

ECONOMIC

CRISES

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ECONOMIC CRISES

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ECONOMIC CRISES

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New York

THE MACMILLAN COMPANY

LONDON: MACMILLAN AND CO., LTD.

1900

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Norwood Press
J. S. Cushing & Co. — Berwick & Smith
Norwood Mass. U.S.A.

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CHAPTER I

INTRODUCTION

THE growth and differentiation of industrial institutions which have taken place within the present century have brought many new and perplexing problems to the man of affairs and the student of economics. None of these problems takes a firmer hold upon the fundamentals of economic society than does that of crises, and few of them receive more attention or create more controversy.

The crisis is practically of nineteenth-century origin, and it is an acute malady to which business appears to be increasingly subject. These crises are periodically recurring convulsions which paralyze the course of trade, give rise to violent fluctuations of values, and leave behind them crippled industries, bankrupt or suspicious capitalists, and impoverished laborers as the result of their visits.

It is often desirable to begin a treatise with a definition. Descriptions and definitions, however,

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shade off almost imperceptibly into one another, and what may be called a descriptive definition is sometimes best suited to the purpose. Two such descriptions of an industrial cycle containing a crisis are here offered. The first, taken from the Tracts of Lord Overstone, is as follows: "State of quiescence, improvement, growing confidence, prosperity, excitement, overtrading, convulsions, pressure, stagnation, distress, ending again in quiescence."¹ A somewhat more extended description from the pen of Frederick Engels is as follows: "The whole industrial and commercial world, production and exchange, among all civilized peoples and their more or less barbaric hangers-on, are thrown out of joint about once every ten years.

¹ The symptoms of a crisis are thus catalogued by Max Wirth: "1. Abnormal activity in floating enterprises, and boldness in speculation. 2. Unusual activity in stock-jobbing: viz. the desire to found stock corporations in order to use all possible means to force the stocks rapidly to a high figure, and then sell out at a profit, leaving the corporation to those in whose hands the stock, like an unlucky card, is found at last. A rule in such cases is that a good business is operated by one's self or a few companions, but a bad one is formed into a stock company. 3. Unusual excitement and gullibility of the public caused by the report of large profits. 4. Rapid increase of luxury. 5. Sharp rise of the price of necessities, articles of luxury, raw materials, and provisions. 6. Rise in the price of real estate. 7. Strong demand for labor, and rise in wages. 8. Unusual expansion of credit and credit instrumentalities in consequence of which a rapid and unusual *increase in discount*. 9. Large demand for cash, and, in consequence of this demand, a *decline in stocks*." — "Handbuch des Bankwesens," 3 Aufl., p. 62. The same is also contained in the "Geschichte der Handelskrisen," by Max Wirth.

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Commerce is at a standstill, the markets are glutted, products accumulate, as multitudinous as they are unsalable, hard cash disappears, credit vanishes, factories are closed, the mass of the workmen are in want of the means of subsistence, because they have produced too much of the means of subsistence, bankruptcy follows upon bankruptcy, execution upon execution. The stagnation lasts for years; productive forces and products are wasted and destroyed wholesale, until the accumulated mass of commodities finally filters off, more or less depreciated in value, until production and exchange gradually begin to move again. Little by little the pace quickens. It becomes a trot. The industrial trot breaks into a canter, the canter in turn grows into the headlong gallop of a perfect steeple-chase of industry, commercial credit, and speculation, which finally, after breakneck leaps, ends where it began — in the ditch of a crisis. And so over and over again.”²

If we confine our thought to the culminating period of a crisis, we may define it more concisely than is done above, in the following terms: A crisis is the sudden application of a critical conservatism

² “Socialism: Utopian and Scientific” (trans. by Edward Aveling), London, 1892, pp. 64, 65. The steps are given by another author thus: “A round of variations expressed as follows, is pretty sure to run its course at least once in the life of each generation: ‘torpor, prudence, health, plethora, blood-letting’; or thus: ‘stagnation, economy, productive industry, accumulation, enterprise, expansion, collapse.’” — T. F. PLUNKETT, “Money Panics and Specie Payments,” Pittsfield, Mass., 1873, p. 9.

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to business transactions, leading to such a demand for liquidation as to cause a widespread inability among business men to meet their obligations.³

Herkner follows Roscher in defining crises as consisting of a disturbance in the equilibrium between production and effective demand.⁴

In the work of definition the most important point is to establish the proper distinction between crises and industrial depressions. Either of these two classes of phenomena may appear

³ Wagner says: "Crises imply . . . the overwhelming and simultaneous occurrence of inability on the part of independent entrepreneurs to pay their debts." — "Krisen," in Rentzsch, "Handwörterbuch," p. 26. Clement Juglar thus defines crisis: "The commercial crisis, as in disease, is a critical period. The all-important question asked by those caught in embarrassment is whether they will hold out or succumb. The crisis is the touchstone which reveals the solidity of commercial houses." — Say's "Dictionnaire," Sec. I. Mr. Horace White gives the following: "Commercial crises are disturbances of the course of trade at given times, arising from the necessity of readjusting its conditions to the common standard and measure of value." — Article "Commercial Crises," Lalor's "Cyclopædia," Vol. I, p. 523.

⁴ To this Schäffle also agrees. Herkner, in Conrad's "Handwörterbuch," Bd. IV, Sec. I, p. 891. Schäffle, "Handelspolitik," in Bluntschli's "Deutsches Staatswörterbuch," Bd. IV, p. 638. Schäffle criticises the definitions offered by Mill, Juglar, and Max Wirth, and also the definition of Coquelin, in the "Dictionnaire de l'Économie Politique," that crises are the sudden disappearances of credit. This calls to mind a remark made by John Mills in "The Bank Charter Act and the Late Panic," p. 6, where, in speaking of the crisis of 1866, he says: "A voluminous magazine writer on this subject considers the main evil to have been a want of currency, which is about as explicit as the jocular diagnosis that a man died of 'want of breath.'"

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independently of the other ; in fact, the presence of one is more or less a guarantee of immunity from the other. By some writers the crisis proper is called an "active crisis," while an industrial depression is called a "passive crisis."⁵ The pathologic terminology which is frequently employed in the discussion of crises⁶ enables us to express very well the distinction between crises and depressions. The first are acute, the second chronic maladies of industry. The causes of the first lead rapidly to a climax of unnatural and unstable conditions which in the panic find their rupture and give place to extreme stagnation. The causes of depression appear to be more enduring. They weigh down business by handicapping disabilities which exert a steady pressure, producing dejection and prostration. A crisis results when business is carried to a high point from which it is precipitated. A depression marks the struggle of industry under a weight of adverse conditions.

According as crises have more or less conspicuously involved disturbances of the medium of exchange, of financial institutions, or of productive or commercial industry, they have been denominated monetary, financial, commercial, or industrial crises. These varying designations are useful to indicate the causes or characteristics of individual crises. A more general term and one which

⁵ De Viti de Marco, cited by Lexis in Schönberg's "Handbuch," 2 Aufl., Vol. II, Ch. XXI, Sec. 51.

⁶ Neuwirth, Roscher, and Schäffle, for example, use this.

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involves commitment to no view or school is economic crisis.⁷

While the crash or panic is the particular feature which characterizes the modern crisis, no consideration of the subject, which is limited to this culminating period of the disturbance, can be complete. The circumstances leading up to the climax can only be distinguished by the study of the evolution of a crisis.⁸

⁷ Wagner uses the phrase "credit crises" because he especially emphasizes the abuse of credit as a cause of crises. "Overstocking of the market is usually an accompaniment of crises. The name overproduction crisis usually suffices therefore, but it does not express so exactly the nature of the evil as the name credit crisis. The expression money crisis is indefinite, since the word money has many meanings; capital crisis is not accurate enough; commercial crisis is one-sided, for crises are not affairs concerning commercial circles alone." — RENTZSCH, "Handwörterbuch," p. 526.

The following division of crises is given by Max Wirth: "In the first place, there are two sorts of crises to distinguish: —

- I. Crises of the circulating medium, and
- II. Crises of capital.

The first are divided into such as follow distressing experiences or defective arrangements of the credit and money machinery of industry: (*a*) a congestion of the circulating medium; (*b*) those which follow an immoderate issue of irredeemable paper currency, which causes a sudden rise of prices and unstable fluctuations.

Those capital crises which fall under II may be subdivided into: (*a*) acute diseases of production, of stock market speculation especially accompanied by the founding of new enterprises, and of real estate values; (*b*) commercial crises proper and overstocking of the product market."

⁸ It is the business of the student to examine these years of business history, and construct in theory a complex of forces which will account for the phenomena. Oechelhauser says: "In our opinion, high and low prices do not stand opposed as good

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The concentration of distress upon one portion of the industrial cycle which the term "crisis" implies is the result of modern economic practices. The division of function which was first planned between man and man has been extended to apply between regions and countries. The organic relations which have resulted have produced a dependency of part on part. The life history of any industry is of import to all. Particularly, however, have the institutions connected with finance and credit worked an economy of effort based upon the existence of normal conditions. The crisis reaches each industry through the interdependence of industries, but chiefly through the relation of all industries to monetary and credit institutions.

The importance of crises as a subject of study is commensurate with the loss which they inflict. The industrial life of the nineteenth century cannot be completely presented without considering them. As Dühring has well pointed out health and disease are but two complementary phases under which the processes of life manifest themselves. To understand the social organism completely we must study it in disease as well as in health.⁹

and bad, or prosperous times and calamitous times, but they together form two phases of the same critical evolution. The last crisis took its start in the unusual advance of prices over values, not with the revolution of prices."—"Die Wirthschaftliche Krisen," p. 24.

⁹ E. Dühring, "Cursus der National- und Socialökonomie," Part V, Ch. I, p. 225. Cf. Cossa, "An Introduction to the Study

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The striking and unusual character of the phenomena composing a crisis calls attention to them, but sets them in a light which is, on the whole, not favorable to their proper scientific observation. It is hard to recognize in the crisis the result of a combination of familiar forces. The interest which invests crises attracts many to their study who come inadequately equipped by previous training in the observation and interpretation of economic phenomena. Again, in the study of so pronounced a subject, arraying interests so sharply against one another, it is natural that opinions should prevail which are pronounced rather than judicious. A voluminous partisan literature exists on the subject of crises which impedes scientific research. The study of crises is difficult, since the crisis is a period of rapid transition. Conditions are not permanent enough to permit of elaborate examination and classification. The forces which are in control are an entirely different compound of human motives than that which usually prevails.

The gradual appearance of crises within a comparatively recent period and as an accompaniment of the present industrial system, gives to them at once a definite significance. They have come to us in company with industrial freedom and individualism, with the factory system, the extension of foreign commerce, the use of credit, and the other features which mark the economic life of Political Economy," London, 1893, Theoretics, Ch. IV, Sec. 2, pp. 47, 48.

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this century. The order in which the leading industrial nations began to experience crises is a significant fact, as is to-day the varying degrees of intensity with which these storms expend themselves in different countries. It helps to direct inquiry to know that crises are more severe and frequent in the United States than in any other country. They are felt in progressively diminishing force in England, Germany, France, Holland, and Switzerland. The comparative study of the history of crises suggests the wisdom of observing the extent to which various nations have developed foreign trade and adopted credit and banks. The study of race psychology is not foreign to the subject, nor the observation of national honesty, education, natural conservatism, and the speed and energy of life.¹⁰ The comparative method alone renders it possible duly to subordinate the political situation, the peculiar system of currency prevailing, the banking system adopted by a nation, or the bankruptcy legislation in force.

Especially significant for comparative study is

¹⁰ After stating that crises fall where the credit system is well developed, Mr. Horace White says: "It is an observed fact that nations of Teutonic origin (including the English, American, German, Dutch, and Scandinavian) are most frequently and severely affected with commercial crises."—Lalor's "Cyclopædia," Vol. I, p. 524.

De Tocqueville considered that the temperament of democratic nations was particularly favorable to crises, since in them economic ambitions are supreme.—"Democracy in America," Boston, 1873, Vol. II, Bk. II, Ch. XIX, p. 192.

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the international or world crisis. The widespread disturbance which occurred between the years 1836 and 1839 in most nations, and the crises of the years 1857, 1873, and 1882, deserve to be designated world-crises.¹¹ The crisis of 1825, which affected England and America together with some other countries, and which arose through the disturbance of the cotton trade, may perhaps be ranked as the first international crisis. In 1847 the condition of England very seriously affected the money markets of Paris, New York, and Amsterdam. The most widespread and enduring international crisis was probably that of 1873. This susceptibility of the whole crisis area of the world to be drawn from time to time into one con-

¹¹ The following table is presented by Juglar in Say's "Dictionnaire," to show the solidity of France, England, and the United States in the matter of crises. Crises of more or less severity have occurred at the dates indicated:—

FRANCE				ENGLAND				UNITED STATES
1804	.	.	.	1803	.	.	.	.
1810	.	.	.	1810	.	.	.	.
1813-14	.	.	.	1815	.	.	.	1814
1818	.	.	.	1818	.	.	.	1818
1825	.	.	.	1825	.	.	.	1826
1830	.	.	.	1830	.	.	.	.
1836-39	.	.	.	1836-39	.	.	.	1837-39
1847	.	.	.	1847	.	.	.	1848
1857	.	.	.	1857	.	.	.	1857
1864	.	.	.	1864-66	.	.	.	War
	.	.	.	1873	.	.	.	1873
1882	.	.	.	1882	.	.	.	1882

Compare this list with the one given in Ch. VII.

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vulsion, shows a high degree of economic interdependence.

The question whether crises are increasing in severity has been a much mooted one. The matter presents a different appearance according to whether a long or short industrial period is considered. Taking the entire history of crises into account, an increase in the severity of crises seems certain. During the last half century, however, crises appear to be losing something of their intensity, but to be approaching the character of industrial depressions as the period of recovery after a crisis is lengthened.¹²

The place which the subject of crises should occupy, in a systematic treatise upon political economy, is not definitely fixed. For German economists, who divide their works into theoretical and practical economics, the matter presents little difficulty, although the discussion of crises is by no means always placed in the latter division.¹³ For those who hold rigidly to the English

¹² In the "First Annual Report of the Commissioner of Labor," upon "Industrial Depressions," occurs the following: "As already stated, the features of regularity and contemporaneousness of crises and depressions have been apparent since the commencement of this century. Crises and panics, with more or less of industrial depression accompanying them, have occurred in various countries, but there were not such strong connecting influences and facts and associated conditions as have been observed during the past fifty years."—Ch. I, p. 15.

¹³ "A review of the literature of crises discovers the fact that the position which this theory has occupied in economic science has been an extremely varied one. Without considering that the sub-

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division of the science into Production, Exchange, Distribution, and Consumption, the adjustment of the subject into the general scheme of arrangement is more difficult. The crisis involves so many economic functions that it cannot be adequately treated within the boundaries of any one of the departments of economic science. Important considerations arise when the subject is looked upon from each of the view-points, — Production, Exchange, Distribution, and Consumption. It lies athwart these lines of demarkation. From the standpoint of crises it is possible to judge every important economic tendency, and study every economic institution. If crises are disturbances of the equilibrium between production and consumption, they evidently concern both these functions as well as the methods of adjusting the two with which Exchange and Distribution have to do. In accordance with this view we find such writers as Professor R. T. Ely, presenting some special aspects of the subject of crises in each of the divisions of theoretical economics, while emphasizing especially the connection between crises and the

ject is taken up at times in the general, then in the special, part of economic science, and sometimes in both, we find its position in General Economics variable. Often it is treated under Production, as a disturbance of the same; again and most frequently it is taken up in Exchange; at times in Consumption, as is the practice with Roscher, who considers all crises to be disturbances of the balance between production and consumption. Rodbertus-Jagetzow considers crises under the caption Distribution." — WAS-SERRAB, "Preise und Krisen," p. 39.

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process of consumption. Francis A. Walker, in his "Political Economy," set apart for the consideration of crises a portion of the last chapter under the subject of Exchange, entitling it "The Reaction of Exchange upon Production."¹⁴ J. S. Mill lays some of the fundamental propositions necessary to his development of the subject in Book I, on Production, others in Book II, on Distribution, and he finally brings out his theory in Book IV, entitled, "Influence of the Progress of Society on Production and Distribution."

Turning to the theories which have been constructed to account for crises, we have first to notice some of the limitations of economic theory which concern us. As is to be expected in the case of so striking and intricate a subject, a truly enormous number of theories have been expounded to explain crises. The "First Annual Report of the Commissioner of Labor," which was devoted to the subject of industrial crises and depressions, enumerates the following assigned causes of crises: Railway speculation, under-, over-, misdirected, and unsteady consumption, contracted, inflated, depreciated, or fluctuating currency, machinery, various kinds of laws, debt, intemperance, monopoly, speculation, tariff, and taxation. These are but a few of the particular arraignments, while bad sanitary conditions, free passes, education too exclusively intellectual, coolie, convict, female, child, and im-

¹⁴ "Political Economy" (advanced course), Part III, Ch. VII.

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ported labor come in for a share of the blame. The enumeration rounds well up to the border of the ridiculous with the mention of such causes as absence of caste, and instinctive and widespread indolence. Concerning the collapse of 1878, Mr. Walter Stanley Jevons wrote, in his essays on Currency and Finance: "It is curious to notice the variety of the explanations offered by commercial writers concerning the course of the present state of trade. Foreign competition, beer drinking, over-production, trades-unionism, war, peace, want of gold, superabundance of silver, Lord Beaconsfield, Sir Stafford Northcote, their extravagant expenditure, the Government policy, the Glasgow bank directors, Mr. Edison and the electric light, are a few of the happy and consistent suggestions continually made to explain the present disastrous collapse of industry and credit." To this list a malicious reader might add "sun-spots."¹⁵

The literature devoted to crises is full of discussions of the purely local and incidental features of individual crises. The external and apparent has

¹⁵ Many opinions concerning the origin of crises have been expressed by economic writers which have not been taken up to any extent by students of the subject. Laveleye emphasizes the derangement of the balance of trade leading to the exportation of precious metals as the cause of contractions of credit liable to bring on crises. Bonamy Price attributes crises to a diminution of the means of buying. Nasse dwells upon the effect of changes due to progress. Leroy-Beaulieu brings forward the importance of commercial treaties and of commercial legislation in general.

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always been seized upon. Without comparative study it is impossible to establish a perspective within the subject which permits the subordination of local and incidental causes to those more fundamental. The literature which appears during and immediately after a crisis, and which contains only an analysis of that crisis, cannot be expected to contribute much to a well-balanced discussion of the subject. Writers who only venture into the field when stirred by local happenings, are likely to be permeated by local prejudices and inflamed by prevailing social and economic controversies.¹⁶ When it has been determined that any crisis is unusual in character and in its causes departs from the type, then we must look with distrust upon all literature known to have been particularly inspired by it. The crises of the latter part of the seventeenth century and the first part of this century seem, as a rule, to have been the result of peculiar and unusual combinations of events. The conditions under which they occurred are so different from those prevailing since, that it may be safely said that little of value can be found in discussions published prior to 1837.

¹⁶ "As is often the case, in the study of crises and in distinguishing their successive periods, theory has gone ahead of practice. It need not excite surprise that that theory was for twenty-five years considered one of the most obscure in economics. Each author, maintaining his own point of view, has indicated such causes of crises as best agree with the system of thought he has accepted or built up."—CLEMENT JUGLAR in Say's "Dictionnaire."

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In the literature of crises the tendency has until recently been strong to consider the last link in a chain of causes as the only one of importance. The crash of a panic has been observed to the neglect of the pre-crisis period in which the secret of causes lies.¹⁷ Financial and credit institutions have received undue attention because through them unstable conditions are first brought to rupture.

Not only are the varying phases of the history of commercial convulsions reflected in theories of crises, but so also are the prevailing social and economic ideas. As Friederich A. Lange has said, "We examine a science, and we find in its doctrines only the mirror of social conditions."¹⁸ It is human nature that good results or qualities should be referred most easily to causes or objects which already have a favorable character in our estimation. Bad actions are laid at the door of those whom we believe to be bad. Crises have been time out of number laid at the door of the opposite political party, the disliked financial sys-

¹⁷ "In all economic questions, one can note the tendency of observers to trace great consequences back to some single cause which, by accident, is known or understood by them. This tendency has especially manifested itself in the judgments which have been formed regarding the causes of periods of speculation and commercial crises, and in general regarding phenomena connected with money and credit."—A. WAGNER, "Die Geld- und Credittheorie der Peel'schen Bankacte," p. 257.

¹⁸ "History of Materialism" (2d ed.), Boston, 1879-81, Vol. III, p. 233.

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tem, and the economic class with whose interest one's own is not coincident. This kind of work is on an intellectual level with the practices of those villagers of past centuries who evolved the idea of a witch, attributing the sickness and deaths of the community to the influence of old women who were primarily disliked for their ugly appearance and temper.

The history of crises has often been made an arsenal from which were to be drafted arguments for political and economic polemics. The theory of crises has been a handle in many arguments, and has been subordinated to the purpose of first one popular discussion and then another.

As between the French, German, and English literatures of the subject some comparisons may be made. In France, the literature of crises was for a long and important period a mere side-light in the discussion of the freedom of bank-note issue. French scientific economic literature, in common with the English, brings the subject of crises into connection with the dispute over the law of markets or over-production. English writers for some time only mentioned crises to connect them in one way or another with the expositions of the "Currency School" or to use them in the defence or attack of the Peel Bank Act of 1844.

That the theory of crises should have been until the last three decades involved in abstract discussions of over-production, currency, and international trade is not, broadly speaking, accidental.

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Before the period mentioned the ideals and methods of the exact sciences prevailed and influenced economics. Such subjects were naturally chosen as best fitted these methods, and economics was built with the idea of an exact science in mind. More recently the biological sciences have been built up. They now exert an influence as ideals, while the inductive method appropriate to them has extended its influence.

Germany brings a double contribution, namely, that of the socialists and that of scientific economists. These two are relatively distinct. The contribution of the socialists to the subject is very considerable. German scientific literature is not greatly influenced so far as the theory of crises is concerned by socialistic thought, and is free from prolonged entanglement with any other discussions such as arose in England or France. It is in Germany, therefore, that we find the most systematic and unprejudiced discussions of crises.

Before proceeding to consider the various theories of crises it may be well to say a word concerning diversities of view. The differences of position taken by writers is very frequently more apparent than real. Of a number of investigators who perceive that crises result from a divergence between supply and demand, some will speak of over-production and others of under-consumption. Of a number who examine the fluctuation of demand and single out as the cause of crises the failure of the effective demand of wage-earning

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classes, some will maintain that the institution of private property permits capitalists to defraud wage-earners and will, with Rodbertus, hold a socialistic theory. Others, like Robert Owen, will see most clearly the influence of machinery in these results, and will frame a mechanical and technical problem. Others still may, with Brentano, look upon the condition of the wage-earner as due primarily to his intelligence and providence or improvidence, and will thus constitute out of the matter a moral problem.

Let us proceed to the statement, in as favorable a light as may be, of the chief theories explaining crises. The presentation in the following chapters will be dominated by the idea of making each new point of view a position from which certain important aspects of the subject may be best elucidated. The chapters which follow form, therefore, at once a systematic discussion of crises and a presentation of the chief theories of crises.

RÉSUMÉ

- I. Definition: (*a*) of a crisis cycle; of a crisis; (*b*) distinction between crises and depressions; (*c*) types of crises — the monetary, financial, commercial, and industrial crises; the economic crisis.
- II. The culmination of a crisis cycle in a crisis accounted for by the solidarity of economic interests and modern credit.
- III. Importance of the study commensurate with the losses inflicted by crises. Social ills reveal important aspects of social forces.

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- IV. Difficulty of study caused by (*a*) the complex, striking, unusual, and temporary character of the phenomena; (*b*) untrained observation; (*c*) partisan opinions.
- V. Guiding general facts: (*a*) crises appeared with the present industrial system, with industrial freedom, the factory system, foreign commerce, and credit; (*b*) geographical distribution of crises—the world crisis.
- VI. Place of subject in economic treatises. It does not adjust itself to the four-part division of economics into Production, Exchange, Distribution, and Consumption.
- VII. Limitations of economic theory:—
 - (*a*) Large number of theories advanced.
 - (*b*) Discussions devoted to local and incidental features.
 - (*c*) Literature growing out of abnormal economic crises likely to be worthless.
 - (*d*) Little work of value prior to 1837.
 - (*e*) Undue prominence of the “crash” and of credit institutions in studies of crises.
 - (*f*) Theory of crises used as a handle in various economic and political discussions.
 - (*g*) French theory and the question of freedom of bank-note issue.
 - (*h*) English theory and the Peel Bank Act of 1844.
 - (*i*) German socialistic and scientific contributions. Both of value. The latter the most unprejudiced body of discussion extant.
- VIII. Caution regarding apparent and real divergences of opinion.

CHAPTER II

INDUSTRIAL EQUILIBRIUM

A PROMINENT place is given in the science of economics to the idea of an equilibrium. The forces of supply and demand bring about conditions of equilibrium which are marked by price quotations, and which serve as a guide and criterion for the movement of economic interests. The simplest conception of an economic equilibrium is that which makes it resemble a pair of scales, in which are balanced, on one side, utilities, on the other, the costs of production involved. An extension of this conception, necessitated by the entrance of the evolutionary doctrine into science and the introduction of the historical method in economics, has regard to changes in the costs of production and in men's wants, which are accommodated by an equilibrium ever changing, but ever being renewed. The dynamic conception of an equilibrium is the only one which can be employed in an extended examination of economic phenomena.

The first impression which the crisis gives to the student of political economy is that the normal adjustment of economic forces has been violently

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disturbed. The ratios of exchange, indicated by prices, are abnormal. They imply the severest hardships to the industries of a country.

Granted that in a crisis the normal relations of supply and demand have been destroyed, we may ask what are the causes of the disturbance.

An examination of the literature dealing with economic crises shows that the theories which have been advanced to answer this question may be divided into two classes. First are those which assign some specific, immediate, and actuating cause, of such a character that no law can be formulated as to its recurrence. Second, we may group together all those explanations of crises pointing out an inherent tendency of industry which, when not counteracted, leads to recurring periods of distress.

It may be well, before taking up the study of those economic tendencies which lead to crises, to group together in this chapter for convenient treatment the heterogeneous "accidental" causes which have been pointed out by various writers, at different times, as the cause of this or that crisis. A group of writers, among the most prominent of whom is Wilhelm Roscher, have presented the idea that the present industrial system tends to preserve a stable equilibrium, and that there are no persistent or recurrent tendencies operating to break down the adjustment which normally prevails between demand and supply. Such writers, among whom we may include Nasse, Lugo Bren-

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tano, Garnier, and perhaps Max Wirth,¹ scout the idea of a definite periodicity of crises, holding that they result from unforeseen occurrences, or accidental junctures in the life history of trade.²

These writers and their followers all recognize, however, that the nineteenth-century economy is not the same as that which preceded it. Changes have taken place which have resulted in making industry sensitive to destructive influences once unknown. Such changes are the division of labor and the application of capital to industry, which

¹ The list of crises-producing causes enumerated by Max Wirth is as follows: (1) Harvest failures; (2) Discovery of new deposits of coal, metals—particularly of the precious metals; (3) Inventions; (4) Opening or closing of commercial routes and of markets; (5) War and revolutions; and, (6) Leading to depression of trade, the depreciation of the currency. "Grundzüge der National Oekonomie," Bd. III, p. 57.

² "The germs of crises lie in unusual economic phenomena which stimulate production and industry generally to forsake its beaten path, and which call forth unwonted activity in various parts of the economic organism." — MAX WIRTH, "Grundzüge der National Oekonomie," 3 Aufl., Bd. III, p. 57. "The feverish activity of the market and the abnormal inflation of prices are always the result of peculiar causes, for the operation of which the previous depression of industry has, indeed, prepared the way, but which exert throughout an independent, actuating influence. Periods of depression give way to a gradual revival of commerce when such peculiar causes are not present, or when the evolution is not suddenly interrupted by such disturbing events as war or the declaration of peace. Such a trade revival continues uninterrupted, unless checked by some new disturbing influences." — NASSE, "Ueber die Verhütung der Produktionskrisen," Jahrbuch für Gesetzgebung, Bd. III, N. F. 1879, p. 150. Cf. Roscher, "System der Volkswirtschaft," Bd. III, p. 783.

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increase the interdependence of industrial units. These also, by lengthening the chain of connected productive processes, lengthen the time during which disturbing changes may occur. Both the solidarity and the sensitiveness of business conditions are increased by the use of credit. It was with the economy and moral beauty of credit in mind, but yet remembering the crisis, that Roscher spoke of crises as "the shadow side of progress itself."³

Under some circumstances the industrial system may be said to be in unstable equilibrium, as when a country possesses a system of unsound banks or an unregulated paper currency. The course of foreign commerce is usually recognized as less stable and reliable than that of home trade. Hence, the growth of international commerce opens the trade of a country to many new disturbing influences. Agriculture and the other extractive industries are less susceptible to injury than are manufacture and commerce, because the goods which they produce are in the least possible degree specialized, and therefore sealed for specific commercial uses. These industries are adaptive, since, if one outlet is closed, the goods may be fitted for another use. Each branch of manufacture must follow the course of some specific demand, and commerce must suffer by any readjustment of supply and demand areas. We may

³ Roscher, "Ansichten der Volkswirtschaft," Bd. II, Sec. 4, p. 385.

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say furthermore that capital invested in agriculture is not so rapidly impaired while lying idle as is capital invested in manufacturing and commercial enterprises.⁴ The bonds of credit linking these various parts of a country's industries together by credit and debtor relations put the whole economic organism in a position to suffer from the reverses which come to the least stable elements composing it. Whatever in any way extends the market, therefore, or complicates business, if it is accompanied by a corresponding increase in economic solidarity, makes larger the area within which crisis-producing causes may appear.

Having noticed how liable the machinery of industry is to become deranged, it remains to consider that group of the actuating causes of crises which has been selected for treatment in this chapter, namely, the unpredictable ones. Beginning with those considerations which belong to the department of Production, in economic science, we may first mention invention, which has for its immediate effect a revolution in the technique of some industry. Invention changes the proportions in which the factors of production are related to one another in industry, readjusts industries to one another in the scale of importance, and changes

⁴ The varying degrees of sensitiveness to derangement which economic enterprises display is an important consideration in connection with the laying of taxes, for it determines in a measure the reliability of the various sorts of public revenue. Cf. H. C. Adams, "Taxation in the United States 1789-1816" (Johns Hopkins Studies), Vol. II, pp. 69, 70.

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the territorial relations of producing areas. The gradual accumulation of improvements, which is often allowed to grow unheeded by capitalists whose money is invested in equipped plants, forms, from time to time, a crushing advantage for new enterprises starting with all the latest devices known to the trade. During the early part of the century the advent of a new invention was not accompanied with great loss of fixed capital, because at that time capital was for the first time let into the productive process on a large scale by these inventions, and the change meant the use of expensive equipment for the first time. At present great inventions are coming more and more to mean the destruction of large amounts of fixed capital, which have been invested to utilize previous inventive achievements.

The opening of a new means of communication has an effect in some respects similar to that of an invention. The European markets were convulsed by the opening of the Suez Canal. The opening of a new market has frequently, in the past, led to ill-advised productive activity, resulting in great loss. The requirements of a new market are at first imperfectly understood, especially if it is in an undeveloped country. Optimism and the love of stimulating news serve generally to exaggerate the importance of an unknown demand. One has only to recall the "Mississippi Scheme" of 1718 and 1719 and the "South Sea Bubble" of 1720 in confirmation of this. Overestimation of the

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markets of Brazil and of Spanish America contributed principally to the distress in England in 1810. In 1824 and 1825 the markets of Peru and Mexico were overestimated, and in 1843 those of China were likewise. European manufacturers have been prone to ship what they wanted to sell, as regards assortments, quality, and style, rather than what the market demanded. A realization of the importance of early establishing trade connections, in order to "hold the field" against competitors, leads to activities which anticipate in too great a degree the development of a new field. This leads to such conditions as prevailed in California in September, 1850. When a collapse does not follow the first receipt of accurate information regarding the condition and capacity of a new market, a second stage of the process is entered, in which European capital and methods are rashly applied to stimulate the local industries. When the crash, which is almost certain to come, lays low the colonial industry, European houses connected therewith are often brought down in the general ruin. This is illustrated by the case of the Baring failure in England in the summer of 1890. Unfounded trade expansion in the home countries, such as that which was connected with the opening of California, is not likely to occur in the future, because of the improvement of means of communication; but the hasty and inconsiderate application of European methods in a tropical climate, with strange flora, fauna, and with non-

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European people, to bring about a forced growth of industry through the use of European capital, is likely yet to lead to trouble.

