buyer is himself dimly conscious that through want of means he has already missed "the best," but he swallows the fable that he is able to buy more cheaply the "just as good." In quite a number of cases, however, the buyer holds firmly the braver illusion, that what he is procuring is "the best" without qualification, and he will look upon those who buy more expensive and delicate qualities as the victims of their own vanity or of mere imposture.

Economically speaking, the function of all advertising and of all solicitation of demand is to maintain suction during the lapses between periods of natural recurrence of demand. It induces demand at a pressure, which is more or less even, instead of permitting it to come fitfully at moments when the organization of supply is ill prepared to meet it. It is therefore a very valuable part of the productive machinery of the world, and if not so completely effective in maintaining or raising prices as a combination to control supply, it is more steady in its action, and is less liable to gross abuse. But it cannot be denied that, like the control of supply, it has its own dangers, and while doing a beneficent work within limits, is also the parent of much humbug and even of fraud.

This necessarily brief and very summary review of advertising would be incomplete without taking note of a strong and growing tendency for the element of misrepresentation in advertising to become stereotyped and conventional to a

* See Cap. X., p. 112.

point where, with sensible people, it is almost harmless. Such congealed phrases as "this highly desirable residence," "valuable and unique furniture," or "alarming sacrifice," have so lost their power to deceive that they have acquired instead a kind of antiquarian charm, which we could now hardly do without. There is growing up a fresher tendency to be instructive in a fatherly manner, especially in technical journals, and to undertake the free education of the prospective customer in the general interests of science and industry. Much of this advertising in the hands of able people with newer methods has a high educational value, but in dealing with the ignorant or lazy customer the same opening for misrepresentation remains to the seller as before. A good advertisement writer can be employed by a bad soapmaker, and it is odds that as far as advertising goes and from the point of view of starting a new trade, he will make a better show than the expert in soap who neglects his own advertising. But such a snatch success cannot be depended upon to last. The great regulating influence in business is the solid fact that sound and steady service to the public will gain the public confidence, provided that the supply of capital will suffice for the time in which it is necessary to gain that confidence. For this purpose a certain amount of advertising is necessary and will diminish the period of waiting, and when this advertising is judiciously, and perhaps brilliantly, done, very great rewards are obtainable.

In progressive communities it remains to a certain extent a reproach against a firm or individual who does not advertise through the ordinary channels, whatever they may be. Not only does his particular public and circle of customers remain without the necessary information about any new departure of the silent trader, but the latter misses the necessary influx of new customers, and, besides, loses caste

to some extent in the small world of buyers and sellers of his particular trade. The chief proof of the value of advertising is that it pays a high rate of profit when extremely well done, and that those who neglect it entirely cannot hold their ground permanently against their competitors.

There is one odd thing about advertising in business which advertisers themselves are only beginning to understand, and that is, that although the practice grew up as the result of individual attempts to gain an advantage over immediate competitors, the general consequence has been actual increase of trade to all. Enterprise of this kind has been found to act like yeast in enlivening the whole trade, besides improving the prospects of the particular firms who undertake it. This fact is the nearest thing to proof that we can urge against the frequently expressed opinion that all advertising is a waste of money. Consequently it is of the greatest advantage to a particular trade to be well represented by a press of its own, sufficiently wealthy to be independent of interested pressure and to maintain a high level of technical excellence. Such a press, while having a valuable educative influence inside the trade, is not a mere parasite as regards advertisements, but really assists the development of its clients. This fact is now recognized as a cardinal truth.

In the same way it is of material importance to a country and a community that its daily press should be prosperous enough to be moderately disinterested. At one time in this country, especially in the provinces, the daily papers were sufficiently wealthy and well-established to afford to maintain old-fashioned standards of disinterestedness, which were very much superior to the general level of the commercial conventional code. They were thus often enabled to exert an effective opposition to encroaching charlatanry and dexterous ambiguity of malpractice, which was much

more effective than the influence, not to be despised, of a private example of personal integrity and rigorous honour. But time and commercial pressure has changed all that, and it is questionable now whether it is not true in this country, as it has long been true in America, that if ordinary private commercial enterprise is at all behindhand in recognizing the proper scale of equivocal blandishment required, as essential to progressive methods, it will be able easily to find suitable instruction in what is lacking from many members of an energetic up-to-date daily press.

CHAPTER XVI

OVER-PRODUCTION

THE laborious and concerted efforts of the selling agencies of our commercial system are not always equal to their exacting task. They break down temporarily, first in one direction and then in another. At occasional intervals they are not quite up to their work all along the line. Under such circumstances, although our nexus of trade relations is now too widely and perfectly organized to suffer a general paralysis, yet there ensue, sometimes over a limited and sometimes over a wide area, periods of sluggishness and hesitation in its mechanical grinding out of sacrifice and reward, of risk and profit, which amounts to much the same thing as a partial failure, while at the same time appearances of loss are skilfully concealed and treated as non-existent. These periods are always characterized quite shortly by manufacturers and traders, in current language, as periods of over-production. Now, I recollect that some twenty to twenty-five years ago, when I learnt political economy at school and college, there was a phrase, still current in the books, that such a thing as general over-production was impossible, and that the term itself was an abuse of language. Production meant the production of goods; it followed that there could not be too many goods, and that, to use another phrase equally current, since goods in the long run can only be exchanged for goods, all that was wrong with the world was only a temporary break-down in the machinery of exchange, which a little common-sense would soon put right without any real loss.

There is an appearance of philosophic finality about such a phrase as "goods can only be exchanged for goods" which has kept this venerable fallacy alive in academic circles in spite of the renewed and ever more emphatic teachings of experience. The actual and literal exchange of goods has been dead since the days of barter. The real and philosophical exchange of goods for goods is, fortunately for most of us, a rare thing, even by means of money, because only a small fraction of the population of the world are really producers of goods and therefore solely entitled, under this theory, to receive goods in exchange. What we all have to make, in one way or another, are sacrifices, the sacrifices of the producer, of the exchanger, of the subordinate helper, and of the capitalist and organizer in exchange for similar sacrifices by another group of similar people. The philosophic difference imported between the selection of the right and the wrong unit as the basis of the theory of exchange is immense. In the one case we have a concrete article, a single commodity, professing to embody and supposed to possess an intrinsic value, which, as long as deterioration has not set in, remains a fixed quantity prepared to wait an indefinite period of time for the occasion of a suitable exchange with any other commodity possessing a similar amount of the same immutable characteristics. Philosophically here we see no room for the influence of the element of time. In practice it is far different; time is of the essence of the contract in any system of exchange. If, in the other case, we select as our essential unit of exchange, as we have done in our chapter on "Wants and Sacrifices," not goods but sacrifices, we here import time into our unit, as a function of value, and we see at once that a bargain completed at the end of May may be profitable to both sides, while the same bargain effected early in August may be to each a loss. Selecting, for instance, two such comparatively

imperishable things as a file and a book on political economy, each worth a shilling, it may at first sight seem economically a matter of indifference as to when that magic shilling shall first buy the file and then the first guide to wealth, but looking behind these humble objects at the sacrifices enshrined in each we become aware that the filemaker * is eager for knowledge, while the author is hungry for bread. In either case to wait three months is a clear appreciable loss. Now general over-production means that all those who made the sacrifices involved in the producing and marketing of all kinds of goods have to wait a little while longer than they counted on doing before they realize the rewards which they expect and which custom has taught them to insist upon as their due. Some cannot wait and have to let go their profit and even something more.

A telling illustration of the unfortunate and absurd dominion of the false doctrine of the impossibility of general over-production is supplied in an able book† published last year by Mr. Beveridge, which is devoted entirely to the study

* The filemaker and the author are here not individuals, but representatives of sacrifices made by groups of people on each side. I have had to give the illustration in a kind of shorthand, so as not to interrupt the argument. Of course, in a single case neither one nor the other will get the whole shilling, but only a fragment of it; nor will the same shilling probably be a sufficient instrument for both exchanges. But the essential principle remains the same. If files are sold too slowly, the filemaker will be thrown out of his job. If books on political economy are a drug on the market, the author may starve for want of his royalties. This illustration also tends to show that, even if goods were ultimately exchanged only for goods, which is not the case, delay would still import a loss on both sides. Suppose that two imperishables, such as gold and platinum, are to be exchanged for one another, the delay of a day might be a barely appreciable loss, but extend the period to five months or five years and the loss becomes enormous.

† "Unemployment," by W. H. Beveridge.

of this very question of over-production with reference to its relation to the allied question of unemployment. It is necessary to quote the whole extraordinary passage in order to demonstrate how some people are forced still to bow in the house of Rimmon, even though their reason resents it. I must further explain that the quotation is not an isolated and accidental dictum having no relation to the general argument in which it occurs, but is organically embedded in a prolonged discussion of several theories as to the causes of "general over-production," a term which recurs in one form or another throughout the argument. Mr. Beveridge, in closing his criticism of a specific theory of the causes of over-production, concludes: "Though, however, the theory just propounded does not in itself completely explain *simultaneous over-production* followed by stagnation in practically all industries, it makes such a result probable. At the same time it in no way offends economic doctrine as to the impossibility of *general over-production*. It is no doubt true in the abstract, since commodities are only produced to exchange, and since ultimately they exchange for one another, that there cannot as a permanent state of affairs be over-production of all the good things of life, while any single want remains unsatisfied."

I have already dealt above with the point as to whether commodities do ultimately exchange for one another, and it is unnecessary to do more than repeat that this is not the case; but referring back to Mr. Beveridge's original first two sentences in the passage I have quoted, it is plain that, unless "simultaneous over-production . . . in practically all industries" differs in some mystic way from "general over-production," one cannot be probable, while the other remains impossible. As a mere matter of words, Mr. Beveridge contradicts himself in two consecutive sentences. The explanation is that in the first sentence he uses the

common word, over-production, in the ordinary sense that we all do in conversation and in business, and in the other he employs what he considers to be an economic term with a special meaning, attributed to it without rhyme or reason, which he has failed to analyze. It is one of the traps which economists have laid for themselves by not observing that experience in business will ultimately lead to a comprehension of the true validity of reasoning that underlies the use of many terms in current use.

In an earlier chapter I observed with reference to another current economic phrase: "price tends in the long run to approximate to cost of production," that this might be brought within the limits of truth and elevated to the dignity of a platitude by limiting all the operating conditions in one direction and by stretching the definition of the terms involved in the other. But such allowance cannot be made for the absurd dictum that general over-production is impossible. This is not only contrary to ordinary experience and repugnant to the common use of language, but it is philosophically wrong as embodying two economic theories, neither of which will hold water. The first is that what are ultimately exchanged are goods and not sacrifices, and the second is that goods have intrinsic value, ignoring the element of time as a function of value.

The point is so important that we must examine another concrete case. Let us suppose a factory of boots with a normal rate of output and a chain of traders and a market absorbing normally a production of 5,000 pairs per month. If an unfavourable fluctuation of demand strikes this market, so that in a given month only 4,000 pairs of boots are absorbed at the customary price of 8*s.* 6*d.* a pair, there remain on the hands of the retailers 1,000 pairs unsold at the end of the month. The remedy for this unfortunate circumstance, for it must be considered an unfortunate

circumstance, is either to lower the price in order to increase the demand and sell the boots off at once or to carry over the 1,000 pairs as stock into the next month. The first remedy is called cutting a loss and is really equivalent to a depreciation of the goods. But in practice it is seldom attempted in the retail trades, where final demand has to be met and controlled, for two reasons. The first is that the retailer is too poor, as a rule, to bear all the loss himself, and secondly he dare not spoil his future market for boots by lowering the price to 7*s*. 6*d*. or 7*s*. When he is driven to such a course, as he is sometimes, he covers up his real action by a host of devices such as privately reselling at a loss to traders with a cheap connection or advertising mammoth bargains and alarming sacrifices and employing all the arts of the manipulation of demand. His more usual practice is to hold the goods over for sale during the next month, at the same time cutting down his orders for future delivery to his wholesaler B., the next link in the chain. Similarly B. holds his own stocks and cuts down his orders to C., who hands on his share of the loss down the line to the producer G., who, if necessary, cuts down production. That is temporary over-production in that trade.

Now supposing, as is probable, that the retailer or retailers succeed in selling their balance of 1,000 pairs of boots within the next fortnight and then renew their usual orders, while trade renews its briskness. What has happened to the value of those 5,000 pairs of boots? The stock was as good as ever; therefore they had not deteriorated. They were sold for 8*s*. 6*d*. a pair as usual; the stock was therefore not depreciated. But the value of 5,000 pairs of boots, sold over six weeks, is less than the value of 5,000 pairs sold over one month, as every trader knows. What happened to those 5,000 pairs of boots

during those six weeks was " devaluation "—I coin the word in strict analogy with deterioration and depreciation to denote something not covered by these terms but economically more important than either. The delay of a fortnight in their sale is the exact measure in a time-equivalent of their fall in value. In other words, from the price of the goods sold in six weeks there must be deducted a time-agio of two weeks to show the fall in value of these goods as compared with the same quantity of similar goods sold within a month. The rate of this time-agio varies with the circumstances of the trade, the period of recurrence of demand, the volume of output and the amount of capital employed in the selling agencies. Generally speaking, where the output of production is large, a small delay in time involves a serious loss ; but on the other hand, this loss is diminished, where large capital is employed in controlling and regulating supply.

We come then to see that the fundamental fact underlying over-production is the time-element in value and we are helped to an economic definition of it. It depends on the difference between the rate of output and the rate of sale and it is caused by the impossibility of always adjusting production to the fluctuations of demand.

Over-production in one industry, in many or in all together is an acceleration of the rate of production over and above the rate of absorption of the market, where the demand follows its usual course, or a retardation of the rate of absorption of demand, while the rate of production remains constant, resulting in either case in a fall in values,* which may either be liquidated by immediate depreciation or be carried over at former prices for future

* As we saw in Cap. V., p. 44, that there might be a general rise in values, so also there may be a general fall in values, which would be the result of general over-production.

liquidation. General over-production involves at least a universal time-loss to all producers before the usual exchanges are effected, a time-loss that can be largely measured in the medium of exchange.

Exchange being the adjustment of two variables, a mal-adjustment may occur by either varying, while the other remains constant. The particular kind of mal-adjustment called over-production can therefore be brought about by the acceleration of supply, while demand remains constant, or by the retardation of demand, while supply remains constant. In most cases of over-production in any single industry the mal-adjustment of exchange passes from one of these conditions to the other; that is to say, over-supply has always the tendency very rapidly to satiate the market and bring into operation the law of vanishing demand, thus tending to cause a retardation of demand just at the time when supply has been got under control, so that the condition of a depression in trade is apt to continue even after its original operating cause of over-supply has been removed.

The argument we have pursued so far must have utterly failed, if it is not now clear, that, while the causes of limited or general over-production are as above mentioned, the occasion of them is a temporary failure of effectiveness in the immense machinery of our commercial system for controlling supply and regulating demand. It is to be noted, however, that apart from one special occasional cause, to be dealt with in our next chapter on "Trade Crises," a condition of general over-production is extremely rare and by no means the inevitably recurring phenomenon which some people repute it to be. What happens in actual business is something quite different, although from the limited point of view of most of us the effect appears to be more general than it is. Although over-production is universally com

pared to fluctuation, the waves, which it resembles, are not the regular synchronous waves of the tides of the coast but the waves of mid-ocean in a varying wind. A local cause starts the movement almost accidentally and through the operation of the law of intermediate demand allied and dependent trades are immediately affected, so that the movement seems to spread with alarming rapidity. But long before it has gone far the compensating and controlling balances of our organization for exchange have tracked down the fatal cause and begun to remedy it. We may therefore have several co-existing storms in trade without their necessarily combining and eventuating in a complete general depression. We shall later on see in what way they do sometimes coalesce through the contraction of credit and financial stringency, where circumstances, which strictly speaking do not arise from the course of trade itself, such as a war or a change in the value of currency, come in from outside to affect the central nervous system of trade and industry. In the meanwhile we may examine the chief causes of occasional and local over-production in the hope that by traversing patiently enough that, which is obvious, we may stumble upon something that is possibly new.

Over-production in any trade is sometimes due to mistakes in investment and sometimes to an inevitable internal inclination towards efficiency rather than a scramble for profits. The former may very well be the misdirection of energy by capital from outside or equally also quite possibly due to over-trading from within. Over-trading and over-supply from within the trade, that is by producers whose capital is already committed to production, is a mistake sometimes almost forced on manufacturers by the modern necessity of cheap production. When costs per unit of the whole output can be lowered by one-quarter by adding no more than an increment of one-fifth to the total

output, a not impossible condition of things in modern factories, it seems only a question of simple arithmetic to see where the profit comes in. But when a brilliant idea of this kind occurs to one manufacturer it quite often happens to occur to several others as well at the same time, and the resulting over-production takes prices below the point where any profit can be made out of the new economies.

