CAPITAL

A CRITIQUE OF POLITICAL ECONOMY

BY

KARL MARX

VOLUME II

THE PROCESS OF CIRCULATION OF CAPITAL

EDITED BY

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TRANSLATED FROM THE SECOND GERMAN EDITION
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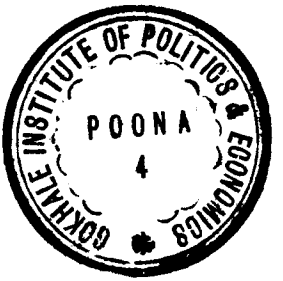
FIRST INDIAN EDITION



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PART I.

The Metamorphoses of Capital and their Cycles.

PART II.

The Turn-over of Capital.

PART III.

The Reproduction and Circulation of the Aggregate Social Capital.

ENGELS'S
PREFACE TO THE FIRST ENGLISH TRANSLATION

It was no easy task to prepare the second volume of "CAPITAL" for the printer in such a way that it should make a connected and complete work and represent exclusively the ideas of its author, not of its publisher. The great number of available manuscripts, and their fragmentary character, added to the difficulties of this task. At best one single manuscript (No. 4) had been revised throughout and made ready for the printer. And while it treated its subject-matter fully, the greater part had become obsolete through subsequent revision. The bulk of the material was not polished as to language, even if the subject-matter was for the greater part fully worked out. The language was that in which Marx used to make his outlines, that is to say his style was careless, full of colloquial, often rough and humorous, expressions and phrases, interspersed with English and French technical terms, or with whole sentences or pages of English. The thoughts were jotted down as they developed in the brain of the author. Some parts of the argument would be fully treated, others of equal importance only indicated. The material to be used for the illustration of facts would be collected, but barely arranged, much less worked out. At the conclusion of the chapters there would be only a few incoherent sentences as mile-stones of the incomplete deductions, showing the haste of the author in passing on to the next chapter. And finally, there was the well-known handwriting which Marx himself was sometimes unable to decipher.

I have been content to interpret these manuscripts as literally as possible, changing the style only in places where Marx would have changed it himself and interpolating explanatory sentences or connecting statements only where this was indispensable, and where the meaning was so clear that there could be no doubt of the correctness of interpretation. Sentences which seemed in the least ambiguous were preferably reprinted literally. The passages which I have remodelled or interpolated cover barely ten pages in print, and concern mainly matters of form.

The mere enumeration of the manuscripts left by Marx as a basis for Volume II proves the unparalleled conscientiousness and strict self-criticism which he practised in his endeavor to fully elaborate his great economic discoveries before he published them. This self-criticism rarely permitted him to adapt his presentation of the subject, in content as well as in form, to his ever widening horizon, which he enlarged by incessant study.

The material for this second volume consists of the following parts: First, a manuscript entitled "A Contribution to the Critique of Political Economy," containing 1472 quarto pages in 23 divisions, written in the time from August, 1861, to June, 1863. It is a continuation of the work of the same title, the first volume of which appeared in Berlin, in 1859. It treats on pages 1-220, and again pages 1159-1472, of the

subject analyzed in Volume I of "CAPITAL," beginning with the transformation of money into capital and continuing to the end of the volume, and is the first draft for this subject. Pages 973-1158 deal with capital and profit, rate of profit, merchant's capital and money capital, that is to say with subjects which have been farther developed in the manuscript for Volume III. The questions belonging to Volume II and many of those which are part of Volume III are not arranged by themselves in this manuscript. They are merely treated in passing, especially in the section which makes up the main body of the manuscript, viz.: pages 220-972, entitled "Theories of Surplus Value". This section contains an exhaustive critical history of the main point of political economy, the theory of surplus value, and develops at the same time, in polemic remarks against the position of the predecessors of Marx, most of the points which he has later on discussed individually and in their logical connection in Volumes II and III. I reserve for myself the privilege of publishing the critical part of this manuscript, after the elimination of the numerous parts covered by Volumes II and III, in the form of Volume IV. This manuscript, valuable though it is, could not be used in the present edition of Volume II.

The manuscript next following in the order of time is that of Volume III. It was written for the greater part in 1864 and 1865. After this manuscript had been completed in its essential parts, Marx undertook the elaboration of Volume I, which was published in 1867. I am now preparing this manuscript of Volume III for the printer.