The laying of import duties, a practice common among new countries after reaching a certain stage of development, offers a prolific cause of uncertainty in trade with new markets. A tariff brings about an artificial distribution of industry which then must hang upon the course of legislation and indirectly upon the fortune of political parties. A tariff in a growing country must be revised from time to time. Furthermore, a tariff tends to build up interests which exert a pressure to secure revisions advantageous to themselves. The system must therefore be pronounced an unstable one. The history of tariffs shows that the system is "a thing of shreds and patches." In connection with crises the instability and artificiality of tariffs is the chief subject of remark.⁵

⁵ The opinion of the business men of this country who are not intrenched in monopolies may be judged from the well-indorsed sentiment of the National Board of Trade, as expressed in Washington in January, 1895, by Mr. Helman of Cleveland: "The gravest dangers from present methods of tariff discussion and legislation are found in the constant menace to the business interests of our country. History tells us that the various changes from low to high and high to low tariff between 1832 and 1880 led to periods of undue inflation, great demoralization, prosperity, and depression. Uncertainty has always acted as a damper on trade, and even the mere suggestion of a possible change in revenue rates has operated to unsteady business and hinder production. In the language of the resolution presented to this body, twice within the last two years have we, by overwhelming

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In this connection attempts to form monopoly may be mentioned. When these attempts are in the form of getting "a corner" on the market, great and possibly destructive price fluctuations may result. Attention must be called to the character of the trust wars, at present becoming familiar to us, and in all probability to be made more familiar in the future. These struggles may almost be called the wars of the giants. The investments of capital and the numbers of wage-earners involved are so great as to make them a matter of public solicitude.

A cause of crises, which may be considered to fall under the head of Exchange in economics, is the course of the precious metals. As these metals form the most important elements of the exchange medium of trade, and as every socio-economic activity is influenced by changes in the medium of exchange, the circumstances which affect the value of gold and silver are most important.⁶ The value of these metals is, in a greater degree than

majorities, reversed the national system of raising revenues, and twice placed in jeopardy the business interests of the country by making uncertain for months the outcome of legislation touching the exchange value of every article in trade. Every observer knows that there need be no actual legislation to involve great risk. The mere suggestion of possible action is sufficient to stir the commercial world and to produce alarm and even serious disturbance in trade." — "Proceedings," 1895, pp. 130, 131.

⁶ Emile de Laveleye considers that the fluctuations occasioned by the settlement of the balance of trade and the resulting movement of the precious metals are responsible for crises. "*Revue des Deux Mondes*," 1865, pp. 445 ff.

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is true of most other substances, dependent upon legislation. This suggests a source of economic insecurity. The crisis of 1893 in the United States was, in part, due to distrust of the integrity of our currency, caused by the operation of the Sherman Law, and by the existence of a strong free silver sentiment. The physical conditions governing the supply of gold and silver are also to be considered. The assertion has been made by Schäffle, Gustave du Puynode, and others that the increase in the production of gold, following upon the discovery of the California fields, lowered the rate of interest in Europe and stimulated speculation, resulting in a number of crises, prominently that of 1857.⁷ The Committee of the House of Commons appointed to inquire into the causes of the crisis of 1857 reported that speculation had been especially increased by three circum-

⁷ For a discussion of this, see Schäffle's article in "Zeitschrift für d. gesammte Staatswissenschaft," Bd. XIV, 1858, pp. 469, 470, also in "Deutsche Vierteljahrsschrift," 1858, Heft I, p. 327. Puynode, in "Journal des Économistes" for March, 1858, p. 458, argues the same cause for the crisis of 1857 in the United States. For a discussion of the influence of the scarcity of gold and demonetization of silver upon trade since 1882, see Robert Giffen's "Essays in Finance," 2d Series (N. Y.), 1886, Essay I: "Trade Depression and Low Prices," Part IV; "The Question of Gold Scarcity," pp. 22-28. Cf. Dr. Wm. Scharling, "Die jetzige Geschäftsstille und das Gold," Conrad's "Jahrbuch," Bd. II, N. F., 1885, pp. 189-219, and pp. 289-312; also J. E. T. Rogers in "Princeton Review," Vol. III, N. S., 1879, Article "Causes of Commercial Depressions"; Stephen Williamson, "Contemporary Review," Vol. XXXV, 1879, Article "Bad Trade and its Cause," Part I, pp. 121-131.

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stances : (1) The extension of foreign trade ; (2) A great importation of gold and silver ; (3) The economies in the use of money made possible by the practice of banking.

The productive process may be considered relatively stable and dependable, in comparison with the capricious movements of demand. The unexpected in industry usually makes itself felt first from the side of demand. We do not sufficiently understand the process by which wants rise and propagate themselves among the individuals composing society ; hence there is to us always an element of the unexpected in the movements of demand. There occurs to the mind at once the influence of fashion. Undoubtedly the word "fashion" has been overworked in this connection and made to stand for a variety of forces governing the movement of wants. Undoubtedly also many producers who complain loudly of the uncertainty of fashion have themselves to thank for nourishing a change of demand to put movement into the commodity market. A review of modern changes in production and consumption strongly indicates that these two complementary parts of the economic process are growing more and more unlike and are with more and more difficulty adjusted to one another. Production, employing machinery, and a strictly classified labor personnel under a complete system of organization pours forth vast quantities of goods of which each unit exactly resembles the other. To secure the economies

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inherent in this system there is demanded above all things stable and uniform conditions over wide areas. Demand on the contrary, influenced by general education and the quickening of intellectual movements, and encouraged to nicety by the great variety of goods available to choose from, is becoming more uncertain and more subject to whims and fads than ever before. The increase in the income of the wage-earning classes increases their power and desire to individualize their consumption. The smaller an income the more predictable is the expenditure resulting from it as it is mortgaged to the necessities of life. The larger the income the larger the disposable surplus set free to form an unpredictable demand.

To this list of crisis-inducing influences may be added one or two which cannot be grouped according to the customary divisions of economics.

It is a fact, known to every one, that war operates powerfully to restrain certain kinds of consumption and to increase other kinds. The "Chicago Tribune" of December 31, 1898, published a very interesting table, in the course of a review of the industry of Chicago, to show what industries were stimulated by the Spanish war, what were depressed, and what unaffected. In the first class are placed industries connected with drugs, groceries, farm produce, grain, flour, iron and steel, leather, paper, packing cases and clothing. To this might be added the newspaper and photographic industries, the trade of American resorts and the manufacture

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of powder, bunting and flags, brushes, etc. Among the industries depressed were those connected with boots and shoes, real estate, building material, lumber, and beer. The bicycle industry was depressed and trade on the Board of Trade was lessened. The industries not affected were connected with coal, furniture, hardware, jewellery, and millinery. Banking was also unaffected. Not alone does war disturb the course of industry of those nations engaged in it, but of many others as well. Neutral powers may have their markets destroyed, or their sources of raw material cut off, or may suffer from necessary changes in the routes of commerce. Again, neutral powers are tempted to expand their production in the hope of gaining a stolen march upon their competitors temporarily handicapped. The first great crisis of the nineteenth century, that of 1815 in England, was caused by the exaggerated hopes of English merchants that they would be able to control the continental markets at the close of the Napoleonic wars.⁸ War is an abnormal condition, but when it is long continued industry adjusts itself in a measure to its influence. The passage back to peace may then be a readjustment accompanied by anxiety and distress, until the situation of trade is again definite.

The delicately poised industry, which is in these

⁸ Sir Fr. Baring considered the unexpected declaration of war to be one of the chief causes of the crisis of 1793. "Observations on the Bank of England," p. 19. Tooke, however, disputed this. "History of Prices," Vol. I, p. 177.

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days built up through the instrumentality of credit, may suffer derangement through the failure of a staple crop, through the collapse of a mining excitement, or in the puncture of the bubble of over-capitalization of joint stock concerns. The whole industry of a country may suffer in a derangement having its origin and cause in some one trade. It has even been maintained that in certain critical seasons a general convulsion has followed as the result of the disastrous collapse of some one great individual concern. This extreme statement is frequently to be met with in the literature devoted to the crisis of 1857 in the United States. That crisis is attributed by some to the failure of the Ohio Life Insurance and Trust Company, having a capital of \$2,000,000 and a deficit of \$20,000. This is, of course, no more an explanation of the crisis of 1857 than was the failure of the Cordage Company on May 5, 1893, the cause of the crisis of 1893.

Such an enumeration of the causes of crisis as the preceding, while, perhaps, fair enough and free from partisan bias, and while elastic and comprehensive, is unsatisfying. Roscher has been justly praised for early according a place to the discussion of crises. His writings have been called pre-eminently fair. This is because what he has given us is virtually a blanket theory—an explanation encyclopædic rather than truly interpretative. An enumeration similar to the one given above can afford us no criterion to judge the future. Accord-

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ing to the "Equilibrium" theory, the cause of each crisis is some unusual conjecture which must be sought in the study of the events immediately preceding the crisis. The recognition of the delicacy of the industrial adjustment is merely an indirect way of saying that the precipitating cause of a crisis may be in itself something inconsequential in comparison with the string of events which it sets in motion. This takes the matter out of the general into the particular, and hides the roots of the problem in accidental and personal details beyond the reach of scientific study.⁹ The conclusions to be drawn from this are that the causes of crises are innumerable, that no important classification can be made among them, and that all true causes are equally important.¹⁰ The discussions contained in the following chapters may be considered in the light of an answer to this position.

⁹ "One can see that the ultimate cause of such crises must be an organic failure, and that the source from which the repetition of the phenomenon takes its rise must be sharply distinguished from the individual circumstances connected with each crisis. It is obviously a superficial procedure to fix attention on the incidental character of the crisis phenomenon, and therein to find the real, and in part predictable, law without coupling with this the search for the ultimate causes which account for the entire series of similar phenomena." — E. DÜHRING, "Cursus der National- und Socialökonomie," pp. 236, 237.

¹⁰ "The *causes* of such an economic disease are most numerous. *Every circumstance which suddenly and largely increases production or decreases consumption or which even disturbs the ordinary course of industry* must bring with it a commercial crisis." — ROSCHER, "Ansichten der Volkswirtschaft," Bd. II, Sec. 5, p. 391.

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Passing to the consideration of the remedies which are proposed or suggest themselves in connection with this list of causes, we have to observe that they must of necessity be as numerous and desultory as are the causes which they are to counteract. Alleviative rather than preventive measures are proposed by the adherents of the "Equilibrium" theory. First, as regards capital: During a financial panic persons who, in ordinary times would be perfectly solvent, are liable to have their property swept away, at a merely nominal valuation, in order to purchase cash in a stringent money market with which to pay a small obligation. To meet this emergency the state may issue a paper currency which may either draw interest, or be taxed to secure its rapid retirement after it has served its purpose. This aid may be made effective by advancing money to private parties upon security of property including stocks of goods.¹¹ The trial of this scheme in the United States in 1873 condemned it as tending to revive speculation, to create an unhealthy dependence upon government, and as offering a relief from the due effects of unwise and dishonest financiering.

To afford an equal relief to labor the local units of government may give employment to those who are out of work. If it is deemed unwise for the state to affirm the "right of work," this may be done under the plea of taking advantage of a

¹¹ Roscher, "Ansichten," Bd. II, Sec. 16, B.

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favorable market. In behalf of such public expenditure it may be urged that persons so employed would become a charge upon the public if not aided in some such manner.

Little can be done to diminish the force of such reorganizing influences as invention, the opening of new means of communication, or the opening of new markets. Nothing short of a comprehensive reorganization of industry such as is proposed by the socialists would avail much. The same may be said of the wars of trusts and monopolies. It is to be observed that legislation to restrict trusts and monopolies has been ineffective thus far in the United States. In regard to the risks connected with changes in tariff or monetary legislation the remedy suggests itself. To forecast, and in some degree diminish the uncertainties of demand, the sovereign remedy is statistical inquiry. It is a remarkable fact that almost without exception every important writer upon crises has emphasized in the most unmistakable manner the necessity of enlarging the scope of government statistical investigations.¹² Statistical bureaus should not only undertake investigations on their own account, but should give the utmost publicity to valuable statistical information gathered "by pri-

¹² Roscher says: "Had each producer and tradesman an accurate and continuous knowledge both of the extent of demand and of the number and capacity of his competitors, a serious crisis would scarcely be possible." — "System der Volkswirtschaft," Bd. III, Ch. II, Par. 175, A.

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vate persons and trade organizations and societies. If, as John Stuart Mill said, the laws of consumption are the laws of human enjoyment, then the process of consumption cannot be extensively regulated by legislation without serious loss of freedom and enjoyment.¹³ The next best thing is to subject the phenomena of consumption to serious study in order that we may at least foresee, if we cannot control events. In this connection it may be permissible to add a brief explanation of the plans for the statistical study of consumption proposed by the late Dr. Ernst Engel, of Berlin, formerly the Chief of the Prussian Statistical Bureau. This eminent statistician proposed, through the study of budgets of private expenditure, to discover the laws of consumption. If changes in demand can be foreseen, it will greatly facilitate the adjustment of supply to demand. Dr. Engel himself examined the expenditures of thousands of Prussian families and formulated the following four propositions: "*First*. That the greater the income, the smaller the relative percentage of outlay for subsistence. *Second*. That the percentage of outlay for clothing is approximately the same, whatever the income. *Third*. That the percentage of

¹³ "A systematic direction of production *without* freedom of demand and freedom in the choice of occupations would be, while not precisely unthinkable, accompanied by the destruction of civilization and all that which makes life worth living. To harmonize the systematic direction of all industry *with* freedom of demand and of the choice of occupation is a problem which can only be compared with the squaring of the circle."

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outlay for lodging, or rent, and for fuel and light, is invariably the same, whatever the income. *Fourth.* That as the income increases in amount, the percentage of outlay for sundries becomes greater.”¹⁴ Few subjects of economic research appear to offer greater rewards to the student than does this one.

RÉSUMÉ

- I. Economic equilibrium — static conception — dynamic conception.
- II. Grand divisions of crisis theories.
 1. A stable equilibrium disturbed by unpredictable causes.
 2. An unstable equilibrium eventually ruptured by steadily operating cumulative forces.
- III. School adhering to the first class of theories — Roscher.
- IV. Sensitiveness of modern industry to disturbances caused by (*a*) division of labor, (*b*) lengthening of economic forecasts, (*c*) use of credit (special case of unsound banks and unregulated paper currency), (*d*) foreign trade, (*e*) increase of elaborative as opposed to extractive industries.
- V. Unpredictable causes of crises grouped according to the departments of economic science.
 - I. Production.
 - (*a*) Inventions — destruction of invested capital.
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¹⁴ “Report of Massachusetts Bureau of Statistics of Labor,” 1885, p. 152.

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- (*c*) Changes in tariffs.
- (*d*) Monopolies — trust wars.
- 2. Exchange.
 - (*e*) Course of the precious metals — monetary legislation.
- 3. Consumption.
 - (*f*) Changes of fashion — divergence in the tendencies governing production and those governing consumption.
- VI. Miscellaneous causes.
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- VII. Unsatisfactory character of such an enumeration of causes.
- VIII. Remedies — alleviative rather than preventative.
 - (*a*) For capital — temporary issue of paper currency.
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 - (*d*) Statistical information to adjust supply to demand. Engel's plan — his four laws of budgets.

CHAPTER III

CRISES AND THE ORGANIZATION OF INDUSTRY

As crises are evidences of a lack of adjustment between economic forces, they naturally suggest the question, Who are the men whose business it is to direct industry, and with what equipments are they provided for the discharge of their duties? Inquiry as to the character of the machinery which controls the larger movements of industry reveals one of the serious weaknesses of the present economic order. While the organization and control of the internal affairs of business units have been well looked after, there have been developed as yet few efficient means of facilitating the coördination of the activities of the various economic units according to a general and sufficient plan. There is a lack of means for supplying information as to the general present and future conditions of the market, and for subordinating individual producers to the dictates of a comprehensive and rational policy.

The changes which took place during the "Industrial Revolution" were primarily changes in the technical processes of manufacture. In order to accommodate these new processes many changes

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have been rendered necessary in the organization of the factors of production. The proportion of capital employed has been increased. The introduction of machinery has necessitated elaborate structures and the use of steam power. The workshop and the tools have grown into a factory.

The division of labor has been greatly furthered, and this has necessitated the gathering of workmen into great communities where all depend upon the turning of the same chance of the markets. This concentration of productive forces means an extension of the market. The evolution which has drawn men together as producers has separated producers from their markets both by distance, time, and general social and economic relations.¹ Under these conditions, when an industry is depressed it means a concentration of suffering in a few localities. The difficulty of bringing together a body of expert workmen and the difficulty of providing for them if discharged *en masse*

¹ John A. Hobson says of the effects of machinery: "Again the growth of machinery makes industry more intricate. Manufacturers no longer produce for a small known market, the fluctuations of which are slight and easily calculable. The element of speculation enters into manufacture at every pore,—size of market, competitors, and price are all unknown. Machinery works at random like the blind giant it is. Every improvement in communication and each application of labour-saving invention adds to the delicacy and difficulty of trade calculations. Hence in the productive force of machinery, we see the material cause of the violent oscillations, the quiver of which never has time to pass out of modern trade."—"Problems of Poverty," London, 1891, p. 34.

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are circumstances leading employers to continue operations when the conditions of the market are unfavorable.² Large capital also calls for continuous use regardless of the fluctuations of demand.

The length of the productive process has been increased, if not in time, at least as regards the number of hands to which the various parts are intrusted. A cause of misunderstanding is thus introduced. The division of functions is so great that even makers of complementary goods and parts of composite products lose sight of one another. As the sphere of the operations of each unit is narrowed the difficulty of keeping informed as to the whole process and of regulating one's activities accordingly is increased.

Changes in demand of no less momentous character have taken place. It is true that the market open to any single producer is now geographically much wider than ever before, but every part of this field is now operated upon by causes tending to produce uncertainty such as the producer for a local market formerly never experienced. The character of our culture, which has emphasized freedom and individuality, has made the economic conduct of the buyer difficult to predict.³ Custom

² Herkner, "Die Ober-Elsässische Baumwollindustrie," Strassburg, 1887, p. 257.

³ Fashion, by laying emphasis upon artistic qualities of goods and by demanding ever new forms, prevents, in some degree, the application of the methods of the factory system to the production of these goods. In so far as this is true and as fashion demands personal services and hand-made goods, its changes do

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formerly marked clearly defined limits within which prediction was possible. As customs have lost their force, these scanty rules have slipped from the hands of an anxious trade to be replaced by no equally adequate means of reading the markets. The city or district market once held by the local merchant or guild has now become commercially fluid and mobile and responds to the influence of causes as various and remote as the circumstances of production the world over.

The movement of the masses out of ancient and established conditions into new industry and intelligence has given to our age the characteristics of a transitional period in which economic forecasts share the uncertainty of political and social prediction. The growth of means of communication, and the removal of barriers to trade, stimulate a rapid change of ideas and economic wants. The growth of city life increases the variability of consumption, for changes in the taste of city people are rapid, and the power of choosing substitutes in consumption is greatest in cities. One concomitant of a quickened social intercourse is the growth of the power of fashion. A more rapid change of

not fall upon the machine industry. As the root idea of fashion is to express superiority or exclusiveness of social standing through the possession of objects or manners not possessed by others, fashion frequently discriminates against machine-made goods because of the abundance and similarity of the product. An article is likely to be dropped from the list of those used to express social standing when it has been once firmly seized upon by machine industry.

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fashions takes place as the competition for social preëminence is increased.

The relations which foreign and domestic demand sustain to one another may, under certain conditions, be the cause of a peculiar and recurrent disturbance of trade. A country which has been suffering from depression, if its merchants are enterprising, may build up a foreign trade, depending upon the attractive power of the low prices offered. Upon the recovery of local demand a period of intense activity may follow, during which the foreign demand persists and the newly awakened home demand is added to it. This home demand, if business prospects are fair, is likely to be abnormal, since stocks which have been kept low and equipment which has been allowed to wear out must now be replaced.

The abnormal demand brings about a rise in prices. In order to satisfy the home demand, and since foreign trade can no longer be attracted by low prices, the latter is neglected and falls off. Subsequently, when the home demand is reduced to normal proportions, a surplus of unsold products begins to emerge which seeks a foreign outlet. But since foreign trade is only slowly built up and since it has been neglected, this channel does not offer a ready outlet to producers. The consequence is over-production which brings on a depression. This cycle of foreign trade may repeat itself again and again. It is this sort of danger coupled with the danger of overcapitalized industries which

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threatens the United States at the present time.

The localization of industry requires an extensive machinery to spread products evenly over the area of consumption. Between the producer and the consumer an immense amount of complicated machinery has been erected so that it is difficult, if not impossible, for them to trace each other's movements. The relation between the two has become an impersonal one hard to forecast before the actual cash nexus is formed. In this respect it little resembles the direct relations which were once maintained between the village shoemaker and his neighbors, who were at once his patrons and friends. The growth of means of transportation has accustomed the producer to look to a distance for his market, and the consumer⁴ to hold in equal esteem supplies coming from any quarter or any distance. Modern credit and facilities of exchange permit the most lively interchange of influences between all parts of the economic field. Upon so large a field no producer can single-handed compass the problem of understanding the market. The number of the competitors is unknown, and so is their producing power. The changes of the market are more or less of a riddle. Calculations based upon the conditions at home

⁴ G. Schmoller attributes "the size and the increase of our crises chiefly to the astonishing growth of commercial transactions now carried on with all parts of the world."—"Jahrbuch für Gesetzgebung," Jahrgang 1886, p. 601.

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may be upset by a failure of Russian harvests, by a revolution in South America or legislative changes in Europe, by an invention or trust in the United States or a subsidized industry in Canada.

The result is that the problem of determining the nature and extent of demand is an extremely difficult one for the individual producer even when equipped with long experience and the best available means of information. So it has been held that while these changes have been taking place in production and in demand and in the range and nature of competition an adequate change has not taken place in the methods and institutions used, to study the nature of industry and to direct the organization of industrial forces. The productive power of industry has in a half century been astonishingly increased, but it is claimed that the distribution of this power, considering the industrial problem as a whole, has been relatively planless because an equal advance has not been made in methods of organization and control. Private individualistic control is the rule for much of productive property. Capital and the division of labor which have accomplished so much in increasing production have not been sufficiently applied to the solution of the problem of the market. In short, the machinery of management has not developed *pari passu* with the technique of production. The chief obstacle which prevents the growth of comprehensive governing agencies

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is the fact that production is carried on for private gain. The presence of individual interests prevents certain very desirable forms of coöperative action. Exceptional ability to comprehend the workings of industry is guarded for private use so that it may contribute to private gain. So also information which would be of the utmost advantage to trade as a whole, if made public, is guarded in secrecy to serve as a source of private gain. Production takes place where, when, and in the measure that individual organizers and capitalists believe it will result in profit to themselves. Such production must inevitably be irregular, slow to adapt itself to social needs, and inadequate to satisfy many legitimate desires. Private enterprise will not take hold of economic problems, no matter how desirable their solution may be to society, unless a resultant private gain can be distinctly seen. But private self-interest puts more than negative difficulties in the way, for it frequently begets endeavors to produce abnormal and artificial relations between demand and supply in order to secure ratios of exchange which are profitable to the private interests concerned.

In spite of the splendor of isolated achievements in the construction of great businesses, there is some ground for saying that the lack of a well-coöordinated system of control makes industry resemble, at present, a mob rather than an army. Indeed, the headlong passion of the mob in which each stimulates the other, and because there is no

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plan things are overdone, resembles somewhat the stress of competition which when unrestrained ends in over-production.

Individualistic production for a market which cannot be understood without the coöperation of extensive agencies cannot result otherwise than in confusion. Such conditions always favor concentration and tend to work out their own cure through the one-man system. The climax of uncertainty is war; hence the significance of such war terms as "captains of industry" used in business. But business must go on, and when accurate information fails, speculative estimates take its place, and the optimism which is a mental trait of vigorous natures leads the producer to forge blindly ahead at full speed, attending only to hear the crash of some less fortunate rival's business. Our present solidarity is such that if one firm increases its output, others must do the same to secure equal economies in production and avoid being edged out of the market.⁵ The result of such a system, or rather lack of system, is misdirected production. When this is sufficiently serious it impairs credit and brings about total derangement of the market in the form of the crisis.

If it is individual self-interest which prevents such an organization of industry as would prevent crises, we have evidence that self-interest may defeat its own purposes. As Dr. Leete says in Edward Bellamy's "Looking Backward," "I sup-

⁵ Wasserrab, "Preise und Krisen," p. 65.

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pose that no reflection would have cut the men of your wealth-worshipping century more keenly than the suggestion that they did not know how to make money. . . . Selfishness was their only science, and, in industrial production, selfishness is suicide." The problem of the employment of capital, which will be taken up in the next chapter, is closely connected with this matter of the managerial ability displayed in industry. So far as there is at the present time any problem of oversaving, it is only superficially viewed as a misadjustment of final consumption to the productivity of industry. It is really an indication of the lack of organizing ability because of which wages and interest are low and profits high while industry fails to keep pace with the growth of new wants.

In as far as the line of argument which has been here followed is valid, the crisis is merely one of many symptoms of a lack of plan and organized effort in the management of productive forces. It has been claimed that the business field and the amount and complexity of business transactions have increased much more rapidly than the size and power of the individual business unit. The result is that each unit is less able than before to control the conditions affecting it. But it may also be asserted that the producing power of the business unit has increased more rapidly than its orienting and directing power.

To provide the necessary organization, it is desirable that there should be a movement both from

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the side of private and public initiative. There are forces in operation at present tending to secure greater dependability of economic conditions. We have already spoken of the demand for uniformity made by the modern system of production. A large investment of capital makes the continuous exploitation of a business a prime factor in securing economy of production. So with the skill expended in securing a competent body of workmen, and in perfecting plans of operation. As the amount of capital and brains necessary to set a business "on its feet" increases, the crisis will obviously lay a greater burden of loss upon the capitalist and manager, and a less proportional loss upon labor. Forces are thus set in motion to secure uniformity. The chief direction in which these forces have thus far exhibited themselves has been in the elimination of competition by the formation of trusts and monopolies.⁶ But there are other lines in which they might operate with equal efficiency and intelligence.

Whatever increases the size of business units by reducing the number of independent unknown elements in the business situation simplifies the problem. As Hon. Carroll D. Wright of the United

⁶ Stieda, "Die deutsche Hausindustrie," Abschnitt II, Par. 19; "Die Krisen und die Hausindustrie," pp. 104, 105; also Moritz Mohl, "Ueber die Württembergische Gewerbsindustrie," Stuttgart, 1828, p. 408. Note the railway consolidation in England following the crisis of 1847, and the pooling and consolidation in the United States after 1873, and the rapid formation of trusts during 1898 and 1899 in the United States.

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States Department of Labor says in his report on Industrial Depressions, "If the employers in any industry would combine under an organization that should have positive coherence, there would be no difficulty, so far as that industry is concerned, in regulating the volume of production in accordance with the demand." It may very well be, however, that a means of solving a difficulty may not be commendable because it creates greater difficulties than it adjusts; and this is true of a part of the present movement toward monopoly.

The time once was when the ownership and control of property were largely coincident. We have been gradually, and for the most part unconsciously, growing away from those conditions in our endeavor to secure the economies of modern production, and at the same time retain the institution of private property unchanged. So long as the ownership and the control of property are closely connected, the utmost tendency toward consolidation in either of them will fix the measure of its realization in the other. The tendencies now observable to separate ownership and control may provide a means of superior business organization without sacrificing any fundamental principle of our industrial order.

The growth of monopolies will become increasingly difficult as the sphere brought under their control increases, because of the pressure of free capital to find investment. This can only be avoided by freely receiving into the trust, or mo-

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nopoly, all new capital on equal terms, thus making of these institutions general agencies of industrial control, and dissociating them with any idea of favoritism to a few. Unless this is done the sensitiveness of the public with regard to the exercise of monopoly power may be expected to increase. But along these lines the problem of the world market can be solved by nothing less than a world monopoly.

It is possible to effect a closer adjustment of the vital parts of the industrial mechanism by the elimination of unnecessary middlemen. This will bring the producer and consumer into more direct relations and will facilitate mutual adjustments. The concentration of wholesaling, jobbing, and retailing in large houses would promote stability, because small and local fluctuations are, in the hands of large concerns, made to neutralize one another.

Stock exchanges and boards of trade and exchanges of a similar character for specific lines of trade may render exceedingly valuable service by subjecting certain kinds of property to a process of continual valuation. Through these valuations there is expressed the conclusions of the combined wisdom of the investing public as to the position and prospects of any business, or the wisdom of any policy known to be adopted by its managers. The high character of the social service which such investors' organizations may perform should promote an ambition leading to a

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jealous exclusion of all practices likely to further spurious or unwise investments.

Likewise to further the bringing of industry to an intelligent knowledge of itself, all organizations such as commercial agencies for the collection of information are to be encouraged. It is of the utmost importance that this information should be handled in the most honorable and unprejudiced manner. More trade papers are needed and more editors with training in economics. The public should be educated to appreciate statistics of production, of producing capacity, of visible supply, commerce, price, etc., and to demand carefully prepared market letters as a part of general news. In the collection of commercial statistics the coöperation of the state with private industry may be most valuable. The state, because of its extent and coercive power, can collect much information regarding both external and internal trade not otherwise obtainable. For the same reason that the work of the Signal Service of the Weather Bureau is commended, it is desirable that there should be established a competent commercial signal service.⁷ By the use of this information it will be possible to express with definiteness what is meant by average and normal conditions and, perhaps, also to define, and detect at an early date in their appearance, the practices and con-

⁷ See E. de Laveleye, "La Marche Monétaire et ses crises depuis cinquante Ans," Ch. I, pp. 7, 8; Thun, "Die Industrie am Niederrhein," Bd. I, p. 140 ff.

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ditions which lead to a crisis. It is possible that an extension of insurance might be made to serve as the basis for the better organization of productive forces. Any proposed scheme for the insurance of business profits⁸ will, however, necessarily meet the same sort of difficulties that beset insurance against the loss of work. Distress such as that through which the United States has recently passed may well encourage the formation of reserve funds in public as well as private treasuries to serve as a sort of informal insurance against times of crisis. The lines of insurance which are already organized on business principles have in their records accumulated valuable information concerning economic laws. More of this kind of information is sorely needed. It would seem as if a more liberal policy in regard to expenditures designed to establish and preserve prosperity might be followed quite generally by business enterprises, and a greater publicity be given to valuable business

⁸ Wachtel, the author of a work entitled, "Die Versicherung der Actienrente," has proposed a plan for the universal insurance of business profits, which he believes will prevent crises. For those businesses in which it is possible to calculate an average return upon invested capital, he would establish by law a certain minimum of dividends which must be paid within certain periods, —say of ten years each. The concern doing business at a loss or at small profit would be forced out of existence, and great care would be taken in the establishment of new business. The risk for those concerns willing to guarantee minimum dividends would be assumed by insurance companies voluntarily formed for that purpose.

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records. But if private enterprise cannot be enlisted in securing and disseminating the information which is needed to keep business in proper proportions, the state must be called upon to undertake the duty.

RÉSUMÉ

- I. One cause of crises is the lack of organs of industrial control to properly coördinate production with consumption.
- II. Statement of the problem.
 - A.* Certain changes have been brought about by modern industrial evolution.
 - (*a*) Division of labor causes territorial specialization.
 - (*b*) Large masses of capital call for continuous exploitation.
 - (*c*) Time required for a complete economic process lengthened.
 - (*d*) Specialization making oversight of the market difficult.
 - (*e*) The widened market is subject to disturbance from many causes.
 - (*f*) Freedom and individuality of buyer makes demand uncertain, custom weakened.
 - (*g*) Development of wholesale and retail agencies hides producers and consumers from one another.
 - B.* The corresponding evolution of means of control which should have taken place has been retarded by the competition of private interests.
 - (*a*) Ability and knowledge are reserved for private use.

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- (b) Production is for gain only.
 - (c) The solution of economic problems is not provided for by a system based on competition.
 - (d) The lack of coöperation which causes the crisis makes industry resemble a mob.
- C. Result. (1) The market has grown more rapidly than individual business units have increased in size. (2) Business units have increased in productive power more than in ability to judge the market.

III. Remedies.

1. Monopoly.

- (a) Competition when coupled with large capital which demands continuous exploitation and elaborate plans and a chosen body of workmen not to be abandoned leads toward monopoly.
- (b) This movement objectionable unless ownership and management are severed more than at present so that large capitalistic organizations become managerial agencies for small stockholders rather than agencies for promoting the interests of a few.

2. Elimination of middlemen.

3. Increase of organizations of control and for spreading information such as stock exchanges, boards of trade, commercial agencies, and trade papers. Demand for better official and private statistics.