Mistakes in investment by outside capital are an increasingly rarer cause of over-production, because capital has grown very wise, perhaps on the whole too wise, in avoiding the risks of production and the losses caused by over-production. Probably at the present moment in England the chief underlying cause of the Tariff Reform agitation is the difficulty of getting large aggregates of capital invested in industrial enterprises on a large scale. It is, probably, just now easier to raise capital for any other purpose than that of a new manufacturing industry. The distrust of the fluctuations of prices and the uncertainty of demand are the bogey of the rich man, who desires the security of a part at least of his capital and will not risk its total destruction under any circumstances whatever. Besides, he has a well-founded belief that the really able men in any industry will have no difficulty in financing their own additions to production out of profits and that any application for outside capital is in itself a proof of weakness. Such a cautious view of industrial investments in this country has been strongly impressed on capital by the ultimate result of the extensive industrial flotations in 1896 and 1897.

The timidity of capital about industrial investments is so well known among men of business, who have ever been concerned to attack this stronghold for this purpose, that it would not be worth while dwelling upon it if a contrary opinion had not obtained considerable currency in theory

One of the causes of over-production has been supposed to be the pressure of mere money savings, whose only outlet is further production. Ever since the time of Lassalle the enforced abstinence of the rich has been the object of ridicule among Socialists and not altogether unjustly. But to suppose that the only channel of relief for their hoards lies in production is to betray an elementary ignorance of business. In the first place for every pound of capital that is directly used in production, at least three pounds are required for the exchanging and adjusting functions of commerce, and I have a suspicion that I am underestimating the latter's superiority. In the second place the money that does find its way to finance production gets there only through devious channels and generally on hard terms. The greater part of the new capital engaged in production in this country is raised out of the realized profits of the industry or in bankers' loans advanced on the security of an ample proved margin of profit, loans which have to be repaid out of the profits earned by the loans themselves. In protected countries there is an apparently greater security for large increments of capital in industry, so that financial aid in starting a new industrial enterprise is easier to obtain. It is in these protected countries, however, that the amount of capital in industry is most efficiently checked and limited by combination, so that any idea of an unlimited overflow of capital into production is severely negatived.

That there is a certain pressure in every industry towards over-production I admit, but it is not the pressure of idle outside capital desiring to be employed. I have known intimately and have had extended business relations with two successful producers, who have risen to great fortune from humble beginnings, but they have never complained to me of funds having been eagerly thrust upon them at any time. On the contrary, their experience was exactly what I

have found everywhere to be the common one: they had first to make large profits on a small scale and then to finance their extensions piecemeal out of their own earnings. What outside help they had was generally obtained only at a risk that for any ordinary people would have been outrageous, until finally they got to a degree of prosperity, which entitled them to be considered moneyed people and enabled them to raise loans on their personal security. The experiences that I am relating cover more than one country.

Such superabundant energy as leads to over-production is not thrust on an industry from the outside but comes from within. But it is not only mistaken speculation or overtrading, things which are in themselves, even when innocent, pernicious, that leads to temporary undue expansion and so to over-production. It is the natural and inevitable tendency to superior efficiency, which, where trade is not hampered by restrictions, is the unavoidable result of brains working their way to the top, that brings about additional cheapness of production and a struggle between the new and the old forces in an industry. In this struggle there is rather an odd characteristic, which exhibits a natural divergence between two types of mind. It is generally observable that the originating and inventive type of mind, which naturally succeeds first in developing new processes of manufacture and in reducing costs, is at the opposite point of the compass from that type of mind which has grown old and wary in dealing with the public and understands its customers better than they do themselves. In other words, the productive genius is essentially different in its nature and often instinctively antagonistic to that quality of mind which is most fertile in selling capacity. It is only in very rare cases, such as that of the great Krupp, that the capacity to sell well is joined with the capacity to rise also to extreme heights of efficiency in production.

The process of developing any important and radical change in an industry is generally the joint work of these opposite characters, working as a rule not as allies but as opponents. The new methods of production have generally as a necessary condition of existence to develope great advantages of cheapness in manufacture. An old hand at selling would probably take his profit in his extra margin of cheapness in production and keep supply down and prices up. Only gradually would he encroach on the markets of others and never would he run the risk of flooding the market. But that is not usually the way an eager inventor goes to work. Confident in his power of cheap production, he will increase his output recklessly and endeavour to drive his opponents out of business. But the old and experienced trader knows that his own confirmed selling connections will probably balance his rival's extra cheapness, and as he is probably tied to his own trade by his fixed investments of capital he is driven to wage desperately a losing war and has to be content with a small return on his output and very likely no more than 1 or 1½ per cent. interest on his fixed capital. On the other hand, the innovator has on his hands a greatly increased output to sell which his standing connections cannot absorb. He will probably find that the cost of advertising and selling his surplus stock will eat up all and more than the profit provided by his extra margin of cheapness. If we suppose that the two individuals we have instanced stand in real life for two groups of manufacturers, those making at a profit and selling at a loss and those making a loss but selling at a profit, and with both together having an output pressing always on the limit of the power of absorption of the market, it will become clear that certain industries going through this stage of development may remain for long periods in a state of continued depression without relief.

It may be asked, how can an industry remain for long in a state of depression which yields less than the average rate of profit without the occurrence of a shake-out of the weaker competitors? The solution of this problem is to be found in the nature of fixed capital. Large sums invested in land, buildings and plant cannot be taken out again and become liquid; they have to remain physically locked up and depreciated and yet they can be used for purposes of production practically without any reward. As a matter of account, their plant should be depreciated off the books, the capital written down to correspond with this loss, while production can continue to be carried on so long as price will offer the smallest margin of reward over the cost of material, management and labour.

A friend of mine recently advanced the amusing paradox that since there were in nearly all industries water-logged and derelict firms of this kind, who worked on capital on which there was virtually no return, therefore on the margin of every industry goods were being steadily sold at prices less than the cost of production. It was one of those paradoxes to which it is difficult to find an immediate answer and shows that if one can juggle with words in one direction, one can juggle equally well with them in another. Should one so define "cost of production" as to make it equal to price, which was the practice among the old economists, one can also define the marginal cost of production so as to prove that in nearly all trades always it exceeds price. Common-sense tells us that price must generally exceed average cost of production, or men will cease to work and make sacrifices for less than the average reward. Yet in these special cases of half-bankrupt firms, who continue in business, the capitalist has to sacrifice the larger part of his reward in order to obtain some fragmentary part of it or else in order to sell his business in

the case of recurring good times. The explanation of the paradox in these cases is, that owing to want of efficiency in production or want of the best equipment working costs exceed by so much the average working costs in the trade that no margin is left to pay interest or profits, and, as material must be bought and labour must be paid, the capitalist finds that it is his turn to go to the wall. This phenomenon of the water-logged concern continuing to do business is always a serious one in any trade, as the competition of its products tends to spoil the market, and it is always too weak to hold back its stocks. So until they are finally forced out of competition by increased pressure they tend to delay the normal recurrence of hopefulness and prosperity.

Though there are now considerable industries in this country which have been for a prolonged period in the unfortunate condition I have described, yet such a condition of things is exceptional. As a general rule, the newer methods of production drive out the old, if the latter cannot bring themselves to change their habits, and so after a period of rather painful pressure the industry rights itself again. This process of internal improvement is normal and healthy, and it is more generally the cause of a period of over-production and depression than is over-trading or mistaken speculation.

No study of over-production, however brief, would be complete which made no mention of the seasonal fluctuations of trade, entailing regularly a curtailment of output and a discharge of workmen to avoid over-production at certain periods of the year in certain trades. But as there is nothing in this phenomenon which is not fully accounted for by the law of recurring demand, to mention it is sufficient. It entails a very real practical problem for legislators and business men in the question of dealing

with the regular seasonal unemployment which results in those trades.

The only serious theoretical problem which I feel quite unable to solve is as to whether limited fluctuations of over-production in various trades following repetitive cycles of their own ever come to coalesce of their own accord in one period of general depression, or whether such a period of general depression is not the result of financial stringency, which itself is produced by some cause external to trade and commerce. In other words, is financial stringency a symptom of simultaneous bad trade and a safety-valve of accumulated mistakes, or is it not rather the immediate cause of general bad trade bringing this result about by choking up and hampering the selling agencies of our system, withdrawing their supplies of capital and forcing them to part with goods, which in normal times they would hold up in order to strengthen the market? The question is a deeply important one for business men and financiers. If bad finance or some public catastrophe affecting finance is as a rule responsible for general bad trade, the remedy is not unattainable as we develop greater financial experience. But if general bad trade is cyclical owing to obscure causes arising out of trade itself and resembling the causes affecting bad trade in a single industry, then we are much further off the chances of a solution. I confess I see no evidence that trade itself does evolve the causes of a general depression, and I do not believe that any theory yet advanced, proving cycles of general over-production, has been successfully maintained. I should be inclined to infer on *à priori* grounds that the recurrence of good and bad trade in separate industries at varying and not synchronous periods was the best safeguard against any period of general depression. The deduction would then follow that trade crises or occasions of acute general depression

arise originally from financial causes, and will prove therefore to be susceptible to special treatment.

Before considering the special case of trade crises there is only one remark to be made on the question of over-production. No one has failed to see that it is a comparatively new problem, which did not trouble the world so obviously before the rise of the factory system. Production in those days was not obliged to anticipate demand by so much in time nor by such a vast output as is now required of it by the mere necessity of securing cheap costs. But if we remark a progression in this direction it is a serious practical problem whether this tendency is likely to be continued or reversed. Supposing that production becomes more highly organized still in order to secure the lowest costs, will not stocks indefinitely increase? In that case either the danger of over-production will become more frequently recurring and more dangerous or the selling machinery of the world will have to be adequately developed to meet and absorb greater and greater quantities of goods and dispose of them at the proper rate. If the latter alternative be more likely, it would account for the curious coincidence that some people seem to observe in the growing cheapness of production and the steady increase of prices. Perhaps the selling agencies of the world are doing their work too expensively, and they are in need of greater amounts of capital and more complete organization.

CHAPTER XVII

TRADE CRISES

THE trade crises we have here to consider are practically equivalent to financial crises, but it is only in their relation to trade that they have any importance for us, as affecting the laws of supply and demand. When they come, from whatever cause, they have all the appearance and effect of a period of general over-production, but this appearance I believe to be deceptive. Their real origin is more probably the withdrawal of a considerable amount of currency either on account of some tremendous material disaster, such as a war or a large failure of crops, or more commonly, but more obscurely, owing to some internal disturbance and disarrangement in the mechanism of finance itself, causing a restriction of credit and keen competition for the free stock of gold in the world. The trade depression in England which accompanied the drain of the South African war is an instance of the first case; the much more severe shock to American credit in 1907 is the best instance of the second. There is still much controversy over the real causes of this last and worst of all trade crises, whose effects were felt all over the world, and the best explanation seems to be that, while several disturbing causes, such as the New York insurance scandals, the bank failures in October, Mr. Roosevelt's speeches and the general weakness of American financial organization * contributed to bring it about, what made its severity overwhelming was the condition of unstable equilibrium of

* I quote Mr. Conant, "History of Modern Banks of Issue," p. 698.

prices, where markets were controlled by many powerful corporations all interested in maintaining a partial monopoly in their own trades. The necessity such corporations are under during periods of stress of making great demands on the money market in order to hold their immense stocks of goods and guard their speculations introduces an element which enormously increases the virulence of a crisis and intensifies the weakness of a position which otherwise might have continued to be of ordinary proportions.

How does it come about that mere money stringency is capable of producing in a moment a condition of things which is equivalent to general over-production? The answer is that in one sense general over-production of all goods is a permanent necessity of modern production; in other words, there are always huge stocks of all goods, much more in fact than can be sold in the next fortnight or the next month. These goods are held back from the market by means of immense supplies of capital until the market is ready to absorb them at such prices as will give a just reward to producers and sellers. It is obvious that any curtailment of these supplies of capital lessens the holding power of the sellers and throws goods on the market before their time. It is, strictly speaking, often a crisis of over-selling rather than of over-production, but of course the two go together, and, as the effect of either is the same, it is as well to follow the usual practice and call it the latter. For that reason both phenomena are included in the definition of over-production.*

The argument of those, who doubt or deny the power of mere financial stringency to bring about results so widely spreading, as a general trade crisis, is usually based on the contention that the supposed cause is not capable of exercising an influence admittedly so great.

* See Cap. XVI., p. 199, and Handy Table, p. 276.

Since the gold in the world, which is the basis of currency in most states, amounts to well over £2,000,000,000, they cannot believe that a small cause making an immediate call for at most £40,000,000 or £50,000,000 of gold over a short period can possibly affect the whole volume of gold and the much vaster volume of credit that is above it. That is, I think, because they do not properly grasp the functions of gold, currency and credit in our trade transactions.

If we analyze the habits of the gold-using countries, who are infinitely the richest countries of the world, we see that their medium of exchange consists of gold, a note issue and various instruments of credit. Now the note issue is based on the gold and the instruments of credit are based on both the other two: that implies that any diminution in one will effect a proportionate diminution in both the others. It is also true that in a financial crisis all credit is naturally contracted, which results in the natural consequence, that there is a lower proportion of instruments of credit based on gold and notes in hard times than in good. Let us suppose for the sake of example that such a ratio of credit to actual currency is about 7 to 1 in a normal state of trade, sinking as low as only 5 to 1 in times of stringency. The fall might possibly be much greater. However, on that hypothesis and in order to see the immense effect of the drain of a small amount of gold we may assume a sudden withdrawal from general use for temporary purposes of £50,000,000 in gold out of a supposed world stock of £2,000,000,000. Out of these £2,000,000,000 not more than £1,000,000,000 will presumbly be near enough to the source of the initial disturbance to be susceptible to the first sudden shock. The remaining £1,000,000,000 are therefore by hypothesis considered to be far enough away to be quiescent; because no shock is great enough

actually to affect the whole world at one moment even though the ultimate effects of the shock will spread everywhere. Let us also assume a ratio of 2 to 1 for notes based on gold. The whole stock of money before the shock, say in October, within the affected area is then supposed to consist of £1,000,000,000 of gold, of £2,000,000,000 of notes and of £21,000,000,000 of credit* embodied in paper, such as bills, cheques and drafts. This last figure is estimated at the favourable ratio of 7 to 1 based on the combined currency of gold and notes together.

Now the sudden and unannounced withdrawal of £50,000,000 of gold in November, if it caused, as it certainly would, a temporary stringency and a panic, would compel the immediate hoarding and retention of at least an equivalent amount of gold and of a proportionate amount of notes by bankers and financial houses, resulting in an abstraction from use of at least £100,000,000 of gold and £200,000,000 of notes. At the same time the proportion of private paper credit would shrink rapidly to the panic ratio of 5 to 1 on the reduced currency. The total available medium of exchange, using the term in its widest sense, at the end of November would have fallen to £900,000,000 of gold, £1,800,000,000 of notes, provided that there had been no fresh issues by the states involved, and £13,500,000,000 of paper credit. In other words, the total available money within the area of disturbance would have been £24,000,000,000 in October and £16,200,000,000 in November, a shrinkage in the real medium of exchange in current use over that area of £7,800,000,000 due to the sudden abstraction of only £50,000,000 of gold. I am not asserting that my figures or ratios are the correct ones or even approximately true, but the illustration is, I think,

* What Mons. Horn calls "or supposé." See "La Liberté des Banques," p. 264.

sufficient to show that the basis of our credit is so narrow, and our credit itself so sensitive, that a small further narrowing of the basis is equivalent to the temporary destruction of an immense amount of credit. Credit rests on currency, and as a rule instead of rising to meet deficiencies of currency, it falls with it and at an acclerating diminution of ratio unless measures are taken to check it.