The period after the publication of Volume I, which is next in order, is represented by a collection of four manuscripts for Volume II, marked I-IV by Marx himself. Manuscript I (150 pages), presumably written in 1865 or 1867, is the first independent, but more or less fragmentary, elaboration of the questions now contained in Volume II. This manuscript is likewise unsuited for this edition. Manuscript II is partly a compilation of quotations and references to the manuscripts containing Marx's extracts and comments, most of them relating to the first section of Volume II, partly an elaboration of special points, particularly a critique of Adam Smith's statements as to fixed and circulating capital and the source of profits; furthermore, a discussion of the relation of the rate of surplus value to the rate of profit, which belongs in Volume III. The references furnished little that was new, while the elaborations for Volumes II and III were rendered valueless through subsequent revisions and had to be ruled out for the greater part. Manuscript IV is an elaboration, ready for printing, of the first section and the first chapters of the second section of Volume II, and has been used in its proper place. Although it was found that this manuscript had been written earlier than Manuscript II, yet it was far more finished in form and could be used with advantage for the corresponding part of this volume. I had to add only a few supplementary parts of Manuscript II. This last manuscript is the only fairly complete elaboration of Volume II and dates from the year 1870. The notes for the final revision, which I shall mention immediately, say explicitly: "The second elaboration must be used as a basis."

There is another interruption after 1870, due mainly to ill health. Marx employed this time in his customary way, that is to say he studied agronomics, agricultural conditions in America and especially Russia, the money market and banking institutions, and finally natural sciences, such as geology and physiology. Independent mathematical studies also form a large part of the numerous manuscripts of this period. In the beginning of 1877, Marx had recovered sufficiently to resume once more his chosen life's work. The beginning of 1877 is marked by references and notes from the above-named four manuscripts intended for a new elaboration of Volume II, the beginning of which is represented by Manuscript V (56 pages in folio). It comprises the first four chapters and is not very fully worked out. Essential points are treated in foot notes. The material is rather collected than sifted, but it is the last complete presentation of this most important first section. A preliminary attempt to prepare this part for the printer was made in Manuscript VI (after October, 1877, and before July, 1878), embracing 17 quarto pages, the greater part of the first chapter. A second and last attempt was made in Manuscript VII, dated July 2, 1878, and consisting of 7 pages in folio.

About this time Marx seems to have realized that he would never be able to complete the second and third volume in a manner satisfactory to himself, unless a complete revolution in his health took place. Manuscripts V-VIII show traces of hard struggles against depressing physical conditions far too frequently to be ignored. The most difficult part of the first section had been worked over in Manuscript V. The remainder of the first, and the entire second section, with the exception of Chapter 17, presented no great theoretical difficulties. But the third section, dealing with the reproduction and circulation of social capital, seemed to be very much in need of revision. Manuscript II, it must be pointed out, had first treated of this reproduction without regard to the circulation which is instrumental in effecting it, and then taken up the same question with regard to circulation. It was the intention of Marx to eliminate this section and to reconstruct it in such a way that it would conform to his wider grasp of the subject. This gave rise to Manuscript VIII, containing only 70 pages in quarto. A comparison with section III, as printed after deducting the paragraphs inserted out of Manuscript II, shows the amount of matter compressed by Marx into this space.

Manuscript VIII is likewise merely a preliminary presentation of the subject, and its main object was to ascertain and develop the new points of view not set forth in Manuscript II, while those points were ignored about which there was nothing new to say. An essential part of Chapter XVII, Section II, which is more or less relevant to Section III, was at the same time drawn into this discussion and expanded. The logical sequence was frequently interrupted, the treatment of the subject was incomplete in various places, and especially the conclusion was very fragmentary. But Marx expressed as nearly as possible what he intended to say on the subject.

This is the material for Volume II, out of which I was supposed "to make something," as Marx said to his daughter Eleanor shortly before his death. I have interpreted this request in its most literal meaning. So far as this was possible, I have confined my work to a mere selection of the various revised parts. And I always based my work on the last revised manuscript and compared this with the preceding ones. Only the first and the third section offered any real difficulties, of more than a technical nature, and these were indeed considerable. I have endeavored to solve them exclusively in the spirit of the author of this work.