CHAPTER IV

CRISES AND THE PROBLEM OF CAPITAL

THE nineteenth century is one which has witnessed an unparalleled development of the material equipment used to assist man in the production of wealth. It is necessary, therefore, in searching for the cause of crises, to examine into the relation between the accumulation and use of capital.

Considerable attention has been devoted, by English writers on political economy, to certain tendencies at work in a progressive community, to change the proportion in which the three factors, land, labor, and capital, unite in production. The effect of the "Industrial Revolution" has been to vastly increase the amount of capital which can be combined with a given amount of labor and land. Profits or the returns on capital are fixed by the relation of demand and supply. It has been long observed that in certain progressive countries the rate of profit continually tends to decline. Adam Smith¹ believed that the desires leading to the accumulation of capital, and the competition of capitalists among themselves to find employment for their means, were sufficient causes to

¹ "Wealth of Nations," Bk. II, Ch. IV.

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account for the decline of profits. To this explanation a very important addition was made by Ricardo. To understand what this was, it will be necessary to refer to the law of diminishing returns.

The price of food was exorbitantly high in England at the opening of the nineteenth century. Among the causes of this were the war with France, a succession of bad harvests, and the disturbed condition of English agricultural labor. But the primary cause was that the population of England was increasing beyond what the agricultural resources of the country could support. These conditions attracted the attention of thinkers to the agricultural industry. The law was formulated that when the quantity of labor and capital applied to a piece of land is increased by a given amount, the returns yielded by the land will be increased in a less than proportional degree. The best lands are naturally first brought under cultivation. If, then, the increase of population requires that poorer land shall be cultivated, the application of labor and capital to this inferior land will result in a smaller product than that received from a similar expenditure upon the best land. Thus the law of diminishing returns is held to characterize the cultivation of the soil.

Ricardo pointed out that if, as population increased, it was necessary to take inferior sorts of land into cultivation, the cost of producing the minimum supply of food upon which the wage-earner

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could subsist would increase; under the condition, therefore, that the population is increasing, wages must form an increasing factor in the cost of production and profits must fall.

This explanation of declining profits superseded that of Adam Smith. It was as a corollary of the law of diminishing returns in agriculture that the tendency of profits to a minimum was at this time discussed. The former law was given an emphasis which corresponded with the pessimistic view taken by economists of the future of England's industries. A shadow was cast by it over the economic discussions of the period. The thing that they could not overlook was that the land of England was very limited in quantity. The idea of a possibility of increasing the product of the soil by improving the methods of cultivation was swept aside as a temporary expedient. The exhaustless field for the employment of capital presented by foreign trade was hardly as yet realized. The tendency of profits to a minimum was discussed by Wakefield and Chalmers,² but the theory was developed and brought into definite connection with the subject of crises by John Stuart Mill.³

² Dr. Chalmers was strangely confused as to the difference between the balancing of the factors in production and the balancing of the forces governing production and consumption. See "Political Economy and the Moral State and Prospects of Society," pp. 105, 106, and pp. 157, 158.

³ "Principles of Political Economy," Bk. I, Chs. IV, V, VI, XI; Bk. II, Ch. XV; Bk. IV, Chs. III, IV, V, VI.

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The theory as perfected by this writer is as follows: Profits depend upon the disposition to save and the field of employment open for capital. It is pointed out that the tendencies leading to the accumulation of capital are strong in England. The opportunities which are open for the employment of capital are constantly on the verge of being entirely occupied; however, from time to time events take place which create new openings. There exists a boundary of profitable investment which is frequently in plain sight, but which is from time to time being expanded by unforeseen occurrences such as the perfecting of inventions and improvements of one sort or another. The application of capital to the cheapening of the necessities of life by means of which wages may be reduced affords a means of increasing profits. The opening of foreign trade provides an outlet for capital, and relieves the pressure of competing capital, which would otherwise quickly reduce profits to a minimum in a country so small and so frugal as England. Should these means for a time fail, profits would soon fall to such a point that they would merely induce the saving necessary to keep intact the capital then in existence. Industry will then have reached the "stationary state."

While the influences which expand the market are occasional, the tendencies which promote the growth of capital are continuous. There are, therefore, frequently considerable periods of time

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when capital is growing more plentiful and profits are falling. But a decline in profits is unwelcome, and is by no means endured with equanimity or without attempts at escape.⁴ The search for new fields of investment in which capital may be made to yield large returns is stimulated by a general decline of profits. When the prevailing rate of profits is low, the capitalist is willing to make more daring ventures and run greater risks to secure large remuneration. The decline of profits stimulates speculation. The greater and more rapid this fall, the more reckless the ventures to which it will give rise. Railways are built in the hope that industries will grow up along their lines in the future, mines are opened in the hope of creating valuable property, manufactories are constructed depending upon contingent markets. Any new thing which promises relief is eagerly listened to. The period of speculation during which investments are made is followed by a period of expectancy, which soon changes to distress as the results of rash investments become known.⁵ A breakdown occurs, which spreads ruin through the

⁴ The truth of this is embodied in the well-known proverb, "John Bull can stand a good deal, but not two per cent." Illustrations of absurd production are given by E. de Laveleye in "Revue des Deux Mondes," 1865, p. 210.

⁵ The effect of misdirected investments is pointed out by Bonamy Price, "Contemporary Review," May, 1879. The dangers which beset a country rapidly increasing in wealth are noticed by Courcelle-Seneuil, "Journal des Economistes" (2d Series), Vol. XLIII, p. 34.

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unsound structures of business, and the suspicion which is aroused tries to the utmost the solidity of all enterprises. In the degree in which the competition of capital leads to rash investment it accomplishes the waste and destruction of capital. The capital tied up in unnecessary duplication of railways, unused mines, and superfluous factories does not minister to the production of wealth, and, therefore, loses its character as capital or wealth. These losses relieve the pressure of the competition of capital for investment. They throw away part of the savings of society, and they do not create new industries from which an annual saving can be made. In this expensive but automatic manner the fall of profits is checked. If speculation has been very intense and the loss of capital is great, the rate of profit may even be somewhat advanced above what it was when speculation began. The restoration of a satisfactory rate of profits removes the desire to embark in speculative enterprises.⁶ Business is, for a time, carried on in a normal and conservative manner. The higher rate of profits, however, affords a new impulse to the tendency to save. The increase of capital begins again. If the field for the legitimate investment of these accumulations does not open as

⁶ On the basis of this theory, it has been maintained that a privileged bank should not discount freely to keep down the rate of interest, since low rates of interest are what give rise to the speculative spirit. — Adolph Wagner, "Lehre von den Banken," pp. 233-237.

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rapidly as the capital is furnished, a condition of over-supply again results with consequent fall in profits and the rise of over-speculation which ends as before in crises and loss.⁷ Thus, there is established a cycle of influences which produces recurrent periods of industrial distress.

The writers before John Stuart Mill made very important the part which the losses of the crises played in relieving the competition of capital. It is indicative of a later phase of English industrial progress that Mill should have placed more emphasis than did these writers upon the openings provided for capital by foreign trade and by inventions for reducing the cost of the necessities of life. The older economists placed too much emphasis upon land as fixing the limit of capital

⁷ The testimony of economic history is by no means clear as to the connection between crises and periods of declining rates of interest. J. S. Mill mentions (Bk. I, Ch. XI, Sec. 3) that the rate of interest in Holland at the time of its prosperity was two per cent and three per cent. Certainly the crises that have visited Holland since that time cannot be attributed to the tendency of profits to a minimum. In the middle of this century, the common rate of interest paid in the English cotton industry for money was $2\frac{1}{2}$ per cent. ("Edinburgh Review," 1849, p. 429.) Tooke has given examples of speculation occurring at the time of a rise in interest, as in 1796 in provisions, in 1808 in general merchandise, and in 1814 in export articles. See "History of Prices," Vol. III, p. 159. On the other hand, the sudden reduction of interest upon the public debt of England is enumerated as one of the causes of the speculative excitement of 1825. Tooke, *Ibid.*, Vol. II, p. 148 ff. Wagner considers a decline of profits important in connection with crises, *op. cit.*, p. 530; so also does Roscher, "Grundlagen," Bd. I (21st Ed.), Sec. 188.

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growth. They did not appreciate the world of new investments which the application of invention to the means of ocean transportation might be made to open for English capital. The thing that was cramping and choking industry and rendering its savings useless was the lack of human genius and organizing power sufficient to open this new world. The economists then had much to say of the "niggardliness of nature," while we now think that progress depends chiefly upon the talent and virtue of man.

Their mistake was one of emphasis. Land seemed the chief factor in the problem of progress, while wheat was exorbitantly high during the first years of this century. The problem has shown new aspects since that period. Since 1840 foreign trade has brought about the paradox that while the price of bread has been lowered, the wealth of England has been steadily increasing, and at the same time the value of English land and the acreage under cultivation have decreased.

Having before us the theory which economic literature affords us on the relation between the accumulation of capital and economic crises, let us examine into the character of this relation a step further. It is a common assertion that the chief cause of the recent vast increase of the world's productive power is due to the use of capital. The meaning which is commonly conveyed by the phrase "the use of capital" is a narrow and technical one. It is common to think of the prob-

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lem of capital as merely the problem of how to equip a given industrial plant in such a way that it will yield as large a product as possible. It is true that the use of capital enables man to command the forces of nature to assist in a specific act of production. But the success of man's activity in ministering to his own material well-being depends upon something more than his capacity to produce plentifully certain kinds of goods. The problem raised by the crisis is broader than that of a given machine or factory or industry, and lies in the maintaining of proper relations between industries and men's wants.

If the present employment of capital leads only to over-production along certain lines, it cannot be said that we are completely equal to the task of using capital. There must be ability to organize and properly coördinate the forces of production and to distribute their activity evenly over the entire field of production in which demand will sanction their use, before it can be said that we have in a broad sense mastered the problem of the use of capital. To be able, in the broadest sense, to "use capital" implies not only the power to employ it successfully in bringing into existence this or that good, but also the power to so organize the system of industry and so develop the wants of society as to accommodate and turn, without friction or waste, this increased productive power to the service of man.

The literature devoted to crises and the common

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testimony of business men leave no doubt but that production often runs unduly ahead of consumption, and that the markets of certain regions are frequently in a state of glut with reference to certain commodities. These are partial gluts, but in the period of greatest stringency in the climax of a crisis there is often such a general and excessive cautionary restriction of consumption as to produce temporarily an almost universal glut.⁸ A failure to adjust production to consumption which results in a partial glut, with consequent demoralization and loss in certain lines of industry, may in a credit economy easily precipitate a general rupture of the equilibrium of trade. If the machinery of credit is so far weakened at any point, by a partial glut, as to awaken general suspicion as to the soundness of that machinery, the suspicion may give rise to such a demand for liquidation as will precipitate a general crisis. A crisis naturally promotes general economy in consumption. The result of this may be that the pressure to convert stocks of goods into cash in the face of a failing market will result in a temporary but very general overstocking of markets⁹ and a diminution of every

⁸ Commodities that can serve as money being excepted. For a discussion of the effect of a sudden reduction in consumption, see Sismondi, "Nouveau Principes d'Economie Politique," Livre II, Ch. III, pp. 82, 83, and William Smart, "Contemporary Review," May, 1888, p. 691.

⁹ During a crisis, a glut may extend to products that have not been produced in excess of what the normal demand would warrant.—Hobson, "Evolution of Modern Capitalism," Ch. VII, Sec. 1,

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effective demand except that for the more cumbersome medium of exchange suddenly demanded to take the place of credit.

This condition has been variously called one of over-production and one of under-consumption. The latter of these two designations is preferable, as the initiative in the general change is most frequently taken by demand. The supply cannot be immediately altered to accommodate this change. The trouble is, however, obviously a lack of adjustment between the forces governing demand and supply. Any step which can be taken to improve this adjustment and set up a regulative and connective machinery will be a step in the right direction. Crises present evidences of general distress for which a general cause has quite naturally been sought. By confining study to the period of panic it is easy to believe, from the temporary conditions prevailing, that the cause of distress is general over-production. But such an explanation is not true. Disproportion in production may precipitate a crisis; the consequent distress is general, not because over-production has been general, but because the loss suffered by one industry has destroyed credit which is a general bond of industrial society.

A partial glut, which is to be distinguished from

pp. 167, 168. J. S. Mill maintained that there might be a general excess of products, not because of over-production, but because of the effect of a lack of confidence. "Some Unsettled Questions of Political Economy," Essay II.

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the general glut of the panic period, is the evidence that the producing power of society has not been properly directed in the satisfaction of social needs. If the chief increase of the productive power of industry comes through the introduction of capital, gluts must be looked upon as evidence that capital has put us in possession of productive powers which we do not yet know how to utilize properly.

The introduction of capital makes the act of production a more roundabout and long-continued one. The greater the amounts of capital employed, the more does the specialization of capital depend upon forecasts of the condition of the market at a relatively distant time. The lengthening of the period of time over which the act of production is extended increases the liability that before the good is completed the demand for it will have disappeared.

A glut of commodities can be easily prevented or reduced by merely stopping the wheels of industry. But the capital which has been specialized to produce those commodities, and the plans of operation that have been perfected, cannot be transferred to other sorts of productive activity without great loss. The misapplication of productive power which is revealed in the glut causes a loss in the unnecessary goods produced, in the sacrifice which attends the transfer to some other line of production, and in the distress which the failure of one branch of production may communicate to the rest of economic society.

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The growth of industry does not take place with that perfection of constant readjustment of parts and functions which characterizes the growth of the true organism; it is accompanied by suffering and uncertainty. Any increase in disposable capital necessitates a readjustment of the factors of production to one another and brings up the general problem of the organization of industry in all its parts. As a producer of wealth man has three powers, the power to labor, to save, and to manage. In order that industrial society shall be prosperous, these three powers must exist and be exercised in proper proportion. In the early stages of industry the first two appear most important. Our economic life increasingly demands managerial ability. The manager must not only strive to increase production by improving the way in which land, labor, and capital are related to one another, but must correlate production and consumption not only by the proper distribution of productive power but if necessary by educating and stimulating consumption.

The application of the productive power, which comes from the use of capital, in such a way as to promote a well-balanced growth of industry is rendered difficult by the fact that equal amounts of capital devoted to different industries do not produce the same increase in product, inasmuch as there are businesses of increasing, constant, and diminishing returns. Capital is not as important a factor in some lines of production as in others.

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Capital seeking investment is never distributed evenly to all branches of industry. Indeed, new capital is not permitted to compete with equal freedom in all parts of the economic field. Large aggregates of capital effectively organized for defensive purposes discourage small capitals from entering the lists against them. Just as public thought is seldom distributed with proper emphasis, and as public interest unduly exploits a few topics upon which attention has been fixed, at the expense of other matters which are in need of more publicity than they receive, so industry bears the evidences that the productive powers of society are unduly concentrated along a few lines. Progress seems largely made up of uneven starts and advances. Some sciences are for a time accorded veritable "booms" and become "fads," while others, equally useful, are for a time relatively neglected. In consumption the refinement and precision of popular taste along some lines are by no means paralleled in other lines. So in the distribution of productive power the application of labor-saving devices has made much more rapid progress in some industries than in others. And production as a whole has been studied to the neglect of consumption, and of the means of organization and control necessary to coördinate the two.

When a market has been oversupplied, and prices have been unduly depressed, and with them profits, the wrong kind of virtue has often been

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invoked. It seems to many as if industry was like war. Anglo-Saxon pugnacity has been fortified by precepts exalting grit and staying power. The result is that industrial struggles are too common, the object of which is not so much to distribute properly productive power in industry, as to enlist all available capital and brains in an attempt to whip somebody else into bankruptcy. An escape from small profits has too often been believed to exist only through securing the economies of production on a large scale.

These are some of the circumstances which have led to unnecessary reduplication of plant, and an over-investment of capital, particularly in businesses of increasing returns. The extent of this can be judged in some cases by the number of establishments closed by trusts, which have maintained the same product by operating a few plants to full capacity.¹⁰ The evils attending the misap-

¹⁰ "Even before the days of the Cotton Oil Trust, numerous presses and refineries had for a long time been inactive. The trust closed at once more than a dozen of the small old-fashioned mills. The same thing happened with the Sugar Trust, which can supply the whole market with the product of one-fourth of the plants it owns. The Whiskey Trust immediately closed sixty-eight of its eighty distilleries, and with the remaining twelve was enabled to furnish the same output as before, and soon to largely increase it." — E. VON HALLE, "Trusts or Industrial Combinations in the United States," p. 66. The manufacturers of hosiery at Chemnitz, Saxony, maintain that that city could easily turn out five times its present enormous product if the market would warrant. Cons. Rep., September, 1897, p. 63. Mr. Simon Sterne is responsible for the assertion that "no railway, even when it is

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plication of capital are manifestly increased by anything which increases the amount of wealth devoted to further production until a rational means of employing this wealth has been discovered. The unequal distribution of wealth gathers together the products of industry into the hands of a few in excess of what is needed for providing the necessities and comforts of life, and creates a situation in which the conversion of a large part of the social dividend into capital is easy. Such accumulation is accompanied by little of the "abstinence" of which economists had formerly much to say. Large fortunes increase with truly appalling rapidity when kept long intact. Institutions which gather together small savings and facilitate their investment increase the amount of capital seeking employment.

Wealth should not be devoted to production without a proper consideration of the demand upon which the intended production must depend. Saving should always be properly coördinated with its final aim, consumption.¹¹ To express the same most actively employed, is worked at anything more than a small percentage of its maximum capacity." — Address before National Board of Trade, New York City, 1878. It is notoriously true that the wholesale and retail trade of the country is on a scale fitted to render many times its present service.

¹¹ See Hearn, "Plutology," Ch. VII, Sec. 6. Sismondi, Lauderdale, Malthus, and Chalmers all agree that capital can only be amassed with profit to a certain point. On the other hand, J. B. Say, James Mill, Ricardo, McCulloch, and Senior adopted the imperfect ideas of Adam Smith. See Robertson, "The Fallacy of Saving," p. 29.

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thing in another way, the economic mechanism will not run smoothly unless a proper proportion is maintained between final and productive consumption, that is, between the use of goods for human enjoyment, and their use to assist in producing other goods. A small productive consumption, by restricting the productivity of labor, compels a small final consumption. A large productive consumption, by increasing the productivity of labor, may render possible an increased accumulation of wealth, but it renders imperative an increased final consumption. Otherwise, consumers' goods will fail to return their values to their producers, and they and the specialized capital necessary to produce them will be degraded in worth. The future, as such, never comes. The habit of preferring the future may become so fixed as to crowd out the very realizations for which it was established, and in connection with which it is alone reasonable. The increased consumption which is made possible by saving can only be realized in contention with the habit formed to provide the means for its realization.

We have long enough been saying, "If we can only produce enough, consumption will take care of itself." Nothing will take care of itself. The mistake has been analogous to that fanatical doctrine which counselled its followers to look after the interests of a future life, and leave those of this life to take care of themselves.

Relief from the problem of applying capital to

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production is, of course, temporarily afforded by the destruction of capital. John Stuart Mill, as we have already seen, emphasized the relief which is afforded by the losses suffered during a crisis. Such a remedy is too heroic and too temporary in character to command our attention. So also the extravagant use of wealth may afford a relief,¹² but through a remedy as bad as the disease. Many who admit the relief which results from a loss of capital are not willing to admit the relief which results from luxurious expenditure. Such persons probably hold their opinion because they look upon luxury as wasteful and anti-social. But so is the loss of capital suffered in crises wasteful and anti-social. These losses are no more a real relief for industry than blood-letting is a universal panacea for the ills of the human body.

The only permanent relief is to be found in developing, somehow, new and intelligent uses for wealth as rapidly as wealth shall be accumulated. Production must be regulated with reference to demand; yet a gradual increase in any sort of production may develop its own market within certain limits. In like manner it is necessary that the supply of the three factors of production should stand in some relation to the usual method in which they are combined; yet a gradual increase of any one factor may be accommodated by an alteration in the methods of production. The invention of machinery and the elaboration of manufacturing

¹² Chalmers, pp. 124-132.

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processes afford new openings for capital by increasing the proportion in which it may be combined with the other factors of production. The question is, Will the application of these forces to the production of new classes of utilities and will the education and expansion of human wants take place as rapidly as the productive power of man increases?

To accommodate an increase of production, unless we are to be satisfied with the temporary relief of stocking frontier markets, and exploiting the needs of primitive peoples, there must be a change in demand, new wants being developed, and great emphasis being placed upon those intellectual and spiritual needs which are capable of indefinite increase.¹³ The development of man's power over nature must be accompanied by a study of the manner in which this power can be made to contribute to the development of man's higher nature, and by a determination to use it for that purpose.

¹³ In regard to the plethora of products, Mr. John M. Robertson says: "The real cure, as regards the labour-market, would be by way of *extension of demand to objects not readily produced in excess*; such as superior hand-made goods and products of *art* of all kinds. Here a glut is impossible . . . It is not quantity, but kind, of consumption, the setting up a continuous demand which shall withdraw labour from the fatally easy fruitions of the mechanical manufacture of common necessities, that will prevent chronic depression of trade."—"The Fallacy of Saving," pp. 113, 114. Cf. Sir Lyon Playfair, "Contemporary Review," March, 1888; David A. Wells, "Contemporary Review," July, 1887; Carroll D. Wright, in "Report on Industrial Depressions," Washington, 1886, pp. 80-90.

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Unless these larger problems of the economic life are heeded, it is quite possible that the increase of social capital may outrun the development of social wants and the provisions made for the use of capital, because of poverty of resource, just as a private income may overtax the ability of its possessor to consume it intelligently.¹⁴

As the rare social virtues are highly rewarded by social esteem, so the rare economic virtues are highly rewarded in economic returns. If the three economic powers of man, to labor, to save, and to manage, are not properly proportioned, the most scarce of these powers will receive a high reward at the expense of the other two. The human race by laboring and saving has been shifting its burdens upon nature through the employment of capital, but its mastery over nature requires the talent of management in an increasing degree.

When parsimony is rare it is highly paid in the return given to capital; when it becomes common its rewards are reduced. The methods by which the individual advances his fortunes above those around him, must not be confused with the methods by which the economic life of society is properly regulated. Maxims of private wealth-getting cannot be transformed directly into principles of

¹⁴ See J. S. Mill, "Principles of Political Economy," Bk. I, Ch. XI, Sec. 4. Mill says to be wealthy is for one to have a large stock of useful articles ("which he can use," adds Mr. Ruskin, "Unto This Last." — Essay IV).

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political economy.¹⁵ If capital is accumulated more rapidly than the field for its use is developed, the talents of the organizer are those demanded and a high remuneration will be given for organizing ability rather than for saving.¹⁶ The liberal salaries

¹⁵ Smith was in error on this point. Bk. IV, Ch. II. See Mummery and Hobson, "The Physiology of Industry," p. 106; also Mill, Bk. I, Ch. V, Sec. 3. Dr. Chalmers recognized this distinction in the following way: "This question turns precisely on the balance between two appetites of his (the capitalist's) nature—between the appetite for eventual gain and the appetite for present comfort. Should the latter prevail, *and prevail generally*, capital would be kept down and profit be sustained. Should the former prevail, and also prevail generally, capital would be augmented and profit be depressed. It does not affect this conclusion, that the highway of fortune, on the part of the individual merchant, is to save as much and spend as little of his revenue as he can. It is true of every single capitalist that he is all the richer by saving than spending; and that under any given rate of profit, or with any given general habit on the part of capitalists. But it is not true that capitalists, collectively, will become richer by saving than by spending; for on their general habit, the rate of profit immediately and essentially depends."—"Political Economy and the Moral State and Prospects of Society," p. 91. See also J. M. Robertson, *op. cit.*, pp. 90-94.

¹⁶ Upon the plethora of capital and lack of employment, William Smart very pertinently says: "All labor in the present day waits, not on the capitalist—that is a socialist mistake—but on the *entrepreneur*, the organizer. . . . The fact seems to be that the world's progress is continually outrunning its organizing power. Production of anything is so great that a few manufacturers speedily supply all the demand for their goods, and then, instead of waiting for the articles to win their way and make a market, they double their production in order to cheapen it by a fraction and undersell their rivals; they glut the market and then throw the worker on the street till things right themselves. All the time, the world is wanting and waiting for other things; when one

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now paid to men of superior organizing power, in contrast with the low rates of interest prevailing upon the markets of the world, show the present relation between the supply and demand for these qualities so necessary to social progress.

Capital, however, can be used to assist in the solution of its own problem. Wealth may be used in the encouragement of science and invention and in opening those lines of possible economic activity which are not generally appreciated. It may be used to promote the study of new markets, to disseminate information as to market conditions, and to perfect all those means of industrial control which would further a systematic distribution of capital over the realm of industrial enterprise. But the most abundant return, measured in terms of public welfare, will probably result from the application of capital to the development of the higher and more social economic needs of man.

RÉSUMÉ

- I. A crisis may be caused by the accumulation of *unused* or *improperly used* capital.
- II. The existence of *unused* capital, indicated by decline of rate of profits.
- III. Review of English economic theory on the tendency of profits to a minimum.
 - (a) Theory of Adam Smith.

demand is supplied, if the same energy were turned on to supply another, there would be no over-production." — "The Dislocations of Industry," "Contemporary Review," May, 1888, Vol. LIII, pp. 695, 696.

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- (b) Theory of Ricardo. The law of diminishing returns. Wages an increasing share in distribution, profits a decreasing.
 - (c) Theory of John Stuart Mill. A closed field of employment leads to falling profits and unwise investments, causing crises.
 - (d) The field of employment and land. Employment and "use of capital."
- IV. The existence of *improperly used* capital is indicated by gluts.
- (a) The existence of gluts unquestioned. (b) A partial glut may cause a general glut. (c) A partial glut indicates an inadequate distribution of productive power.
- V. The existence of *unused* and *improperly used* capital indicates a lack of managerial ability.
- VI. Remedies.
- (a) Distribution of capital in employment difficult.
 - (1) Effect of capital in different industries.
 - (2) Relation of capital to land and labor in different industries.
 - (3) New capital barred out of certain fields.
 - (4) Psychology of overdeveloped industries.
 - (5) Industrial warfare and overinvestment.
 - (6) Economies of production on a large scale.
 - (7) Plants closed by trusts.
 - (b) Investment must be coördinated with final consumption.
 - (c) Relief given by destruction of capital, buying luxuries, and supplying frontier markets.
 - (d) New uses of wealth must be developed.
 - (e) New and higher wants must be developed.
 - (f) Private maxims of saving not principles of political economy.
 - (g) Capital applied to solution of its own problem.

CHAPTER V

CRISES AND THE WAGE SYSTEM

IN contrast with the previous study of crises, from the point of view of production, the present chapter deals with a source of industrial disorder which has its seat in the process of distribution. A theory of crises sometimes known as the "Wages Theory," has been developed, which directs attention to the share of the products of industry received by labor. No one can, in these days of agitation and organization, remain ignorant of the fact that there is a labor problem and a problem of wages. The coincidence of the rise of crises with the inauguration of those general conditions which have distinguished the modern form of the wage-earner's problem, has served to make the crisis argument a convenient handle in many discussions concerning wages.

The first writer to furnish a consistent theory of the relation between crises and the industrial problem generally was Rodbertus.¹ That conserv-

¹ "A more deeply cutting criticism of the present economic order with private property in land and capital, than that penned by Rodbertus in 'Sociale Frage,' pp. 116-119, has not been brought forward by any English or French socialist, nor yet by

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ative German jurist, early in his writing,² furnished a most penetrating, though not entirely new criticism³ of industry, which aimed to explain the economic causes of poverty as well as the recurrent spasms of crises.⁴

Rodbertus assumed, without attempting proof, that all those goods which demand serious economic consideration may be looked upon as practically the product of labor alone. They are valued solely as the products of labor. This being true, he held that the ideal distribution of products is such as will give to each laborer goods exactly equal in value to the product of his labor, excepting only a reserve necessary to keep capital intact and to provide maintenance for those performing useful services for society, but who do not directly participate in production. Such a system of distribution is very far from being the present reality. Departure from this ideal does more in his opinion than violate principles of justice; it violates fundamental economic laws, and entails

Engels, Marx, or Lassalle."—A. WAGNER, "Grundlegung," Bd. II, p. 332. Wagner has called Rodbertus his great and honored teacher. "Grundlegung," Bd. I, p. 748.

² The outlines of this system of thought appear in his first important work, published in 1842, entitled, "Zur Erkenntniss unserer Staatswirthschaftlichen Zustände."

³ See especially Anton Menger, "Das Recht auf den vollen Arbeitsertrag in Geschichtlicher Darstellung," 2 Aufl., Stuttgart, 1891, Sec. 8.

⁴ "Kapital" (Wagner-Kozak Ed.), p. 61. The connection between crises and pauperism is not emphasized in Rodbertus' earliest writings, but is dwelt upon later.

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upon society a considerable part of the misery it endures. From time to time the present erroneous principle of distribution brings industry to a standstill in the crisis. To point out the manner in which this takes place, Rodbertus prepared the following analysis of the present capitalistic wage system.

The productive power of labor is to be estimated by the total annual product of goods. That the productivity of labor is increasing is evidenced by the increasing amounts of goods produced each year. The development of the mechanical arts and the better organization of labor serve to increase the product resulting from each unit of labor. It is since the time when the inventions of Watt, Fulton, Crompton, and Arkwright became effective in multiplying the productive power of labor that crises have been prominent.⁵

Rodbertus asserts that in modern society the condition of the wage-earning class is not determined by the productivity of its labor. He who sells his toil can find employment only after he has complied with the exigencies of the present industrial system. This system is erected upon the basis of private property in the instruments of production. In order that the laborer may be supplied with these necessary instruments, or to put it plainly, that he may escape destitution, he must compete for employment. The capitalist alone has the power of initiative in production by

⁵ "Hypothekennot," p. 217.

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reason of his property rights in capital. He chooses to pay for labor, not according to its productivity, but according to the terms set by demand and supply. The supply of labor will in the long run increase, if the wages obtained are more than sufficient to provide what is looked upon by the laborer as the necessities of life. If wages are less, the supply of labor will diminish. Thus the contest upon the market develops the "iron law" that wages tend to remain at the lowest point at which a sufficient supply of labor can be secured.⁶ Labor is sold for the cost of production. The standard of life which determines the acts of the laborer with reference to the future supply of labor is capable of change, but its elevation is difficult.

The difference between the amount paid for labor and the product of labor is a surplus taken by the capitalist. It is an historical fact, asserts Rodbertus, that the productivity of labor has increased more rapidly than have wages. Thus wages become a relatively decreasing share in distribution, and an increasing surplus falls into the hands of the capitalist. According to the analysis of Rodbertus there are but two shares in production: one is wages with which labor is paid but not paid for; the other share includes all income obtained through the force of the right of private property and without appreciable personal exertion. This includes interest, rent in the ordinary

⁶ Rodbertus, "Kleine Schriften," p. 223.

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sense, and profits. It is collectively designated by Rodbertus as "rent." That such a share as this exists is due, in the first place, to the existence of a surplus product of labor above what is necessary to sustain the laborer and, in the second place, to the institution of private property which gives to a few the power to seize this surplus.⁷ Rent then is, in plain language, robbery. The blame for the existing condition of things cannot of course be placed upon the shoulders of any individual or class.⁸ It is the legitimate product of the present social and industrial system which has been produced by general social forces and which can be modified only by a gradual process of evolution.

This reasoning is used by Rodbertus to account for the growing disparity of wealth between the capitalistic and the wage-earning classes and the sharpening social contrasts which attend this divergence.

The accumulation of a surplus of wealth in the hands of the capitalist, which is increased by every increase in the productive power of industry, is a process which obviously cannot continue indefinitely. The sale of the products of industry depends chiefly upon the purchases of persons other than capitalists. The use of capital increases the use of machinery and the importance of the so-called machine industries. The assertion, which

⁷ "Kapital," p. 202.

⁸ "Kein Einzelner ist anzuklagen," "Zur Beleuchtung" (Wagner-Kozak Ed.), p. 185.

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is made on good authority, is therefore significant, that eighty per cent. of the machine-made goods of the world are consumed by the laboring class. The cutting off of the laborer's share in distribution manifestly in an equal degree diminishes his power to consume or to take the products of industry off the hands of the producer.

The surplus which private property enables the capitalist to retain is not distributed in such a way as to prevent the final clogging of industry. Rodbertus denied that the capitalists had either the desire or the ability so to consume this surplus as to prevent it from stopping the wheels of industry. It seems clear that if this surplus were spent in unproductive consumption it could not be accountable for the plethora of unsalable products found in a crisis.⁹ The capitalist is stimulated by rivalries within his class to accumulate his wealth. The income which he receives is largely reinvested as capital to earn a further dividend. It results in an increased production. With these surpluses new mines are opened, new lands cleared, and new industries equipped with machinery.