Any drain on the supply of money has a paralyzing effect on trade, particularly any demand for gold, because this is subject, as we have seen, to a multiplying power, but an assault on the credit part of our monetary system alone has a depressing, if not quite an equally demoralizing result. An inflation of credit leading to speculation will be followed by a reaction of equal force, and this, if it were allowed to have its way unchecked, would cause the same constriction of capital and retardation of industry as a drain of gold, but (and this is rather an interesting fact to remember) unless there is an actual shortage of gold accompanying it, the mere psychological state of panic is not enduring and can be counteracted by the ordinary balancing mechanism of the financial world. As Mr. Conant says in his learned treatise on banking, the world has learnt a great deal about finance during the nineteenth century and the pendulum swing from over-speculation to panic is not allowed to have its old power. When any important speculative centre gets into financial trouble even its enemies now hasten to help it over its difficulties, if only for a time, because the solidarity of the commercial and financial world is at last so well understood that now everyone is aware that the disasters of his neighbour not only may, but will be, his own, if they are allowed to run their full course. But the final disaster comes upon us when the over-narrow basis of our currency is drained by some purely mechanical operation such as paying for the wages and the food of soldiery in a great

war. In this class of cases there can be no exchange of cheques or bills for commodities, leaving the gold safely in the banks. Cash, cold cash is a necessity; in other words, gold. And as we have seen above, although the amount of loss may remain small, its extraction in actual specie has a cumulative and incalculably far-reaching effect of disaster.

To admit the financial origin of most trade crises is to accept the quantitative theory of money, a sadly controversial subject, which cannot be avoided. Theoretically the quantitative theory of money is incontrovertible and its opponents content themselves with pointing to facts, as not supporting the results deducible by reasoning. Yet it is possible that a theory may be true and yet not be supported by facts in cases where the ultimate facts are conditioned by other causes as well as by those which are taken into account in the theory. This happens to be the exact explanation of the present controversy. Prices are primarily conditioned by the ratio between the quantity of money as compared with the quantity of commodities in accordance with the laws of supply and demand, which apply as much to gold and money as to any other commodity, but prices are not conditioned only by money, nor is money always the same as gold, although gold may be the basis of it.

Let us take the last point first. In any definite quotation of price there are two declarations of fact, which are inseparable; namely, the price of a named commodity in money, a word, which we will take as meaning any current medium of exchange, and the price of money in that named commodity. Now those who have accepted my statement of the laws of demand will admit that a great factor of price is not only the quantity offered, but the rate of absorption prevailing in the market in which it is offered. Consequently there are four chief determinants of the ratio, which is embodied in any price; the quantity of money and the rate

at which it is being absorbed in the market at the moment; also the quantity of the priced commodity and its rate of absorption. To eliminate complications let us suppose that we are dealing with prices in gold-using countries and that we are speaking of general prices of all staple commodities, such as are indicated by the well-known index numbers. We then see that the quantity of money and the demand for money, the quantity of commodities and the demand for commodities are the determining factors of general prices.

Now money, whose quantity is first in question, is in gold-using countries a flexible function of gold. That is to say, an increase of the quantity of gold will tend to increase the quantity of money, but not always in the same proportion. When the demand for gold remains steady, fresh supplies of gold will cause an enormous increase of money by their influence on credit; but, on the other hand, the rise and fall of credit may cause great variations in the total supply of money, even though the amount of gold in the world remains unaltered. Supposing that in time of peace there is a comparatively small but steady supply of gold and credit is continually improving there will be an increase of real money quite out of proportion to the mere increase in the supply of gold and prices will rise.

This increase of prices, however, will be checked by a fall in the rate of absorption of money and in the rate of absorption of gold. There may be something approaching the nature of a glut, even in gold, which will show itself in the demand becoming less brisk and ultimately causing a fall in the average rate of interest. That is factor No. 2.

Factor No. 3 may be taken with factor No. 4, because they are interdependent and tend to check one another alternately, as do factors one and two. One is at its highest when the other is at its lowest. That is to say, a period of brisk and active production under high prices will increase the stocks

of goods to a point where demand for them threatens to be satiated and prices have to be reduced. So these two factors tend also to balance one another.

With these four varying factors affecting the level of general prices it is possible, as is indeed often the case, that the quantitative theory of money may be true, while its operation is in practice obscured by conflicting conditions. It emerges into prominence as the governing theory of money chiefly during quiet times, when general trade runs neither to monopoly nor glut, when money is wanted for the steady development of sound opportunities and credit remains normal. During these periods of peaceful progress any increase of the basis of currency has a remarkable effect. By raising prices too quickly it may act as a violent stimulant to the commercial world, leading to grotesque and fraudulent speculation or merely inducing a dangerous tendency to over-trade and over-produce, thus leading ultimately to a natural reaction.

It is important to distinguish between the two ways in which depressions of trade on a large scale are determined in their origin by financial stringency, because in any general trade crisis either cause, if not checked, immediately superinduces the other and they become inextricably mixed. Yet theoretically and in fact they are distinguishable; one being an artificial shortage of currency, generally produced suddenly by some outside material cause; the other being a rapid rise in the rate of demand for currency and ultimately for gold, brought about by disarrangement of the internal mechanism of finance such as over-speculation or bad banking. The latter alternative is the more common cause, but it is the one which the world is steadily educating itself to understand and to prevent. Consequently any local or temporary blow to credit is hushed up and tided over; otherwise it will turn from a run on money to a run

on the basis of currency, which in most civilized countries is gold. The first alternative is usually unavoidable by our commercial or financial systems because it generally arises suddenly from some unforeseen material cause such as the necessity for the daily feeding of many thousands of unproductive men in a war, the destruction of property in an earthquake, the failure of the cotton crop in America or the cereal crops in Europe. The safeguards against any of these possibilities are daily increasing, but they are still weak. No financial measures could isolate the commercial disaster of a great war. The smaller disasters are now dealt with by skilled finance, which is another way of saying that the bankers and brokers use their expert brains to secure great transfers of real wealth from one party to another, using in the operation the maximum of credit and the minimum of gold.* Whenever they fail to arrest a drain of gold, the collapse of credit follows as a matter of course, and there is widespread disturbance of industry and trade.

In a general review of all the causes which succeed in

* An early instance of the actual operation of such precautionary measures occurred during the financing of the great railway enterprizes in England in the last century. The mania was going to such lengths that Parliament in 1846 required all railway companies intending to apply for incorporation to lodge 10 per cent. of their capital within fifteen days after the beginning of the Parliamentary session. But even so the rush continued and so many parliamentary bills were pressed forward that there was an actual dearth of currency wherewith to make the deposits, showing that the world of commerce could not spare so much gold and notes as would be locked up temporarily out of common use. So a device was found whereby the sum of £14,000,000, which was required together at one time, was obtained by paying in daily sums in the Bank of England, which were immediately lent out again for further payments. The smallness of the sum whose abstraction was sufficient to threaten the stability of credit also illustrates my point above as to the effect of small withdrawals of cash on the total amount of real money. See Conant, "History of Modern Banks of Issue," p. 633.

determining a general fall in prices, whether this result be either a prolonged depression or a trade crisis, we can see that two of them are a question of industry and two of finance, and that they are exactly equivalent to the four factors which determine the general level of prices. These we have seen above to be the quantity of goods and the quantity of currency and the rates at which either are being absorbed at any moment in their own markets. A severe fall in prices may therefore be caused either by over-production of goods at any time, or under-demand for goods at any time, the latter being technically within our definition of over-production,* but in origin different from it; or equally by a sudden drain of gold or a gradual contraction of credit. Each cause tends to super-induce all the others when it is first felt. It is the business of the commercial world to guard against the oncoming of the first two causes, and of the financial world to prevent and minimize the effect of either of the others. The tendency of the argument of this book, although I am far from saying that it is proved, is to show that of the permanent causes the most potent is a slackening of the desire for goods, a failure of hope and effort, the fall of the suction of demand. The most potent of the temporary agencies is a drain of the basis of currency. The lowering in the suction of demand is possibly periodical and cyclical and due to obscure fluctuations in the human spirit. A drain of gold may be due to a dozen accidents.

The problem of the opposite eventuality, a marked rise in prices, is more difficult to determine. It is made more difficult at the outset by the want of a criterion whereby it can be distinguished. When prices are falling all the danger signals of trade are there to warn us of coming distress.

* See Cap. XVI., p. 190, also Handy Table, p. 276.

But are prices ever too high, and if so, when? Traders like rising prices because of the stimulating effect of hope and optimism, inducing a general increase of effort and efficiency.* Besides, their instincts are not trained to distinguish between the rise in prices caused by improved trade and another brought about by inflation of currency. Yet there comes a time when the consumer faintly makes himself heard. A few write to the papers, a large number vote against the government of the day, and a great many more go out on strike for higher wages. Only obscurely do they recognize that in trade any extreme is dangerous, and each individual generally realizes it first through having his particular foot pinched. The pressure of high prices is being now felt in countries so differently situated as America and the United Kingdom, although it was felt first in the former. More than a year ago the *Evening Post* of New York, the leading financial daily paper in America, expressed the universal feeling on this question in words so brief that I can quote them:

"Abundant evidence exists that the people are stirred by the pressure of high prices for necessaries of life. President Taft, in his recent message (January, 1910) to Congress, referred to this cost-of-living problem as the most serious drawback to the prosperity of the day. Bills have been introduced in Congress for commissions to inquire into the cause and meaning of the phenomenon. State legislatures are moving in the same direction. The department of agriculture has intimated its purpose to have an investigation on its own account. Still more recently, high cost of living, as a practical problem with practical consequences, has taken a prominent place in Wall Street controversy."

In a later issue the *Evening Post* attempts to give a

* See Cap. V., p. 44.

partial explanation of the cause of this general increase of prices in America at any rate. Being itself recognized as an organ ever ready to attack the abuses of trusts, it yet acknowledges that there are other sellers grouped with the monopolists quite as prepared as they to draw any advantage from prevailing high prices. "In this oppression of the consumer shall the retail dealer be without blame? One of our readers presents in brief compass concrete proof that the grocer, the butcher or the 'delicatessen' man is quite as ready to over-charge and combine with his fellows for the purpose of over-charging as any wicked trust. The charge is largely true, and yet it does not shift the main burden of guilt from the shoulders of the men who control the main sources of our food supply. This is aside from the practical question that the law can deal more readily with three or four beef magnates than with tens of thousands of retailers the country over. The main point is that the evil impetus comes from above. A penny increase at the stockyards is the signal for more than penny increases right along the line. A 5 per cent. increase in duty on an imported article becomes the excuse for a 10 or 20 per cent. increase by jobber, wholesaler, retailer down to the corner peddler. This is a phenomenon of the psychology of trade that we must recognize, just as we must recognize the principle of sympathetic increases in the price of commodities. Eggs and tea will go up in price for no other reason than that beef and wheat go up. And every business man will try to make an extra profit when he finds the example set from above."

Compare with this account a passage from a leading article in the London *Times* in the month of October, 1911, on the same subject. "It is the paradox of modern civilization that the more commodities are cheapened the dearer living becomes, and that the greater our command of natural forces and the ingenuity of our machines for

utilizing them, the severer do the conditions of labour grow. The explanation probably is that in a thousand unnoticed ways we all, from the highest to the lowest, promptly live up to and beyond every addition to the means of enjoyment. We all expect more and more from life and we are all taking more, whether through individual expenditure or through State and municipal expenditure does not matter. The nation as a whole is living high in comparison with former periods and the increase of expenditure is greater than the economy of production can meet."

Now it is remarkable that both these authorities state the same general fact, as if it were incontrovertible, and both try to explain it by psychological analysis, the one of the mind of the seller and the other of that of the buyer. Though each is treating of the state of things in his own country, where conditions are still very different owing to the prevalence in one of a high tariff, yet they are to a large extent on common ground in respect of all those articles of food whose prices are not marked up by a tariff in either, so that any inquiry into the effect of a tariff on prices need not come into our present discussion. We are dealing at present with underlying conditions of production and distribution, extending probably, not only to England and America, but to all countries within the civilized ring. For this purpose elimination of outside influences and simplification of our own problem, difficult enough as it is, are of primary importance. The chief doubt that may arise at this point in connection with a prevailing condition of high prices is as to whether such a question should strictly speaking be considered under the heading of "Trade Crises." To this I have no hesitation in answering that although this term is in general applied to periods of prevailing or acute low prices, yet a period of high prices, being an exact converse of the other and largely governed by the same conditions, is in

every sense of the word a trade crisis of supreme importance. Only its causes are more difficult to disentangle.

The first probability that occurs to the inquirer is that since one condition is a reversal of the other its causes are also probably the opposite of those we have discovered for the other. In other words, since there are four causes of a condition of prevailing low prices, there are four converse causes of prevailing high prices. But this obvious explanation does not cover the whole case. It is true that abundant money and a slack demand for currency and also a short supply of goods and great hunger for them will each of them tend to beget and maintain high prices. But there is in addition one peculiar condition whereby high prices may be kept up without any of these special causes, although not in the face of any severe reversal of any of them. The secret of this circumstance lies in the natural relations between the buyer and the seller. We have seen above, *passim*, that the two opposing parties in a bargain do not come into the market under equal conditions; one comes into the market with his sacrifices already made, the other comes carelessly prepared to question and reject. That is to say, that naturally the seller is in the weaker and the buyer in the stronger position. But this is reversed by the organization of our commercial world; everywhere the sellers are watchful, reticent and prepared to organize themselves wherever they can. It is very rare to find any combination of buyers.

Bearing in mind this special circumstance, which is the effect of our organized commercial system, let us examine as far as we can the causes of the prevailing high range of prices during the years 1910 and 1911 in Europe and North America. It is probable that there are many contributory causes, in which a steady increase in the world's supply of gold may have its share. There is one convincing

proof, however, that high prices are not caused alone by low gold values, because when the latter condition is established there is a fall in the average rate of interest and a steady appreciation of gilt-edged securities such as return a fixed income on invested capital. Now the prevailing low price of Consols and other first-class securities is a clear proof* that the supply of gold has not yet exceeded the normal suction of demand for it in investments. Taking these two balancing elements together, we may consider it established that there is no plethora of gold above the uses waiting for it, which is the necessary condition of proving that high prices are due to low gold values. This eliminates the two financial causes of prevailing high prices.

Take the two commercial factors tending to cause high prices. Has production fallen far behind human requirements or has the suction of demand for goods risen to the hungry stage? Either of these or both together would take prices up with a sweep. But there is no sign of either. While there is no serious over-production there are plenty of goods to sell and while demand is steady it is not insistent. In fact, in a good many trades the condition of

* It is difficult to lay one's hand on any comprehensive proof of so wide a general statement; but I find in the published accounts of a very wealthy and conservative insurance company—the Clerical, Medical and General Assurance Society—some interesting evidence of a steady increase in the average rate of interest. The invested funds of this society amount to well over £5,000,000; their class of investments is entirely gilt-edged, and, as many of their existing investments were made a long while ago under different conditions, the rise of the general rate of interest would be felt more slowly by them than in a case where only new investments were made. For three successive quinquenniums ending on June 30 in the years 1901, 1906 and 1911, the average rate of interest earned on the whole funds has advanced from £3 16*s.* 8*d.* to £3 17*s.* 5*d.*, and now to £3 19*s.* 10*d.* This points to very general and stable influences all working in one direction.

over-production through which they have been passing is as yet hardly left behind as the comparatively high figures of unemployment last winter in various countries suffice to show. We may, therefore, say that among the four ordinary factors tending to raise the gold prices of commodities there prevails an unusual and comparatively long-lived equilibrium, which gives a temporary opportunity for an artificial cause to operate, and here by "artificial" I mean not only an unconsciously acting tendency, but a consciously organised effort on the part of traders to maintain prices by the carefully arranged retention and control of the markets. In other words, the sellers organized as a group are getting the best of it in their perpetual contest with unorganized buyers. The profits of selling are steadily growing and the costs of selling are going up.* Of this benefit the mere producer gets little or no share, so that the ordinary tendency of inflated prices to bring about an increase of production has been temporarily eliminated.

I am not describing a condition of things which I believe likely to be permanent, in fact a reversal is inevitable. But in what way it will come no one can possibly predict. While it continues the effects of general distress which it causes are almost worse to a large number of people, whose salaries and wages are fixed, than what are called bad times when prices tend to fall. The one advantage to the community which this kind of trade crisis has over periods of prevailing low prices is that more people are in employment

* The point made in the *Times* article is practically the increasing waywardness of demand, which arises from general prosperity. This would increase selling costs. The point made by the *New York Evening Post* is the combination of sellers to protect themselves against this waywardness of demand, thereby not only securing protection, but enabling them for the time to secure a little extra profit. Both points are good, and I believe that together they are the real cause of existing high prices.

and more people are therefore in receipt of incomes which must insensibly reinforce demand for commodities. Above all, unless strikes and labour troubles intervene, general high prices lead to peaceful and not unhealthy development and to an even distribution of incomes among the commercial classes.