A most important effect of improvements in industry is to decrease the expense of providing the minimum of the necessities and comforts of

⁹ During the hard times of 1893, a meeting of women workers was held in New York City, at which the question was asked what word should be sent to the women of the wealthy classes. The answer was, "Tell them not to cut off their luxuries."

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life with which the wage-earning class may be induced to propagate.

The increased power of production resulting from the investment of the economic surplus does not necessarily meet with a corresponding expansion of markets. The problem of disposing of an economic surplus is not solved by investing it in the means of further production. Rodbertus specifically asserted that speculation had nothing to do with this unwarranted increase of production.¹⁰

When the period arrives in which investments are many of them proving unsuccessful and profits are everywhere curtailed, it is most natural to practise retrenchment. The capitalist reduces general expenses, postpones repairs, and reduces wages. By this process of retrenchment the buying power of the masses is reduced. As the mar-

¹⁰ Rodbertus says of speculation: "The part which speculation plays is not worth mention. That is solely a local or temporary misadjustment of the market, caused either by sending goods to a wrong market or by holding them until an unsuitable time. Such misadjustments are always partial, and do not in the slightest resemble the general breakdown of the market resulting from commercial crises. The source of the evil comes in connection with production, not speculation." — "Zur Beleuchtung," p. 185. See also p. 227. Hertzka, a follower of Rodbertus, agrees in ignoring speculation: "Now is shown also the remarkable regularity of the recurrence of these catastrophies, which have no connection with fraud and over speculation, but which are nothing less than the indispensable consequence of each increase in production in a society, the economic system of which prevents any enlargement of consumption beyond certain relatively narrow boundaries." — "Die Gesetze der sozialen Entwicklung," p. 106.

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ket becomes less capable of accommodating the products thrown upon it, a further reduction of profits is unavoidable. In this manner industry is seized by a vicious circle of influences which support and strengthen one another automatically. In order that industry may be prosperous, that which is produced must be marketed at profitable rates. The accumulation of a surplus implies a curtailment of the market. The attempt to employ this surplus productively calls for an expanding market, and if this is not found the profits of capital invested in production fall. So long as the capitalist attempts to prevent this fall of profits by reducing wages, he reduces the demand for his own products and tightens the noose which strangles industry. Like the backing horse with the lines wound around the hub, every movement to comply with the apparent demands of the situation only tightens the pressure.

A lessening dividend on capital not only gives rise to the curtailment of various expenses, but it enlarges and stimulates production, the principle being to secure the economies of production on a large scale. With one hand the buying power of the market is curtailed, with the other, quantities of goods are thrown upon it. In the last stages of this "steeplechase of industry" colossal quantities of goods are thrown upon the rapidly failing market because the relation between failing consumption and a defective system of distribution is not seen, or if seen is recognized as beyond the power

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of any individual to rectify. Over-production is the result. This leads to widespread failures and insolvencies and finally to the abandonment or destruction of vast amounts of capital with consequent unemployment and poverty. The explanation is said to lie in the relatively decreasing portion of the products of industry given to labor and the consequent cutting off of effective demand.¹¹

Many writers have analyzed the crisis in a similar manner as due to the growth of the productive equipment of society too rapidly for its effective demand. As to the remedy for this condition, various opinions have been held. John Stuart Mill pointed out that the waste of invested capital, caused by rash ventures in search of profits,

¹¹ Theo. Hertzka thus presents the theory: "The exploitation of labor through profits and ground rents explains the contrast between the productivity of human labor and the wages of labor, between the possible and the actual well-being of the masses. The most important cause of the lack of an abundant possible consumption for all lies in the misadjustment of productivity and production, *i.e.* potential and actual consumption. Much less is produced than the productive power of society would indicate, because production must regulate itself according to demand, and this is held within narrow boundaries by the exploitation, which limits the masses to bare necessities of life. The consumption of luxuries by the propertied classes can absorb only a small portion of the goods possible to produce in excess of what is required for the existence minimum of the masses. Also the demand connected with investment is fixed within given bounds by the range and character of production. Every attempt to expand production beyond the demand for the purposes of consumption or investment leads to over-production and crises." — "Die Gesetze der sozialen Entwicklung."

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brought relief. Chalmers, Sismondi, and Robert Owen suggested that less be saved and that more be expended, if need be, in luxuries.¹² Rodbertus calls for a division of the growing surplus among the wage-earners, trusting that it will be expended properly by them.

As to the remedial measures which may be taken to correct these tendencies of the present industrial order, Rodbertus was very conservative. His analysis classed him among the socialists, but he

¹² Very nearly the same idea occurs in Malthus, "Principles of Population," Bk. I, Ch. V, Sec. II, p. 316 (7th Ed.). See also Bowen, "Principles of Political Economy," Ch. XVII, p. 267. U. H. Crocker, in the work entitled, "Excessive Saving a Cause of Commercial Distress," p. 13, says: "Let the economist point out, if he can, how the idle thousands can to-day be employed in producing 'wealth' except through such uneconomical measures as the creation of new comforts and new luxuries for those who are able to pay for them." Herkner states the effect of oversaving as follows: "As a rule, the portion of the social dividend devoted to capitalization exceeds considerably the needs of industry for capital. While new investments create a demand for labor, and in so far add to the number of consumers with purchasing power, yet this purchasing power does not equal the increase of goods which is brought about by the new investment. Should the purchasing power of the newly employed laborers equal the net value of the product of the new undertaking, there would be neither interest nor profit for the capitalist and undertaker. Precisely here is the point when they have not the intention to consume interest, rent, and profits. If no corresponding increase of effective demand accompanies the increase of goods caused by the new capital investment, the circumstance that a class of people year after year devote large sums to the increase of production, reserving it from consumption, leads soon, in an isolated economic society, to a disturbance of the balance between production and consumption." — Conrad's "Handwörterbuch," Bd. IV, p. 897.

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refused to ally himself with them. He believed, however, that the evils of the present were due to a *laissez-faire* policy which has left the problem of distribution to work itself out undirected by an intelligent exercise of public thought.¹³

The need may sometime arise for interference on the part of the state, but any fundamental change must be slowly made. Because of the educating and conserving effect of the institution of private property, Rodbertus thought that property rights could only be very slowly curtailed.¹⁴ We may confidently believe, however, that we are in the midst of an evolution. Rodbertus thought as in the past the right of private property has been narrowed by extinguishing the right to own human beings, so in the future land and capital will be emancipated and ownership will remain in income alone. Ultimately industry must be regulated by a system whereby the total product of industry will be distributed to those creating it and no part of the product be permitted to accumulate and clog the industrial mechanism.

¹³ "Kapital," p. 61.

¹⁴ "Erklärung," etc., Bd. II, p. 303. Upon this point his last work, "Kapital," is more severe. The inconsistency of the positions here assumed by Rodbertus has been pointed out by Anton Menger, "Das Recht auf den vollen Arbeitsertrag," Sec. 8. Cossa accounts for the confusion of Rodbertus' thought on the theory that he had always two schemes for reform in mind,—one for immediate and the other for ultimate realization. Rodbertus was not always clear in explaining which of these he had in mind. Cf. Cossa, "Introduction to the Study of Political Economy," p. 542.

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The most systematic manner of accomplishing this is through state control. The right of using property as capital being reserved exclusively for the state, and the organization and control of industry resting entirely with the state, the management of economic affairs will be comparatively simple. Two fundamental estimates will be necessary. The first estimate will be of the value of the products of industry during a given period of time; the second will be of the number of hours of labor necessary for their production. In estimating the number of labor-time units necessary to produce a given article, Rodbertus thought that the lowest grade of manual labor might be taken as the standard of measurement, higher sorts of labor being reckoned as multiples of the standard.

In an industrial society so planned, the products of labor would be received into public storehouses. All labor expended in production would be paid in labor-time checks good for a certain value of goods at the storehouses. The use of money would be rendered unnecessary. If computations were accurate the value of all labor-time checks issued as wages during a given period ought to exactly equal in value all the products resulting from industry during that period, less whatever goods it was deemed necessary to hold in reserve to replace capital, enlarge the productive equipment, support the quasi-productive members of society or defray the expenses of non-productive forms of activity demanded by public policy. This statement is

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only true on the assumption that the values of goods equal their labor costs. Under such a régime an increase in the productivity of labor would mean either a greater abundance of goods for the laborer to consume or a release from labor by the shortening of the working day.

As Rodbertus did not find it possible, in his thinking, to reduce all necessary professional and official services to measurement in terms of a unit of manual labor, he provided in his scheme for a tax which should support those rendering these services.

The criticisms which suggest themselves in connection with this theory may be briefly enumerated.¹⁵ In the first place goods are not valued according to the labor necessary for their production or reproduction.¹⁶ This is not a disproof of Rod-

¹⁵ Some discussion of the difficulties which such a scheme as that of Rodbertus would meet in realization, is contained in "Rodbertus' Socialism," E. B. Andrews, "Journal of Political Economy," December, 1892; "Scientific Socialism — Rodbertus," Osgood, "Political Science Quarterly," Vol. I, 1886, p. 560 ff.; Adler, "Studie über Rodbertus."

A convenient presentation of the system can be found in Rudolph Meyer's "Der Emancipationskampf des Vierten Standes," Berlin, 1874-75 (Bd. I, 2 Aufl., 1882); Dr. R. T. Ely, "French and German Socialism in Modern Times," New York, 1883; also in brief outline in H. M. Hyndman, "The Historical Basis of Socialism in England," London, 1883; W. H. Dawson, "German Socialism and Ferdinand Lassalle."

¹⁶ The consideration of the error of this assumption of Rodbertus is beyond the sphere of this discussion. It is best dealt with by Böhm-Bawerk in "Capital and Interest," Bk. VI, Chs. I and II;

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bertus' statement that an unequal distribution of the products of industry may be responsible for an increase in production not accompanied by a corresponding increase in final consumption able to precipitate a crisis. The idea that some uniform relation must exist between the productivity of labor and the rewards of labor in order that industrial distress may be avoided, is by no means an exclusive tenet of the followers of Rodbertus. Von Thuenen, in searching for a natural wage, attached great importance to a certain formula which to him represented justice. It was $\sqrt{ap}$. In this "a" represented the expenditure of the laborer for subsistence, and "p" the product of

Cf. Karl Knies, "Geld und Kredit," Part II; H. Dietzel, "C. Rodbertus"; Adler, "Studie über Rodbertus."

Cohn thus discusses the theory of value adopted by Rodbertus: "The same sophisms which appeared in the first presentation of his theory of value are retained to the last. They are something as follows: He passes by in silence the fact that Ricardo, in following out Adam Smith's teachings, expressly declares that utility is the necessary premise of exchange value based on labor. He overlooks the fact that nature (material and force) is in an essential degree limited relatively to the wants of man,—a principle which Ricardo strongly emphasized as regards land, the economic character of which is thereby explained; therefore, the coöperation of nature is not, as Rodbertus so often asserts, gratuitous, but is an element which must be taken account of in discussing the production of value. He is mistaken in regarding manual or 'muscular' labor as a sole reason for 'costs,' and asserting in regard to the share which mind has in production that this is not 'an outlay.'"—"A History of Political Economy." Supplement to *Annals of American Academy of Political and Social Science*, March, 1894, p. 87.

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labor. The square root of the product of these two is the proper remuneration for labor. This formula proposes a constant relation between the productivity of labor and the rewards of labor.

It may be denied, however, that any surplus, such as Rodbertus thought of, accumulates in the hands of the capitalist. If such a surplus be admitted it may be denied that the capitalistic class reinvests this surplus to such an extent as to overstock the market with the products of industry.¹⁷ These are questions of fact to be examined as such.

Finally, if this theory of crises be admitted as sound, it may be pointed out that the socialistic scheme of production outlined by Rodbertus would not work justly, if indeed it could be made to work at all. It provides no means for considering the influence of any of the circumstances which determine marginal utility, excepting that of labor as an element of cost. Adequate recognition is not provided for services in themselves valuable but remotely connected with production. Foreign

¹⁷ Mr. F. B. Hawley says: "The claim that production and investment are merely misdirected entirely ignores the existence of a class whose main object in life is not consumption but accumulation. Such a class will insist on investing a large portion of their incomes, and will not allow their consumption to exceed a certain percentage of the share of products that falls to them. This class certainly exists in a proportion inconsistent with the proper balance of society, and one cannot appeal to them with new wants."—"National Quarterly Review," October, 1879, p. 282.

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trade would be rendered difficult and much of the enterprise due to private ambition would be extinguished with the extinguishment of the right to use private property as capital.

Rodbertus considered the standard of life relatively immobile and despaired of the success of any reforms aiming to bring about its elevation. The question may be asked therefore, Under a socialistic régime, if the productivity of labor was to increase and this was to result in a more ample return to each laborer, would not the ultimate effect of the law of population be to bring into existence a large population to live at a low standard of life? Industrial progress under such conditions would mean an increase in the mass of low grade life.

But if the standard of life is not so incapable of improvement as is here represented, why cannot all movements for the elevation of the standard of life of the wage-earning class be indorsed as helping so to distribute wealth as to enlarge effective demand more rapidly than productive capital is invested, and to directly prevent crises.¹⁸ Labor,

¹⁸ Von Thünen was among the first to adopt a broad view of the cost of producing labor. His position on education is thus shortly stated by Dawson: "Von Thünen thinks that the only way to raise the wages of labor is to increase the cost of bringing up the laborer; and thus he advocates the better education and training of the workmen's children, the requisite cost being regarded as an indispensable need. The laboring classes must learn that the remedy for their unfortunate condition lies largely with themselves, for it is at bottom a question of population."—

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if paid a price equal only to the cost of production, is so paid because the laborer has set his price at this point. An elevation of the wage-earner's standard will distribute the surplus liable to injure trade into channels which will stimulate the buying market.

No class in society has a right to call for economic rewards without the exercise of a reasonable amount of economic virtue.¹⁹ Only after it has

"German Socialism and Ferdinand Lassalle," p. 42. Cf. J. H. von Thünen, "Der isolirte Staat," Rostock, 1862, Bd. II, Ch. I, p. 37 ff. A short exposition of von Thünen's position is contained in Roscher's "Geschichte der National-Oekonomie in Deutschland," München, 1874, Ch. XXXII, Sec. 183.

Schippel looks to education to combat overpopulation. "Das Moderne Elend," p. 313. The pressure of the increase of population is considered by Alexander Everett, an American writer, as the origin of all progress. So also holds Schmoller, "Lectures on Theoretical Political Economy," Berlin, Summer Semester, 1894.

¹⁹ The benefit features of labor organizations deserve favorable consideration for the effect which they have in enforcing upon a large scale a worthy standard of life. In the state of Indiana in 1893, the dues paid by members of labor organizations amounted to 11.3 cents weekly. Ninety-six out of 212 organizations paid sick benefits, 125 out of 217 paid death benefits. With a total membership of 19,081, the amount of sick benefit paid was \$8254, of death benefit, \$16,409. In commenting upon these figures, the chief of the Bureau of Statistics said: "The members of a vast majority of labor organizations tax themselves, that their families may not be a public charge in case of their death or disability, and in this regard expand to the full stature of good citizens. They make their orders life and accident institutions, of vast value to the state, because they relieve the state of burdens which in numerous instances would be imposed upon it for the care of widows and orphans."—Report of Bureau of Statistics, Indiana, 1893-94, pp. 118, 119.

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been shown that this virtue is systematically shorn of its rewards should appeal to state interference be taken.²⁰ The state at present exercises innumerable influences through educational institutions and the employment of its police powers to encourage education, thrift, and sobriety. More directly through industrial legislation the wage-earning class is protected and favored. A most important device for elevating and holding firm certain elements in an elevated standard of life is a system of insurance such as is in force in Germany. The German legislation provides against accident, sickness, old age, and invalidism. The fund for an old age pension is recruited one-third each from the public treasury, the employer class, and the wage-earning class. The sums contributed to provide insurance against sickness come one-third from employers and two-thirds from laborers. Accident insurance falls entirely upon employers.

A plan for systematic effort in raising the standard of life of the wage-earning classes has been formulated by the economist Professor Lugo Brentano. It contemplates the voluntary adoption by societies of wage-earners of a system of mutual insurance covering all the legitimate costs entailed in the production of labor.²¹ Were such insurance

²⁰ Professor A. A. Issaiev of St. Petersburg sanctions the interference of the state to add to the number of those whose incomes increase as the productivity of labor is increased. "Revue d'Economie Politique," article "Les Principales Causes des Crises Economique," Tome VII, 1893, p. 1001.

²¹ A list of the principal types of insurance favored by Brentano

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carried successfully it would entail such an expense as would materially strengthen the demand for higher wages.

Any scheme for increasing the standard of life of the wage-earning class must provide for an organization sufficiently definite to give the movement consistency, put definite aims before its members, secure simultaneous movement, and, in general, make the desired course of action one easy to enter upon and difficult to abandon. More will be accomplished by avowing educational and self-preservative functions than by posing as aggressive and revolutionary in design. The demands made should appeal to all as reasonable and the methods taken to enforce them, while persistent, should be inoffensive.

is given by him as follows: "In order that the cost of labor may be covered, six types of insurance are necessary for the laborer: —

1. Insurance of the cost of raising children, to apply in case of a child's death.
2. Old age insurance.
3. Burial funds.
4. Invalid insurance or pension.
5. Insurance against sickness.
6. Insurance against loss of work, consequent upon crises and over-production." — "Die Arbeiter u. d. Produktionskrisen."

While discussing the active measures which may be taken to prevent crises, Adler says, "Such a relief measure is the insurance of the wage-earner against loss of work resulting from crises; for the realization of this project, all friends of the present social order must therefore be united." — "Rodbertus," p. 58. More recently Adler has argued this more at length. Cf. "Ueber die Aufgaben des Staates angesichts der Arbeitslosigkeit," Tübingen, 1893.

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In conformity with these principles, Professor Brentano recommends the formation of voluntary insurance associations among the wage-earning classes, the object being to insure to one another the preservation, intact, of every portion of a legitimate standard of life. All demands are addressed to the members of the associations. No chain of reasoning regarding the origin of value is indulged in; no fundamental principle of the present economic order is attacked; nothing is asked from the state further than to be let alone.²² The ultimate aim is manifestly so to elevate the minimum standard of life as to bring a pressure to bear upon wages.

The necessity for such a movement is based upon the observation that, in the purchase and sale of labor upon the market, all the necessary and legitimate costs of producing labor are not provided for in the wages received. Such transactions are not complete economically, and do not meet the claims of social justice. Fair wages must include more than enough to support the laborer while working, and must cover compensation for seasons of idleness due to sickness, old age, youth,

²² Professor Brentano argues that to avoid crises by socialistic measures, it would be necessary not only to strictly control production, but to as strictly regulate consumption. This would be an unendurable intermeddling with private affairs. Some more flexible plan admitting of individual initiative is necessary, yet of sufficient strength to reach the present deep-seated evils of industrial society. Cf. "Die Arbeitsversicherung gemäss der heutigen Wirthschaftsordnung," especially the part upon "Absatzkrisen"; Jahrbuch für Gesetzgebung, "Die Arbeiter und die Produktionskrisen," Bd. II, N. F., 1878, pp. 565-567.

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lack of work, or other causes beyond the control of the laborer. Skill must be so paid for as to cover the expense of education and the risk of failure. The wages of those who work should include enough to support that proportion of every normal society of human beings which cannot or ought not to be earning wages.²³ When one pays for a vase he pays not merely for the one given him, but for a part of those which have been ruined in the making or broken in handling. So the cost of labor should include the expense of those who die in youth or who, in age, live to be a charge upon others. As the vase in fashion must pay for a part of a superseded stock, so wages must take account of superseded skill. If these elements in the social cost of labor are not provided for directly by wage payments, they must be surreptitiously added as public or private charity. If withheld entirely, the deterioration of the society concerned is certain.²⁴

²³ Condorcet worked out an elaborate system of insurance, including general, education, old age, widows', and orphans' insurance, with the purpose in view of decreasing inequalities in the distribution of wealth. This insurance, he thought, should be applied primarily to the lower ranks of the wage-earning classes, and should be controlled either by the state or, if that be impracticable, by voluntary private associations. The plan presented by Condorcet, in "*Esquisse d'un Tableau Historique des Progres de l'Esprit Humain*," is in many respects similar to that proposed by Brentano.

²⁴ A fine analysis of the elements composing the cost of labor is contained in Ernst Engel's, "*Der Preis der Arbeit*," Berlin, 1868, p. 36 ff.

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RÉSUMÉ

- I. Crises and the distribution of wealth to the wage-earners.
- II. Rodbertus' philosophy of industrial disorder.

(*a*) Goods should be distributed according to their labor cost. (*b*) The present distribution causes crises as follows: (*c*) The wage-earner does not receive what he produces. (*d*) But the minimum to satisfy him to reproduce. (*e*) The difference is a surplus seized by the capitalist. (*f*) As the productivity of labor increases more rapidly than the standard of life, wages are a decreasing factor of distribution. (*g*) Effective demand depends largely upon wages. (*h*) The capitalist invests his surplus and increases production more rapidly than effective demand increases. (*i*) The result is over-production causing crises.

III. Remedies.

1. Socialistic.

- (*a*) Socialization of capital, issue of labor time checks equal in value to all goods produced. Regulated production to prevent oversupply.
- (*b*) Objections:—Labor theory of value false. Higher sorts of activities underestimated. Foreign trade would be impeded; private enterprise checked. Would not increased wages encounter the Malthusian law of population?

2. Attempts to elevate the standard of life.

- (*a*) German state industrial insurance.
- (*b*) Voluntary insurance of Brentano. Voluntary insurance associations of workmen.

CHAPTER VI

CRISES AND LEGISLATION

CRISES are socio-economic phenomena, and as such direct attention to the character of the economic relations which exist among the individuals constituting a society. One of the most important ways by which the social will regulates the character of these relations is legislation. Of all forms of social control this is the most distinct and inflexible. The wisdom with which it is exercised is therefore of the greatest moment. It has been truthfully said that every problem has its legislative side and bears its relation to legislation. The literature of crises shows that every period of economic distress has turned the attention of many thinkers to the criticism of existing economic legislation. Proposals for new laws and for revisions and improvements of every description appear in plentiful crops after every severe panic. A large proportion of the remedies suggested for crises propose some extension of state activity, either in the form of legislation, agencies for investigation, or active government interference. It should be borne in mind, however, that such economic legislation as is enacted piecemeal can never afford

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adequate protection. The purposes of legislative interference will be defeated unless conditions less artificial and unstable than those already existing are established. A rational and comprehensive policy firmly adhered to (a thing so rare in modern industrial legislation) is above all things desired.

In judging of the importance of the considerations embraced in this chapter, it should be remembered that, notwithstanding steady improvements made in our code of commercial law, crises have been steadily recurrent, and that those means which now seem most promising for lessening the severity of crises are not legal remedies. During this century crises have been developing all their peculiar characteristics in countries having diverse legal traditions and practices. Furthermore, scarcely any two crises seem to have strained exactly the same portion of the network of legal restraint.

No attempt will be made in this chapter to give a complete discussion of the relation of crises to legislation. That would involve repetition, inasmuch as some portions of such a discussion are necessarily presented in other chapters of this work. The present discussion will include the following topics: monetary legislation, banks, corporation law, and bankruptcy law.

MONETARY LEGISLATION

As economic crises usually involve a serious disturbance of the mechanism of exchange, it is only

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natural that they should have drawn attention to the monetary system prevailing at the time and place of their occurrence.¹ The diversity of monetary conditions among the principal countries of the world, coupled with the fact that most of them have been visited by crises, warns us from attaching too much importance to details at this point. The liberty will be taken to present this subject in a very brief treatment, since the literature dealing with it at length is generally accessible. The subject of the relation of monetary legislation to crises is one which inseparably connects itself with that of credit which is presented in the chapter on "Credit and Speculation." It is as intimately connected with the subject of banking which follows this. Finally, the monetary system of any country is only to be completely understood through a comprehensive study of the financial history of its government. This point may be sufficiently proved by calling to mind the public financiering accomplished through the Bank of England and the Bank of France by England and France respectively. In America it may be seen in the history of the United States banks and in the origin of the national banking system, also in the present confusion between the fiscal and currency

¹ "A commercial crisis is always a monetary crisis as well, since it is the reduction of the reserve of coin in the banks which gives the signal for the explosion." — JUGLAR, in article "Crises Commerciales," Sec. 2, in Say's "Nouveau Dictionnaire d'Economie Politique."

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transactions of the United States treasury. No excursion will be made, however, away from the topic into the field of public finance.

The essential elements of an ideal monetary system were given by Mr. R. M. Widney before the World's Congress of Bankers and Financiers at Chicago as follows: sufficient volume, safety, elasticity, convertibility, uniformity, and circulation. The necessity of maintaining the stability of the standard of value needs no argument. Recent events in the United States show the effects of even a suspicion that a change in the standard will be made. A crisis emphasizes the primary importance of elasticity. No one proposes that the volume of note issue shall be so increased at any time as to render the scaling down of inflated and unreasonable values to a sensible figure a process either easy or pleasant. What is proposed is that the trading community shall feel assured that those with proper securities can obtain money when it is needed. The English and American bank-note systems fail in this regard. The Peel Bank Act of 1844 must be suspended in time of crisis to permit the issue of notes on securities. The American system leads to stringency of the money market and the hoarding of gold (a phenomenon unusually prominent in 1893 for special reasons). This situation of things is only to be relieved by such devices as the issue of clearing-house certificates and the sale of certified checks. The experiences of every crisis in the United States enforce the necessity of

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retiring the United States legal-tender notes, or of otherwise breaking up the endless chain by means of which the government is forced to issue the obligations which on the one hand come back to draw out the gold from the treasury, and on the other coming in in payment of revenue, add nothing to the stock of gold.

BANKS²

The functions of a bank are pointed out by F. A. Walker in his "Money, Trade, and Industry" to be as follows: (1) to assist in public financing; (2) to provide good money; (3) to facilitate the cancellation of indebtedness; (4) to remit money and conduct exchanges; (5) to provide a place of safe deposit; (6) to serve as an intermediary in the loaning of capital; (7) to issue paper currency. Of these functions the first one and the last two call for special remark in connection with the present discussion, but the function of a bank as an intermediary in the loaning of capital is by far the most important of the three.

Banks are the arena of the money market, and what takes place on this market is conditioned in an important manner by the constitution and customary practices of banks. Yet the literature of

² For a more extended discussion of some of the topics contained in this section, see the author's monograph, "The Relation of Economic Crises to Erroneous and Defective Legislation," published in Transactions of the Wisconsin Academy of Science, Arts and Letters, Vol. X.

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crises amply shows that their control of the course of the money market and their responsibility for all that occurs on it are greatly overestimated. Banks are institutions of economic society which, like all other institutions, are adapted by the society using them to the working out of its purposes, just as the institution of the family is adapted in different countries to the expression of the ideas peculiar to the people. Although the first visible signs of a coming crisis are to be detected in the banks, and although the most spectacular and distressing phenomena of crises are usually enacted in connection with them, the rise of industrial storms is usually elsewhere than in the banking system.

It should be, of course, the aim of every intelligent community to place all necessary safeguards about an institution so vital as that under consideration; yet here, as elsewhere, the burden of proof lies with those who urge restrictions. It is best to trust as far as experience dictates to those automatic checks which arise from the operation of self-interest and from the selective process of competition.

To enumerate a few suggested reforms applying to the banks of the United States, and germane to our subject, we may say in the first place that adequate safeguards should surround the granting of bank charters. An earnest effort should be made to secure uniformity in this regard among the states of the United States, and to provide for

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an official examination and publication of accounts which shall be efficient and uniform. The published statements of banks can be made something more than a form if there is present in a trading community a determination to have them so. What is needed is a statement, plain and simple, in answer to the question, "Is this bank safe?" Bank statements should throw such light upon that question as the present financial condition of the bank can afford.

The official examination of the national banks as made by the comptroller of the currency may serve as a model to state officers in the matter of examinations. It should be distinctly understood, however, that such examinations are in no way intended to relieve bank directors of their duties. The careful scrutiny into the affairs of a bank maintained by its directors is the chief safeguard of its integrity. These duties of directors need careful definition. Every opportunity which will not work undue individual hardship should be taken to make more clear and strong the moral idea of the duty of bank directors. We need a greater development of the conception of an honor office, or of the idea of duty as it is recognized by the legal fraternity in the United States at the present time with reference to guardianships.³ A

³ A petition for a new banking law presented to the Wisconsin state senate in 1899 recites the condition of affairs with respect to bank directors, and proposed a cure for the same as follows:—

"1. It is often the case that men of prominence and responsi-

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slovenly and easy-going practice should not be permitted in the matter of the bonds given by bank officers and officers of loan and trust companies. Restrictions are desirable upon the loans and discounts made by a bank to its executive officers and employees, or to directors who are not officers.

Between banks a form of control may be exercised by a clearing-house. As stock exchanges can exercise much control over the business conduct of their members, and in a less degree of corporations by admitting their securities to the market or rejecting them from it, so a clearing-house may be made a valuable institution for control.

Before closing this section of the topic it is necessary to take note of two important discussions upon the principles of banking which are to be found in the literature of crises.

The first is the discussion as to which is prefer-

bility permit themselves to be directors and officers of banks without having much interest in them and without incurring any considerable liability in case of failure. Such men are mere figure-heads or decoys to draw business to the banks, and have neither a voice in the management nor money at stake. Hence they never trouble themselves with the affairs of the bank, or know its condition. Every one who permits himself to be a director of a bank ought to be liable to depositors for something beyond his liability as a stockholder. Make the directors liable to depositors for an amount equal to the capital stock of the bank. Thus, if the capital of the bank is \$50,000, and there are five directors, make each director liable for \$10,000, in addition to his liability on stock; and if the capital is \$100,000, make each director liable for \$20,000."

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able, a single bank of issue or competing banks. It was begun in France in 1848, in which year the monopoly of the Bank of France was completed. It was closed by the Franco-Prussian War of 1870-71, during which the managers of the bank by their patriotism excited the general admiration of France. The gist of the argument as it relates to crises may be given as follows:—

Those who uphold the monopoly of note issue granted to the Bank of France, point to its record and to the great immunity which France has enjoyed from financial panics as an evidence of the soundness of the system. The single bank system, it is urged, has the great advantage of locating responsibility in a definite place. It puts an unmistakable duty upon those in whose hands the course of monetary affairs rests, and makes impossible the negligence and irresponsible venturesomeness observable with a multitude of competing banks. Public opinion is able to exercise a powerful influence when concentrated upon one management through publicity of accounts. The very independence of a bank with monopoly privileges removes from it all temptation, such as might be presented in competition with rivals, to extend its issues beyond the limit of safety. As the struggle to earn dividends is absent the bank may order its policy to secure public welfare.

A competing bank, it is urged, must outdo competitors to obtain trade, and it must therefore be to an undue extent subordinated to the desires of its

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patrons. The effect of competition is to reduce the reserves maintained for redemption of notes below the point of safety. When such is the case, the presentation of large quantities of notes for redemption or any other unusual demand upon the resources of the bank finds the funds insufficient to sustain the great issue which has been reared upon them. Distrust spreads the demand to other banks in a similar condition, and the system, honeycombed by competition, falls into ruins. Suspension of banks, stringency of the money market, and a panic ending in a depreciated or worthless paper currency are the results. Each bank endeavors to save itself at whatever cost to its competitors. No bank is strong enough to extend assistance and command confidence.

Here again the champions of the monopoly of note issue urge the advantage of the power of a single great establishment. Its connection with the government gives it position and solidity and increases the effect of its mere financial resources in inspiring that credit which is the object of all search in times of crises.⁴ Then it is preëminently that a great bank can put forth its powers, or, as has been the case in the history of the Bank of England, reëstablish confidence by the mere prospect of its assistance.

⁴ E. Nasse, "Ueber die Verhütung der Productions-Krisen durch staatliche Fürsorge," in "Jahrbuch für Gesetzgebung," Bd. III, N. F. Also A. Wagner, "Geld- und Credittheorie der Peel'schen Bankacte," p. 193 ff.

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A considerable school of French writers has held views opposed to those we have just considered, maintaining that the cause of economic crises lies in the abuse of power on the part of privileged banks of issue. It is held to be an inevitable accompaniment of a privileged bank under state control that there should be a political faction opposed to it. The bank is therefore never entirely out of politics, and at the worst may be the foot-ball of parties.

Out of a close relation of a bank to public finances other evils may arise. If the government is often strengthened, the bank is as often weakened. The course of bank-notes becomes subject to all the influences affecting the public credit. A privileged bank, owing its peculiar privileges to the state, cannot resist the demands of the state as can independent banks. And it has less reason for doing so, since, if its resources are overtaxed and it finds itself unable to redeem its notes, it is sure of protection from the state in laws restricting the redemption of notes or suspending it entirely. As Lord Overstone said, a private banker, if he mismanage affairs, must suffer the penalty and be bankrupt, but if the Bank of England is guilty of mismanagement it can save itself at the expense of the entire country.⁵

The history of the Bank of France and of the Bank of England has been cited as proof of these

⁵ "Report of Committee of House of Commons on Commercial Distress," 1847-48, N. 5192.

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assertions. The recognized connection existing between the government and the Bank of France caused distrust of the notes of the latter when the invading armies entered France in the winter of 1813-14. A legal restriction of the amount of notes that could be presented for daily redemption followed. Similarly in England; the war with France caused the government to make such demands upon the Bank of England that in 1795 its credit was impaired and specie payments were suspended, not to be resumed until 1821.⁶

Again it is argued that a single bank of issue, because it receives very large deposits, tends to extend a note issue depending upon them as a redemption fund. This issue cheapens the price

⁶ M. Chevalier says in reviewing Horn's book, "*La Liberté des Banques*," in "*Journal des Economistes*," Vol. III, 1866, p. 357: "With an analytical spirit the distinguished M. Horn has sought for the reason why the great privileged banks have been so often in default. He has stated the cause; a cause which, it is necessary to say, is very uniform, and which one finds identically the same in both hemispheres. That cause is the interference of government in the affairs of the banks. To speak with greater precision, the causes are the accommodations which governments have demanded from the banks, the great advances which the banks have been forced to make, when in theory a bank should only make advances on commerce. The privileged banks have not been able to refuse these accommodations, because of the very fact that they are privileged." Cf. Horn, "*La Liberté des Banques*," p. 395. A. Wagner, "*Lehre von den Banken*," p. 15, says that if the state always came to the rescue of competing banks with a grant of legal-tender powers in case of financial difficulty, as is done with privileged banks, it would not be difficult for them in like manner to bring back their finances to a state of order.

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of money and throws some portion of private capital out of investment. This flows into the vaults of the banks and serves in turn as the basis of an extension of note issue. The cheapening of the price of money ruins private banks, and the business of banking becomes more and more concentrated. Thus a process of displacement goes on, during the progress of which an enormous note issue is built up, erected upon an uncertain balance of deposits. The end of the progression is that some unexpected turn causes a heavy draft upon the state bank and at once precipitates a financial crisis. Under a system of free banking it is urged that these evils are avoided. Every attempt to realize an undue profit in the issue of notes, if successful, attracts new capital, and competition is increased until the same level of profits is reached in selling money as can be secured in any other branch of competitive industry.⁷

Each competitive bank has the check of redemption thrust constantly upon it by other banks endeavoring to extend their issues.⁸

Before passing from this subject it is well to recall the fact that banks are simply commercial institutions, subject to the same stimulating and

⁷ Coquelin, "Revue des Deux Mondes," Vol. XXIV, 1848, pp. 457-470. Precisely the same theory and explanations are to be found in H. C. Carey's "Credit Systems," pp. 57-58 and 66. Coquelin recognizes Carey's work, and commends it highly.

⁸ Courcelle-Seneuil, "Journal des Economistes," Vol. XLIII, p. 163. A better explanation may be found in "Report of the Monetary Commission of the Indianapolis Convention," 1898, pp. 325-327.

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depressing influences which play upon the community in general. As Professor Sumner has well said in his "History of the American Currency": "It is a very easy method of explaining mercantile and industrial movements to ascribe them entirely to expansions and contractions of the currency, but, on a currency even nominally convertible, the currency inflation does not lead off. The mania for sudden riches gets possession of the community, and the banks fall in with, aid, and stimulate it. The blame cannot be simply thrown upon the banks for causing the trouble."⁹

The second discussion to which reference has been made is that carried on in England from the beginning of this century down practically to date, and centering in the Peel Bank Act of 1844.¹⁰

The English Bullion Committee was appointed in 1810 to inquire why there was a depreciation of bank-notes during the "Bank Restriction Period," when the Bank of England did not redeem its notes. This committee maintained that a sufficient regulation to maintain paper money at par with gold was to insure its constant convertibility. As reasonable as this proposition now seems, it was disputed. A group of thinkers appeared somewhat later, known as the "Currency School," who asserted that if there was no paper money

⁹ Sumner, "History of American Currency," p. 124.

¹⁰ The text of this act is printed in H. V. Poor's "Money and its Laws," 2d ed., pp. 297-298, also in "The English Manual of Banking," by Arthur Crump, 4th ed., London, 1897, pp. 286-289.

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each country naturally attracted the amount of the precious metals corresponding to the amount of business done within it. This ebb and flow is the natural and desirable state of affairs. To maintain it when paper currency is issued, the convertibility of the paper is not sufficient. There must be a device so arranged that as coin is withdrawn from circulation a like amount of paper is withdrawn, and *vice versa*. Otherwise, it was claimed, silver and gold might leave a country, and paper take its place in circulation. Under such circumstances, prices will not respond to the drain of precious metals. Not only will the proper relation between the amount of the precious metals in the country to that in other countries be disturbed, but also that between the paper and the coin in circulation. It was believed that convertible paper could be so overissued, and coin reserves so depleted, that the final readjustment to proper conditions would be violent and destructive.¹¹

On the substitution of notes for gold in the currency, Pitt said, when introducing his bill: "The difference may not be immediately perceived; nay, the first effect of undue issue, by increasing prices, may be to encourage further issues; and as each

¹¹ References on this point are Pitt's speech in Parliament; Tooke, "History of Prices," Vol. IV, p. 187; Vol. V, pp. 507-512; Torrens, "Inquiry into Renewal of Charter of the Bank of England," pp. 48-50; James Wilson, "Capital, Currency and Banking," pp. 58, 59; A. Wagner, "Peel'schen Bankacte," various citations.

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issuer, when there is unlimited competition, feels the inutility of individual efforts at contraction, the evil proceeds until the disparity between gold and paper becomes manifest, confidence in the paper is shaken, and it becomes necessary to restore its value by sudden and violent reductions in its amount, spreading ruin among the issuers of paper, and deranging the whole monetary transactions of the country." It will be observed that this presents a theory of crises. We shall not consider the fallacious reasoning in regard to the nature of convertible paper money contained in it, but will confine ourselves to the relation of this discussion to crises.

This theory was responsible for the Peel Bank Act of 1844, which has regulated the business of the Bank of England since the time of its passage. The bank is divided into an issue department and a banking department. Notes can be obtained from the issue department only by the deposit of a corresponding amount of gold by the banking department with it to insure redemption. When the banking department is called upon for deposits, therefore, it is obliged to present notes to the issue department to secure the gold, thus withdrawing paper from circulation. This brings about a close correspondence between the movement of gold and notes in and out of the bank.

The effect of this provision has simply been that during financial panics, when bank accommodation is most anxiously sought for, individual depositors

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draw out their deposits from the bank and that institution is obliged to relentlessly withdraw its notes from circulation *pari passu* with the withdrawal of the gold from its vaults. Such an automatic strangling of the money market has been found intolerable. In 1847, within three years after the passage of the act, the law was suspended to permit the bank to relieve the stringency of the money market by issuing notes upon securities.¹² The relief in this instance was immediate. In the stringency of 1857 the act was suspended, and discounting allowed at 10 per cent. At this time the permitted issues of notes but slightly exceeded the legal limits. In 1866 the act was suspended for the third time, but the mere assurance that notes could be had was sufficient, and no actual infringement of usual rules was found necessary.

CORPORATION LAW

The forms into which capital is combined for the furtherance of business purposes are of considerable importance in determining the tendencies manifested by business enterprise. These forms, more especially corporate forms, are partly under the control of legislation, since they owe their origin to the grant of legal powers given by the state. Some of these forms have shown themselves to be fitted for certain classes of under-

¹² An Austrian copy of Peel's act underwent the same fate.

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takings only, and through some of them the spirit of overspeculation and dishonesty has been able to work itself out much more easily than through others.¹³

The study of the organization of joint stock companies has been introduced into the literature of crises chiefly through the experiences of Germany and Austria after the close of the war of 1870-71, culminating in the so-called "Vienna crash" of 1873.¹⁴ In Germany, by the middle of 1870 there were 410 joint stock companies having a capital of 3,078,000,000 marks. In the four years following, 857 new companies were organized with a capital of 4,290,000,000 marks. That the growth was abnormal was amply shown by the insolvencies of the following years. Attention was thereby drawn to the laws controlling joint stock business. The United States has suffered from unsound and unscrupulous methods in the organization and control of corporations, and has had this as a contributory cause of economic crises.¹⁵

¹³ The juristic person is now too often used as the "persona" once was in Rome — as a mask to hide the true actors. Corporation methods would in many cases be immediately recognized as infamous if they were merely transferred to the sphere of private actions and relations. Cf. Report of Eleventh "Kongress deutscher Volkswirthe," 1869.

¹⁴ The principal writers who have contributed to the discussion are Wagner, Schäffle, Wiener, Oechelhäuser, Kleinwächter, and Emminghaus.

¹⁵ For an excellent concise enumeration of the advantages and disadvantages of the joint stock form see Schäffle in "Tübinger

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The system of granting charters by special legislative enactment which prevailed in Germany during the period mentioned has always shown itself to be inadequate, open to favoritism, and without proper uniformity in its operation. Experience has shown the wisdom of comprehensive legislative enactments under which companies are to be organized. Such laws may restrict the joint stock form to those businesses in which experience has proven it to be useful, and may provide those peculiar safeguards necessary for each grand division of corporations, dividing them according to the characteristics displayed by them when in operation.

As far as possible speculative incorporations designed to exploit the investing market by the sale of stock should be discouraged. Any profit which may arise to any one from the mere process of founding and financing a company should be clearly understood and formally stipulated between those who organize a company and those who invest their money in it. As far as possible, remuneration for valuable knowledge, inventions, or other services, when made to the organizers, should be in a form to attach the interest of the recipients to the permanent success of the business. This may be done by means of royalties.

Zeitschrift," 1869, pp. 336-338. Cf. Conrad's "Lectures," 3d ed. (privately printed), pp. 67-68; Rogers, "Industrial and Commercial History of England," Series I, Ch. VII; Roscher, "Nationalökonomik des Handels und Gewerbfleisses," 2 Aufl., Secs. 28, 29, 30.

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In general the interests of organizers should be compelled to depend upon the prospects of legitimate and continuous business.

The management of corporations seems to show that a continuous and active control of a corporation by its stockholders, if they are more numerous than can get their heads together in a private office or around a consultation table, is difficult to put in operation. Because of this difficulty the sphere of corporate business, unless under special state supervision, appears to be those businesses which require a large proportion of fixed capital and in which the management, when once inaugurated, is largely automatic.¹⁶

So far as the principles governing corporate business permit of being expressed in a few words, the evils of mismanagement appear to originate from abandoning in a greater or less degree the democratic principle. The concentration of great discretionary power in the hands of directors, without an easy means of appeal and investigation open to the stockholders, diminishes the feeling of accountability in the former and of interest in the latter. Manipulations upon the stock market to drive the smaller stockholders to sell are natural when a bare majority of stock gives control. It may be suggested that the voting power of shares should be decreased in proportion to their concentration in a few hands. A maximum of the

¹⁶ Adam Smith's "Wealth of Nations," Bk. V, Ch. I, Part III, Art. I, Secs. 36, 51-59.

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votes to be cast by one person may be specified.¹⁷ A time should be stipulated within which shareholders shall meet to elect directors, after organization. It may be found advisable to adopt a plan of minority representation on the board of directors.

Many American railway corporations have secured the greater part of the money with which their roads were built from bonds.¹⁸ As the voting power is restricted to stock, such companies have been in the hands of a few "insiders." These corporations are miscreations, due to the fact that legislatures have allowed stock to be issued for a merely nominal cash payment and have given unlimited borrowing power. The borrowing power

¹⁷ The distribution of the voting power in the First and Second Bank of the United States was as follows:

For every one or two shares	1 vote
For every additional two shares up to 10	1 vote
For every additional four shares from 10 to 30	1 vote
For every additional six shares from 30 to 60	1 vote
For every additional eight shares from 60 to 100	1 vote
For every additional ten shares from 100 up	1 vote

No person, copartnership, or body politic to have more than thirty votes.

First Charter I, Sec. 7, Second Charter I, Sec. 11.

¹⁸ See Von der Leyen, "Die Finanz- und Verkehrspolitik der Nordamerikanischen Eisenbahnen" in "Archiv für Eisenbahnwesen" (published by the Prussian Department of Public Works), Heft I, 1894, especially the heading "Die Gründung einer Amerikanischen Eisenbahn." See also Van Oss, "American Railroads as Investments" (New York, 1893), p. 56. Upon the abuse of joint stock business forms in relation to crises see A. Wagner, "Krisen," in Rentzsch's "Handwörterbuch," p. 531.

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of a corporation should be limited to a certain fraction of the capital actually paid in. No company should be allowed to purchase its own shares, or sell them at a discount.¹⁹ The issue of stock dividends should be forbidden and also of dividends drawn from capital. The financial atmosphere would be greatly cleared, and the secret machinations of schemers which so disquiet trade and discourage honest industry would be largely stopped, were a public record required with the register of deeds for each purchase or transfer of corporation shares. Finally the laws governing corporate business may define the manner in which the assets of a company are to be reached for the payment of its debts through the machinery of bankruptcy law.

BANKRUPTCY

This brings us to the subject of bankruptcy, in regard to which a few points may be noticed. It is obvious that a very considerable influence must be exerted upon the general course of business by those regulations which determine what shall be done when a person's assets are not equal to his liabilities. The character of a bankruptcy law will determine in some degree how severely the effects

¹⁹ The lack of a provision to this effect in French law led to the manipulations on the stock market carried on by the "Union Générale." This was shortly followed by its failure in 1882, precipitating a severe financial crisis, one of the few to which France has been subjected.

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of an economic crisis are felt by those immediately concerned in bringing it about. Through its provisions there will be expressed the attitude of trade toward such practices as are supposed to lead up to crises.

It is desirable that a sharp distinction should be drawn between the laws used to enforce the payment of ordinary debts and those used in settling commercial indebtedness. There are debtors whose business necessarily involves them in the credit mechanism of trade to such an extent that their solvency depends not alone upon their business and moral characteristics, as in the case of farmers, wage-earners, and professional men. There are many businesses the solvency of which depends in a very important degree upon the general course of trade and the occurrence and duration of credit storms; in short, upon circumstances beyond the control of their managers. For the insolvent commercial creditor special provisions are therefore justifiable.

In its action a bankruptcy proceeding may be likened to a crisis. Insolvency with bankruptcy is indeed a crisis for one business, while a general crisis is the simultaneous occurrence of many insolvencies. The scramble for liquidation which marks the crisis is analogous to the "race of diligence" among creditors, which is set up when a suspicion of embarrassment attaches to a debtor. Bankruptcy, like a crisis, may be a healthy check and restorative, when applied at an early stage.

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But either, when delayed, may be a dreaded cutting down to actual conditions.

The aims which should control legislation upon bankruptcy may be stated to be, as regards the creditor, a just, speedy, and economical distribution of the debtor's property; as regards the debtor, either to restore him as far as possible to an independent position or to administer punishment for neglect and fraud, as the facts may indicate. Sometimes one of these aims, sometimes the other, has been the dominant one in legislation. If a state of insolvency is considered chiefly as due to misfortune, the most fair and economical method of clearing the score and giving the debtor a new chance in business is the thing desired. If, on the other hand, a suspicion of negligence or dishonesty usually attaches to insolvency, a fair trial, with suitable provision for punishment, should be the main aim. Undoubtedly there is room for both these points of view in the correct conception. The problem is to preserve the proper balance between them. On the one hand, undeserved hardship to debtors must be reduced to the smallest possible minimum. On the other hand, the influence of bankruptcy legislation upon business morality must not be forgotten.

The most important aim of bankruptcy legislation is to discourage insolvency. But it is not the most severe legislation which always has the desired repressive effect, as the entire history of criminal law proves. Beccaria points out in his

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great work, "Crime and Punishment," that a law which is too severe revolts the mind, and becomes a dead letter. This principle applies to the case in hand. Business men or firms maintaining numerous commercial connections will not employ bankruptcy proceedings when to do so creates a very general prejudice against them in the business community. The effect of great severity in legislation is similar to an error on the side of undue liberality.

A law which is too favorable to the debtor may be used as a menace by him in dealing with creditors to compel further advances and secure a continuation of unsound methods of doing business. The trouble with the state banks of issue in the United States between 1812 and 1818 arose partly from a wretchedly loose practice with reference to bankruptcy. An ever ready way of retreat was open for dishonest bankers, a fact which undermined commercial morality.

We ought by no means to overlook those conditions of modern business which render it impossible, at certain times, for even conservative businesses to maintain their solvency. While the bankruptcies of certain periods indicate a general breakdown of the industrial system rather than individual dishonesty, nevertheless no contrivance should be set in operation, through the provisions of bankruptcy, which removes from the abuser of credit the force of the law, "The way of the transgressor is hard." The counterfeiter, by his dis-

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honesty, throws doubt upon the authenticity of the coin of the country, but the man who abuses credit injures that which facilitates business even more than coin in the trade of the modern world. The counterfeiter of coin puts an expense upon all who deal in coin, the abuser of credit injures all who are affected when trade abandons any measure of the economy and convenience of credit. If the condition of credit was once a private matter, while the issue of coin was a public affair, those times have passed, for both are now equally matters of public concern.

In the construction of a law of bankruptcy it seems to be wise to permit both voluntary and involuntary proceedings, that is, to permit application to be made either by the debtor or by his creditors. In connection with crises the determination of what shall prevent the discharge of an insolvent person is a most important point. The principal hindrances to discharge in France are extravagance in personal or household expenses, speculation upon the stock market, the adoption of ruinous methods to delay bankruptcy, or the attempt to favor any creditor unduly. In England, in addition to other impediments, no insolvent person can be discharged whose estate does not amount to fifty per cent of his liabilities. According to the United States law of 1867, evidences of fraud, or fraudulent gifts or conveyances, were a bar to discharge, also losses through gaming and the failure to keep proper books. If an estate did not

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yield thirty per cent, the concurrence of a majority of the creditors, both as to number and the value of claims, was required to secure discharge. In second bankruptcy the minimum necessary for discharge was placed at seventy per cent. The Act of 1898 provides that the commitment of acts punishable by imprisonment under the bankruptcy law and the failure to keep books, or the destroying or removing of the same to conceal material facts, shall bar discharge.

CONCLUSION

In conclusion it may be said that the task of the state in enacting wise laws to regulate economic interests is becoming continually more important and more difficult of performance. This means that more ability is being required of legislators. In view of this it is not encouraging to contemplate the types of men being returned to the various state legislatures of this country nor even the types in Congress. The indirect and unexpected effects of legislation have so often afforded a severe surprise to the interests affected by them that it is time the lesson should be learned and these matters be made the subject of careful and complete study prior to legislative action. It is an encouraging sign that elaborate legislative investigations are becoming the rule in this country, as they have long been in England.

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RÉSUMÉ

The importance of legislative enactments not to be over-estimated.

I. Monetary legislation.

Essentials of an ideal monetary system.

II. Banks — their relation to crises.

(a) General considerations.

Functions of a bank.

Care in granting charters.

Examinations and publication of statements.

Duties of directors.

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(b) Should competition be permitted in the issue of bank-notes ?

(c) Peel Bank Act of 1844.

III. Corporation Law — abuse of corporate privileges.

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IV. Bankruptcy.

Two motives : —

To discharge the honest debtor.

To punish the dishonest insolvent.

Citation of impediments to the discharge of debtors.

CHAPTER VII

THE PERIODICITY OF CRISES

IF we consider the long series of crises which have marked the progress of industry, from the time when crises first began seriously to attract the attention of economic writers in the latter part of the eighteenth century down to the present, it can scarcely escape the observation of any person that these events have been distributed chronologically with a certain uniformity of interval. In the economic life of Western Europe and the United States the coming of a crisis has never been very long delayed nor have full-fledged crises of the first degree of intensity been at any time developed within at least six or eight years of one another. This general tendency to an evenness of spacing between crises has suggested to some students of the subject that there must be a law in the recurrence of these phenomena, tending to establish a definite periodicity. If such a law could be discovered and its nature explained, it would of course throw light directly upon the causes of crises.

To grant that a phenomenon is of periodic occurrence does not necessarily imply that the

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force which causes it is spasmodic or lacking in continuity. A regularly operating force, when at a certain point its cumulated effects disturb the equilibrium under which the force has up to that time operated, may manifest itself only periodically in certain of its aspects. The simplest illustrations of this are the intermittent spring and the geyser. We know that muscular and nervous activity is intermittent in character. Periodicity has been declared to be a fundamental characteristic of all individual physical and intellectual activities of human beings. But it does not necessarily follow from this that all social phenomena are periodic or even intermittent. Social activities may be sustained continuously by a group of individuals, a part of whom are continually being replaced by others. The argument concerning physical or nervous exhaustion as derived from the study of the individual, cannot without further proof be applied to all classes of social action. The work of a factory may continue uninterruptedly while the individuals connected with it are regularly replaced before exhaustion incapacitates any one from rendering service.

While, therefore, social forces are capable of a continuity of which individual activities are not, nothing is of more common observation than that in the irregular and intermittent character of their life history social movements continually remind us of individual activities. There is clearly enough a periodicity of economic phenomena resting upon

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the succession of the seasons. The spring is the season for plans, the summer for activity in carrying them out, the fall for settlement and liquidation, the winter for the conservative discharge of merely necessary economic functions. Every season has a character of its own.

But there are other periodic social phenomena which appear to indicate certain peculiarities in the social psychology. It has been noticed that movements for reform in municipal affairs in certain American municipalities have been not only spasmodic but regularly recurrent.

If one may venture upon a theory to explain this, it may perhaps be said that the steadily operating force is the self-interest of those in politics "for what there is in it," and that the progressive exhibition of this self-interest at length exhausts the patience of the citizens and leads to the precipitation of a crisis in municipal affairs. But the reform spirit not having the enduring power of the motive of self-interest soon dies out and a new cycle is entered upon.

It has been noticed that the movement of settlement westward across the American continent has not been continuous, but has been accomplished by a succession of waves of population moving on to new territory. As Professor F. W. Taussig has said: "The process of settling the country and taking up the new lands of the United States has never taken place by regular and steady steps. It has taken place by spells of great activity . . . fol-

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lowed by periods of dulness and reaction, in which the advance for the time being has almost ceased. At intervals of ten years, more or less, the population has gone west too fast, and then has waited to recover and take breath for a new effort.”¹

In many kinds of social activity it appears to be necessary that a certain lapse of time should occur between the application of any given stimuli in order that there shall be a strong social reaction to them. The lapse of time between presidential elections in the United States refreshes the public thought and results in an intensity of interest in these political contests which is probably some function of the interval. The patriotic enthusiasm exhibited by the American people in the recent war was in part due to the slumber of these sentiments for thirty-five years.

In the sense above indicated the crisis is an intermittent phenomenon. Many writers have gone further than this, however, and claimed for crises a periodic law. The literature of the subject shows that the manner in which a writer explains crises has controlling weight in determining whether he is able to see evidences of periodicity in the string of crises or not. As the idea of periodicity accommodates itself in a remarkable way to most theories of crises, its recognition is quite general. The first to remark upon the

¹ “The Silver Situation in the United States,” publication of American Economic Association, Vol. VII, p. 104.

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periodicity of crises was probably Sir William Petty. Walter Stanley Jevons, the English economist, made this the foundation stone of his explanation of crises, and Bagehot, like Jevons, admits periodicity, urging that it is due to the influence of fluctuations in harvests upon the financial market. The same view is held by the Italian economist, Boccardo.² The socialist writers who consider the crisis as an outcome of the individualistic character of present production on the one hand, and of an unjust distribution of wealth on the other, which cuts off the buying power of the consumers as it increases the products depending on their demand, believe that crises will be periodic until the present industrial system is fundamentally changed. Such views are found in the writings of Marx, Rodbertus, Friedrich Engels, and others. Writers like Wagner and Schöffle, who consider crises as due to the erection of a vast business structure upon a credit basis, consider the period of crises to depend upon the psychology of credit, and the length of time required to fabricate an overgrown credit industry. John Stuart Mill, in his theory of the tendency of profits to a minimum, puts forth a theory of crises which leads necessarily to the admission that their occurrence is periodic. He also said that the recurrence of crises might be due to the growth of certain tendencies of mind. Other exponents of the periodicity of crises who

² "Economia Politica," 6th ed., Vol. II, Part XXXV, p. 156.

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agree in recognizing the fact, but differ in their explanations of its cause are Loehnis, Fregier, Juglar, and John Mills.

That there is any evidence of periodicity has, however, been quite as distinctly denied by some writers as it has been affirmed by others. Roscher, recognizing as he does a great variety of causes of crises, considers the idea of periodicity unscientific. Emile de Laveleye denies the periodicity of crises.³ Mr. M. L. Scudder, Jr., in his "Congested Prices," tells us that the entire discussion of periodicity is due to a general tendency of the minds of investigators toward well-rounded and neatly subdivided portions of any study which group the facts into easily comprehended and, apparently, final relations.

The best course, probably, is simply to set down the years of crises for the chief industrial states of the world, leaving to the reader to pass judgment on the evidence. But even the compiling of a list of crises is a difficult undertaking, since no precise line of demarkation can be drawn between general and partial crises, or between crises and other types of price fluctuation.

³ E. de Laveleye, who is thoroughly familiar with the economic history of England as well as of France, says: "Crises return often, since the causes which produce them tend, as we have shown, to appear more and more frequently. But, as we have pointed out in our study, each crisis has its own peculiar determining causes, and does not result in a necessary manner from the periodic return of certain circumstances."—"La Marche Monétaire," Annexes XI, "De la Périodicité des Crises," p. 290.

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LIST OF ECONOMIC CRISES

UNITED STATES	ENGLAND	FRANCE
—	1792-93	—
—	1796	—
—	—	1804
—	1810-11	—
1812	—	—
—	—	1813
—	1815	—
1818	—	1818
1825	1825	1825
—	—	1830
1837-39	1836-39	1836-39
1847	1847	1847
—	—	1855
1857	1857	1857
—	1866	—
1869	—	—
1873	1873	1873
—	—	1882
1884	—	1884-85
1890	1890	1890
1893	—	1893

In this list there are embraced economic disturbances of heterogeneous character, such as have passed under the names of panics, or crises. There are included: crises due to failure of harvests (England, 1847); purely financial panics (United States, 1869); and disturbances originating in a single line of trade (England, 1836-39). The

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French list, which includes the crises enumerated by Juglar,⁴ embraces a number of dates on which there was merely a trade depression, or a financial stringency of more or less consequence.

In regard to the periodicity of crises, we have two principal theories to consider. It has been pointed out by those who are familiar with the part which the use of credit has played in bringing about certain crises, that crises in general must stand as far apart as the period required to build up a credit structure. If the attractions of credit which lead to its use, lead ultimately to its abuse, time must be given for this force to build up an overtowering structure, the destruction of which is the crisis. After the reverses of a crisis have warned the community of the dangers of unsound business, a stated lapse of time is required for business men to make the intellectual change necessary before the practices which lead to crises can again become common. Time is required to forget and to let hope gradually rise again, and the mind become busied in plans in which hope changes to confidence, and this as gradually blossoms into rashness. The period of crisis will then be set, as J. S. Mill suggested, by certain peculiarities of the human mind, or as Wagner expresses

⁴ The list given in the text may be found in Juglar, "Des Crises Commerciales," p. 141. Juglar states that for the most part crises in France have fallen upon the same years as in England. Cf. "Crises Commerciales," in Say's "Nouveau Dictionnaire d'Economie Politique," Tome I, Sec. 1.

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it, by psychological law, in which an organic defect of human nature is betrayed.

In the completion of this theory a suggestion originating from another quarter may be added. It has been maintained that the periodicity of crises rests upon the procession of economic generations. The replacing of an older generation by a younger is continually going on in the business world, as elsewhere. It is held that in ten years after some trying experience the change in the personnel of business leaders will have been so great that the new men will be influential enough to permit a reappearance of dangerous practices such as the experienced generation, partly supplanted, would not tolerate. This view does not imply that a new generation entirely replaces the old one every ten years; still less does it mean that at any particular time there is any unusual replacing of one generation by another. It simply asserts that in ten years not only will the keenness of the lesson of crises be somewhat dulled to those who have passed through the experience, but that the new leaders, untamed by this chastisement, will be so large a faction as to exert material influence in permitting dangerous practices to be adopted.⁵

A theory of crises, the foundation stone of which is the recognition of periodicity, is the "sun-spot and harvest" theory of Walter Stanley Jevons.

⁵ Cf. "The Nation," September 25, 1873, Vol. XVII, p. 207, and J. E. T. Rogers's article "Causes of Commercial Depression," "Princeton Review," Vol. III, N. S., p. 223.

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As its name indicates, the theory is devoted to an investigation of the relation between sun-spots, harvests, and economic crises. The idea was suggested by the striking coincidence in length of the period between the English crises of 1837, 1847, 1857, 1866, and 1878 and the periodic variation in the frequency of sun-spots.

To ascertain what causal relation, if any, existed between these two sets of phenomena, Mr. Jevons, in 1862, undertook a series of investigations. He began with the study of certain annual trade fluctuations. The first to attract his attention was the influence of the "quarter-day," at which time in England it is customary to settle accounts, pay rents, etc. Having calculated from the records of the Bank of England the effect of these settlement days, and taking the year as the period of study, a remarkably persistent set of annual fluctuations in the accounts of the bank was discovered, showing a distinct autumnal pressure upon the money market and the institutions of credit generally. In the fall of the year a considerable amount of money is paid out for harvest labor and in the purchase of harvests⁶ and the settlement of country and village accounts. This money is more than usually distributed into the hands of the people and hence

⁶ Jevons, "Currency and Finance," pp. 1-12. The purchase and moving of American harvests has been found a matter of importance in the history of American currency and banking. See Taussig, "The Silver Situation," pp. 14, 23, 67, 68, 89; also Sumner, "History of American Currency," pp. 217, 218, 219.

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abstracted from the banks. Expenditures previously made in travel or for building have not yet returned to the banks, and the purchase of winter stocks requires money. The fall quarter-day is therefore an important date, for at that time rent and dividend payments at other times left on deposit are drawn from the banks for various uses. If at such a period as this the banks are not in excellent condition, or if for any reason an unusually large demand is made for bank accommodation, a breakdown of the credit system may occur, which, in the ignorance of the true nature of the excessive draft, may cause a sudden demand for liquidation and precipitate a crisis, or at least a financial panic. Since expenditure for subsistence represents about fifty per cent. of the ordinary person's expenditures, it can easily be seen that a rise or fall in the price of food will control the direction of a very considerable part of the purchasing power of society. An increase in the cost of food will withdraw the buying power upon which the prosperity of many lines of industry has rested. A decrease in the cost of food will release a large buying power, which, before the direction of its demand is known, will serve as a strong speculative influence.⁷ Nor need the fluctuations in harvests be great to generate considerable price fluctuations. Gregory King's tables on the relation be-

⁷ Cf. Max Wirth, "Geschichte," 3d ed., pp. 5, 247; A. Wagner, "Zur Lehre von den Banken," p. 205; Rodbertus, "Meyer Briefe," Bd. I, p. 102.

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tween quantity and price fluctuations may be recollected in this connection. They show, for example, that to decrease the quantity of a commodity by fifty per cent. would increase its price by more than fifty per cent.⁸ Finally, as the modern money market is organized, an unusual demand for cash may sometimes occasion serious consequences. In the words of Mr. Bagehot: "Any sudden event which creates a great demand for actual cash may cause, and will tend to cause, a panic in a country where cash is much economized, and where debts payable on demand are large. In such a country an immense credit rests on a small cash reserve, and an unexpected and large diminution of that reserve may easily break up and shatter very much, if not the whole, of that credit."⁹ It was Mr. Jevons's idea that if the periodicity of sun-spots could be shown to have a counterpart in a fluctuation of harvests, and if this fluctuation of harvests through an unusual pressure on the autumnal money market could be shown to be the cause of crises, he would have explained the law of periodicity. More fully stated, the chain of reasoning which it was hoped to establish was as follows: A periodicity in the fluctuation of sun-spots has been clearly proven.

⁸ Tooke, "History of Prices," Vol. I, pp. 12-14. In this connection Tooke enumerates as the three most important causes of fluctuations in prices, the effect of the seasons, war, and changes in the currency.

⁹ Walter Bagehot, "Lombard Street," Ch. VI.