But we are not living, as we are beginning to realize, in a period of general contentment. In every country the masses of population, who live on fixed wages and salaries, are beginning to resent a curtailment of their luxuries, and instead of taking the real course of relief open to them by banding themselves together as consumers, so as to make their bargains collectively with the organized sellers, they are turning by preference to political action * or endeavouring by strikes to get their money wages raised. Undoubtedly considerable numbers of them have been lately successful in this aim, but a larger number will probably fail, and ultimately the general balance of trade will be disturbed and we shall pass naturally into a period of general depression. The cycle of human effort and slackness will fulfil itself and the best that our commercial and financial organizations can do will be to become more expert in modifying its extremer aberrations.

* This is conspicuously true at the present moment of the United States and Germany, but as the agitation in both countries takes the form of an attack on the tariff, I shall purposely neglect it. The subject of a tariff is a wide one in itself, and is a question of the action of governments. It does not in any special way affect the laws of supply and demand.

CHAPTER XVIII

THE SALE OF LABOUR

THERE is one thing in this world more frequently bought and sold than any other to which however the term commodity is not applied: human exertion. The chief reason for its segregation in terminology from all other things freely bought and sold is probably from a sense of human dignity, denying a similarity in essence of what costs us most in sacrifice with mere material objects. But the distinction can be justified by a deeper fundamental difference than any indicated by sentiment. The services of men are not always a commodity like material goods: they have the peculiarity of sometimes being a commodity and sometimes not. In other words, we habitually put forth exertion for objects other than pecuniary or economic reward yet indirectly obtain the same result; more peculiarly still we frequently exert ourselves partly for reward and partly for pleasure, health or moral discipline; with equal peculiarity some of us work habitually for mere diversion and after a time discover ourselves equipped with a highly saleable talent. There is no commodity of anything like equivalent value, which is more often freely given away, sometimes intentionally, sometimes in mere ignorance. There is no commodity which resembles it in being sold habitually and by large classes of people for sums considerably below what would be its value, if the market were properly exploited.

It is worth while examining concrete cases of these paradoxes in order to understand under what differing

conditions the market for human labour is carried on from those under which ordinary goods are exchanged for gain. Taking the case of labour undertaken without expectation or with only distant expectation of pecuniary reward, which yet has a high economic value, we have not to look far to see it in the devotion and labour of our wives and mothers in the exertion and discipline of training private character in ourselves and others. A man gardening for his pleasure and selling the produce or eating it is exerting himself primarily for objects outside the economic reward which he still is willing to accept. A village lad may play himself into becoming a cricket professional and an author, painter or musician may find himself able to cross over the border-line and cease being the amateur, which once was his only ambition. Gentlemen-riders have become jockeys and great talkers have undergone a natural transition in becoming rising politicians or successful commercial travellers.

The most interesting cases are those services, generally specially skilled, which are given away either for nothing or for an equivalent, which the world now recognizes to be inappreciable in comparison with their present value. This is very often involuntary as in the case of great artists like Millet, Méryon, Milton or Wagner, where recognition of merit has come too late to endow their products with what should have been in more fortunate circumstances their value. But perhaps it does not occur to most of us that cases of this class actually occur in business life itself in the very middle of the exchanging whirlpool. Men with keen energies and great capacities are driven to expend them by the force of their own character or by mere enthusiasm for efficiency in return for rewards far less than they could certainly exact, if they were crafty enough or eager enough to bargain for them. The most striking instance that I have heard of in this respect was told me by a Lancashire

man, who was old enough to remember the pioneers of the co-operative movement. They were men who expended for trifling rewards organizing ability, which could easily have brought them to personal fortune. They were urged by general enthusiasm for the movement and filled places which, as one by one these giants died off, could not be filled from the generation which succeeded them.

The last case, which is the most interesting we have to discuss, is the large quantity of labour sold habitually below the price which market conditions, if properly established, would enable the sellers to exact. Of this the best instance is what is generally called the underpaid labour of large classes of women. In one sense, of course, it is not underpaid, because the sellers accept the price offered, but the misuse of the word shows luminously that the conditions of bargaining are not considered fair. Class for class, task for task, the wages and salaries of women are not much more than two-thirds of those paid to men for the same work and may often be less. The reason is simple. It is because a large proportion of women of all ranks who seek employment do not need, do not expect and do not exact the full amount of wages, salaries or reward which is necessary to keep them alive. They can often draw upon other sources for part or perhaps the whole of their necessary expenses, and all that most of them seek in employment is temporary assistance until marriage or else a margin for additional comforts.

The instance of women's labour is the most conspicuous in this respect, but it is not really so strong a case for compassion as that of others, to which no attention is drawn. The hardest case is that of authors. In our present world, where more reading is done and we are all of us more dependent on books for our recreation and knowledge than ever before, it is safe to say that of all living authors not

more than a tenth part make their living by the writing of books, and of that tenth three-quarters at least earn their income from fiction. Literature, scientific and educative works, are produced for the world's benefit at far below mere cost price. They are produced either by rich men or women, fearful lest their energy and brains should go to seed, by journalists, schoolmasters or professional men earning incomes elsewhere and anxious to make a mark and advance themselves, and in a large number of cases by people who must write for the pleasure or necessity of self-expression. Other arts suffer from a similar overcrowding, but none so much as literature.

Economically speaking, the case resolves itself into this. We have here something which is a full commodity subject to the ordinary laws of supply and demand sold side by side and in competition with something which is only partly treated as a commodity. In the first case the buyers and sellers are keener to take advantage than in any other form of transaction because the stakes are life and death, in the second case the buyers only are keen while the sellers are indifferent. Yet the articles sold in the two cases resemble each other sufficiently to establish a certain parity of price between them; happily they are not entirely the same, for the efficiency of the semi-amateur is never equal, *ceteris paribus*, to that of men who are working for their bread.* The result

* I have sometimes reflected, and I find it confirmed by the frequent experience of others as well as by my own, that the causes usually alleged to account for the permanent low wages of women, namely, their want of combination and the competition of subsidized women's labour, are not entirely sufficient to meet the case, although, as I say in the text, they are largely responsible for it. Women are keen and good bargainers, and there is no reason why they should not combine as well as men. As for subsidized labour, it is very frequent also among men in the clerkly class; but it does not bring the price of men's labour down to any great extent, except in a few special

is that in certain kinds of work prices remain below the proper level of remuneration for those who are wholly dependent on it, and in other cases the professional is driven out of the market except when he can show himself as possessed of transcendent ability. The difficulty is sometimes spoken of as the competition of subsidised with helpless labour, but that does not cover the whole extent of the subject, as in many instances the case is worse where labour is given away for nothing in competition with paid labour, this very much adding to the weakness which the latter has in making its bargain.

But there is another characteristic of labour which makes it different from ordinary commodities and that is that, while without capital it has no means of holding back supply, capital is as a rule only in the hands of the buyer of labour and thus it tends more rapidly than with supply in general to run into a condition of glut. This fact is the cardinal feature of labour, as distinguishing it from other things which are bought and sold, and we shall return to it when we have to consider those problems which are considered specifically to be labour questions, such as the function of trade unions and the proper provision for the unemployed.

We must first, however, distinguish as clearly as possible between those members of the community who are predominantly buyers, and those who are sellers of combined

cases such as that of authors mentioned in the text, or of officers in the army, where the poor professional is practically eliminated. No, there must be some additional reason, which lies deeper and consists of something especially feminine, and I believe it to be, that women in employment very seldom rise to that professional standard, which would exclude the amateur or relegate him to an inferior level. I have known one or two cases of it, but they are too few to raise the general standard of regular remuneration.

skill and personal services or of mere labour. The mercantile and trading classes from the City merchant down to the greengrocer in the Mile End Road are not employed themselves, but they are to a considerable extent employers of the salaried and clerkly classes, their own profits being obtained by margins between buying and reselling. In production proper there is a small class of employers with capital and a large class of employed earning either salaries or wages. The distinction between those who are paid by salaries and those who are paid by wages is not primarily a matter of economic importance, but it has become a matter of so much social importance that consequences are reflected from this latter circumstance which have considerable influence on the economic conditions of either class. The business of selling personal exertions is conducted under quite a different set of habits in one case than in the other. What are called labour problems or wage-earning problems hardly occur in the salaried middle classes. Outside the salaried and wage-paid earners there is a numerous highly skilled and infinitely graded group, who sell their skill and exertions not to specific employers but to the general public. These again have only an outside interest in specific labour problems.

We cannot leave these miscellaneous servants of the public without recalling what we suggested to be the law under which they receive remuneration for their services.* The basis of all their special earnings, some of which are occasionally very high, is the establishment within their grades of a partial monopoly and the firmness or weakness with which each grade holds to its level of fees, in other words to the minimum bargaining price, which has been established within that grade, decides and maintains the

* See Cap. IX., p. 105, and Handy Table, p. 278.

general level of its rewards. Within the grade competition among buyers for the use of the services of specially skilled individuals raises individual rewards to a further level of monopoly. The process has been fully described in general terms in the law of graduated returns on partial monopoly. The methods by which each grade endeavours to maintain its own general level of reward by controlling supply, in other words by limiting their own numbers, is especially interesting in the learned professions. It consists of two weapons. The first is a moderately high educational test, not sufficiently high to exclude a considerable number of entries. The second is more effectual, a rigid professional etiquette limiting the methods of rivalry among members and resulting in a chance selection of a favoured few for high rewards and the failure of a large number of men of moderate means and moderate talents. This policy makes the selling costs of professional services very high in this country and is possibly not altogether for the good of the community. Professional services are probably as good, if not better than here, in Germany, where a more liberal method is followed; but the results in income are not so dazzling. A peculiar instance of this method of exclusive privilege in the professional classes, which curiously enough seems to operate less harmfully to the interests of financial business in France, than, *à priori*, we should be inclined to believe possible, is the monopoly of all official transactions in the exchange of stocks and shares in the hands of only seventy *agents de change* in Paris.

The position of the salaried section of the middle class is rather exceptional in the economic world. Their material interests are largely dominated and obscured by social ones. In this country they are peculiarly subject to mild social ambitions, which they are far from realizing and therefore cling to all the more strongly. They offer a convalescent

home to all dying prejudices. They observe social distinctions with incredible minuteness, much more so than the trading class with which they are naturally allied. All this futile ambition is paid for by economic loss and leaves them in their lower ranks the worst paid of all classes of the community in proportion to their sacrifices. Their hours are long, their work more tiresome than manual labour, their unavoidable expenses very burdensome, their chance of rising, except by speculation or a rare opportunity of getting into the employers' class, on the whole no better than that of the class nominally below them. When any members of the clerk class fall into prolonged unemployment they are subject to a degradation, which all their ideals unfit them to support, and probably suffer more severely than do even those who fall from a greater social height. There is almost no combination among them to secure better remuneration or easier conditions of work.

What are called, with unnecessary flattery, the working classes are roughly divided, but by no certainly ascertainable line, into skilled and unskilled labour. Skilled labour is on the whole dominated by trade unions, the benefit of whose organization within their own trades extends widely beyond their own membership. Unskilled labour has also its trade unions, but these are bodies of men aggregated for occasional ends and not dominated by the permanent policy enforced by accumulated relief funds such as are the proud possession of the aristocratic unions of skilled labour in this country. These are the classes to which the problems specifically called "labour problems" entirely apply, and though the interests of the two divisions of labour are not entirely on all fours there is a growing solidarity of interest between them, which leads in the direction of greatly increased political and economic advantage. The establishment of an organized Labour Party in the United Kingdom

has clinched a community of interests, which was rather unaccountably slow in being developed.

Next to the vast improvement of communications in the middle of the last century the rise of trade unions is the greatest economic event in the modern world, that is, in the world since modern methods of wholesale production have been established. Their full importance I venture to believe has never yet been realized, because they have been regarded solely from the point of view of only one of their two chief functions, and I am not sure that essentially the function, that is least noticed, is not the more important. They are usually considered to be associations founded to control the supply of labour and therewith to bargain for its price with the employer and, as they have energetically performed this duty for their members, it is undeniably true that their work in this respect is of the very highest importance. But this is not logically, even if it was historically, their primary cause of origin. If these associations had been tumultuous combinations arising out of strikes or, as Adam Smith implies that they are, "conspiracies against the public" or a "contrivance to raise prices," they could never have had the principles of cohesion and permanence which have raised them to the mighty power that they now prove to be. Philosophically speaking, their final and necessary cause was the maintenance of the reserves of labour, which are required by the system of modern production.

If we reflect on the necessary ingredients of modern industry, they are a directing mind or minds: land, buildings and machinery, raw material, floating capital and a supply of labour. Now this book has been written in vain if it is not by this time clear that fluctuations in the rate and output of supply are essential to the conduct of modern industry and to the proper disposal of its products. It

follows logically that in order to deal with fluctuations reserve power is necessary. The plant and equipment must be larger than that sufficient for an average output, capital has to be in reserve to hold back stocks and prevent the glut of the market and there has to be a reserve of labour.

Under these circumstances is it not also clear that capital is the only power that can effectively hold these reserves of labour or that ought to hold them? Was it not the duty of capital, in whichever sense the word, duty, can be used, both the moral duty and the duty imposed by business efficiency, to provide for the reserves of labour? The essential weakness of labour is that it comes empty-handed into the arena of commercial struggle and therefore is unable to keep itself during the natural hiatuses of industry without artificial assistance. Yet on these helpless people, uncombined as they were in those days of early industrial development, was thrown the burden of supporting themselves during periods of inevitable unemployment and of maintaining their own skill for the benefit of their masters. They were allotted a task which physically was impossible and years of unnecessary misery were forced upon them and endless waste of life and the highest industrial skill took place before the working men themselves solved the problem in a haphazard way by constructing their own organizations, which still perform this task with great and manifest lapses.

One has a right to blame the employers of those early days both as men of heart and men of business, because they were still near enough to the time of the old system to remember their former paternal relations with their men and to allow their feelings of humanity to dictate to them the course, which it was really to their own advantage to pursue. Still men were making money so easily in that time of rapid expansion that they were easily blinded, and

the frequent rising up of new men from the ranks, always the hardest masters, set up a breathless pace and restless exploitation. But what shall we say of the pretentious body of economic doctrine, calling itself scientific, which rose up at that time to stamp the hall-mark of intellectual superiority on greed and crown ruthlessness with a halo? Of all the crimes committed in the name of knowledge this was perhaps the worst. It has done more harm over a century than all the wars of the period. Intellectually, it was more impious than the condemnation of Abelard, the muzzling of Galileo or the hounding of Semmelweiss to madness. It is no wonder that men who kept their senses called political economy the cruel science, but how is it that people were so slow to see that its theories were stupid?

The successful development of the trade unions during the last century was a great triumph for labour, how great we are only beginning to see. Having to some extent successfully and with infinite pains and patience taken on themselves the burden rightly belonging to capital, the unions came at once to a position of command in bargaining for the sale of their labour, which otherwise they could never have obtained. The backbone of unionism lies in the benefit-fund. Without their benefits the associations would not hold together for more than a few months, and the great powers they now wield of dictating to the management of their trades, of interposing the obstacles which they freely offer to progress, are the outcome of the shortsighted selfishness of the early Victorian employer, versed in his new science of political economy. When employers of to-day complain, as we often have to do, of petty and sometimes absurd restrictions, of interference right and left with the progress of our work itself, of the protection afforded to incompetence, of "ca'canny," of the boycotting or penalizing of new machinery, of the stupid and harmful apprentice

regulations in some trades and a thousand other vexations and injuries to business, which we daily suffer at the hands of unionism, let us remember that their fulfilment of the duties formerly neglected by our own class has put in their hands the weapon which it is now too late to take from them. In some of the more skilled trades of this country it is only the moderation and the acquired experience of the unions and their leaders which prevents the destruction of the industries themselves. The unions in some cases have now learnt the meaning and effect of foreign competition and have become the colleagues of their employers in perhaps the most delicate of all combined operations for the control of supply that the world can show. I have given an instance of this above* in the Lancashire cotton industry.

A convincing proof of the power grasped by the trade unions, as well as of its true origin, was apparent at the time of the passing of the Trades Disputes Bill in the House of Lords. The point of this Bill turned on the dual position of the trade unions as benefit societies and fighting organizations. As the latter they had to run the risks, like any individual or corporation, of being responsible under the common law for any injury they might inflict on private persons or other corporations. This was established as the law by the famous Taff Vale decision. Not for a moment did the trade unions hesitate in bringing political pressure to bear to remedy their weak point. Although numbering only 1,500,000 men out of 8,000,000 workers and in a total population of 40,000,000, they claimed to be above the law, and by basing their claim on moral grounds they carried their point triumphantly to the infinite detriment of their country's trade. What was the strength of their case? It can be said in two words. As bodies performing two

* See Cap. XIII., p. 151.

functions, they have yet only one set of funds. Out of these funds they fulfil the obligations of insurance companies or friendly societies and they have also to carry on belligerent operations against employers. They know that if these funds are subject to the full liabilities of belligerent funds they can not also liquidate their philanthropic obligations to their members. On these grounds, mainly sentimental, but based also essentially on their function of maintaining the reserves of labour, they gained the support of the country for a measure which put them above and beyond the law not only in matters of property but also in far more important matters of the security of the person.