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The periods of maximum appearance are separated by an interval of about 10.45 years. This period is within a fraction of the average lapse between the well-known English crises of 1837, 1847, 1857, 1866, and 1878. This coincidence of periods raises something of a presumption that there is a causal connection between the two. There is a theory that numerous sun-spots indicate a greater activity upon the surface of the sun than exists at periods of minimum spots. This activity must influence the radiation of heat. If more heat is radiated at one time and less at another there will be a consequent variation in the amount of heat received by the earth. A period of relatively cold seasons, when less than the ordinary amount of light and heat is received, will be one of cloudy, wet weather, insufficient warmth for ripening crops, hence one of poor crops and relatively high prices for agricultural products. The succeeding period, as influenced by fluctuations in the solar radiation, will be of opposite character, and so in succession each period will be followed by its opposite.

The investigations of Mr. Jevons were for the purpose of proving whether or not the harvest cycle was marked enough in its influence on prices to justify the belief that it was the cause of the crises cycle. Early English price records were first examined by him, and although some slight evidences of a periodicity in price fluctuation were obtained, no conclusions could be based

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upon them. The tables of merchandise exported from England to India also failed to give any testimony. In this connection the history of famines in India was examined, and a striking and significant periodicity was observed.¹⁰ Records of exports from Maryland and Virginia to England between 1700 and 1770 exhibited periodic variations, though broken at one or two points. In the examination of the English records of this time, Mr. Jevons found that the South Sea Bubble and the crisis of 1721 were exactly at the interval between the eleventh and twelfth sun-spot period, reckoning back from 1837. Studying carefully each period between these two dates, and registering every crisis year, as well as every year showing special commercial distress or unsound activity, Mr. Jevons constructed a list which certainly shows all that the history of English crises can be made to prove for the theory of periodicity, and probably claims much more than that history, fairly interpreted, will justify. The list is as follows, unimportant business disturbances being indicated by a question mark: (1701?), 1711, 1721, 1731-32, (1742? 1752?), 1763, 1772-73, 1783, 1793, (1804-5?), 1815, 1825, 1836-39, 1847, 1857, 1866, 1878.

It must be very apparent to every one that an

¹⁰ Jevons, "Currency and Finance," pp. 216, 236-238. Some testimony on this point is adduced by Mr. Cornelius Walford in his paper, "On the Famines of the World: Past and Present," published in the "Journal of the Royal Statistical Society" for September, 1878, Vol. XLI, p. 521.

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argument of this sort is extremely liable to abuse unless in the hands of an unusually conscientious expert, and unless, also, a rigid criterion is adopted as to what may be allowed as constituting a crisis for the purpose of supplying a missing link in a series like the above. Even the best of reasoners, if once possessed of an idea of this sort, are liable to overestimate the importance of certain phenomena which help to prove their theories. The historical proof must certainly be said to be inconclusive.

The objections to this theory are both numerous and vital. In the first place there has been difficulty in the investigation of sun-spots, and uncertainty as to the sun-spot period. It was first calculated to be 11.11 years, but was later changed after more careful observation to 10.45 years. The facilities for accurate observation have been gradually improving so that modern records cannot be compared with the work of a former period without due allowance. Again, no substantial agreement has yet been reached among astronomers regarding the cause of sun-spots¹¹ and their

¹¹ Nathan T. Carr shows that neither Newcomb, Secchi, Faye, nor Young was able to hazard an explanation of sun-spots. The latter rejects the influence of planetary bodies, which theory is founded upon the coincidence of Jupiter's revolution with the ten-year sun-spot period, and to which Jevons referred. Carr considers sun-spots as periodic bursting forth of imprisoned gases, which, being steadily generated within the sun's mass, gradually increase pressure against the obstructions confining them. "The Sun; Its Constitution; Its Phenomena; Its Conditions," New York, 1883, Sec. 25.

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meteorological significance. It throws doubt upon the ten-year argument to know that if almost any other number of years is chosen, it can be shown to correspond with the price fluctuations in many tables. The French economist Juglar has noted cycles of five and six years in the accounts of the Bank of France.¹² Jevons himself says: "In 1875 I made a laborious reduction of the data contained in Professor Thorold Rogers's admirable 'History of Agriculture and Prices in England from the Year 1259.' I then believed I had discovered the solar period in the prices of corn and various agricultural commodities, and I accordingly read a paper to that effect at the British Association at Bristol. Subsequent inquiry, however, seemed to show that periods of three, five, seven, nine, or even thirteen years would agree with Professor

¹² Juglar, "Journal des Economistes," 1856. Schäffle relies on Juglar in saying that every six or seven years a general liquidation appears to be necessary in France, in order to allow trade to enter upon a new period of growth. Roscher, "Ansichten," Bd. II, p. 381, mentions on the authority of Fregier that crises occur in France every three or five years.

All these contradictory statements most effectually dispose of one another. Concerning English conditions Friedrich Engels has testified as follows in the introduction to his work, "The Condition of the Working Classes in England in 1844," pp. x, xi: "The recurring period of the great industrial crises is stated in the text as five years. This was the period apparently indicated by the course of events from 1825 to 1842. But the industrial history from 1842 to 1868 has shown that the real period is one of ten years, that the intermediate revulsions were secondary, and tended more and more to disappear. Since 1868 the state of things has changed again . . ."

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Rogers's data just as well as a period of eleven years; in disgust at this result I withdrew the paper from further publication." ¹³ A further complication attends from the fact that there are other climatic periods, that these price investigations gave evidences of larger price cycles, and that the records of sun-spots vary not only in a short cycle of years but through a much longer one. From observations made upon glaciers, geographers have noted a climatic period of about thirty-five years. The maxima of these climatic periods have fallen in the years 1767, 1814, 1840, in neither of which there has been a crisis. In regard to a larger sun-spot cycle, Professor Balfour Stewart says: "It appears that these eleven-yearly oscillations are not always of the same magnitude; sometimes they are large, and sometimes small. They were probably small about the middle of the last century, becoming large toward the end of it; they were again small about the early part of the present century. They have recently been large, and we may suspect that in the future there will again be a falling off." This corresponds with the conclusions of Carrington, as shown in the diagrams published in his "Observations of Solar Spots."

Another objection to this theory is the lack of proof that sun-spots exert an important determinative influence upon climate. Sir William Herschel

¹³ "Currency and Finance," p. 225.

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said: "I think we may reasonably conclude that there must be a manifest difference in the emission of light and heat from the sun. . . . With regard to the contemporary severity and mildness of the seasons, it will hardly be necessary to remark that nothing decisive can be obtained."¹⁴ Considering the distribution of land and water masses on the earth, the effect of the declination of the earth's axis, of nearness or remoteness to the equator, of mountain chains, variations in the soil and its vegetable covering, the prevailing directions of the winds and other atmospheric phenomena, it is not a simple thing to say what the effect of a given variation in the amount of heat radiated to the earth would be upon the climate of any country. The effect of an increase in the solar heat received during a summer might improve the harvests of England, but diminish those of Egypt.¹⁵

¹⁴ "Philosophical Transactions of the Royal Society for 1801," Vol. XCI, p. 310.

¹⁵ "It is very probable that the excess of sunshine which produces drought and famine in India has an opposite effect on the prosperity of England and all other countries lying between the isothermal lines, and that the more moderate degree of sunshine which may suit the Indian cultivator is insufficient to properly ripen English wheat and other produce (oats excepted)." — MR. JOHN KEMP, in "Commercial Crises and Sun-Spots," "Nature," December 5, 1878, Vol. XIX, p. 97. A reciprocal climatic relation between countries and in connection with sun-spots is indicated by some barometric records. See article "On the Barometric See-Saw between Russia and India in the Sun-Spot Cycle," in "Nature," March 18, 1880, in which Mr. H. F. Blanford makes the following statement: "There is a reciprocating and cyclical oscilla-

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Mr. Jevons himself admitted that changes due to solar radiation would have little or no traceable influence upon the complicated climate of Europe. At least no success has been attained in showing periodicity in the variations of the price of either European or English grain for recent times. These considerations suggest that if the climates of various regions of the earth are in any degree reciprocal, the modern growth of the means of transportation has so expanded as to distribute the surplus of abundantly supplied areas over those less well supplied and neutralize price fluctuations which might otherwise result. The principal European markets receive wheat from all parts of the world and display great stability of prices. This equalizing effect of commerce has been greatest during this century, but it is precisely during this century that economic crises have been most acute and most steadily recurrent.

We may still further object to the sun-spot theory, not only that the sun-spot phenomena are imperfectly understood and that their relation to climate remains to be defined, but that the relation between variations in harvests and crises is not more satisfactorily explained than any of the other

tion of atmospheric pressure, of such a character that the pressure is at a maximum in Western Siberia and Russia about the epoch of maximum sun-spots, and in the Indo-Malayan area at that of minimum sun-spots." But this idea of reciprocal relations cannot be safely pressed very far. See E. Reclus, "The Earth and its Inhabitants; North America," Vol. III, "The United States," p. 254.

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steps in this chain of influences. We are told on the one hand by Jevons that abundant harvests have often aroused a speculative spirit as the result of prosperity and have led to ill-advised business activity and eventually to crises. On the other hand, the English crisis of 1847 is included by Jevons among others upon which he places reliance to found his periodical series. This disturbance was brought on, however, in part by harvest failures which compelled England to send her gold to the United States for provisions. This drain of gold under the working of Peel's Bank Act caused a stringency of the money market. The harvest theory appears to be holding to both horns of the dilemma.

Finally the incidence of crisis years and of maximum or minimum sun-spot years is not identical. The investigations of Schwabe showed that the years of maximum sun-spot frequency were 1828, 1837, 1848, 1860, and 1871. The minimum years were 1833, 1844, 1855, 1867. But during this period the English crises fell, as we have already seen, in the years 1825, 1836-39, 1847, 1857, 1866, 1873. The series of crises as it stood some years ago presented more of a foothold for an argument concerning periodicity than it does at the present time, since the last two or three crises, both in England and the United States, have broken up the rather remarkable rhythmic succession of the earlier part of the series. As President A. T. Hadley has said, "The Civil War in the United States quite broke

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up the regular ten-year round of crises, and, as it did not have any appreciable effect on the sun-spots, it may be said to have broken up the theory also.”¹⁶ But even if the character of the crises prior to this most recent period be considered with care, it will be seen that while a harvest theory might help to explain the occurrence of some disturbances, its application to others is absurd. One might perhaps admit some proof in connection with the English crises of 1825 or 1847, or the American crises of 1836-39, but how shall the international crises of 1857 and 1873 be explained? The harvest theory is inapt as an explanation of the appearance of John Law and the insane hopes built upon prospects of colonial trade which led to the crisis of 1720. This theory does not apply to the English crisis of 1815 which hung upon the termination of the Napoleonic wars, nor to the financial situation in London in 1866. It affords no explanation of Black Friday in 1869, nor of the Baring and Copper Syndicate failures in 1890, and it does not account for the crisis of 1893.

RÉSUMÉ

- I. Theories of crises have been suggested by the fact that crises are distributed with a certain uniformity of interval.
- II. Intermittent character of social phenomena.
 - Due to the seasons.
 - Periodic reforms.

¹⁶ Johnson's "Universal Cyclopædia," article "Commercial Crises."

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Settlement of western America.

Table of crisis years.

III. Periodicity of crises and credit.

The gradual expansion and final overgrowth of credit.

Replacement of generations of business men.

IV. "Harvest and Sun-Spot" theory.

Influence of the quarter-day.

Theory of the influence of sun-spots.

Mr. Jevons's futile search for periodic price fluctuations.

His list of crisis years.

Objections: Apparent existence of numerous price cycles ; no correspondence between crisis years and years of maxima or minima sun-spots ; complexity of climate and the equalization of prices through commerce. Recent crises have broken the regular succession of some earlier ones.

CHAPTER VIII

CREDIT AND SPECULATION

ONE of the most constant characteristics of the pre-crisis period is an abnormal extension of credit. It is significant that historically the appearance of crises is practically simultaneous with the growth of our present system of credit economy. The distribution of crises between nations also corresponds with the extension of the use of credit. Credit creates between the members of industrial society an economic bond of primary strength, making the uncertainties which influence one party of vital concern to every other. The relations of debtor and creditor in modern society have been likened to the life cords used to bind together a company of mountain tourists. It is certain that at least in times of distress credit and money are those agencies of the market which make men realize the economic interpretation of the saying, "For none of us liveth to himself, and no man dieth to himself."¹

Credit serves to separate by an interval of time

¹ Romans xiv. 7. In 1844 Joseph Mazzini said, "Credit nowadays is no longer a national, but a European, institution." It may now be considered a world institution.

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the two parts of a complete act of exchange, and it serves to hold the market in a state of suspense as to what the effect of the postponed part of the transaction will be, or, indeed, whether the transaction will ever be completed or not. In the balancing of demand and supply, particularly with reference to money, this uncertainty in the element of time is a very important consideration. The economist Roscher has shown that in a money and credit economy, demand and supply cannot be looked upon merely as two sides of the same thing, as some writers have asserted.²

The transfer of money or money's worth, facilitated by credit, involves the confidence on the part of the creditor that the debtor is able and willing to repay the loan and to execute in a proper manner whatever other conditions are agreed upon or implied. It is true that in many forms of credit transactions specific evidences of indebtedness are created and certain rights and titles to property are given the creditor to afford a partial basis for his confidence, but considering the methods by which business is usually transacted, it is obvious that a large portion of credit transfers rest chiefly upon personal security; in short, upon probity or honor. The effect of such transactions is as various as the circumstances under which credit is granted and the character of the parties involved. As language will serve to convey the noblest or the

² Roscher, "Ansichten," Bd. II, "Zur Lehre von den Absatzkrisen," Sec. 3.

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basest of thoughts, so credit will serve to enhance or diminish the economic well-being of the users. The effects of credit vary as the uses to which the wealth transferred is put. It has been called the highest triumph and the "shadow-side" of modern culture. As Lorenz von Stein has said, it resembles the press in the world of thought, alike a minister to good and evil.

The widespread growth of the system of credit is ample evidence that it performs useful services. It is usually thought an advantage to be able to transfer capital easily into the hands of those desiring to use it. Industry is certainly rendered more efficient by whatever facilitates the placing of capital in the hands of those best fitted to manage and employ it. But in so far as crises may be considered the result of unwise credit, they may be looked upon as evidence that capital does not through credit seek out with sufficient certainty the ablest managers. It is the law of nature that a man shall go through the educating and subduing process of earning wealth before bearing the responsibility of its management. How far we can safely suspend this law is a question. Credit increases in some persons the desire to save by affording in advance an easy solution of the question of investment. It prevents wealth which is saved from being hoarded and gives industry the largest proportion of the sum saved. Credit assembles small savings to make up the amounts necessary to carry through

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great undertakings. When it is said that credit facilitates the transfer of values, it is implied that it saves the use of money. Adam Smith said that if money serves as a highway of trade, credit may be likened to a highway through the air which permits the release of a portion of the precious metals for other uses.³ It also saves the time, trouble, and expense which would otherwise be necessary to make separate and complete payments in every business transaction.

The dangers and abuses which have connected themselves with credit have by no means escaped the attention of economic writers who have given attention to crises. John Stuart Mill and Adolph Wagner have so far emphasized the part played by credit as to favor the use of the phrase "credit crises." Schäffle, Michaelis, Von Mangoldt, Flürscheim, and Von Stein, together with Juglar in

³ By these means it increases the amount of disposable capital. Von Stein makes the growth of credit the last and real ground of commercial crises. He says: "The causes of commercial crises lie in the causes which check payments. As payments result from sales, a lack of sales is the first cause of crises. The cause of a lack of sales lies in the fact that production suddenly outruns consumption, because of which naturally a portion of the product remains unsold. The cause of this sudden increase of production lies in the rapid increase of productive capital, and since this is occasioned by credit, the rapid increase of credit, interest not being considered, is the cause of commercial crises. Credit, as it is the source of progress, is also the source of danger. It is in the economic world what the press is in the world of thought. Nowhere is the good more closely connected with the evil." — "Lehrbuch der Volkswirtschaft," p. 228.

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France and Macleod in England have pointed out the sensitiveness of credit and have indicated some of its prevalent abuses.⁴

To understand the dangers inhering in the use of credit it is necessary to observe the sensitiveness of the instrument. Depending as it does upon confidence, it is as changeable as the course of public thought.⁵ Credit facilitates a system of exchanges which money is incapable of maintaining unaided. The extension of credit is accompanied by a realization that if any large part of the mechanism of trade should meet with disaster capable of shaking confidence, the result would be the withdrawal of credit and a consequent stringency in the money market. A nervous watch is therefore maintained for such occurrences, and the dread of the headlong rush for liquidation, in which some must inevitably be crushed, always lurks in the background of modern industry.⁶

⁴ Few writers deny that important connections exist between crises and credit and speculation. Those writers who hold the Rodbertus theory of crises tend to deny or minimize these connections, however. See Theodor Hertzka, "Die Gesetze der sozialen Entwicklung," Bd. I, Ch. VIII, pp. 95-106.

⁵ Cf. Bagehot, "Lombard Street," "Complete Works," Vol. V, pp. 182-183. On p. 48 he says, "Every banker knows that if he has to *prove* that he is worthy of credit, however good may be his arguments in fact, his credit is gone." See also "Mechem on Agency," Sec. 209, p. 136, Detroit, 1888.

⁶ A description of unsound credit so neat and delicate as to scarcely admit of translation is given by Schäffle in the following words: "Ein Kreditgebäude muss sich in die Luft zimmern, so

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The specific circumstances which may lead to the destruction of credit are innumerable. Credit may be called upon to procure the means for unproductive and unwise consumption⁷ or for the carrying through of reckless schemes of production. The more sudden the demand for capital, the more certain it is that the demand will be accommodated through credit instrumentalities. In so far as credit brings savings to investment, it lessens the reserve funds both of money and commodities which remain unentangled from the productive mechanism and which may be drawn upon in case that mechanism falls into disaster. It is said that capital lengthens the act of produc-

leicht, dass ein Windhauch es endlich zusammen blasen kann. Geht ein einziges Glied aus der Fuge, so stürzen alle anderen, bleibt eine Zahlung aus, findet nicht ganz genau der kalkulierte Absatz zur kalkulierten Zeit und zum kalkulierten hohen Preise statt, so fällt dann mit einem Ringe die ganze papierne Kette auseinander." — "Gesammelte Aufsätze," Bd. II, p. 26, 1886.

⁷ Bagehot points out that the borrowing of spendthrifts is insignificant compared with the entire amount of credit transfers. Spendthrift borrowing, he says, is now only likely to occur, on any great scale, in public finance. "Complete Works," Vol. V, p. 438. For the opposite view, that frivolous expenditure is less likely to occur in public than in private finance, see Cohn, "Finanzwissenschaft," pp. 182-185. This discussion seems to hinge on how war expenses are classified. Bagehot cites the expenses of the Seven Years' War to France. Held says that war expenses can only be considered unproductive from a purely economic standpoint. "Kredit," in Bluntschli's "Staatswörterbuch," Löning ed., Bd. II, p. 424. Wagner attempts something of a justification even upon economic grounds. "Finanzwissenschaft," 3 Aufl., Bd. I, pp. 73, 416-418.

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tion and renders it more roundabout. In so far as credit facilitates the use of capital, it assists in lengthening the forecast of the market which producers must make, and so increases uncertainty while it multiplies the number of interests involved in every transaction.

The realization of the force of coming obligations is always more indistinct the more distant they are in the future. It is partly because they believe that patrons will buy somewhat more liberally when buying "on account" that merchants consent to be harassed with the costly and annoying "credit" system. Because of this inability to realize fully the future, the chattel-mortgage, lightning-rod shark of the past was tolerated and the instalment plan now proves a means of extortion in dishonest hands. It is a well-known fact that while strikes against a reduction of wages are frequent, laborers can seldom be united to strike against unhealthful conditions which do not indeed reduce wages for the moment, but which mean future loss in sickness and hastened decrepitude. The public shows itself relatively indifferent in regard to the expenditure of funds which are provided by the creation of public debt, the redemption of which is placed in the indefinite future.⁸ There is a false feeling of opulence

⁸ Mr. Albert S. Bolles well says, "Nothing ever chills the desire to spend money, especially for the benefit of the public, so quickly as an immediate demand for it." — Lalor's "Cyclopædia," "Finance," Vol. II, p. 187.

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attending the removal of one's obligations to the future. The borrower has to deal with an instinctive feeling that as the result of his transaction he has in some way made a gain which will permit of a little carelessness or generosity. The force of this may in an individual instance be great or small, but the widespread use of credit makes even the minor characteristics of borrowing important, if they can be shown to be constant.

Credit should be granted for short periods only, even if often renewed. Long credits work a gradual insensibility to the idea of obligation and lead to practices not harmonious with the position of a debtor. Punctuality, one of the most fundamental of economic virtues, is in any industrial community largely regulated by the practice of the banks. "It may not be true that punctuality is the parent of all virtues; but unmistakably is procrastination the mother of every vice, whether in social or personal character. There is nothing for making duty easy like bringing men sharply up to it, and firmly holding them there. On the other hand, obligations grow heavier and heavier the longer they are put off. What was first procrastinated, it is soon sought to evade; self-respect wilts under the reproaches of the creditor; dis-

On the general topic of the realization of distant results, see Spinoza, "Ethics," Propositions IX and X. For the application to economics, see Böhm-Bawerk, "Positive Theory of Capital," Bk. V, Ch. I, "Present and Future in Economic Life," and Ch. III, "Underestimate of the Future."

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honest suggestions arise unrebuked in the mind that would once have thrust them indignantly out. The advantage which the bank confers on the community by introducing a rigid standard of punctuality cannot be overrated.”⁹

It need not be pointed out that in the case of advances of money which rest upon honesty and business reputation, precaution has to be constantly taken against men who are without means and are willing to put money obtained by credit to unusual risk, the loss of which they could not be compelled to make good, since the profits, if any, can be retained. A materialistic age places strong inducements before the ambitious to make a dash for wealth, in spite of the fact that the game is often simply the dishonest one of “Heads I win, tails you lose.” The voice of public opinion is rendered equivocal on such matters by calling those exceptional ones who succeed by these methods “smart,” and by giving prestige to wealth regardless of its origin. With a loan the creditor buys an interest in the debtor’s ability and moral character, and the motto *caveat emptor* is as much more significant in such transactions than in ordinary buying as character and ability are more difficult to judge than goods. Loans made at the average rates of interest contemplate only the average difficulty of collection. If the loan is one of the transient kind made in the course of business, without security, justice would seem to de-

⁹ F. A. Walker, “Money, Trade, and Industry,” p. 252.

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mand extraordinary caution on the part of the debtor not to disable himself for meeting his obligations.

The chief credit institution of modern society is the bank. When crises have been thought to be due to the misuse of credit, nothing has been more common than at once to fasten the guilt upon the banks and condemn this or that feature of the prevailing bank system. The mistake of many writers upon crises has been to confine attention too narrowly to some one form in which the abuse of credit manifests itself. A comparative study of crises will show that they occur under the most varied systems of banking and currency.¹⁰ Banks are the servants of trade and are subject to the same influences which affect it. The abuses connected with credit which fasten attention upon banks, and which inflict upon them the greatest injury, are not always nor yet generally due to circumstances connected with the banking system itself.¹¹

A rising credit should rather be considered like

¹⁰ "The possibility of overspeculation is correctly referred to the misuse of credit, but again and again will the common mistake be made of pointing out some one particular form of the use of credit and some one particular sort of credit institution as the sole cause of overspeculation and the abuse of credit." — WAGNER, in "Rentzsch," "Handwörterbuch," p. 533.

¹¹ Speaking of the misuse of banking institutions, Horace White says: "Excessive issues and excessive credits are invariable concomitants of the swelling gale of prosperity which precedes and ushers in a crisis. They are part and parcel of the speculative fever which pervades the community, but are no more to be ac-

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a rising tide the pressure of which breaks through an only too weak wall of moral restraint. At one place the abuse of credit may centre in the banking policy, at another in joint stock companies; at one time it may be a fault in the bankruptcy laws, and at another it may be a reckless issue of paper money. To patch the crevices of industrial legislation, as new experiences show new defects, is indeed necessary and is valuable as far as it goes, but it does not kill the central evil nor prevent it manifesting itself in ever new forms.

The use of credit has proven especially dangerous in times when, owing to some gratifying circumstance, the tone of business is unusually optimistic. It has also proven dangerous in lines of trade in which trade estimates are unusually speculative and results are uncertain. The history of mining, invention, and foreign trade is replete with failures partly due to easy credit.

To prevent the growth of unsound business, it behooves every giver of credit to maintain a sharp scrutiny of the conditions under which it is given. Credit, like esteem, is to be given only to the virtuous. Backbone is quite as necessary in the creditor to enable him to say no, as in the debtor to enable him to resist the temptation to risk dishonestly the possessions of another. It is true that the force of competition presses upon the creditor,

counted the cause of it than the excessive multiplication of spindles and of railways going on at the same time." — "Commercial Crises," in Lalor's "Cyclopædia," Vol. I, p. 525.

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whether an individual or a bank, to compel unwise accommodation, but in the same way that labor should resist the tendencies leading to the debasement of the standard of life, so should capital resist the tendencies working to debase the standard of credit. An unwise credit is like an unwise charity, full of ill consequences for all parties involved. As with everything else, credit easily gotten is lightly prized. The first credit operations of a series should always be most closely scrutinized, as they tend to compel succeeding advances through the force of courtesy or business connections. Business accommodation and business standing once granted are not lightly to be broken off or ruined. The situation compelling it is to be avoided by merchants and banks desirous of escaping costly and disagreeable antagonisms.¹²

Whatever agencies facilitate the accurate esti-

¹² "A banker may have a very shrewd suspicion that his customer is overtrading, but, as he has no access to his customer's books, it may be very difficult for him positively to ascertain the fact. And if a banker acts upon insufficient grounds, and without sure cause ruins his customer, he will get himself into very bad odor, and may do himself much injury. Of course, the greater the merchant, the more difficult it is to deal with him. And great merchants who have numerous and powerful connections can manufacture bills to an incredible extent to cover up losses, and keep themselves afloat by extracting fresh funds from their bankers to speculate with; until, when the final collapse comes, it is found that their assets are almost all eaten away, and left perhaps a shilling or two in the pound to meet the masses of paper." — MACLEOD, "The Theory of Credit," Vol. II, Ch. XVI, Sec. 4, pp. 709-710.

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mation of character and financial standing render a useful service in directing credit. Such are banks, mercantile agencies, trade lists, collection agencies, business men's protective associations, and the like. Credit implies trust, and what is necessary for that is realized when we say "trustworthiness." It means a great deal that the characteristics of modern business are such as increasingly to demand honesty and impose that as the condition of all success on a large scale.

The modern growth of credit has for the first time made speculation socially dangerous. When we consider speculation in its broadest sense, we have not simply to do with the activities of stock exchange "operators," but with a necessary tentativeness of judgment affecting in some degree every human calculation. That sort of speculation which is merely a rational provision against future contingencies, all understand and appreciate. Adam Smith has pointed out that speculative returns constitute a part of all wages, especially of those in the higher occupations where considerable risk of failure has been run. Although speculation involves the presence of uncertainty, it seems desirable to distinguish it from gambling or operations on a basis of pure chance. Gambling has only the evils and none of the virtues of speculation. Throwing patient industry to the wind, it fascinates those who engage in it by an unending series of shallow uncertainties and thoughtless sur-

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prises fit to tickle the feeble wits of savages and degenerate types of the human family.

It would promote business integrity and precision in ethical judgments to distinguish between speculation and gambling. A clear distinction would remove from gambling the protection now afforded to it by confusion with certain forms of speculation which are useful and honorable. The existence of gambling is of relatively minor importance for crises. The grasping and dishonest spirit which draws on the crisis is of too calculating a nature to be long absorbed with what remains persistently within the realm of chance. An absolute distinction cannot be made between speculation and gambling. Both deal with chance. Chance is merely a name by which we designate causes when they are too subtle and complex to be understood and followed by human reason at present. It does not imply the absence of causes. Hence the realm of chance is lessened by every fresh acquisition of the human intellect. The gambler accepts the results of chance as final and inexplicable and allows them to amuse or excite him. Speculation is characterized by a constant and strenuous endeavor to penetrate the riddle of chance and to discover some clew by which to read the future. It is suggestive at least that the word "speculation" is commonly used not merely to indicate "the investing of money at a risk of loss, on the chance of unusual gain," but to signify profound meditation or the "deep and

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thorough consideration of a theoretical question." ¹³

The chief service which is performed by speculation is in connection with the study of uncertain conditions. So long as the results of the best estimates in regard to certain business contingencies are more than usually uncertain, we speak of them as speculative, and transactions based upon these contingencies are speculations. The tendency of speculative estimates is to become more and more accurate. In this way the influence of speculation

¹³ "Century Dictionary."

Cohn says: "Speculation is not merely, as Lassalle asserted, 'a guess as to the results which unknown circumstances will cause.' It is more than that. It is the warfare of intelligence, equipped with the knowledge of known forces, against the barbaric dominion of chance."—"Finanzwissenschaft," p. 463. And Bowen, "Speculation then, as McCulloch remarks, 'is only another name for foresight.'"—"Principles of Political Economy," p. 429. This corresponds with the view of P. J. Proudhon, who enumerates four factors of production, namely: labor, capital, commerce, and speculation. Of the latter he says: "Speculation is nothing else than the intellectual conception of the different ways in which labor, credit, transportation, and exchange can unite in production. It is speculation which discovers riches, which invents the most economic means of securing them, and which multiplies them by new forms or combinations of credit, transportation, circulation, and exchange, by creating new wants or by the incessant redistribution of fortunes."—"Manuel du Spéculateur à la Bourse" (Paris, 1854), p. 54. Compare Adam Smith, "Wealth of Nations," Bk. IV, Ch. V, after the heading "Digression concerning the Corn Trade and Corn Laws," Secs. 7 and 8. See also Spencer, "Social Statics," abridged ed., p. 104. J. S. Mill gives an excellent account of the useful office of speculation when it is confined in proper channels. "Political Economy," Bk. IV, Ch. II, Sec. 5.

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is to carry the object of its calculations over into the field of ordinary certainty, while the speculative spirit is led on to attempt the prediction of ever more complex and uncertain phenomena. The hazard money placed on the life of sailors in the seventeenth century, though at first little better than gambling, led to the formation of life tables and the founding of life insurance, than which few industrial enterprises are now more certain. The effect of true speculation is to eliminate itself. A fundamental part of the struggle of civilization is to lessen the domain of chance and to extend the field in which we can operate intelligently. A part of the advance guard in this struggle are the better elements engaged in speculative enterprises.¹⁴ But in the field of business uncertainty, as in the shadow land of science, there are found, side by side with honest investigators, those

¹⁴ F. A. Lange has thus spoken of the effects of the better sort of speculative enterprise: "Speculation, though in the first place pursuing its own interests, has so greatly contributed to provide Europe with the means of communication, to regulate commerce, to give more solid and real character to business, to keep down the rate of interest, to extend and consolidate credit, to limit usury, to make fraud more uncommon, that no prince, no minister, no philosopher, no philanthropist, actuated by the principle of self-denying activity, of benevolent instruction, of wise legislation, could exert anything like the same influence that has been exercised by the gradual removal of the barriers that opposed themselves to the free activity of the individual in the feudal arrangements of the Middle Ages." — "History of Materialism," 2d ed. (Boston, 1879-81), Vol. III, Sec. 4, Ch. I, p. 252. Similar statements are made by Wagner in "Rentzsch," "Handwörterbuch," p. 530.

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who succeed by bold dishonesty and cunning intrigue.

Speculation in its proper sphere tends directly to prevent fluctuations in price by anticipating events. It softens the intensity with which economic forces work by lengthening the time over which their influence extends. Speculation enforces present economy in the face of probable future want, and so has been called the best preventive of famine. It permits present plenty in the prospect of future abundance, and thus avoids waste and extravagance. It evens supply both chronologically and geographically, and so directs the energies of production as to achieve the maximum of ease and certainty afforded by the circumstances governing the economic life.¹⁵

It may therefore be clearly understood that all

¹⁵ Lexis defines speculation as follows: "The objective purpose of speculation is an estimate of the probable future conditions of the market, made for the purpose of guiding to the best purpose the movement of goods."—Schönberg's "Handbuch," 2d ed., Bd. II, Ch. XXI, Sec. 46, p. 727.

In agreement with this Michaelis further develops the idea: "Knowledge of the future is profitable for trade, and is of supreme importance for the public good. To secure this profit and advantage is the aim of speculation. If the common investigation, the working together of human instincts and human minds which is brought about in speculative trade, did not find place, all investment of capital and all trade would take on the character of a game of chance."—Faucher's "Vierteljahrsschrift," Bd. IV, pp. 171, 172.

In public finance the effect of speculative estimates is gradually to change extraordinary into ordinary expenses. Cf. Cohn, "Finanzwissenschaft" (Stuttgart, 1889), p. 189; also Bastable, "Public Finance," pp. 124, 125.