Over this question of the security of the person the privileged position of trade unions is not so much a matter of special legal exemption as of cold fact. Legally the special mention in the Trades Disputes Act of peaceful picketing as a permissible and sanctioned practice did not alter the operation of the common law, which protects great and small against violence and terrorism, by one jot or tittle, yet every business man knows that the practical effect of the inclusion of those two words in the Act was of vital importance. Why include a legalization of peaceful picketing in a statute, if the practice is already legal? There must have been some sinister reality behind the film of appearance. Common-sense told us before that there was, we know by the bitter experience of the general transport strike during the summer of 1911 that there is. Before the express legalization of peaceful picketing the ordinary pickets of trade unions during a strike were, in the circumstances under which they exercised their functions, no more nor less in the eyes of the police than ordinary loafers. As loafers in public places they were subject to be moved and disturbed by the police at any moment when disorder could be anticipated. Formerly

they had no local standing, physically speaking, nor rights in the eye of the law. Now they have. The presumption of possible disorder caused by their presence is removed.

The practical effect of these two magical words in the statute is astounding. The power of terrorism, which lies in large masses of *unknown* men, is a relentless force, and it has been unchained and legally secured. With a few men of bad character the police are able to deal; they are marked men and traceable men; their habits and motives can be followed by reason. But what force can cope with hundreds and perhaps thousands of men of hitherto high character wrought up by special passions to offer violence and commit injustice? The community needs special protection against so formidable a combination and, purely from sentimental promptings, it has granted them special immunities. It was only as pickets that the sentinels of the terrorists could be interfered with and interrupted. The unions now do no more than place a ring of quiet men, chewing pencils, round a certain locality during a strike, and the private freedom and perhaps personal safety of no man who enters that ring against their will is secure. No one does enter it without their consent except under military or police protection.

But after this digression on the power of trade unions, acquired, let us acknowledge frankly, more by the mistakes of their opponents and the sentimental acquiescence of outsiders than even by their own efforts, it is essential not to forget that the economic fact on which their existence and power is founded is the special service which they steadily perform in maintaining the reserves of labour for industry. No group of men could hold the power which they do, except in return for great services. They constitute for industry a regulative force, which benefits not only their 1,500,000 members, but probably at least half of the total

8,000,000 workers in this country. None of the measures they take for their own safety and benefit exceed the precautions and restrictions which are self-imposed on the members of the learned professions of this country, who also are interested in selling their own labour to the public. When one speaks of trade unions as a possible public danger, it is because one is painfully aware of their size and power. They are no more unjust than smaller bodies and corporations; as in the case of the overwhelming trusts in America, who act as other individuals and corporations would do, if they could, they are menacing, because it is not safe to allow even small injustices to be perpetrated on a large scale.

It is too late for employers to recapture the sole control of their businesses by resuming their neglected duties of maintaining reserves of labour. The trade unions would now listen to no proposals for partition of their authority and responsibility. But when insurance against sickness and unemployment with state assistance becomes an accomplished fact, much may be done by those employers, who recognize what powers they have lost and what they may still regain.* Some have already consciousness of this,

* I know of only one firm who follow a settled policy of paying higher wages than they need, in order to secure a better reserve of labour, and their name should be honourably mentioned. Messrs. Taylor, Garnett, Evans & Co., Ltd., printers, of Stockport and Manchester, have their chief works situated in the first place, where hours are long and wages are low, yet they intentionally pay their men Manchester wages and work Manchester hours, in order to be able to call on the Manchester waiting list, which is larger and better, whenever they have to increase their staff to fill a special order or to deal with a rush of work. The difference between Manchester and Stockport wages is, strictly speaking, an extra payment in aid of the maintenance of a reserve of labour. I daresay there are other firms who follow the same practice.

but much remains to be done in drawing public attention to the true aspect of the question. After all, theory has its uses, especially if it has the courage to combat prevailing prejudices instead of patting them on the back. A vast field for help and control remains in remedying the unemployment of non-unionists. It is true that the employer is not very directly interested in securing reserves of unskilled labour, to which class most non-unionists belong, but the leadership of non-unionists might at least in this fashion be disputed by the employer with the trade unions. If employers continue to wait until all labour goes over to the trade union banner, they are preparing future trouble for themselves, to which their present difficulties are mere child's play.

It is more than twenty years since I perpetrated an article on the part trade unions might play in leading industry. My theory was perfectly correct in saying that it was open to them to level up efficiency in their own trades by imposing conditions which would eliminate bad employers. I am not altogether ashamed of these views, which I no longer hold. It takes about twenty years to see that to sell an article is as difficult a task as to make it, and, since in those days I had never come into any relations with a trade union, I could not be expected to know that the experience of their leaders covers production pretty fully, but that their ideas about selling can usually be covered with a round cipher. My expectation of a hegemony of industry by labour through trade unions has been abandoned.

It seems probable that the constructive work of trade unions is at an end. Their tendency to become a destructive force is already beginning, largely through the predominance of mistaken economic theory; it is possible that more extended knowledge of economics will educate their

leaders up to more intelligent and more possible aims. What remains still doubtful is whether they will carry their followers with them in a more enlightened policy. Want of discipline is clearly the greatest danger of trade unions. As it spreads, it will make a far-sighted policy impossible. Trade unions in their early days were always inspired by a certain measure of altruism in their best members, and this leaven was very powerful in raising the tone of their public work. The strong never forgot to help the weak and general effort was directed to improve the conditions of labour, where they were at the worst, regardless of any immediate profit to the stronger centres. This again was a public service. The existence of underpaid or oppressed labour is a matter, which concerns not only the public conscience but the public interest. As long as it is allowed to continue, not only does it directly injure the local population, but indirectly it tends to undercut the security of those working under better conditions; less obviously, from the trade union point of view, it allows the bad employer to have a market advantage in selling his product against those who pay the union wages and work the union hours.

The friends of unionism see with the greatest regret that with the growing strength of the Labour Party in politics the weight of effort is not thrown any longer in the direction of reinforcing the line where it is weak, but in redoubling the advantage of those who are placed where the line is strong. The modern motto is "to him that hath; to him shall be given" rather than the older "the meek shall inherit the earth." It is a not unnatural consequence of the mere increase in numbers of trade union members that the average of individual intellect should go down rapidly and the average habits of self-control should suffer in the same way. It is not only the fall in personal self-control of its

members that affects the public policy of trade unions; but the habit of corporate self-control, inherited, as a fine ideal, from men, who might rightly be called the aristocrats of labour, is something already lost to unionism, already buried in the graves of a few forgotten leaders, already despised by the new Cleons and Chaumettes, who are the clever followers of their own following.

There is a characteristic phrase in the mouth of modern unionism—"the right to strike." Why this assertion? No one has controverted, or for the matter of that could controvert, such a right. The right to be idle instead of working is inherent in human nature. We only hear this frequent phrase now on account of an implied connotation: the right to strike means the right to strike at any moment or the special right of labour to break contracts at the moment when such breach of contract will do the most harm to the employer. As a weapon it has the same power and weakness as all other breaches of faith. The consequences to the injured party for the first time may be terrible and fatal, a recurrence of them is discounted. One may believe in a liar twice, but probably the second time will be on an occasion when one's interests are not deeply involved.

The right to break faith is also supplemented by the right to break faith with everyone at once and to force them to break faith also with each other. This policy is also self-condemned by its futility. The only way to affect capital is to hold back one section of it, while the other gains an advantage. A member of the commercial classes, with whom the capitalist producer is to some extent allied, fears above all things an event which will damage his own connection and give a rival some crucial superiority. A disaster, which strikes them both equally, is something which their combined resources are prepared to meet, and when it is over it is only a question of time when the loss shall be repaired

by an extra profit on some future transaction. The capitalist is nearly always in a position to hand on his loss ultimately to the class, which is economically his inferior, and in the end all expenses come to be paid by the non-capitalist producer. Any general injury to the trade of the kingdom is improbable from these brief outbursts of spasmodic violence, but if it did occur it is practically certain that only the workers would in the end pay for it. Of the commercial classes a certain proportion would move away to some more favourable centre with little or no loss to themselves. The real injury to the nation is a moral one arising from the disturban[illegible] all contracts, weakening the elements of stabil[illegible]dustry and encouraging weak speculative enterp[illegible]

A general strike affects all compe[illegible]qually, hurts the exchangers not at all, the capitalist [illegible]ucers very little and the working producers very muc[illegible] is the last word in imbecility. Those who were ar[illegible] by the general railway strike in England last su[illegible]nd feared its consequences, as some of my friend[illegible]re surprised to note that, when it was all over, a[illegible]e commercial classes everybody had been equally i[illegible]enced and no one was seriously the worse. It was [illegible]ve a foot high passing over a group of summer ba[illegible]There is a little spitting out of salt water and a feel[illegible], one is henceforward safe from a death by drowning

CHAPTER XIX

THE RIGHT TO WORK

SIDE by side with the question of the maintenance of the reserves of skilled labour, which we found in the last chapter to be to some imperfect extent solved by the men themselves, in an economic ' ion, and also perhaps to a very much smaller exten the aid of non-economic charities founded by the . ing class, we have the very much more difficult pro. f the maintenance of reserves of the common unskilled . ', whose assistance is necessary to supplement skilled l in a hundred varied occupations. This is the problem ng with the resourceless unemployed, undoubtedly t insistent and difficult moral and political problem time. But our first interest, before dealing with it) inquire whether there is any economic question inv ause, while it is clear that the preservation of skill erve body of men during unemployment is an ec uty apart from whether it may be a moral one or ere may be no economic necessity for keeping toge eserve of unskilled labour, when it is sure to be the he beck and call of the employer at any time. In c rds, are we economically entitled or obliged to look he fringe of unskilled labour as the early Victorie vers looked upon the reserves of all labour? I th can be no doubt that although the economic obli t one case is much smaller, it cannot be an indifi tter to the interests of far-sighted employers. One r fficiently obvious for

this is, that since there is no moral question which does not react on economics, so much more is it true that a burning political question is likely to produce an immense effect on business through legislation sooner or later. The difference between this problem and the one discussed in the last chapter is that while employers in their own interests should have provided out of capital for the reserves of skill, it is probable that their interests in dealing with all unemployment are not so great that it was ever their business to attempt to solve this question without help from the state. Happily the state in this country now seems to be tentatively stretching out a hand to deal with this problem or with the fringe of it, and the ... be some opportunity for employers to re-establish ... r partial control over this movement instead of allov ... to pass into the hands of the newer forms of union

Let us now cease, how ... look at this question from the employer's point of ... which has perhaps been too much the case both in ... ast chapter and in this, and examine the economic ... of the demand made by the unemployed as indivi... l as members of our common community for conti... stead of casual employment and for some limitat... aws of supply and demand in their favour so as ... minimum means of exist-ence. These two de... volved in one another, as the required answe... plies an attempt to fix the second. They ma... discussed separately, and they are questions ... ed with popular titles as the " right to work " a... imum wage."

Taking one at ... right to work, if it is to be distinguished at ... ne purely moral question, the right to live, mea... mically no more and no less than the right to self ... ance. It is the claim of a social unit, the unem... nskilled workman, on the social

aggregate, the state, that he shall be provided by the economic system with employment and the due reward of employment in order that he may live and become a decent citizen. If the present system does not furnish this opportunity of self-maintenance, then the economic claim becomes a political call that the system shall be changed. There is no question which cuts more deeply at the root of our economic system, because it is intimately concerned with the true meaning of value and the working of the laws of demand. There is, of course, a charitable reply to this demand for work; there is the forcible reply of a seizure and redistribution of property by the state, but I venture to say that there is no economic reply to it except on the theory of value as I have enunciated it in this book and on the laws of supply and demand or something very similar to them, as I have formulated them.

Let me state it quite shortly. Supposing it to be true, as is popularly held, that there is such a thing as intrinsic value; then the right to work implies a demand, that the working man shall be given the use of fixed capital and a fair wage, in order that he may create articles with an intrinsic value which pass into the possession of the state. The state assesses the values and pays over to the labourers and their associates a small bonus in addition to wages and salaries, leaving a small profit to itself after replacing capital. It is here assumed that the state, being just and powerful, shall give the right proportion out of value to the workers, and can force them to accept it. There would be no question under this theory of labour leaders demanding too much, and therefore not leaving enough in to capital and the state. The state, therefore, having satisfied all demands, sells these goods to all who desire them at their intrinsic values and contentedly keeps the surplus goods,

knowing that their values, being intrinsic, will endure for ever without loss. It is not under any obligation to take any trouble about selling them.

There is no escape from this logic, if values are held to be present or intrinsic. It is only a question of the state taking enough trouble and doing the operations sufficiently cheaply, both of them matters which can be decided by repeated experiment, and in view of the fact that the lives of many and the comfort of the majority of our civilized population is at stake, no effort should be spared and every distress should be endured to bring about this just and supposedly ppy result. Why, however, is the hypothesis absurd? cause everyone knows that selling a thing and keeping i ver for future sale are operations which bring in a diffe t rate of profit. In other words, there is a time elemen value; so that there can be no intrinsic values. Again, qually clear practical absurdity is obvious in our hypot' because we know that in many cases the state will n ell its goods at all. What import is implied in this? s that value is not, and can never be, anything else than a personal estimate of desirability on the part of the buyer, backed up by willingness to provide the equivalent satisfaction. This has in it an element of futurity, a time-agio, bringing with it all manner of uncertainties in its train; the necessity of meeting these uncertainties brings with it enhanced selling costs; finally enhanced selling costs tend to grow and grow and take the price of an article further and further away from the nett cost of production. In the case of nearly all articles it costs more to sell them than to make them.

The right to work implies, therefore, the right to have your product sold for you and, as the state is notoriously a bad seller, the selling costs of state products would be higher than under our present system and it is probable

that the reward of labour under the experimental system, which we have examined, would sink indefinitely and poverty would be increased. The limits of state and municipal production are matters of experiment among those articles for which the demand is continuous and almost unconscious. The lowest grades of secondary demand for something, which we want so often that we do not reflect whether we want it or not, are the natural field for state production, when at the same time great economies can be effected by large capital expenditure. Routine is the genius of the state, but it spells ruin in the realm of demand and enjoyment. When the state cat for luxury or convenience, as when the French Governmer rovides us with cigars and matches, the results are so una tizing or so inefficient that only severely enforced monop can keep the business in state hands. The concomitant sity of state production is the exclusion of all other prod n.

The right to work is urged and the cry of unemployed is heard on behalf of people of very varyi egrees of efficiency divisible into so many groups t is impossible to examine even a few representative cases. Let us, then, only consider the claims of those who occupy the position of extremists of unemployed efficiency, those, namely, who are highly skilled yet outside any trade union or provident society, and those whose sole claim is their helplessness and uselessness, except for toil of the most routine description. Now the difficulty of helping the unemployed is precisely the same for different reasons at each end of the scale. To find work for the skilled workman, it must be done either in his own trade or in another. In the first instance the state or municipality must enter into expensive and intolerable competition with the ordinary employer. In the second place the public authority is steadily lessening the man's special skill by putting him on

to other work, and thus practically taking him out of his own trade and making it gradually more difficult for him to return to it.

To help the helpless is a much greater problem for which economic science offers no solution, and only has the right to suggest difficulties in the way of any short cut proposed by sentiment or laziness, or a combination of the two. The real difficulty is the small economic value of the labour at this end of the scale; and here I refer not only to those, numerous enough, who have failed in character or have become demoralized by privation, but of many who are sound in health and possess still average determination of character. The economic defect of this class of labour is, particularly in this country, its inadaptability and obstinate independence. Incapable of finding and keeping a niche for itself in this weirdly incomprehensible hive of industry —how few, if any, of many above them understand it—this class of labourer instinctively chooses times, places and opportunities wrongly and this not so much out of stupidity as out of a ruggedness of disposition, which is almost strength of character. They are unteachable because to them all teaching is taming. Their offer of labour to industry is made under conditions which perhaps make it worth 15*s*. 6*d*. to the employer, when the standard rate may be 18*s*. or 20*s*. The employer finds them useful and their labour profitable only in times of pressure. Their error is the common misunderstanding of value; fifty hours of standard labour has never the intrinsic value of 18*s*. or 20*s*., although that may be what the employer pays for it. Its product has to be sold by expensive machinery for treble its cost in material and labour before the employer can expect any return on his speculation. That is a side of the question, which many people besides the less intelligent wage-earners will never grasp.

What is value, as far as the wage-earner can grasp it? How can a man sell his labour and make it worth selling? These are problems which nine men in ten do not understand and which ninety-nine men out of a hundred leave to the hundredth. With the hundredth man, who organizes the others, the matter has become a routine, so that when there comes an interruption of smooth working he may be aware in a general way of the cause but has no remedy to offer. I should say from much that I have seen and more that I have heard and read that our country has the highest quality of labour in the world in large masses, but that, except when it is highly organised and where it has leaders who understand what competition implies and therefore to some extent know what selling costs are, British labour is, roughly speaking, the most difficult to employ. It is neither so well disciplined as French and German labour, so patient of direction as Italian or Belgian, nor so naturally self-adaptive as the native American. These special qualities of British labour are overcome by patience in the employer and by common sense in the workman, where industry can be steadily developed. But where interruptions occur and unemployment follows, the national character makes the problem more severe in this country than elsewhere.

Such an inherited resistance to adaptation in large classes of men not specially skilled renders them unteachable by misfortune and makes their demoralization sure, if unemployment is prolonged. Where more elastic characters would turn inventive, this type of mind deteriorates and the man loses his will-power, if not his physical efficiency. He passes naturally into what has been called, the unemployable class, but, more strictly, the occasionally employable class. It is in this stage that he becomes easy material for the hard employer and a menace to the

interests of his own class. If he were really unemployable we should hear of him no more in industry; but the danger to the public lies in the fact that he preserves his efficiency for short bursts and can be casually employed. Where there are large quantities of casual labour the unscrupulous employer can use it in competition with steady labour in order to lower wages and exact hard conditions, thus tending to drive all the labour he employs into the casual class. Thus efficiency is lowered until the employer himself ultimately suffers.

It seems to me that the proper understanding of the problem of casual labour is the only new contribution, which economic science can offer on the practical problem of dealing with unemployment. The danger of the manufacture of real unemployables has been seen, and there are many suggestions before the public for its alleviation or cure which are chiefly political or charitable in their nature. I believe myself that the real controllable danger lies higher up in the class of semi-efficient men, who are still capable of competing with the admittedly efficient men and owing to their weakness accept terms below the efficiency mark, thus bringing all down to their level. Thus out of the casually employable class the steady manufacture of the real unemployables begins, and at this stage I think the problem has passed out of the economic sphere. The unemployables, unless they are reclaimable and thus are made to become a doubtful reinforcement to the casually employable class, pass on to be the objects of charitable help for the moralist or public nuisances and public dangers to the politician or merely material for agitation.

Here we come to a point in the problem where consideration of the right to work passes over into discussion of the possibility or desirability of a minimum wage. I must, however, exculpate myself from the charge of making any

practical suggestion to legislators, which is not the duty of economic science, as I attempt to follow it; but I know of no way of illustrating the ins and outs of the theory without taking a supposititious concrete case for the purposes of analysis or dissection. Such a concrete case must be taken for what it is worth, and must not be held to imply an approximate estimate or even an attempted estimate of what a minimum wage should be. Here, to some extent, we are on safe ground, because there is not the smallest possibility in the practical politics of this country of any agreement being arrived at between rival parties on any feasible amount. Such an obvious probability is easy to prove, because any minimum wage fixed by law, below which no wages should be allowed to fall in any trade, must necessarily be very low, because of the low value economically of just that class of labour whose protection is economically desirable in the interests of the whole commercial system. But the leaders of the trade unions, the aristocracy of labour, have already in their various grades determined what each class of labour aims at as a living wage and therefore considers desirable as a minimum wage in their grade. They cannot possibly as semi-political leaders and skilful economic bargainers allow the general standard of wages to be prejudiced by accepting any figure, which is likely to be sufficiently low to be economically possible, and by economically possible I mean approximately near to the standard actually earned under the laws of supply and demand by the least efficient class which is permanently self-maintaining. Consequently I may feel that whatever figure I select—and I admit that I select one entirely at haphazard without the slightest inquiry as to what a suitable figure might be—this figure will never be regarded as a practical suggestion by anyone or as anything but an academic hypothesis.

Theoretically, what justification is there for the establishment of a minimum wage; in other words, of a special limitation of the action of the laws of supply and demand in the sale and purchase of labour, as if it were different from any other commodity? The reply we have already seen in the last chapter, where we examined the question as to how far labour was a commodity. Personal services are the only articles in the world, which are regularly given away free and also sold for inadequate consideration and also offered for economic sale in the market side by side with one another, so that any special limitation on their sale is not necessarily an economic offence.

Practically, then, what is the necessity of establishing this limitation and what, apart from the moral question, is the economic gain? The necessity is caused by the solidarity of interests in the world of industry, which exists throughout grades and also across grades. Among competitive capitalists there is danger, lest too many weak ones should go together to the wall. Among the grades of labour the undue depression of the lowest ranks spreads upwards to all and lowers the standard of reward which personal exertion and skill has set for itself as its own price. The common interests of both classes demand that undue depression of wages should not diminish the standard of efficiency.

What, then, is undue depression of labour conditions and wages and where can the line be drawn? Now at the risk of being considered pedantic in economic matters I shall refuse to enter into any discussion of the living wage; to my mind that is not an economic question but a practical estimate of the personal will. All an economist has to ascertain is what will any large number of men live on and work steadily on, while continuing to maintain their efficiency, however low it may be. The criterion which enables

the line to be drawn is continuity of effort and maintenance of standard. We are not concerned as economists to inquire where the line of sacrifice is drawn by this class itself, which works and endures, but we are concerned to see that continuous effort is not so broken down by the competition of discontinuous effort as to become itself discontinuous.

The economic object of a minimum wage is the elimination or close restriction of casual labour. Where it is necessary, as economically it occasionally is, it must be sufficiently penalised in cost to discourage its use by the employer and to compensate the class which is engaged in it for the threatened danger to its own efficiency. Exactly a similar object is aimed at and the same danger successfully discouraged by the trade unions whenever they exact penal rates for working overtime. The remaining question is as to how this can be done and for this purpose we must hardily seize upon our concrete illustration. Let us suppose that the state should select as its minimum rate the wage of 18*s.* a week for forty-eight hours, and 6*d.* an hour overtime up to six hours, and 9*d.* an hour above that. The employer would thus have a certain elasticity in extending the employment of his own hands with two rates successively penalising him, if he tried to extend their labours too far. What I should be inclined to deny him would be elasticity in the other direction. It is probable, however, that some businesses are so casual, taking the employment of a jobbing gardener for example, that absolute denial of the right to employ a man for part of a week would become ineffectual.

Let us suppose, then, that the minimum time for which a man should be engaged should be three days, and that an appreciable penalty on splitting the week should be imposed by making the wage for three days 10*s.* 6*d.* The method by

which this might be enforced would be by granting the workman a title to a three-day ticket on the occasion of any employment of whatever kind, such ticket constituting a claim for three days' wages from the employer, provided that the workman turned up at the appointed time and place for work on three consecutive days and carried out any reasonable orders given him during the course of employment. Similarly work given for four consecutive days would entitle a man to a ticket for the minimum weekly wage of 18*s*.

The most obvious criticism of such a proposal, if it ever came near to the realm of practice, is that it would undoubtedly lead to frequent cases of collusive evasion. The employer, who had odd jobs to give out, would say to any unemployed waiting round his works that he could not afford to take on any more hands as the government rate of three days' pay for a day's work was too expensive. He and his foreman would then offer a day's work, provided that the workman would accept a day's wage and undertake to sell back his ticket for a few pence at the end of the first day. This would happen with great frequency, especially at first, so long as the present class of casual labour continued their old habits. There are many men now who still prefer to be employed in this fashion rather than undertake regular work. But employers would soon begin to feel the pressure of combination against them to prevent this collusion, and a small fine leviable against both parties to such a corrupt bargain would gradually break up these habits and disperse the present casual class. Within a comparatively short period employers would find no one willing to consider such a bargain, and they would then be driven so to organize their work that odd days here and there would be abolished and the new principle of the minimum wage could be accepted.

Such an arrangement would be possible for men only. At first sight the moral and sentimental claim for protection in bargaining seems much greater in the case of women on account of their weakness, but economically it would be quite impossible to keep them on the same footing as men in this respect. The most important reason against it is that the position of women in the matter of business, as of everything else, is so much influenced by the peculiar institution of marriage, which cuts right across all other ties, that it remains doubtful whether they can be said to have any purely economic relations either with other women or with men. It is not only marriage but the eventuality of marriage which has to be taken into account. Thus, for instance, it is questionable for other than economic reasons whether the state should encourage any permanent livelihood for women, tending to avert them from or lessen their prospect of matrimony. Then, again, the interests of a large number of women are exactly opposed to those of men in this particular respect. Casual occupation is the curse of men, leading to idleness, dissipation and degeneration. Casual labour and temporary work are especially suitable to many women, who often cannot shed all their home duties. What most women seek is not complete self-maintenance by their labour, but a prop and aid to their independence to which they are not necessarily tied.

The most fatal objection to a minimum wage for women is the difficulty of placing them on an equality with men and the apparent injustice of refusing it to them. We should be confronted with one of those difficult plain questions—why should a woman, task for task, receive less than a man? Yet, if the minimum wage for women were fixed at 18*s.* a week, or 10*s.* 6*d.* for three days, there would be a great diminution of the demand for their work at that price and wholesale and systematic evasions would follow

There would be so much necessitous appeal for the partial maintenance, such as many women now earn, and without which many of them could not exist, that the prohibition of collusive bargains would break down everywhere. The foundation for this necessity I have mentioned above, that women's labour asks for partial and sometimes casual employment; that any attempt to professionalize them except in a few cases could not on the whole be to the higher interests or refined tastes of many of them; that, in fact, the privation of casual employment would not be a boon but a penalty, which they would be bound to evade in a thousand ways.

Returning to the point which for the moment I dismissed rather summarily above, that the state is notoriously a bad seller and therefore fundamentally unable to take any part in those productive industries which do not lend themselves to monopoly, I would ask anyone to reflect on the nature of his dealings not only with the government but also with municipalities, as traders, and even with great institutions of any kind, who enjoy quasi-monopolies for light, heating, telephones, &c. Does one not experience a feeling of exasperation at the impossibility of making on such an impersonal thing the requisite impression which one's personality craves for? It is partly habit, partly unnecessary self-assertion, which should be controlled, but deeper down it is also chiefly the feeling that the material object required for the moment is a quite inadequate satisfaction of one's real want. Acquiring the mere object does not fulfil the want, which pictured it as necessary. There is an inevitable personal factor demanded from the seller, some consideration for the buyer's own special preferences, some sympathy for his need and its satisfaction, some delicate persuasion that the satisfaction of the want is really complete. If many sellers do not succeed in fulfilling all these

requirements, it is some consolation for us to feel, that at least it is attempted. The impersonal seller makes surprise impossible and stifles desire.

All this may appear very fanciful, but I believe it to be, on reflection, the real fundamental psychological basis of our individualistic commercial system. Some idealists would like to have everything made and sold by the government, like postage stamps. Have they realized that we only buy postage stamps from the government because we cannot get them anywhere else; that if we could get them elsewhere the majority of us, supposing the other postal service were equally good, would prefer to do so? Very few people know, for instance, that they can buy at the post offices in this country something more valuable than stamps, namely, life-insurance, with a greater guarantee of safety than any private company can offer, and on better terms for smaller amounts than the industrial companies, with their heavy advertising expenses, can afford to give. Yet the insurance companies do not even take the government competition seriously, and very little government insurance is done. We might accept compulsory insurance from the government with a moderate grumble, but in this respect no one can call the government a good seller.

I am aware that my own ideas will seem to many more than far-fetched, and proof in these matters, at least negatively, is out of the question. The question might be proved positively by the success of government enterprize without monopoly against individualistic competition. Even so, it would be only half-proved, because government success in competition, even to a slight extent, would soon become self-advertised. Still the half-proof would in this case be practically equivalent to full proof, because governments would not hesitate to use this and every other advantage. In the absence of admitted state success in business let us

examine other solutions of the paradox underlying our modern commercial and industrial system and I am willing in selecting one to admit that the statement of the problem is, apart from the implied causation, quite fairly descriptive of the facts, in order that, without reserve, we may examine the validity of the conclusion.

Mr. J. Ramsay Macdonald, M.P.,* at the present moment leader of the Labour Party, sees the explanation of the paradox in the unnecessary waste of capital. He writes: "One of the chief characteristics of competitive commercialism is its chaos. It has no system at all. A. B. and C. engage in competition with each other. Nothing but capacity of output or danger of bankruptcy limits and controls their activities. They pour upon the markets their goods; they manufacture their stocks in expectation of orders, which may or may not come. They take workpeople from other employers and callings, and may have to discharge them at the end of the week. Production is theoretically for the feeding and clothing of the people, but conducted as it is to-day by rivals, who seek to stuff their victims and bury them under clothes, and who only stop their mad follies when the markets are choked, and when a paralyzed industry tells them in words that cannot be mistaken that they must stop, it results in industrial disorder, uncertainty and poverty. Hence it is true, not only of over-capitalized trusts, that production is bearing too heavy burdens, it is true of industry in general. There is far more capital in use than is necessary for efficient production, and for that competitive commercialism is alone to blame."

Assuming that there is more in this argument than the rhetoric, all this trouble seems to go back to A. B. and C.,

* J. Ramsay Macdonald, M.P. "The Socialist Movement," p. 64.

who, if they are not merely wasting their capital for the pleasure of forcing goods on people to the point of satiety, must be acting in sheer ignorance, until the paralysis of trade warns them to stop. Mr. Macdonald no doubt knows how sensitive this warning mechanism in trade can be and how keenly the markets are watched by it every day, but, quite pardonably, he neglects it for the moment. His point is that A. B. and C. are fundamentally so blind about their real interests, that refinement of their instruments will not compensate them for their own failings. Yet he will clearly admit, that they are deeply interested in the result, their solvency depending on it. Now what guarantee is there that the all-producing state, suggested as an alternative to A. B. and C. by Mr. Macdonald, will develop an equally vigilant mechanism for sifting the vagaries of demand or any mechanism at all? What compelling self-interest in the state will replace the fear of bankruptcy in A. B. and C.? Is not the state less likely in the end, owing to its command of overwhelming force and wealth, laboriously to test, follow and please the wayward, recalcitrant, easily-nauseated palate of demand than individuals who have to make their living by it? I think the experience of business is against him.

The difficulties which I have examined in the case of a universally producing state have been so far only the difficulties of satisfying the home markets. We may well ask, whether such a state would be successful in meeting international competition. The impediments would undoubtedly be much greater, so great, in fact, that the probability of surmounting them need not be seriously considered. The all-productive state would certainly be an isolated state and, when the territory was small, also a small and poor state. It might very possibly distribute happiness more evenly and perhaps more fully among its members than our present individualistic system, but hardly the kind of happiness

which is most in request at the present day, no less among the poor than among the rich. It would be a circumscribed happiness, offering more abundantly opportunities for higher self-development, cutting off many degrading temptations and providing a rigid discipline of the private will, which is sadly lacking in modern life. But almost equally certainly there would not be so many of us surviving to enjoy it, and the problem of the selection of the survivors would present fresh difficulties.

CHAPTER XX

CONCLUSION

"Le raisonnement que vous en avez fait est si docte et si beau qu'il est impossible que le malade ne soit pas fou et mélancolique hypocondriaque; et quand il ne le serait pas, il faudrait qu'il le devînt, pour la beauté des choses que vous avez dites et la justesse du raisonnement que vous avez fait."

Deuxième médecin. M. de Pourceaugnac. Act I., Sc. 8.

MOLIERE.

THEORIES are the last things we desire, except our own, but once adopted, a complete theory is the last thing we discard. Our minds once captured become accomplices of the enslaving power; if we are persuaded that according to theory we are ill, we often unnecessarily become so; if philosophers convince us that in our own higher interests we should be proud, domineering and ruthless, we take a melancholy satisfaction in trying to live up to the heroic part; if selfishness is successfully proclaimed to be an obscure god working beneficently behind unlovely practices, we bow in his temple and invent a ritual for his worship. Of the ritual of selfishness the most frequently recurring phrase in the responses is, as I have noted in the first chapter, some reference to the "law of supply and demand." In most discussions that do not concern themselves with literature or art it is almost inevitable. It has so valid a currency that it is considered impertinence or bad manners to ring it on the counter or to ask for its equivalent. I hope I have done something to extinguish this fetichism

and rend one more cloak wherewith we protect our lazinesses and weaknesses.