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that class of operators whose influence upon the market is to increase or prolong fluctuations of market prices and render conditions less rather than more dependable, deserves no good name. They are market brigands.

The perverted forms of speculative activity are exceedingly dangerous to the credit institutions of modern business. The uncertainty which inheres in all speculative transactions is the fundamental element of danger in them which makes it necessary to guard carefully the delicate mechanism of credit, dependent as it is upon confidence, from close alliance with them. The connection of the banks of New York with the stock market, through investments made in call loans secured by deposits of stock-exchange securities made by brokers, has several times proven dangerous. An editorial in the "Washington Post," some time since, affirmed: "There is a growing demand for the old-fashioned, stingy banker, who is not disposed to be accommodating." It may perhaps be said that our banks could safely be more liberal in the period immediately succeeding a crisis and more conservative in "prosperous times," when the crisis of eight or ten years back has been forgotten.

To this uncertainty which characterizes speculation, there must be added the tendency of human nature to overestimate its ability to predict and its power to control the market. Adam Smith remarked upon the overweening confidence in their own abilities possessed by the

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majority of men. This observation upon human nature finds an important application in speculation. It is a blind confidence in one's ability to read the markets that furnishes the "lambs" of the stock exchange. The same weakness from time to time brings down the most expert operators. This optimism and intellectual pride is most inopportunately thrust into prominence at those junctures where caution is most desirable, viz. in dealing with uncertainties.

It is asserted by operators that they merely back their own opinions and that they take advantage of the conditions of the market, but do not create them. It is claimed that it is a result of the principle of the division of labor that the study of the conditions of the market is carried on by a distinct body of men and thus a necessary task is systematically performed.¹⁶ No occupation can be justified which does not render a social service. Much of the work of the stock market is useful and justifiable. But the justification of the principle of speculation does not excuse many questionable practices which have become very generally connected with it. Dealings in "futures," and dealings in which no real delivery is ever contemplated, and transactions in which the sums deposited are so small a proportion of the total values involved that vast personal interests are made to hang upon slight fluctuations in the

¹⁶ Spencer, "First Principles" (New York, 1873), p. 479. Michaelis, in Faucher's "Vierteljahrsschrift," 1865, Bd. II, pp. 108, 109.

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market¹⁷ render no social service and consequently have no justification. It is by such practices and by the schemes of rings of operators to manipulate the management of corporations with which they are connected and bring about the success of their private speculations, that the stock exchange has gotten a hard name.¹⁸

While the creation of the stock market has provided the arena for the display of the evils of speculation, it has not originated them, except in the sense in which one can say private property has originated robbery. The stock exchange provides the economy of centralization just as any

¹⁷ The "London Economist" (Vol. LII, Part I, p. 418) considers that three-fourths of all transactions upon the stock exchange are dealings in margins.

Arthur Crump says: "It may be readily conceded that a very large number of those who are ruined, or greatly injured, by stock-exchange speculation, would never operate at all if they were called upon even to make a deposit before the purchase was effected. But when it is considered that to abolish 'time-bargains' would be to ruin at once half of the brokers in existence, the difficulty of effecting what from one point of view would be a most salutary change of custom, will be understood. The great mischief is done by the facilities afforded by 'time-bargains' to operators who have a little money, just sufficient to enable them to keep afloat as speculators in fair weather. The first serious disturbance that violently agitates prices sweeps them away in a shoal."—"The Theory of Stock-Exchange Speculation," pp. 3, 4.

¹⁸ Instance the proved venality of a portion of the French press. See Charles T. Congdon, "The Adulteration of Intelligence," "North American Review," Vol. CXXXVI, January, 1883. Hunt's "Merchant's Magazine," Vol. VIII, p. 459. An illustration of the evil influence of speculative interests upon courts and legislatures is given by C. F. Adams in "A Chapter on Erie."

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other market does. A considerable part of the transactions which take place there are as legitimate as those upon any other market. The very fact of organization, furthermore, makes possible a more efficient control of speculation than would otherwise be achieved. Writers upon agriculture are urging that the opportunity of regulating the conditions of stock raising which is presented by the concentration of business in the stock yards, should be seized, and that yard regulations be formulated to suppress diseases among cattle, and to accomplish other desired ends. In an analogous way, the undesirable practices connected with speculation may be repressed through the government of the stock exchange.

It may be found desirable that stock exchanges should be subject to public control, but so long as they remain simply private associations their voluntary regulations must be depended upon very largely. The exchange may exercise a sharp scrutiny of the persons admitted to its membership by personal examinations. Candidates for membership may be required to make a deposit to insure conformity to the rules, as is required in France, or members proposing a candidate may be obliged to make such deposit, as in England. The establishment of a mutual life insurance, amounting in New York to \$10,000, and forfeitable upon failure to comply with rules, exerts an obvious influence. In its specification of what works forfeiture of membership, the stock exchange possesses great

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power to define for the business community the meaning of the terms "honorable" and "dishonorable." A great influence may also be exerted by refusing to deal in the securities of concerns known to be dishonestly managed.¹⁹

A few specific regulations designed to restrict speculation may be mentioned. Speculation in government securities is made illegal in England by the provisions of "Sir John Bernard's Act." All dealing in options on government securities is prohibited. "Bear" or "short" sales of bank shares in England were prohibited in 1837. Contracts made with a view of establishing a "corner" on the market are void in the United States. A broader statute is that in England against enhancing the price of stocks to the damage of the purchasing public. Numerous enactments have been passed both in England and the United States for removing cognizance of law from all gaming and wagering contracts. The German Empire, on May 19, 1885, enacted a law levying a tax of \$1.00 on

¹⁹ The London stock exchange distinguishes between brokers and jobbers, the latter not being permitted to deal on their own account, in order that they may be disinterested salesmen of the securities called for. The applicant for membership is rigidly examined, and must be guaranteed in the sum of five hundred pounds each by two members against default within four years. Applicants must show that they are not engaged in any other than exchange business, and are not connected with institutions dealing with stocks. All members are elected annually, and may be rejected on good grounds. General control is in the hands of an executive committee. No members of the exchange are permitted to advertise.

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every \$10,000 worth of stock transfers made upon the stock exchanges of that country. The United States War Revenue Act of June 13, 1898, provides an annual tax of fifty dollars on brokers, a tax of ten cents on brokers' notes or memoranda of sale and a tax of two cents on each sale or agreement to sell stock amounting to one hundred dollars face value or fraction thereof. There is also a tax upon sales of merchandise on produce exchanges which amounts to one cent for each one hundred dollars of face value. Such a tax is calculated to reduce the sensitiveness of the stock market. The same effect may be produced by jobbers' charges when it is customary, as in England, for brokers always to deal with jobbers. These "turns" or "fees," ranging from one-sixteenth to one-half per cent., obviously amount to a heavy tax. Certain writers upon public finance, notably Adolph Wagner, maintain that the taxation of stock-exchange "deals" rests upon the same basis as an inheritance tax. It rests upon the principle that the state is justified in appropriating a part of those economic gains falling to individuals because of a peculiarity in the existing economic order, but which are only in a subordinate degree the result of the recipient's own productive exertions.

After all has been said, the problem of credit and speculation lies only in a secondary degree in particulars. It consists rather in the problem how to produce that general integrity and intelligence

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of public thought which will dictate the character of business.²⁰ If this commercial public opinion is properly developed, the problem of making its force felt in any part of the business field will not be exceedingly difficult, but if it is weak and insuffi-

²⁰ Upon the importance of public opinion Holtzendorff says: "In addition to the attention which the statesman always pays to public opinion, the jurist must not deny the fact that the economic life is strongly influenced by the state of public opinion; in so far that the condition of public credit, the value of paper money, and the recurrence of economic crises seem dependent upon it. The great stock-exchange regions of the European and American continents are under its influence."—"Wesen und Werth der Oeffentlichen Meinung," p. 11. Differences in public opinion in various countries he touches on p. 29. In regard to honor-debts in France Joseph Cook said: "French public sentiment so unflinchingly condemns a man who acquires the name of bankrupt, either by rash speculation or by purposed commercial mischief, that it has been known again and again that a son would submit to the most pinching poverty for years, practising more than the proverbial French thrift, in order to take a stain off the name of a father . . . Say, if you please, that all this is carrying this too far; it remains true that panics are few in France, although the spots on the physical sun affect her as much as us."—"Boston Monday Lectures," "Socialism," pp. 34, 35. C. L. von Haller, in his "Restauration der Staatswissenschaften" (Winterthur, 1820-34), Bd. VI, p. 519, shows that in Geneva for several generations nothing was lost through honor-debts among the higher classes, because public opinion closed positions of honor to sons who left their fathers' debts unpaid.

Some very suggestive material in regard to the way in which honor-debts are considered in various countries is contained in a report upon "Debts of Honor" in the "Consular Report" for August, 1893, Vol. XLII. Cf. Lalor's "Cyclopædia," "Commercial Crises," Vol. I, p. 530; Schäffle in "Tübinger Zeitschrift," Bd. XXX, 1874, pp. 92, 93; "British Quarterly Review," Vol. LXIII, January, 1876, p. 55.

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cient, technical and administrative hindrances to reform will spring up like giants on all sides.²¹ It is in a large measure due to the strict integrity enforced by public opinion in France and Holland, and especially in Switzerland, that these countries have kept so clear from overspeculation and economic crises.²² Almost every text-book that has

²¹ Schäffle ("Deutsche Vierteljahrsschrift," 1858, Heft I, pp. 419, 420) lays special emphasis upon freedom, responsibility, and publicity as commendable for the business as well as for the social and political world.

By means of the German system of police registration a man's past business record can be quickly gathered in detail when needed for any purpose, as, for example, before he is permitted to do business permanently in a new city. The pressure exerted by such a system of police bookkeeping is obvious.

A registration for this country which would make it possible to locate the ownership of capital stock would unravel a great many mysteries and prevent a great deal of dishonesty.

²² The business integrity and conservatism which has brought this about in Switzerland is strongly emphasized by Schäffle, "Vierteljahrsschrift," 1858, Heft I, pp. 375, 376. In a large measure the same applies to Holland. Of the Holland merchants he says: "Mynheer trades much with John Bull, has an extensive commerce with Brother Jonathan, strong connections with Hamburg, North Germany, and Scandinavia, he has banks and bankers, but remains, nevertheless, usually intact on all sides, which renews the proof that not institutions nor environment condition the national industrial fortune or misfortune of a country, but the self-control exercised by its people."—pp. 376, 377.

There seems to be a retrogression noticeable in Germany. On this we quote Nasse: "We think two points will be granted by every unprejudiced student of the moral life of our nation; first, that the enforcement of an objective moral law of duty and moral responsibility until recently rested, among our lower and middle classes, upon religious grounds; secondly, that in the last decade

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had occasion to explain the nature of credit has brought clearly into prominence the fundamental truth that credit rests upon one man's belief in the ability and willingness of another to meet his obligations. No discussion of an abuse of credit, therefore, can end without at last coming back to the fundamental thing, honesty. Credit has been called a great teacher and the discipline of commerce is truly a civilizing force. If this be true, crises may be looked upon as chastisement for mistakes and bad faith. The convulsions of modern business would seem to indicate that the credit structures which have been raised in the business world are too lofty for the basis of integrity we have at present to offer. The remedy lies at every man's door. Civilization cannot merely migrate from country to country as it has done in the past; we must learn how to intensify the economic and social bonds without self-destruction and without the increase of those economic wastes of which crises form a part.

RÉSUMÉ

- I. Crises have appeared with the development of credit, and visit countries using credit.
 - (a) Credit creates economic solidarity.
 - (b) Rests upon honesty.
 - (c) Uses of credit.

this foundation has been completely shattered with the uncultured wage-earning classes, and has not been replaced by an equivalent." — "Ueber die Verhütung der Produktions-Krisen," in "Jahrbuch für Gesetzgebung," Bd. III, N. F., pp. 162, 163.

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Facilitates transfers of capital.

Makes investments easy.

Saves money and expenses of doing business.

(*d*) Dangers of credit.

Credit depends upon a state of mind, — confidence.

May support extravagance and unwise investments.

Lessens the money reserve.

Lengthens and complicates pecuniary obligations.

The underestimation of the future.

(*e*) Safeguards.

Short-time credits.

Punctuality.

Sharp definition of the moral aspect of risking loss of another's money.

Conservatism in optimistic times.

Disentanglement from speculative businesses.

Maintain the "standard of credit."

Scrutiny of the first credit advances.

II. Speculation coupled with credit becomes dangerous.

(*a*) Definition.

Speculation in the broad sense.

Gambling, distinct from speculation, — characteristics of each.

(*b*) Service of speculation.

Lessens the domain of uncertainty.

Prevents price fluctuations.

(*c*) Dangers.

Alliances of banks with stock market dangerous.

Overestimation of one's ability.

Dealings in "futures."

(*d*) The functions of the stock market, — control possible through it.

III. The abuse of credit and speculation is primarily a moral problem.

CHAPTER IX

THE PSYCHOLOGY OF CRISES

POLITICAL economy is in an important sense applied psychology. As this science treats of a portion of the social activity of men, it must receive as a part of its premises the statement of the psychologist regarding the individual and social psychology of man, and apply it in the explanation of economic society.

As we have already seen, the causes of economic crises are numerous. No sufficient explanation of them can be made which does not take into account the working of the industrial and legal machinery which society employs in achieving its purposes, but neither can any view of crises be sufficient which leaves out of account the human nature operating through this machinery and exhibiting itself in it. Thus far, few writers have touched in any adequate way upon this aspect of the subject, although there are not lacking numerous assertions that its study is necessary and fundamental. Mr. John Mills, who, in his pamphlet entitled "Credit Cycles," has contributed more than any other person to this part of the theory, says, "The subject of commercial fluctuations will acquire a new dig-

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nity if it be found striking its roots far below the level of its physical particulars, and proving itself cognate with the sciences of mind.”¹ In similar vein Yves Guyot expresses himself: “In economy, as in all other social phenomena, psychological facts play an important part. It is because they have not been sufficiently taken into account that we have had so many erroneous explanations of commercial crises.”² In the explanation of the depression which follows a crisis, Horace White observes: “The pendulum will swing back in time—these undulations of trade, of alternately high and low prices, of alternate activity and depression in business, have their root in the mental and moral constitution of mankind.”³ Interest has been taken in these aspects of the subject by William Langton, and by the Italian economist Catteneo, as well as by the chroniclers of similar phenomena, Charles Mackay, Isaac Taylor, and C. F. Adams. But the literature of crises scarcely brings us further than such general statements as have been just quoted.

It is intended in this discussion to place before the reader an outline of what are, in the estimation of the writer, the chief psychological phenomena of crises.

A word may be prefixed regarding the chief

¹ “Credit Cycles,” p. 13.

² “Principles of Social Economy” (translated by Lippington) 2d ed., Ch. III, p. 239.

³ Lalor, “Cyclopædia,” “Commercial Crises,” Vol. I, p. 524.

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theories of crises now accepted, considering them from the point of view of their psychology. Some sort of a psychology is of necessity assumed by writers upon social subjects, and consequently by those who have constructed theories to explain crises. This fundamental psychology is frequently in the literal sense an assumption, being adopted without careful thought. It is consequently often inconsistent or at least weak and defective. Those socialists who explain crises as a part of an inevitable evolution of industry, and who hold the materialistic philosophy of history, subordinate the consideration of all moral forces to the evolution of the technique of industry. The pictures which they draw contrasting the depravity of the present with future perfectibility, rest upon the assumption of a plastic human nature; an assumption which their ironically critical attitude and urgent moral appeals belie.

The wages theory of crises enunciated by Rodbertus presents a curious picture of society when looked at from the point of view of its psychology. It shows us a wage-earning population, frugal and industrious, producing a surplus beyond what is needed to satisfy its needs, yet permanently held down through the power of capital by a class possessing neither frugality nor the ability to guide properly the industrial forces in their charge. The implication is that the relation between capacity and achievement can be completely sundered.

When credit is discussed in connection with

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crises, it leads through the defects of social practice almost immediately to the consideration of the indicated defects of human nature. It points to an intense ambition to be rich which leads to the overuse of credit instrumentalities in building up business, and to a lack of keenness in ethical discrimination in realizing the ethics of risking the loss of another person's money. It indicates an inability to realize fully the force of future obligations, and overconfidence in one's judgment and economic strength leading to the overtaking of one's economic power and hence to failure.

In the discussions of this chapter let us examine the psychological elements of crises directly and for their own sake and not merely as an adjunct to some other explanation.

The general characteristics of crises are already sufficiently familiar. They may be reviewed briefly in the words of Lord Overstone, "State of quiescence, improvement, growing confidence, prosperity, excitement, overtrading, convulsions, pressure, stagnation, distress, ending again in quiescence." This description presents to us a succession of stages through which business passes during the complete crisis-period. For each of these stages there is a special and characteristic mental state. Each stage indicates a view taken of the course of trade and of business prospects generally.⁴ The general change which marks the progress up to

⁴ John Mills, "Credit Cycles," p. 17.

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the crisis is a gradual growth of optimism. There accompanies this a gradual increase in activity and a perceptible and constant quickening of interest worthy in its later stages to be called a profound emotion. With this, as the pre-crisis period advances, comes a decline of criticism and an increasingly unsound business judgment. These changes give expression to themselves by what appears to be a rapidly expanding business in which an increasing use is made of credit in all forms.⁵ The activity noticeable before a crisis is a function of the feeling of confidence prevailing, for the simple reason that when people who want money believe it is being made, they redouble their exertions to get it. This leads to the *vis a tergo* behind the whole process, which is the desire for wealth. It is this constantly operating force which erects the economic machinery destroyed in the crisis and which operates it in such a way as to lead to the crisis.

The question arises, Why does the desire for wealth miscarry in satisfying itself and lead to such wastes as are involved in a crisis? We know that a gradually approaching prospect of satisfying a desire excites emotion. A piece of good

⁵ Macleod, speaking of the growth of unsound credit, says: "Such quantities of credit cannot accumulate in a day. A certain time is required under ordinary circumstances to produce a crisis, just as a certain time is necessary to generate an abscess or a tumor in the human body."—"Theory of Credit," Vol. II, Part II, Ch. XVI, Sec. 20, p. 724.

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fortune happening to one person which brings near the prospect of wealth to others will often craze an entire industrial community. This is well illustrated by the history of prospecting for metals. In California, after the first discoveries in 1849, the state was searched from end to end for gold. The reported finding of a ledge of pure silver brought on a craze for silver in 1858-59. When a rich but shallow vein of copper was discovered at Copperopolis in Calaveras County in 1860, a copper mania was inaugurated which culminated in 1863. During the great oil speculations in Pennsylvania a petroleum fever seized the state.⁶ Now it is equally well known that a high state of feeling precedes and accompanies a crisis and slowly subsides after it. The existence of these stages of feeling gives us the hint to examine the effect which the concentration of desire in an extraordinary degree upon an object and the accompanying of this with strong feelings have upon the judgment and the conduct.

In examining the influence of such a mental state, we shall find it convenient first to consider the individual psychology, then the social psychology. And we shall begin by distinguishing the effect of strong desire accompanied by emotion upon the interpretation of matters of recollection and upon anticipations. The guiding principle is this: a powerful emotion tends to bring all the

⁶ H. H. Bancroft, "History of California," Vol. VII.

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operations of the mind into harmony with itself and to banish from the mind all considerations out of harmony with itself. This unbalancing of the mind leads to destructive individual and social activity.

First, then, turning our attention to the psychology of the individual, let us note the effect of a powerful desire upon recollection. It exhibits itself in four ways which may be here distinguished. (*a*) The force of the original impression which is later to be recalled, depends upon what our interest in the matter was at the time and what our appreciation of the significance of the occurrence was. We do not see things as they are, but as they appear through the media of our education and interests. As Jamès Sully says: "Recollection is a selective process, and this truth is strikingly illustrated in the growth of our enduring representations of things. What stamps itself on my memory is what surprises me or what deeply interests me at the moment."⁷ (*b*) There is a tendency to confuse the recollection of external actualities with that of subjective states due to imagination and desire. The tendency is to assume in recollection that all impressive mental states result from a sufficient external cause. An example of this given by one psychologist is as follows: One dreams of seeing snow fall. He awakens and sees snow lying on the ground.

⁷ "Illusions," p. 314.

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Later he asserts that he saw it fall and saw it lying on the ground. The more frequently this assertion is made, the more invincible will become the belief. A further illustration may be found in the memories of liars. It is well known that prevarication rapidly confuses and distorts one's recollections so that even with the best of intentions a return to the truth becomes difficult for a chronic liar, if not well-nigh impossible. (c) There is a continual selection of details in the act of recalling. If we have been influenced by strong desires, we have been recalling and dwelling upon such matters as have harmonized with these desires. The sharpness and vividness of an act of recalling depends upon how frequently the matter has been recalled. Thus one becomes more convinced in regard to a matter as it passes into memory. A theory to explain the circumstance is formed. The recollection of details not agreeing with or fitting into this theory, and at first easy, fades little by little, leaving only such details as are customarily recalled because they correspond with the views we have taken. The selective process makes firmer the view first taken, whatever that may be. Matters which are, as we say, banished from recollection tend to fall out of mind entirely. The operations of the selective memory may be traced in some parents who out of the details of the lives of their children choose elements which form a picture of winning and precocious childhood, while their neighbors may retain recollections of

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an entirely different sort. A somewhat analogous process is that social one by which a nation little by little constructs from the life of a departed leader the picture of an all-round hero. (*d*) Finally, at any moment of recollection the tendency is, if one is influenced by a strong desire, to permit only such recollections to develop themselves and absorb the attention as harmonize with the present state of mind.

This distortion of recollection, performed in the ways which we have enumerated, tends to destroy the basis of sound judgment. In falsifying memory it renders nugatory the results of experience.

The effect of a strong desire upon expectation is equally remarkable. In an act of anticipation the judgment is to a certain extent freed from the correctives and checks which restrain us from error in realizing the present and recalling the past. There is thus range for a greater degree of error due to prejudice. And these errors may everywhere be observed in acts of anticipation. The mind tends to restore the equilibrium between pain and pleasure and to renew its vigor by contrasting the expectation of a pleasing future — the “joys of hope” — with a dismal past or unsatisfactory present. In so far as the course of the future is uncertain, our beliefs regarding it are likely to be formed according to our desires. We know that subjective states exercise more control over the imagination than over any other activity of mind. The field of imagination lies close to

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that of expectation. In so much as the tendency of imagination is to picture what is desired, optimism characterizes one's views of the future generally. This, according to an authority upon stock markets, characterizes the speculator. "The most brilliant good fortune which may result from the operations of a speculator generally fall below his anticipations, when the operations are reduced to figures. It appears that the imagination gets, as it were, diseased by feeding on the contemplation of very rapid gains; and that whatever may be the reality of a hypothetical gain, the mind gets bewildered and fails to estimate as an element of loss the surrounding husks in which the fruit is enclosed."⁸ What we may logically expect in the future, from analogy with the past, is not what we do actually expect. We all know that a person plans for a certain period of the future more work than he will be able to accomplish. A man pictures to himself greater success and happiness than is likely to be his actual lot. And this results in considerable part from the influence of an absorbing desire. What is vividly imagined and intensely desired tends to become, little by little, a matter not only wished for, but planned for, and finally expected with more and more confidence. All this may take place without the addition of any new confirming objective reality.⁹ Shakespeare often

⁸ Arthur Crump, "Theory of Stock-Exchange Speculation," p. 3.

⁹ Upon this source of error in expectation Sully says, "Even supposing the expectation to have originated from some rational

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put his finger upon this weakness of human character. When Prince Henry, supposing his father dead, takes the crown from the brow of the sleeping king, and his father calls him to account, the prince says, "I never thought to hear you speak again." The king responds, "Thy wish was father, Harry, to that thought."¹⁰ Similarly Cæsar in his Gallic Wars says: "Multae res ad hoc consilium Gallos hortabantur: superiorum dierum Sabini cunctatio, perfugae confirmatio, inopia cibariorum, cui rei parum diligenter ab iis erat provisum, spes Venetici belli, et quod *fere libenter homines id, quod volunt, credunt.*" Young said, "What we ardently wish we soon believe," and Bacon, "Men's thoughts are much according to their inclination,"¹¹ and again in *Novum Organum*, Lib. I, Aph. XLIX, "Quod mavult homo verum esse, id potius credit." Lester F. Ward has well stated the same truth: "The reason is perpetually called upon to subdue extravagant expectations. Even in man those individuals are rare whose

source, as from a conscious inference from past experience, or from the acceptance of somebody's statement, the very habit of cherishing the anticipation tends to invest it with an automatic self-sufficient character."—"Illusions," p. 302. And again he says, on p. 306: "There are, I conceive, good reasons for saying that any kind of vivid imagination tends to pass into a semblance of an expectation of a coming personal experience, or an event that is about to happen within the sphere of our own observation. It has long been recognized by writers, among whom I may mention Dugald Stewart, that to distinctly imagine an event or object is to feel for the moment a degree of belief in the corresponding reality."

¹⁰ "Henry IV," Part II, Act IV, Sc. IV. ¹¹ "Essays," XXXIX.

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judgments are of any value against their interests. Prediction of results is in most cases nothing better than betrayal of preferences. Men as a rule believe that that will happen which they wish to happen. . . . No one is capable of balancing the profits and losses of life. The lower in the scale of intelligence the more complete this incapacity."¹² This optimistic picturing of the future leads, in passive natures, to "waiting for something to turn up," and in strong natures to various forms of ill-advised activity.

The application of this to the subject of crises comes through the study of the effect which an intense desire to accumulate wealth will have upon the conduct of the individual in economic matters. The active and energetic and self-reliant, who naturally become the leaders in industrial society, are of the intellectual type most prone to optimistic exaggeration.¹³ Experience proves that, to the optimistic, gambling is particularly easy.¹⁴ Certain it is that credulity begets extravagance and fur-

¹² "The Psychic Factors in Civilization," p. 66, Boston, 1893. See also "Literary Remains of the Late William Hazlitt," Essay IV, "Belief whether Voluntary," New York, 1836.

¹³ Commenting upon the cause of the crisis of 1857, Wagner says: "The chief blame, in our opinion, should be laid to the wild 'go-ahead' spirit of the Yankee. The matter was on this occasion made especially easy by the indiscreet and overplentiful offer of credit made by Europe, namely, England and Germany."—"Die Geld- und Credit-theorie der Peel'schen Bankacte," p. 263.

¹⁴ Cf. James Oliphant, "Westminster Review," "The Ethics of Gambling," Vol. CXXXVII, pp. 521, 522.

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nishes the harvest for fraud.¹⁵ The exaggeration of economic prospects begets not only activity, but falsely directed activity, the result of which is to erect a commercial structure which at some point in its building up must fall with disastrous ruin because of its inherent error. If too much of our thought and interest is concentrated upon the struggle for wealth and our reasoning holds true, we have the explanation of the optimism¹⁶ and recklessness which may be seen in pre-crisis periods preparing the conditions for a future crash. That such an overconcentration of interest in material wealth as will bring on these results does exist in the chief nations which have passed into the stage of industrial freedom is a matter of most positive affirmation on the part of many of the most influential thinkers of our day. It would be indeed

¹⁵ "The good times, too, of high price almost always engender much fraud. All people are most credulous when they are most happy; and when much money has just been made, when some people are really making it, when most people think they are making it, there is a happy opportunity for ingenious mendacity. Almost everything will be believed for a little while, and long before discovery the worst and most adroit deceivers are geographically or legally beyond reach of punishment." — BAGEHOT, "Lombard Street," "Works," Vol. V, p. 103.

¹⁶ Lord Overstone founded crises in human nature. "So long as human nature remains what it is, and hope springs eternal in the human breast, speculations will occasionally occur, and bring with them their attendant train of alternate periods of excitement and depression. Storms and tempests are not more certain and inevitable in the material world than are the periodical convulsions of commercial affairs; and they both answer similarly useful purposes." — "Management of the Circulation," "Tracts," pp. 131, 132.

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strange if it could be shown that the passion for the accumulation of wealth not only robs social life of many of the nobler forms of enjoyment, but defeats itself in its purely utilitarian purpose not only through the neglect of the art of consuming wealth, but through the misadjustment of production and the destruction wrought by economic crises.

The belief that this is true is fortified by history, which shows that an undue concentration of interest on other than economic matters has been followed by social maladies in many ways analogous to crises. It has been asserted that the New England religious epidemics and witchcraft scares were the result of an undue concentration of thought along the lines of religious contemplation. Prof. C. F. Adams, after describing the terroristic type of theology and preaching accepted in New England, says: "It would have been inconsistent with any accepted theory of human nature that the moral conditions, continually and systematically developed by the treatment which had been prescribed, should not periodically have broken out in phases of acute mania. At first the acute attacks of the mania took the forms of ordinary religious persecutions, finding vent against Baptists and Quakers; then it assumed a much more interesting phase in the Salem Witchcraft craze of 1691-92. The New England historians have usually regarded this curious and interesting episode as an isolated phenomenon, to be described as such, and

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then palliated by reference to the far more ferocious and unthinking maniacal outbreaks of like nature in other lands at about the same time. This is simply to ignore its significance. . . . The mania of 1691-92 in Massachusetts was no isolated or inexplicable manifestation; on the contrary, it was a most noticeable instance of the operation of law."¹⁷

These epidemics developed at about equal intervals of time from one another, and later under somewhat changed conditions gave place to a similar succession of revivals.¹⁸ The series was broken up when a new interest was created in the Revolutionary War, though in some instances the religious epidemics reappeared later. Crises and religious epidemics are alike evidences of unbalanced interests. Similarly the undue concentration of interest upon political matters, as in Greece and the South American states and in France, has been conducive to instability of government rather than the reverse. A further evidence that crises are the result of an undue concentration of interest upon economic affairs is offered by the fact that when war absorbs the interest of a people, the crisis cycle frequently lapses. The same thing has been noticed in the relation between crises and political elections. The suggestion of this is apparent. If we could cultivate other interests

¹⁷ "Massachusetts," p. 85. See also R. G. Thwaites, "The Colonies," p. 191 ff.

¹⁸ C. F. Adams, "Massachusetts," p. 89.

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sufficiently to right the intellectual balance, the crisis period might lapse indefinitely.

We have seen that a strong desire exercises a greater influence over acts of recollection and expectation than over the simple primary judgments of the present. Our industrial age, producing wealth as it does by means of long-enduring and complex processes, brings into the closest relations the economic past and future with the present. Our methods of production fit us into a chain of influences and activities which was begun in the past and for the consummation of which we must look to the future. Expectation and forecast play a more important economic rôle to-day than ever before, and business demands the exercise of those intellectual faculties which are most distorted by an overdeveloped desire for wealth.

We have seen that desire will largely shape expectation where objective data for judgment are defective and the matter is involved in uncertainty. It is not necessary to assert that the course of modern business is uncertain in the extreme. As business ventures must be based on future contingencies, as the market widens, and the number of competitors increases, uncertainty must increase. This was sufficiently enlarged upon in the chapter on "The Organization of Industry." Those lines of business which have been conspicuous for their uncertainty have, many of them, been conspicuous also for the crises suffered in them. An element of uncertainty is prominently connected with most crises.

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In 1719, in France, at the time of the Mississippi Scheme, the issue was upon the probable future value of an exclusive privilege given by France to a company to trade in the little known region of the East Indies, China, and the South Seas. In 1720, in England, it was upon the probability that the South Sea Company would obtain exclusive grants of trading privileges from Spain, and as to the value of these. In Holland, from 1634-36 the uncertainty was what the demand of the world would be for certain varieties of tulips. The industry of the present finds the requisite degree of uncertainty in the complex conditions which determine the course of the world's markets. Foreign trade has always been noted for its uncertainties, and it has been equally noted for the extravagancies which have been connected with it.

There seems to be, in the human mind, a necessity for a belief or theory of some sort and an unwillingness to keep the mind in suspense for more data.¹⁹ Therefore a temporizing, conserva-

¹⁹ A very remarkable analysis of the beliefs arising during the process of gambling is given in the following extract from an article which appeared in the "Spectator," October 4, 1873, and which is quoted at length in Arthur Crump's "Theory of Stock-Exchange Speculation," pp. 52, 53: "And what was that experience? This chiefly, — that I was distinctly conscious of partially attributing to some defect or stupidity in my own mind every venture on an issue that proved a failure; that I groped about within me for something in me like an anticipation or warning (which, of course, was not to be found) of what the next event was to be, and generally hit upon some vague impulse in my own mind which determined me; that whenever I succeeded, I raked up my gains with

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tive, and restraining policy is easily forsaken for one which embodies an optimistic theory, and the error of a theory cannot at once be made apparent. The organization of business is now such that it does not furnish an immediate check to unwise activities. The system is one which permits the inflations of values and an overdraft of credit for a period long enough to give an impetus to such undertakings and give an unfounded feeling of success²⁰ to operators who may be, as a matter of fact, on the straight road to disaster.

a half-impression that I had been a clever fellow and had made a judicious stake, just as if I had really moved a skilful move at chess; and that when I failed, I thought to myself: Ah, I knew all the time I was going wrong in selecting that number, and yet I was fool enough to stick to it; which, of course, was a pure illusion, for all I did really know was that the chance was even, or much more than even, against me. But this illusion followed me throughout. I had a sense of *deserving* success when I succeeded, and of having failed through my own wilfulness, or wrong-headed caprice of choice, when I failed. . . . When you win at one time, and lose at another, the mind is almost unable to realize steadily that there is no reason accessible to yourself why you won and why you lost. And so you invent—what you know perfectly well to be a fiction—the conception of some sort of inward divining rod which guided you right when you used it properly, and failed only because you did not attend adequately to its indications.”