Let us once and for ever abolish the feverish, overstrained, intolerably efficient spectre of the economic man and confine ourselves to the sober inquiry as to whether our motives are entirely bad and self-seeking, when we follow what I have tried to outline as the laws of supply and demand. Are we consistently and inevitably selfish in all our economic relations? I see no reason to believe that we are and the onus of proving the presumption to the contrary surely rests with the other side. We are probably the same blundering selves in business relations as elsewhere, hasty at times in overreaching others and afterwards sorry that it has done ourselves so little good, sometimes generous, sometimes cruel and mean and then repentant. The difference between economics and other branches of psychology is that the material, which is dealt with by this, the pedestrian sister of the moral sciences, is petty more than sordid, uninteresting rather than repulsive. Besides, the objects of economic acquisition are secondary and lead on to higher objects and ambitions. Our wealth and poverty at best should be only the humble instruments of our inner life, and if there is a certain rapacity in forging the instruments, it is largely because, according to theories long current in economics and still dormant in us, even when expressly disclaimed, we have become accustomed to expect with some assurance that everyone with whom we come into contact in our business relations is bound to act in the same manner. The assumption is quite needless and will, we hope, gradually grow out of date as we acquire more sensible habits.*

* After the above sentences were written I came across a passage, which appears in an article by Professor Henry Jones, of Glasgow, in the quarterly *Hibbert Journal*, on the corruption of the citizenship of

The laws of supply and demand are no more nor less than the habits of our commercial system. They are almost entirely unconscious and indeed are still to-day probably incompletely formulated. They have grown up out of the natural inclination of all those who trade and exchange to secure the maximum reward for their own efforts or sacrifices and their fundamental principle must therefore be the seeking of a self-estimated justice tempered by similar endeavours on the part of others. The process may be described as trivial and petty but not necessarily mean or sordid. There can be nothing essentially wrong in this self-protection and, where efforts are pushed to extremes by either one side or the other there is probably no more vanity, meanness or cruelty current in business than there is, say, in social or political circles or among artistic ambitions.

The unconscious aim of our commercial system is to make as swiftly and as cheaply as possible what I shall call the "great exchange." The "great exchange" is the

the working man. I cannot help quoting it as exhibiting the most common way of misunderstanding the true scope of economic science, yet the actual wording of the paragraph is oddly parallel to my own words in the text. "The industrial world presupposes, exists within and in virtue of a wider social order whose interests are as multifarious as the desires of man and which is indefinitely richer in ethical content. At its best it is only a means and an instrument and can supply man with only the raw material of his real life. Its value does not lie in itself, but is relative to its use and depends upon the kind of satisfaction which is sought by means of it. It is, therefore, only one of the organs of the state and is subject, even when the state is far from attaining any kind of perfection, to its restraints and discipline. As well claim unlimited range for the animal propensities in man, appeal only to his appetites and ignore his rational and moral nature, as allow *economic conceptions* to dominate politics and the methods of *industrialism* to go their way undisputed and unrestrained within the state." I ask only, why and how are economic conceptions opposed to ethical needs?

securing of a commercial equivalent for the largest possible number of personal sacrifices and these personal sacrifices are infinitely variable in kind and variable in their concrete expressions and variable also in the personal amount of effort, exertion, suffering, abstention, &c., which have been put forward. It is the last feature in this variability of personal effort and suffering which seems to be the stumbling-block preventing many men from accepting the fundamental justice of our commercial system. The inherent paradoxes are so startling that an infinite patience of analysis is required to disentangle the essential simplicity underlying the tormented facts. Let me state two paradoxes for consideration; similar in their nature yet dissimilar in the superficial plausibility of their presentation. Why should one minute of Mr. Rockefeller's time, implying as it does his abstention from the dispersal of his fortune during that period, have a much higher exchangeable value than the week's work of a Chinese coolie on his rice fields? Why should not one hour of M. Jean de Reszke's singing exchange as the equivalent of one hour's work of a pavement artist on the Thames embankment?

Taking the case of the pavement artist it is evident that we cannot weigh his distress and effort against that of the singer, much less so against the past efforts of the singer. But that is not the cause of their inferior value. If the singer's voice were ruined his present efforts and past struggles would be of no use to him. Nor is artistic merit the economic cause of value, because there are many instances of unrecognized artistic work of the very greatest merit and there are still more cases of high prices paid for mediocre work. It is evident that in one case there is great competition to buy and there is none in the other. The sacrifices of Mr. Rockefeller are more difficult to disentangle, since it is probably long since he took an active part in

business, and still longer since he was in any kind of want. But assuming, for the sake of the argument, that he does not any longer manipulate his fortune, but allows it to accumulate and be reinvested, what is the nature of the sacrifices which he makes which have such an enormous exchange value? This is one of those cases, very frequent in economics, where the word, which we keep to serve us, turns against us and finds itself in a position where its usual connotation is absurd. The sacrifices of Mr. Rockefeller are purely economic and imply in his case no personal penalty or discomfort; they imply that he renounces his right to disperse his accumulating surplus in enjoyment of any kind and instead simply throws his millions on the market. The market is always eager to seize and use money for the development of commerce and production, whether it belongs to a millionaire or a church. The rate of remuneration offered by the market for this accommodation is just the same per hundred, thousand or million units whatever may be the character of the possessor or the amount of his wealth. The evil, if there be any, involved in the accumulation of gigantic private fortunes is a matter entirely for the state and not in any way a matter of concern to the money market. If the state wishes to bring about the more speedy dispersal of fortunes either by taxation or partial or whole appropriation at death, the laws of supply and demand have nothing directly to say to the matter. All that economic science may have to observe is: that it is extremely difficult to make distinctions, which will allow the market reward to small or moderate accumulations of capital and deny it to great ones; that over-taxation may drive away capital or prevent its accumulation; and that anything that looks like confiscation will be an appalling discouragement to effort and sacrifice of all kinds.

The kind of justice aimed at by our commercial system is

not at all a moral one, aiming at the right appropriation of rewards for effort or at the appraisement of any other kinds of value than that of mere desirability by those with money in their pockets. In fact, it can hardly be called justice otherwise than in the narrowest sense of the word, the securing an exact commercial equivalent for everything marketable with the greatest possible smoothness and certainty and the accomplishment of as many of these exchanges as time will allow. The perfection of mechanism, the multiplication of transactions, the lowering of cost and, above all, the saving of time, which is money, are its chief preoccupations. There is no reason why anything so impersonal should be called good or bad, but its operation is a great deal more beneficent than is allowed by its enemies, who have not taken the trouble to understand it. The failure of all those who during the centuries have tried to amend it by political action, or to transmute it into something more consciously just, has been conspicuous and contrasts unfavourably with many more successful experiments in other fields of social reform.

The difficulties that beset the full accomplishment of the "great exchange" are roughly those of place and time. In the universal effort to make the largest number of exchanges in all the world market, goods have to be carried over immense distances and credit has to be arranged through a surprising number of links to secure payment. But this part of the problem is nothing more than the provision of elaborate mechanism such as the wealth and skill of the modern world can supply in abundance. Even the element of perishability of goods has been practically abolished by cold storage, thus entirely conquering the question of distance in the case of foodstuffs. But the factor of time is the chief enemy of the elaborate system of exchanges. Let us suppose a negro in Tennessee growing cotton which

ultimately is sold in the Federated Malay States to a Chinese coolie growing rubber. The negro at the same time purchases some small article made of rubber grown by the other. The world system found no difficulty in carrying each article across through dozens of hands and offering it for sale at the right moment to secure a due profit to *all concerned.* But it is at the last step that the difficulty occurs in each case. The prices of each article carry with them all those profits, calculated at a certain rate of periodicity of recurrence of demand. If either the negro is slow in his demand for rubber or the Chinaman for calico, there is a loss in either case and, on the two single transactions, there may be a loss in both, which is borne by the sellers. Supposing each individual in the assumed case stands for a group large enough to affect supply, we shall have double over-production and negroes will be thrown out of work because Chinamen are slow in buying calico and Chinamen thrown out of work because negroes are slow in buying rubber. Is it a wonder that the system, which finds its mechanical duties so easy and its persuasive work so hard, should be expensive and still increasing in cost?

It will be noted that in describing the above process of bringing goods to their market, we have to make a sharp distinction between the mechanical distribution of the goods and the art of selling them. Between the two there is all the difference that there is between bringing the horse to the water and making him drink. Yet in the common nomenclature of political economy selling has been taken to be, as a matter of course, a function of distribution. It is a proof, that the theory of economics has often not been properly in touch with real business, that that which is our chief everyday practical problem, to sell our goods, has been treated in one sense as coming under production, as

when it is included in the "cost of production," and in another sense as being a mere detail of distribution. It is neither, it is a third process and vastly more difficult to effect than either of the other two. The crowning paradox of our economic civilization is here; that while we have to make our goods with great rapidity to obtain cheapness, we have to sell them slowly in order to secure adequate prices, and while they have to be manufactured at central points in enormous quantities, these quantities have to be pressed through a fine sieve and infinitely divided over the largest possible number of markets in order that none of the demand may be glutted. It is the antithesis between the necessary conditions of modern production and the exacting demand of modern consumption.

The proper understanding of the "great exchange" has been the central object of study in this book. It has led us to appreciate the importance of the limitations of the law of value and to restate the law with due definition of its limits. It has also led us to examine the theoretical basis of value. About value and the time element, which is its distinguishing feature, I might in conclusion have said much, if the question had not come rather prominently into our discussion of the right to work in the last chapter, so that little remains to be added. The only side of the problem of value that we have not covered is the relation of the state to values in general, both as protecting them among its subjects and also as the owner of property of various kinds of very great value.

Values to a large extent depend on the state as their qualifying cause, because the protection of property and the enforcement of bargains and contracts are ultimately dependent on force and force has been monopolized by the modern state. The state has power of limiting its protection of property or of excepting certain kinds of property from

the area of its protection or of making certain conditions as to the general protection extended to the validity of contracts. For instance, in a lame way the state tries to regulate the morality of contracts. Sexual immorality in contracts is quite unprotected, gambling immorality is apparently but not really so, while the immorality of cruelty in contracts is regarded with complete indifference. Happily the prevention of cruelty is steadily becoming an easier task and is largely held in check by private institutions and public opinion. While, however, the state can limit values by withholding its sanction to certain contracts, it cannot create them. I have used the words "creation of values" rather carelessly once or twice already and it is not necessary to be particular in this respect because, commercially speaking, values are originated by special effort in limited fields and, as far as the individuals are concerned, the operation amounts to creation; that is to say, the buyers or prospective buyers are made to want something which they never wanted before. But from the point of view of the whole community, a view which the state is always expected to take in regulating its overlordship of contracts, these new values are not so much created, as elicited. Their real existence in the mind of the buyer is previous to the exciting stimulus which brings them into effect. In this sense also we may say that supply to some extent elicits or creates demand, because there is always some slight and sometimes very keen demand for that which is a little better than the best available, with the resulting effect that any improvement always advances the demand for something better. The advancing benefits of civilization generally bring with them the demand of newly recognized needs.

The proper attitude of the state to property and values is necessarily negative. The state is most apt to fail where it makes distinctions not of principle but merely in respect of

size. For this reason, as I said above, I believe the operation of the Sherman law in America will be a failure, because its distinction of what is illegitimate in constraint of trade is not valid. Those corporations and trusts which it attacks and succeeds in dissolving, unless through inherent weakness they are already tottering, will almost certainly reorganize themselves in other ways as effectively as before. At the present moment, as I go to press, the American Tobacco Co., in accordance with the order of the Supreme Court made last spring, is splitting itself up into four smaller concerns, the holding of whose shares will be so mutually interlaced among the old shareholders as practically to ensure the predominance of control in the same hands as before.* The simple and effective weapon of

* During the month of November this case has advanced another stage, which almost completely confirms my estimate of the probabilities, as sketched above. The Federal Government of the United States brought an action in the Federal Circuit Court of New York to upset the proposed reorganization of the American Tobacco Co. in four subsidiary companies. Bad faith was alleged, and special powers were asked on behalf of the government of intervening at any time during the next five years, to check and verify the good faith of this reorganization. The decision of the Circuit Court on November 8 was almost entirely against the administration. The reorganization was declared to be genuinely carried out under the Sherman law and the government was refused all powers of interference. Such restraints as were imposed on the remodelled companies by the late decision are obviously without value, because, although they were in the direction of restricting transfers and of limiting the amount of any individual holding of shares, no means of ascertaining the nature and amount of these transactions was provided. Any business man can estimate the futility of such an academic prohibition. After this practical defeat the administration hesitated as to the advisability of an appeal and finally decided against it, leaving the independent tobacco manufacturers without the power of going further. The *Economist* observes in this connection that the outcome of the American tobacco proceedings has

the commercial world against undue state interference is evasion.

The final relation of the state to values is also a peculiar one, because it is the owner of all national property and the guardian of the national wealth. The two are quite distinct although they are very much related to one another. In the one case it owns property of vast exchange value, as well as property of almost no exchange value and property of entirely contingent value. As an instance of the first, we have securities, land, mines, the monopolies of the postal and telephone services. In the second case, the property is serviceable to the nation and yet is hardly thinkable as material for exchange, such as many great public buildings, highways, open spaces and the right to require and wield military services, the police system and all the apparatus of government. The third case includes the peculiar property of public collections of art and literary property, accumulated often at great cost, which if thrown on the market suddenly would break it. An actual instance of such an occurrence is rare, but one happened to the revolutionary government of Venice in 1848, which in order to raise money offered, I am told, the public art collections of Venice to the British Government for £48,000. That government, no doubt from sentimental and political reasons, declined the offer, so that we have the extraordinary spectacle of property, with value almost intrinsic in general circumstances, of an inestimable amount, worth precisely at that moment nothing at all. In some sense we may say that all national property is of value contingent on the maintenance of law and order and a certain degree of prosperity. So much of it is useful only

been a great disappointment to those who were under the impression that the Sherman law was now to be made a real and effective piece of machinery in the war against monopolies.

to the members of the nation itself and useful to them only so long as trade moves briskly and offers a profitable demand for their employment.

What is national wealth and how does it differ from national property? The latter is included in the former, which also embraces the separate properties and fortunes of all constituent bodies, groups and private individuals inside the nation. Here most economists are inclined to stop and deny the use of the word, wealth, to strictly personal property such as lies in the talents, skill and capacity for sacrifice, exertion and labour available in any population. I confess myself driven by logic to conclude that since they are exchangeable and frequently exchanged they are no less wealth than wealth in fixed form. Their valuable properties are, however, quite unassessable at any given moment. But I am driven even further to give the term, wealth, to qualities even more impalpable than services which are usually paid for. There is great value and exchangeable value in services which are often not paid for, but given away either in whole or in part. These things are part of the national wealth, even if not part of the wealth of the individual. Such, for instance, are the intellectual habits of the Germans, the versatile energy and speculative daring of the Americans, and our own reputed character of keeping faith. The worst blow that could be dealt to the United Kingdom would be our inoculation with the habit of breaking our word for our own advantage among ourselves. It would involve an internal and an external loss of wealth to us of incalculable amount.

HANDY TABLE

OF THE

LAWS, DEFINITIONS, TERMS, &c.

Deduced in the course of the Argument, together with such other Terms and Laws as are referred to directly or by implication in the text:—

THE LAW OF VALUE.—Demand and supply, the quantity demanded and the quantity supplied will be made equal. If unequal at any moment, competition equalizes them. The process of competition is further described as being one that brings fresh buyers, as prices fall, and brings fresh sellers, as prices rise.—J. S. Mill.

THE LAW OF FINAL BARGAINING.—Where prices in a large market have been determined within certain limits by the laws of supply and demand, the final and critical fluctuations of price within any section of that market will so vary about an intermediate equilibrium point, as to give play to the varying characters of the dealers and at the same time to equate the largest possible amount of goods supplied with the largest possible amount of goods demanded in that section. Such an equilibrium price for any period may be approximately stated as the average price of all transactions during that period.—Re-statement of the law of the equilibrium of supply and demand. See Cap. I., p. 10.

THE DOCTRINE OF ALTERNATIVE WANTS is that the larger part of an individual's wants are dictated by some ulterior purpose, and one want is considered to be alternative to another when the satisfaction of either will appear to him

to serve that purpose almost equally well. See Cap. III., p. 21, and Cap. X., p. 109.

VALUE is the measure in terms of exchange of the sacrifice which the buyer, or more precisely the consumer or his agent, is prepared to make for an object, wherewith to relieve a necessity or to secure an enjoyment. See Cap. IV., p. 32.