²⁰ Natural optimism is sufficient in many instances to account for this feeling of success. “There has never been a successful gambler who has not believed that his success (temporary though such success ever is, where games of pure chance are concerned) has been the result of skilful conduct on his own part; and there never has been a ruined gambler (though ruined gamblers are to be counted by thousands) who has not believed that when ruin overtook him he was on the very point of mastering the secret of suc-

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We have thus far discussed individual psychology. Let us turn to the examination of certain social forces operating to bring about crises.

We have been giving prominence to the effect of belief upon action. It is not intended to ignore the equally important effect of action upon feelings and beliefs. But as actions are more ruled by social considerations than are beliefs, the discussion of the effect of action has been postponed to this point.

The persistent exertion of will power to force one to a certain line of action possesses a remarkable power to coerce the feelings into harmony with the action performed. In the competitive system, the business man is soon taught that to court success properly he must put on all the appearance of success, and talk, act, and look as if he were successful. A merchant attracts trade by professing that he already has it and by acting as if he were in the height of a deserved prosperity. Merchants drive trade with merchants by talking

cess. It is this fatal confidence which gives gambling its power of fascinating the lucky as well as the unlucky. The winner continues to tempt fortune, believing all the while that he is exerting some special aptitude for games of chance, until the inevitable change of luck arrives; and thereafter he continues to play because he believes that his luck has only deserted him for a time, and must presently return. The unlucky gambler, on the contrary, regards his losses as sacrifices to insure the ultimate success of his 'system,' and even when he has lost his all, continues firm in the belief that had he had more money to sacrifice, he could have bound fortune to his side forever." — "Littell's Living Age," "Gambling Superstitions," Vol. CXIV, p. 106.

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general trade prosperity to one another. Advertisements must always assume a confident, cheerful tone and give the impression of assured success. Physicians, to court the best clientage, must live well, dress well, drive stylish equipages, and assume all the appearances of success. All these actions do very truly tend to coerce feelings and opinions into lines harmonious with themselves and enforce the appropriate feelings of optimism which, as we have seen, are only too ready to spring up and dominate the thought. At this point a suggestion of Walter Bagehot may be recalled. He contended that this generation was afflicted by too great a desire for activity, and that this surplus activity accounted for some of the serious defects of our economic practice. Optimism is the appropriate mental state to accompany activity. This activity and optimism produce the gullible public and the promoter who sees fields for enterprise where no enterprise should be undertaken.²¹

Next to the optimistic activity which the competitive trade system enforces upon its members, the economic consequences of belief in testimony should be considered. If the individual mind works imperfectly and is prone to certain chronic errors, the social mind is yet more unsatisfactory in many ways. In the social mind, the tendency toward optimistic, extreme, and intense views appears more marked. We receive only a small

²¹ Bagehot, "Physics and Politics," "Complete Works," Vol. IV, p. 567.

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portion of our beliefs as a result of our own observation and independent thought. Most of our guidance comes from the testimony of others. This ready-formed opinion our intellectual inertia leads us to accept. The coercive power of a generally accepted view is very great, and only the most independent minds can hold out against it.²² Under the influence of the struggle for eminence, success comes to the front for display, while failure tries to hide itself. In so far as economic forces are controlled by the struggles of individuals for success, it is optimistic testimony which is most available in economic matters. The businesses

²² Alexander W. Kinglake, in his book "Eothen," brings out the power which the generally accepted opinion has over the stoutest doubter. He refers to the effect upon Europeans of the Eastern belief in magic. "There is no controversy about the matter. The effect of this, the unanimous belief of an ignorant people upon the mind of a stranger, is extremely curious and well worth noticing. A man coming freshly from Europe is at first proof against the nonsense with which he is assailed; but often it happens that after a little while the social atmosphere of Asia will begin to infect him, and, if he has been unaccustomed to the cunning of fence by which reason prepares the means of guarding herself against fallacy, he will yield himself at last to the faith of those around him; and this he will do by sympathy, it would seem, rather than from conviction. I have been much interested in observing that the mere 'practical man,' however skilful and shrewd in his own way, has not the kind of power that will enable him to resist the gradual impression made upon his mind by the common opinion of those whom he sees and hears from day to day." — Ch. VIII.

Bagehot, in "Physics and Politics," referring to the above, says, "In true metaphysics I believe that (contrary to common opinion) unbelief far oftener needs a reason and requires an effort than belief." — "Complete Works," Vol. IV, pp. 494, 495.

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which are to be seen are those which have survived the shocks of trade. Those which have failed have disappeared. Success is contagious. A prominent American paper recently published this statement: "It will be noticed that the list of Wall street losers is never published." Another trade paper contains the following: "Mark Twain, in one of his books, says he never saw in all the splendid battle scenes in the Louvre a picture of a single French defeat, and the remarks contain a large amount of sound philosophy. Hence it is not the rule, or the exception either, for the newspapers to chronicle advertising failures, of which there are undoubtedly many." Not only is the true success in evidence, but a false showing is made by the counterfeit of success which the struggle for social position leads many to attempt, when reason would counsel a more humble course. This false social attitude toward economic affairs may be expected to continue so long as the economic life is overemphasized. So long as business success is taken as the sovereign criterion for judging of a man's character and ability, every motive which can lead a man to desire good standing in the eyes of his fellow-men will lead him to struggle for economic success and counterfeit it when not really achieved. A subordination of the economic test to other tests would decrease the intensity of this struggle and diminish the fundamental influences which now make for crises. It only remains to be noticed that the influences here discussed derive

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their force and significance from their social character. The closer a business man is in touch with his competitors, the more will competition and emulation stimulate him. Competitive business in trade centres becomes more or less like industrial warfare or a series of personal combats. The leaders naturally recognized are those who excel in the achievement of that toward which all are working, and their influence, as leaders, is to mould others to a type with themselves. In the heat of this struggle unwise ventures are made, unwise expenditures are encouraged, and the moral code is stretched to the breaking point. The business world deceives itself and thwarts itself.

To return to the passage of opinions from one to another in a social group, it may be observed that growth of erroneous beliefs can be carried much further by a crowd of persons associated than by the persons composing it when separated. This is brought about by the reaction of opinion upon opinion. As McCulloch said: "In speculation, as in most other things, one individual derives confidence from another. Such a one purchases or sells, not because he has any particular or accurate information in regard to the state of the demand and supply, but because some one else has done so before him."²³ If it be granted for purpose of argument that each individual may be capable of only a limited error in estimating the

²³ Bowen, "Principles of Political Economy," p. 437.

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future condition of industry upon the basis of present indications, it will be seen that his opinion, as expressed or implied by his acts upon the market, may serve as evidence from testimony for others. They, in turn, when considering the same problem, will allow a certain weight to this testimony. If we suppose a like inclination on their part to see business success as certain where it is desired, they may advance by means of their individual increment of error one step further than the previous trader toward a speculative and unsound estimate. The market dealings resulting from this second or derivative judgment may in turn serve as the basis of a still more erroneous estimate made similarly by others. Thus one may serve to bolster another up. The opinion of the associated trading public is reflected back and forth, while with each successive transfer of influence an increment of error is added which lifts the entire group, step by step, through the mutual accumulations of error in the direction of overconfidence and recklessness to a point of absurdity further than any one of those involved would, with the ordinary use of his reason, have advanced himself singly.

Although these accumulations of error are most important, the influence of belief in testimony can hardly be made to account for all the vagaries of belief which accompany a crisis. States of mind, hopes and beliefs, are communicated from one to another by means of what is best described as

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sympathy. The intense feeling which can be produced in religious, political, or other assemblages, is something more than can be accounted for by the mere argument presented to the mind. The more intimate the association, the more will the common thinking processes be influenced by the sympathetic force. The most extreme phase of the operation of this force is seen in the unthinking ferocity of mob action.²⁴ Inasmuch as the prevailing economic system enforces intimate association in a sense in which no previous system ever did, this class of influences tending to vitiate the economic reasoning of those who are subject to market influences may well demand serious attention. Businesses are being increasingly concentrated in large cities, and especially are those who control them being closely compacted together in the business sections of great cities. It has been asserted that these conditions originate the influences which breed crises, and the case of Australia, where the population is unusually concentrated in cities, has been cited as evidence.²⁵ "A large city is characterized by an intensity of internal imitation in proportion to the density of population,

²⁴ Boris Sidis, in an article entitled, "A Study of the Mob," in the "Atlantic Monthly" (Vol. LXXV, February, 1895, pp. 188-197), points out the very significant relation between mobs and ignorance, monotony of life, and social oppression. Cf. Cesare Lombroso, "A Study of Mobs," "Chautauquan," June, 1892; Bureau of Education "Circular of Information, No. 4," 1893, "Abnormal Man," p. 109.

²⁵ Mr. H. J. Fletcher, in the "Forum," August, 1895.

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and the multiform multiplicity of the relations of its inhabitants. Thus there is an epidemic and contagious character given not only to its diseases, but to its styles and views."²⁶ The so-called "booms" of American towns illustrate in acute form the occasional economic effect of these influences. The power of mental contagion is increased by such facilities for assemblage and communication as the railway, telegraph, and telephone. It is obviously enhanced by the practice of transacting business in industrial assemblages such as stock and produce exchanges. Attention may be called to the fact that in periods of unusual business success or depression, this physical concentration of traders in large markets is greatly increased.

The force of sympathy and imagination in the propagation of opinions is not an intelligent one and in economic matters it makes for the support of opinions dangerous to the stability of industry.²⁷

²⁶ G. Tarde's book, "*Les Lois de l'Imitation*," is thus summarized in "Circular No. 4," 1893, of the Bureau of Education, p. 166.

²⁷ "That the public opinion of the masses is not in the rule the result of a careful proving and sifting of facts has been already emphasized. The views which little by little, as occasion offers, establish themselves as the reigning opinion are produced rather by the working together of a group of factors, partly active and partly passive. Among the latter the most important is the instinct for imitation which plays an important rôle, not only in regulating the externals of society, the forms of social intercourse, clothing, etc., but opinions and beliefs as well. The majority of men belonging to the middle and lower ranks of society readily absorb those opinions regarding public matters which they hear most

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An undue concentration of interest resulting in intense emotion is always prejudicial to sound reasoning. The general tendency of emotion is to paralyze thought, and particularly to withhold the mind from those considerations which are out of harmony with itself.²⁸ The social effects of the undue haste to be rich are quite as serious for the social structure of industry as we have already seen the exclusive attachment of interest to a single aim is to the individual intellect. It is a strong arraignment of the ruling passion which is given us by the German writer Neuwirth in the following conclusions based upon the study of the crisis of 1873: "The extravagant love of gambling and the restless, passionate chase after wealth form the root of all crises. These things produce their effects more frequently and destructively as

frequently and emphatically expressed by others." See Franz Holtzendorff, "Oeffentliche Meinung," p. 93.

Most young men espouse the political parties of their fathers. The "church of one's choice" is usually the one attended by one's parents.

The sympathetic influence we are considering is doubtless allied to hypnotic influence. Cf. Edward Fry, "Imitation in Human Progress," "Contemporary Review," Vol. LV, 1889, p. 662; Albert Moll, "Hypnotism," pp. 221, 222.

²⁸ Alexander Bain enunciated the law: "When we are under a strong emotion, all things discordant with it keep out of sight. A strong *volitional* urgency will subdue an opposing consideration actually before the mind; but intense feeling so lords it over the *intellectual* trains that the opposing considerations are not even allowed to be present."—"The Emotions and the Will," p. 523. See Chalmers' celebrated sermon "On the Expulsive Power of a New Affection"; James Sully, "Illusions," pp. 308-316.

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our age thinks, trades, and lives more quickly. Science may ever so skilfully indicate the ultimate causes of industrial storms and their periodic recurrence, it may ever so clearly point out the immediate seat of the difficulty and the remedies to be applied, but the particular primary cause lies always in that fatal peculiarity of the gold-hunting, gold-worshipping human family against which common sense and science are equally puny and powerless."²⁹ If the passion of the haste to be rich operates, as has been here set forth, to upset the individual judgment, destroy experience, suppress proper consideration of risk and dishonesty, and force economic activity along unwise lines, it goes very far to account for the occurrence of economic crises. The crisis simply ruptures untenable conditions and reduces valuations to their proper level.³⁰ Hence, in a certain sense, the crisis may be said to be not only inevitable but serviceable, inasmuch as it performs a necessary work in readjusting economic forecasts to reality.³¹

In the crisis may be found a new set of psychological phenomena which it is of interest to indicate briefly before passing to the question of remedies. In contrast to the activity and optimism of the pre-

²⁹ Neuwirth, "Speculationskrisis von 1873," Kap. V, pp. 312, 313.

³⁰ This is tersely expressed by Horace White: "The want of confidence which upsets commercial calculations and brings on a crisis is the disturbance or rupture of a commonly received opinion that fifty cents' worth of goods are equal to a dollar in gold."—LALOR, Article "Commercial Crises," Vol. I, p. 529.

³¹ See note No. 16.

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crisis period there may be found in, and subsequent to the crisis a very deep feeling of depression and a very general lassitude. The change from one condition to another may be made with great rapidity because the mechanism of trade, and especially of currency, suddenly turns the full force of the competitive impulse in a reverse direction, and intensifies it, inasmuch as the struggle to save property in danger of loss may be more severe than the primary struggle to secure it. "The indiscretion of the period of business expansion, the luxurious and extravagant life based upon fictitious profits, and the wild chase of speculation are transformed in the crises into an oppressive anxiety, a sharp reduction of expenditures, even in cases where not necessary, and a critical, suspicious attitude toward the advancing of capital, even against the best of security. The entire nation suffers the aches and pains of sobering up after its intoxication and the subjective forces fail to facilitate the process of recuperation." ³²

Psychologists tell us that a state of emotion is only gradually created or subdued. It is reasonable to think that a state of social excitement is more gradual in its origin and subsidence than are states of individual emotion. The excitement which accompanies the rapid growth of trade is in the crisis transformed in character and intensified to the highest pitch. While an emotion is

³² Oechelhäuser, "Die Wirthschaftliche Krisis," pp. 84, 85.

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only gradually subdued, it may be easily transferred from one feeling to another. "The feeling of an enraged people cannot at once, in the absence of a victim, be soothed or appeased; it may be diverted into a safe or harmless channel; or some altogether new emotion may be called into being, by means of an adequate occasion, as, for example, something to awaken the sentiment of pride."³³ The transfer of emotion from one feeling to another is particularly easy when the second is entirely opposite to the first in character. The passage from smiles to tears is proverbially easy. Such a jump from the top of the scale of feelings to the bottom as is witnessed during the crisis corresponds to the general law of change in feeling and is a manifestation of the social law called by Schäffle the "law of contrast."³⁴

Other transfers of feeling besides that to a diametrically opposed feeling are possible. It is interesting to note that the emotions which have been generated by speculative excitement and intensified by panic depressions have been frequently transferred to religious subjects and have, in the United States at certain times, given rise

³³ Alexander Bain, "The Emotions and the Will," p. 43.

³⁴ "If we soar above the normal business level at one time, we shall certainly fall below it at another; and the higher the flight, the more rapid and great will be the descent. The greatest panics are always preceded by the most intense activity and speculation." — HENRY WOOD, "Natural Law in the Business World," pp. 175, 176.

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to remarkable revivals of religion following close upon the heels of panics.³⁵

³⁵ Evidence of the recognition of this connection is abundant in contemporary religious literature. (See E. P. Whipple, "Outlooks on Society, Literature, and Politics," pp. 12 and others.) It is only reasonable that the destruction of temporal prospects should turn the mind to ambitions of another character.

The history of the extraordinary revival movement of 1857 connects it immediately with the crisis of that year. A few extracts from a contemporary account will serve to explain this. "It was in October of this year (1857) that Mr. Lamphier, a missionary of the Dutch Reformed Church, thought, in his own heart, that an hour of daily prayer would bring consolation to afflicted business men." In a few weeks those holding the meetings were astonished to find the crowds growing too large for the buildings. The Methodist Church on John Street and the Dutch Reformed Church on Fulton Street were opened daily. Next, Burton's theatre was hired, and throughout the winter noonday prayer-meetings were held at numerous places in the city. Even the firemen and policemen held their prayer-meetings, so that we may feel perfectly assured of the truth of what the writer says when he adds, "It is doubtful whether under heaven was seen such a sight as went on in the city of New York in the winter and spring of the year 1857-58." "From New York as a centre, the mysterious influence spread abroad till it penetrated all New England in the East, southward as far as Virginia, and even beyond, westward to Buffalo, Cincinnati, Chicago, St. Louis."—"The Galaxy," "Great Awakenings," Vol. VI, pp. 388, 389. A very significant peculiarity of this movement, and one which caused much mystification, was its spontaneity (*op. cit.*, p. 390). If we recall the ease with which emotions may be transferred this difficulty solves itself.

Dr. Storrs, the president of the American Board, said, in an address delivered at Madison, Wis., before the Board, on October 12, 1894, "You say how is it in our time as contrasted with 1857? God for two years has been grinding our communities under the pressure of commercial disease and distress, and He has been unable—reverently be it said—to grind them down into a position of carelessness of the world and of penitent prayerfulness, or rich

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We may conclude that the depression of the period subsequent to a crisis is due, first of all, to the excitement created by business prospects prior to the crisis, and that this excitement is not immediately extinguished in the crisis, but is altered in form. Its strength is increased by the refreshment of feeling which comes from a change in the nature of the interest presented to the mind. As James Sully says, "Pain and pleasure alike are heightened or intensified, or have their disagreeable or agreeable side emphasized, by a transition from and contrast to the opposite phase of feeling."³⁶ Finally, this depression is chiefly due to the feeling naturally generated by the realization of loss. In the measure that one's interests have been concentrated upon business will the destruction of business prospects leave the mind confused, bereft of any serious or sufficient purpose, literally "aimless," and hence despondent. As the depression of the post-crisis period wears away and a normal condition of business is established,

revivals would have followed as they did in '57." — "Wisconsin State Journal," October 13, 1894. The explanation of this is that before the appearance of the crisis of 1893 the sails of business were closely trimmed, and no such intense excitement accompanied the crisis as was experienced in 1857, when the crash came as the result of the reckless speculation of the fifties. Cf. Albert C. Stevens, "Phenomenal Aspects of the Financial Crisis," "Forum," Vol. XVI, September, 1893.

What feeling there was generated in 1893 and during the subsequent hard times found vent in the McKinley-Bryan presidential campaign.

³⁶ James Sully, "The Human Mind," Vol. II, p. 29.

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the end of the crisis cycle is reached and the way is cleared for the first stirrings of enterprise and the first promptings of hope which herald the beginning of a new cycle.

The discussion of remedies for the conditions which have been occupying our attention is peculiarly difficult, since the subjective forces in question are difficult to change or to bring under permanent subjection. The first thing which suggests itself is education. A certain kind of education has been making rapid strides of recent years, but it is open to question whether we are not still greatly in need of an education adapted to give clear ideas concerning the duties and responsibilities incident to living in a social state like that prevailing at present.

For the education of business men a technical training is not sufficient. The president of a successful college of mines says that disastrous mistakes probably occur in the practice of a mining engineer oftener through ignorance of the petrographical and geological relations of the ore deposits in question than from lack of engineering or metallurgical skill. In the same spirit, we may say that the graver afflictions of industry come oftener from ignorance of economic science than from incapacity to solve the technical problems of industry. The technical education attempts to show one how to pass his competitors, but it does not open an intellectual horizon wide enough to

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enable one to see how in the struggle of individuals all may be defeated because of the imperfection of the general industrial system. There is, among business men, often a lack of a comprehensive mental life, of a broad, sane vision of the whole of society, or even of the whole of industry. It is important that business men should be acquainted with the larger aspects of business as set forth in political economy.³⁷ The trouble often is, as Mr. Whipple observed concerning the crisis of 1857, that merchants become political economists, not when their obligations are incurred, but when they have matured.³⁸ Judgment, resting as it does upon experience, cannot be accurate until the mind has long been storing up the materials for it in unbiassed observation and thinking.³⁹ Education is to be recommended for its effect in stimulating individual self-confidence⁴⁰ and independent thinking, and

³⁷ Cf. Holtzendorff, "Oeffentliche Meinung," pp. 132-144.

³⁸ "Outlooks on Society, Literature, and Politics," "Essay on Panics and Investments." It would be difficult to state better than Mr. Whipple has done in this essay the moral aspects of crises. See especially pp. 23, 24.

³⁹ "It has been a frequent remark in the course of our exposition of the mind that for prudential forethought, and for sympathy alike, there is needed an effective recollection of pleasures and pains." — BAIN, *op. cit.*, p. 113.

⁴⁰ "A merchant must not only have confidence in those around him, but also in *himself*. Confidence in his own powers of judgment will render him prudent in husbanding his resources, calm in the midst of speculation and excitement, and firm of purpose under difficulty. In this important particular many are wanting: they have not sufficient confidence in themselves to think or act independently, but are led by the example and guided by the opinion

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hence for its tendency to check dangerous vagaries of popular feeling.⁴¹ To effect these purposes, the progress of culture must be very general. A conservative, clear-seeing individual here and there will not suffice. It is necessary to cultivate such a general spirit of solidity as shall express itself effectively through public opinion and general practice and be capable of repressing bad industrial symptoms before they have gained headway. A quotation from Mr. John Mills, whose work was mentioned at the opening of this chapter, is here in place. "Educate indeed as we may, credit will always fulfil its own law of growth; and, as you cannot endow all men with caution and conscience, the growth will still tend, at intervals, to degenerate

of their neighbors; and while so doing they commit actions as rash as jumping from a railway carriage or rushing from a crowded building on the first cry of danger. Unaccustomed to exercise their judgment, they give way to the first alarm without examining its cause; an unaccountable tremor seizes them and renders them deaf to reason; a natural anxiety gives way to overwhelming fear, and they insure the result they are most anxious to avoid — a commercial panic!" — CALLANDER, "The Commercial Crises of 1857," p. 10.

⁴¹ Adam Smith, speaking of what he calls "inferior ranks of people," says, "The more they are instructed, the less liable they are to the delusions of enthusiasm and superstition, which, among ignorant nations, frequently occasion the most dreadful disorders." — "Wealth of Nations," Bk. V, Part III, Art. II, Sec. 60. See also Bk. V, Part III, Art. III, Sec. 14, where he says, "Science is the great antidote to the poison of enthusiasm and superstition." Taine, in his "Ancient Régime," writes somewhat pessimistically of the state of reason, which he says is at best but an unstable equilibrium. Bk. III, Ch. IV (translated by Duran, 1876), pp. 238, 239.

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into a critical rankness; but it is very sure that, to the extent in which you increase the average intelligence and elevate the average moral tone, you coöperate with the conservative action of economic law on the equilibrium of Credit and Capital. It is the liability to an *ignorant* speculative excitement, and a willingness to take *immoral* risks, which ultimately put the growth of Credit beyond the control of the price of loan capital. Diminish those, and the cycle may then expand beyond its customary decade.”⁴² If crises rest ultimately, as many think, upon a self-interest so unduly developed as to shut out a proper regard for the social side of economic life, and if this is contributed to by a weakness which permits the abuse of the trust imposed by credit, then true reform must come through the slow processes of character building.

Since it has been shown that an undue concentration of interest upon economic matters begets distorted individual judgments and feverish and fatuous social struggles for wealth, it is desirable, by means of education or otherwise, to widen the range of social interests. If the proof that an age given over to the production of wealth loses many of the higher pleasures of social and individual life, and, even in economic affairs, deceives itself because of the wasteful and unsatisfactory character of wealth consumption, when the arts of consumption are neglected, does not constitute

⁴² “Credit Cycles,” p. 39.

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a convincing argument, then it may be proven that such an age falls short of being even a perfect producer of wealth. To avoid the ill effects of an undue concentration of mind, we must broaden our interests. To tone down the feverish character of industry, we must have more than a single aim and more than a single goal to work for.

It has been asserted that economic interests are peculiarly dominant in the United States, and this is undoubtedly true; but there are many reasons why this may be considered a passing phase of our national evolution. The tempting opportunities of a new country stimulate to effort. In the founding of a settlement, material interests must of necessity be first considered. A relatively unorganized society, in which wealth lies at hand as the most convenient criterion of social worth, stimulates the socially ambitious to secure wealth for an ulterior purpose. Professor Hugo Münsterberg says: "The American business man hunts success very energetically, but he does not care for money itself. He wants a fortune because, in a country without titles and orders, wealth is the only measure of worth."⁴³ As our country becomes older,

⁴³ This is a discriminating statement, conveying quite a different idea from the assertion of De Tocqueville, who said, "A native of the United States clings to this world's goods as if he were certain never to die; and he is so hasty in grasping at all within his reach that one would suppose he was constantly afraid of not living long enough to enjoy them."—"Democracy in America" (Boston, 1873), Vol. II, Bk. II, Ch. XIII, p. 163. Cf. E. P. Whipple, "Outlooks on Society, Literature, and Politics," p. 8.

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and the most attractive opportunities are taken, as leisure for something besides wealth getting is afforded, and as, in consequence of this, another criterion besides wealth is used in determining social standing, we may look for a radical change in the characteristics of American civilization. As custom grows up to restrain enterprise, and the class which guards wealth supplements that earning it, the practices leading to crises will find less and less place. These economic changes may be confidently expected in the United States, but since crises have not been limited to the United States, a word may be added referring to older countries. The industrial revolution which has so transformed the nature of industry during the last century, has permitted the older nations to enter upon a new and unparalleled course of wealth production, which has for a time made them resemble new nations so far as the prominence of economic interests is concerned. As we look for the next stage of industry in the United States to exhibit greater conservatism and solidity, for the same reasons we may look for the other crises-suffering countries of the world to assume again the normal characteristics of countries old in the economic sense.

RÉSUMÉ

- I. The psychology of crises, — review of some theories.
 - (a) The crisis cycle presents a succession of mental states.

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- (b) Recurring crises indicate an error of psychic forces.
- (c) A powerful impulse will distort mental states.
- (d) Crises result from undue dominance of the impulse to secure wealth.

II. Individual effects of a powerful impulse.

- 1. Distorts recollection.
 - (a) Modifies force of the original impression.
 - (b) Mental states and external causes.
 - (c) Selection of details in recalling.
 - (d) Undesirable recollections repressed.
- 2. Distorts anticipation.
 - (a) Anticipation free from correctives.
 - (b) Optimism by contrast.
 - (c) Imagination ruled by desires.
- 3. Economic practice.
 - (a) The optimistic become leaders.
 - (b) Undue concentration of interest producing strong emotion promotes errors of practice.
 - (c) A broadening of interest demanded.
 - (d) Character of business to-day.

III. Social Psychology.

- 1. Effect of actions upon feeling.
 - Competition requires the simulation of success.
- 2. Belief in testimony.
 - (a) Effects of the money test of worth.
 - (b) Growth of increments of error in an associated body of traders.
- 3. Sympathy—the compactness of trading communities.

IV. The reaction of the panic.

- 1. The intensity of feeling.
 - Competition to save property.

V. Remedies.

Liberal education.

Widened range of social interests lessening the importance of economic motives.

CHAPTER X

CONCLUSION

THE more important of the theories of crises take up and magnify some one aspect of the subject. They, however, each develop a point of view which it is necessary to accommodate in order to gain a comprehensive knowledge. A crisis is certainly a disturbance of the equilibrium between demand and supply. A helpful, if not a very penetrating, view of the causes of crises, may be obtained by arranging them according as they arise from the side of demand or supply. The organization of industry very justly demands attention in connection with crises, so that the proper relation of the size and structure of the individual business unit to the social industrial organism may be understood. The dominant change in modern production is due to the increased use of capital. It is necessary to learn what effect this has upon crises. A still more searching study of economic tendencies comes in the consideration of the effect of the growth of capital power upon demand through its relation to the welfare of the wage-earning classes. Since contests over the economic theories involved in these studies bring in the question of

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the relation of the state to the economic life, the consideration of the relation of legislation to crises is a pertinent appendix to the above. A quite separate, but equally important, phase of the subject is the relation of the mental and moral tendencies of business men to crises. This study includes the examination of the nature of credit and speculation, but the psychology of crises is a much larger subject than this and demands more attention than it has received.

There can be found in the literature devoted to crises a sufficient amount of data to present fairly the more fundamental characteristics of crises. The chief types of rational interpretation which these data will permit may also be found represented. Under these conditions it is not a particularly useful proceeding to advance a competing theory to add to the already long list. It is much more useful to attempt to knit together various contributions into an orderly whole, making whatever additions seem necessary, with a view to supplementing and completing what has already been done.

While the industrial convulsion which characterizes the crisis is obviously a lamentable occurrence, there are certain observations regarding the loss due to a crisis which it is desirable to set down. Much that is commonly reported as loss is not loss in the sense of destruction of utility. The railway system of the United States has remained practically the same during the few years preceding the

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last crisis and the few years since. In that period, however, there was an immense variation in the selling value of the securities which controlled property rights in that railway system. A decline of market values is not to be understood as a loss of wealth in the ordinary sense, when the finances of an entire trading community are concerned. During a crisis, while goods decline in value, money enhances; but since values are reckoned in terms of money, the enhancement of the value of money does not offset the decline of the value of goods in any attempt to estimate values in terms of dollars and cents. Strictly speaking, what occurs is a transfer of values from certain commodities to others. This transfer favors such persons as possess wealth in money or in obligations which stipulate the payment of certain sums of money.¹

The direct and indirect social effects of crises are numerous, but too numerous and important to be taken up in the present work. There are also important relations between crises and various economic problems which are appropriate subjects for the attention of students of economic problems. There is no question but that crises promote rather

¹ Hence one hears the expression "debts have grown heavier." Senator Chandler of New Hampshire said in the Senate, February 16, 1897: "Shrinkage in prices has been most serious since 1890. The value of property in the United States was \$65,000,000,000 in 1890; now it is estimated at \$49,000,000,000, a shrinkage of twenty-five per cent. since 1890. Our debts have not shrunk, but have remained an inexorable charge."

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than diminish inequalities in the distribution of wealth, for in the extremity of the man of ordinary means lies the opportunity of men of very large wealth. Crises intensify the real meaning of variations in wealth by reducing large numbers of people to a condition of want which gives a new meaning to the difference between large and small wealth.

Anything which increases the uncertainty of business tends to break down habits of thrift. The distress of persons who in ordinary seasons are self-supporting, and who are in search of work, is well calculated to draw out the benevolence of the charitable. The crisis teaches to many persons the fatal secret that they can live without work.

A further effect of uncertain business conditions is the growth of the "captain of industry" or the one-man-power system. Slow-moving, deliberative forms of business management, the expansion of which is much to be desired for the sake of enlarging the number of persons in responsible positions, are at a disadvantage.

The coming of a crisis may not greatly injure a sound economic organism, but if that organism be diseased, a crisis will intensify its evils. A marked increase in certain kinds of crime occurs during a crisis.² The decline of wages renders necessary woman and child labor, a decline of

² Ellis, "The Criminal," New York, 1890, p. 299; Max Haushofer, "Lehr und Handbuch der Statistik," 2 Aufl., p. 470.

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profits increases the evasions of factory acts. Unemployment is a conspicuous result of crises, and the whole economy of production, which is built up in periods of tranquillity through the division of labor, is marred by the downward displacement of wage-earners to the performance of tasks beneath their ability. The incompetent are, of course, first eliminated, but many misfits in the relation of workman to task result from the feverish search for work which is kept up during a crisis. Strikes, lockouts, and industrial disputes readily grow out of such conditions, while all types of industrial experiments, such as coöperation and profit-sharing, aiming to inaugurate reforms, suffer distress. Then it is that the financial machinery of government receives criticism, and that economic questions are dragged out for ill-advised political discussion and hasty legislation.

These things emphasize the reality of social solidarity. And this suggests that there is a solidarity in the progress of scientific thought, as well as in economic conditions. Progress toward a more systematic knowledge of crises will come chiefly as the result of general advances in economic science. The extinguishment of crises will come through the progress of general economic evolution, rather than as the result of the application of specific remedies.

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