PRICE is the measure, stated in terms of exchange, of the equivalent required by the seller, that is, the producer or his agent, for the sacrifices directly or indirectly incurred in producing and bringing a commodity to the market. See Cap. IV., p. 37.

SUPPLY is a group of sacrifices made by producers in manufacturing articles of the same kind. It is usually and conveniently measured in quantities and prices. See Cap. IV., p. 38.

DEMAND is an indeterminate aggregate of values of the same kind which come within the operating field of a market. See Cap. IV., p. 38.

DEMAND is the chief determinant of price. See Cap. VII., p. 71.

THE LAW OF CONTRACTING FACILITIES OF PRODUCTION.—When the natural facilities of production in any industry are contracting there will be diminishing returns on successive increments of capital and labour applied to it until these natural facilities are restored. See Cap. VIII., p. 80.

THE LAW OF EXPANDING FACILITIES OF PRODUCTION.—When the natural facilities of production in any industry are expanding in one or in more directions, provided that there is no contraction in others, successive increments of

capital and labour applied to that industry will obtain increasing returns until this expansion has exhausted itself in all directions. See Cap. VIII., p. 80.

THE LAW OF GRADUATED RETURNS ON PARTIAL MONOPOLY.—In the case of a commodity, which is naturally limited in supply and capable of being supplied in various grades of quality, the prices in each grade are the result of a double competition, that is to say, of a competition between the various grades and also of a competition according to the laws of supply and demand between the units of each grade. Wherever the grades have become stereotyped the competition within the grade is much more influential in determining price than the competition between the grades. See Cap. IX., p. 105.

THE LAW OF RISING DEMAND.—Demand, when unsatisfied, tends to increase to the limit of capacity and desire, these latter being allied factors not always present in the same proportion. See Cap. X., p. 108.

THE LAW OF SUBSTITUTED DEMAND.—Where demand remains unsatisfied through want of capacity it commonly becomes efficient demand for any colourable substitute for the original object at a lower price. See Cap. X., p. 111.

THE LAW OF VANISHING DEMAND.—Demand tends to vanish after every completed transaction and, though after the extinction of demand from one source or in the course of it it may reappear from another, there is always an underlying and ultimately cumulative tendency for successive extinctions of demand to diminish the probability of its reappearance. See Cap. X., p. 113.

THE LAW OF RECURRING DEMAND.—Demand after extinc-

tion from one source tends to recur from the same source after a longer or shorter interval. See Cap. X., p. 115.

THE LAW OF ANTICIPATED RECURRENCE OF DEMAND.—Demand after extinction or during the course of extinction and before recurrence may be anticipated. See Cap. X., p. 116.

THE LAW OF THE STRATIFICATION OF DEMAND.—Demand, after having been exhausted in one group of individuals, may with rapidly falling prices be renewed from another group and again perhaps from another in such a way as to suggest that there are layers or strata of demand in any society, capable of absorbing immense quantities of commodities, whenever their cost of production is sufficiently lowered. See Cap. X., p. 118.

THE LAW OF INTERMEDIATE DEMAND.—In the linked chain of traders through whose hands a single commodity passes to the consumer the "intermediate" demand of each trader for the supply of this commodity is not only determined directly by the laws of demand as between him and the sellers from whom he buys, but at the same time it is subject also indirectly to the influence of the laws governing the "final demand" of the consumer. See Cap. XI., p. 125.

THE LAW OF SECONDARY DEMAND.—Demand for a commodity may be considered "secondary" where it is primarily conditioned by the demand for one or more other commodities. Secondary demand for any commodity is therefore not only governed directly by the laws of demand in the transactions between the sellers and purchasers of this commodity, but also indirectly by the laws of demand, which affect the "primary demand" for the other commodities in the construction, manufacture or manipulation of which

the first-named commodity is required. See Cap. XI., p. 128.

THE LAW OF THE EQUATION OF SUPPLY AND DEMAND.—When in any market there is a condition of stable equilibrium, that is to say, where supply, or the quantities of goods offered for sale, is approximately but not exactly equal to demand, or the self-estimated requirements of buyers at reputed prices, any excess of the former is met by fluctuating prices tending to fall, which will increase demand, and any excess of the latter by fluctuating prices tending to rise, which will increase supply. When in any market there is a great excess of supply, the equilibrium of the market can only be restored by withdrawing and reserving a large part of supply, otherwise falling prices will not continue to increase demand. When in any market there is a great excess of demand at reputed prices, and supply is either naturally or artificially restricted, while a large part of this demand will be diverted at first by rising prices according to the laws of demand, in the end demand will not continue to decrease, but will become insistent up to the limit of capacity. See Cap. XII., p. 139.

DEVALUATION is a fall in values, when neither deterioration, which is loss of utility, nor depreciation, which is writing down of price, has occurred. The term denotes a process differing from an ordinary fall in values in being exclusive of both deterioration and depreciation. See Cap. XVI., p. 199.

OVER-PRODUCTION in one industry, in many or in all together, is an acceleration of the rate of production over and above the rate of absorption of the market, where the demand follows its usual course, or a retardation of the rate of absorption of demand, while the rate of production

remains constant, resulting in either case in a fall in values, which may either be liquidated by immediate depreciation or be carried over at former prices for future liquidation. General over-production involves at least a universal time-loss to all producers before the usual exchanges are effected, a time-loss that can be largely measured in the medium of exchange. See Cap. XVI., p. 199.

THE DOCTRINE OF THE GREAT EXCHANGE.—The general tendency of the efforts of our whole commercial system, which is partly the outcome of instinctive striving and partly the result of conscious endeavour, is the mutual requital of two approximately equivalent sacrifices by the satisfaction of two approximately equivalent wants, and the exchange of as large a number of these satisfactions as possible, a result which will be brought about in the highest degree by extreme accuracy in self-estimates of wants and sacrifices. See Cap. XIII., p. 149 and Cap. XX., p. 266.

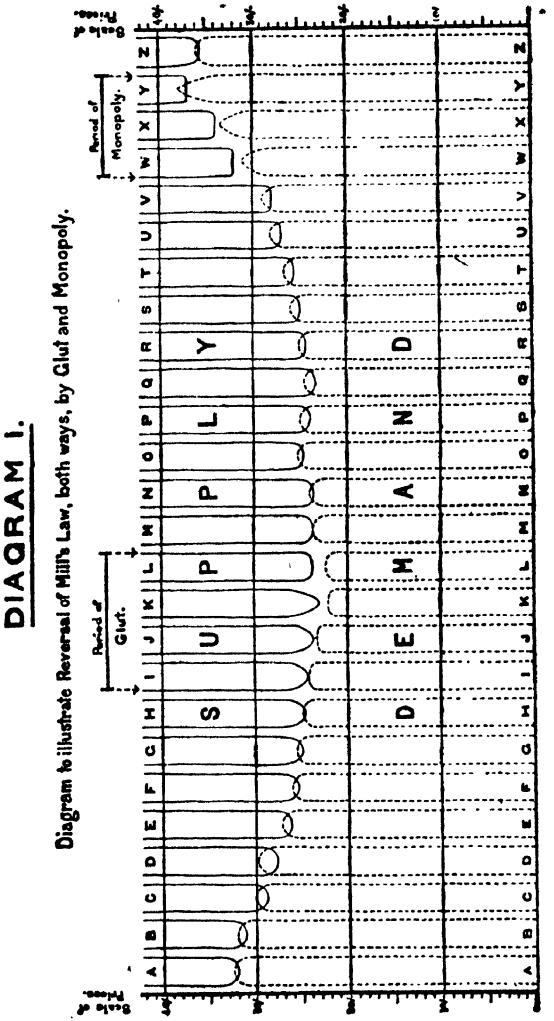

DIAGRAM I.
Diagram to illustrate Reversal of Mill's Law, both ways, by Glut and Monopoly.
Period of Glut.
Period of Monopoly.
SUPPLY
DEMAND
Scale of Prices.
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

DIAGRAM I.

Showing Reversal of Mill's Law of Value, both ways, by Glut and Monopoly.

This diagram has been constructed to show graphically on one side certain quantities of goods representing supply, and certain groups of values representing demand. The plain lines showing convex curves downwards denote supply, and the dotted lines showing convex curves upwards denote demand. In so far as they overlap, they denote the bulk of completed transactions in any given period of time. The equal spaces A, B, C, &c., denote equal periods of discontinuous time, taken here to be successive days of a supposed period of twenty-six market days. The different shape of the curves at or near the points of contact or proximity denote what may be called the varying pressure of supply or demand. For instance, the elongated and pointed curve of supply in space K represents an extreme eagerness of supply to find buyers at great sacrifice. Similarly the almost flat curves of supply in spaces V, W, X and Y represent great strength and restraining power in the market, when the supply has been completely cornered. So also flat curves of demand represent lifeless buying, and sharply pointed curves of demand in spaces W, X, Y represent extremely eager, almost frantic, competition by buyers. The scale of prices at which transactions take place is shown on each side. It is unnecessary to say that the series of transactions illustrated by the diagram are assumed to be two extreme cases of opposite tendency occurring in rapid succession. With this

preliminary account of the elements of the diagram, I will proceed to describe in narrative form the successive transactions which it is supposed to illustrate.

It must be remembered that supply is to some extent a definite and ascertainable thing, while values are indefinite and to some extent are only evolved by the history of the markets. Sellers also generally take the initiative and present certain quantities and quote certain prices.

On the first day, represented by space marked A, prices are presumed to be a little stiff and demand is not satisfied; on the three following days (B, C, D) supply is forced by competition to lower prices and larger business results. Afterwards (E, F, G), supply is weakened still further by over-production and falling prices meet steady but not an increasing number of sales, as demand is beginning to become satisfied. During the next three days (H, I, J), successive weakening of prices finds slacker and slacker demand; in other words, we begin to see the reversal of Mill's law of value in the lower schedule, since the progressive lowering of price no longer attracts fresh demand. We may best describe four days here (I, J, K, L) as a period of glut, in which demand is thoroughly satiated. There is practically no important business done, as supply having pushed its sacrifices to their ultimate limit still finds no buyers. During these four days the psychology of the market is shown by the shape of the curves on both sides. The growing eagerness of supply for sales during the first three days is shown by the gradual elongation of the point of the supply curves, but on the fourth day weak supply has been shaken out and supply stiffens with a view to returning to normal levels. Demand, on the other hand, during these four days presents a grim flatness of curve, as if no offers of any kind will tempt it.

After the glut is over the law of recurrence of demand begins to operate, and demand becomes buoyant and resumes touch with supply. The eagerness during the next ensuing period is all on the side of the buyers. At first (M, N, O), supply succeeds in restraining itself and maintaining prices. A comparatively small amount of business is done at 23*s*. 9*d*., 24*s*. and 25*s*. But the recent glut has weakened many sellers, and finding demand steadily hungry they get rid of all the goods they can during the next three days (P, Q, R) at 25*s*., 24*s*. and 25*s*. It must be noted that from now on there is a steady keenness of demand, due to the long period during which very little business was done. Buyers are really hungry and price is no longer a serious obstacle to business. Consequently during four days (S, T, U, V) supply shows a flatter and firmer curve, weak sellers have been shaken out and prices are marked up in determined fashion without losing business. At averages of 26*s*., 27*s*., 28*s*., 29*s*., just as much business is done as before. Here occurs the second reversal of Mill's law of value on the higher schedule. The higher the price goes the more eager becomes demand, and we are on the edge of a corner. The next three days (W, X, Y) show the market cornered. Demand rises to frantic heights of eagerness and prices up to 37*s*. are finally exacted. Then on the last day (Z), the lambs having been duly shorn, prices moderate and the market is again on the way to normal conditions.

DIAGRAM II.

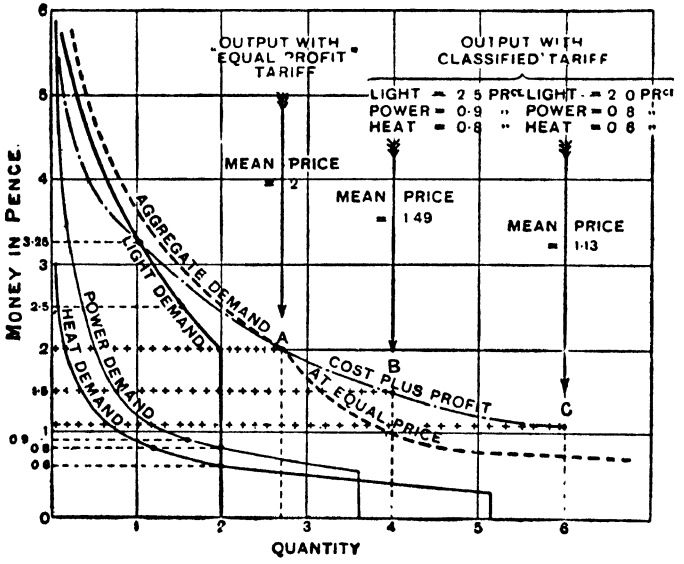

OUTPUT WITH "EQUAL PROFIT" TARIFF
OUTPUT WITH CLASSIFIED TARIFF
LIGHT = 2·5 PRCE
POWER = 0·9 ,,
HEAT = 0·8 ,,
LIGHT = 2·0 PRCE
POWER = 0·8 ,,
HEAT = 0·8 ,,
MEAN PRICE = 2
MEAN PRICE = 1·49
MEAN PRICE = 1·13
AGGREGATE DEMAND
LIGHT DEMAND
POWER DEMAND
HEAT DEMAND
COST PLUS PROFIT AT EQUAL PRICE
A
B
C
MONEY IN PENCE.
QUANTITY
6
5
4
3·26
3
2·5
2
1·5
1
0·9
0·8
0·6
0
1
2
3
4
5
6

DIAGRAM II.

(Taken, by permission of the Author, from "The Price of Electricity" by E. W. Cowan, F.R.E.S.)

"In diagram No. 2 I have attempted to isolate and depict the characteristic features of the principle I am endeavouring to establish."

"This diagram requires some explanation. In the first place, it should be pointed out that the curves representing the respective elasticities of demand for the three commodities, light, power and heat, are not based upon any observed results, nor has any attempt been made to estimate their character in this respect. They are deliberately drawn to fit in with my argument. Important factors have been ignored, such as the effect of the load-factors of the different classes of supply and the effect of the diversity in incidence of the maximum demands of each class. In fact, a number of factors have been omitted in order to simplify the diagram, and, not only emphasize, but exaggerate the effects of the use of a classified tariff. The ordinates represent money values, whether of price or cost, the abscissæ quantity demanded. Three curves, representing the arbitrarily assumed elasticities of demand for electricity for light, heat and power at different prices, have been drawn."

"Another curve, dotted black, represents the aggregate of these demands at equal price for all classes of demand. It will be noted, however, that after this curve dips below the cost plus profit curve at the point A, it is negligible."

"The curve, drawn chain dotted, represents cost, includ-

ing connection charges, plus a percentage of profit. At the point A, where this curve crosses the curve of aggregate demand, the aggregate demand at equal profit of all classes of consumers is found. In the diagram it is seen to be 2·7 in quantity, the average price per unit of supply being 2."

"The other points, B and C, respectively, represent the increase upon the demand which is obtainable under the conditions shown in this diagram, if the different classes of demand are differently priced."

"At A all classes are charged 2 per unit of supply."

"At B the light consumers pay 2·5 per unit, the power consumers 0·9, and the heat consumers 0·8. The aggregate demand is increased under this differentiation to 4·0 and the mean price reduced to 1·49. This increased demand has been obtained without charging the light consumers a higher price than the price at which they could supply themselves collectively. Inspection of the diagram shows that they could not supply themselves at a lower price than 3·25 and clear their expenses of production. Therefore, light consumers are not being penalized and the power and heat consumers are not being subsidised at their expense."

"At C the light consumers are charged 2, the power consumers 0·8, and the heat consumers 0·6, the average price per unit being 1·13. Here the light consumers obtain no benefit from the classified tariff compared with the equal profit, but they are not penalized. A comparison of the results shows that at C, under the classified tariffs, more than twice the demand is obtained, and at a lower price, viz., 1·13 per unit, as against 2 under the equal profit tariff, which lower price represents an advantage to the power and heat consumers, while the light consumers neither gain nor lose. The power and the heat consumers both gain the advantage of obtaining a supply which

would otherwise have been beyond their reach. In short, the benefits of electricity supply are extended to a larger area. From a subjective standpoint the light and power and heat consumers all stand in the same position. The classified tariff constitutes under the assumed conditions, subjectively speaking, an equitable tariff."

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