For Volume III, the following manuscripts were available, apart from the corresponding sections of the abovenamed manuscript, entitled "A Contribution to the Critique of Political Economy," from the sections in Manuscript III likewise mentioned above, and from a few occasional notes scattered through various extracts: The folio manuscript of 1864-65, referred to previously, which is about as fully elaborated as Manuscript II of Volume II; furthermore, a manuscript dated 1875 and entitled "The Relation of the Rate of Surplus Value to the Rate of Profit," which treats the subject in mathematical equations. The preparation of Volume III for the printer is proceeding rapidly. So far as I am enabled to judge at present, it will present mainly technical difficulties, with the exception of a few very important sections.

I avail myself of this opportunity to refute a certain charge which has been raised against Marx, first indistinctly and at various intervals, but more recently, after the death of Marx, as a statement of fact by the German state and university socialists. It is claimed that Marx plagiarized the work of Rodbertus. I have already expressed myself on the main issue in my preface to the German edition of Marx's "Poverty of Philosophy" (1885), but I will now produce the most convincing testimony for the refutation of this charge.[1]

To my knowledge this charge is made for the first time in R. Meyer's "Emancipationskampf des Vierten Standes" (Struggles for the Emancipation of the Fourth Estate), page 43: "It can be demonstrated that Marx has gathered the greater part of his critique from these publications"—meaning the works of Rodbertus dating back to the last half of the thirties of this century. I may well assume, until such time as will produce further proof, that the "demonstration" of this assertion rests on a statement made by Rodbertus to Mr. Meyer. Furthermore, Rodbertus himself appears on the stage in 1879 and writes to J. Zeller (Zeitschrift für die Gesammte Staatswissenschaft, Tübingen, 1879, page 219), with reference to his work "Zur Erkenntniss Unserer Staatswirthschaftlichen Zustände" (A Contribution to the Understanding of our Political and Economic Conditions), 1842, as follows: "You will find

[1] In the preface to "The Poverty of Philosophy." A Reply to Proudhon's "Philosophy of Poverty," by Karl Marx. Translated into German by E. Bernstein and K. Kautsky, Stuttgart, 1885.

that this line of thought has been very nicely used . . . by Marx, without, however, giving me credit for it." The publisher of Rodbertus' posthumous works, Th. Kozak, repeats his insinuation without further ceremony. (Das Kapital von Rodbertus. Berlin, 1884. Introduction, page XV.) Finally in the "Briefe und Sozialpolitische Aufsatze von Dr. Rodbertus-Jagetzow," (Letters and Essays on Political Economy by Dr. Rodbertus-Jagetzow), published by R. Meyer in 1881, Rodbertus says directly: "To-day I find that I am robbed by Schäffle and Marx without having my name mentioned" (Letter No. 60, page 134). And in another place, the claim of Rodbertus assumes a more definite form: "In my third letter on political economy, I have shown practically in the same way as Marx, only more briefly and clearly, the source of the surplus value of the capitalists." (Letter No. 48, page 111.)

Marx never heard anything definite about any of these charges of plagiarism. In his copy of the "Emancipationskampf" only that part had been opened with a knife which related to the International. The remaining pages were not opened until I cut them myself after his death. The "Zeitschrift" of Tübingen was never read by him. The "Letters," etc., to R. Meyer likewise remained unknown to him, and I did not learn of the passage referring to the "robbery" of which Rodbertus was supposed to be the victim until Mr. Meyer himself called my attention to it. However, Marx was familiar with letter No. 48. Mr. Meyer had been kind enough to present the original to the youngest daughter of Marx. Some of the mysterious whispering about the secret source of his critique and his connection with Rodbertus having reached the ear of Marx, he showed me this letter with the remark that he had at last discovered authentic information as to what Rodbertus claimed for himself; if that was all Rodbertus wanted, he Marx, had no objection, and he could well afford to let Rodbertus enjoy the pleasure of considering his own version the briefer and clearer one. In fact, Marx considered the matter settled by this letter of Rodbertus.

He could so much the more afford this, as I know positively that he was not in the least acquainted with the literary activity of Rodbertus until about 1859, when his own critique of political economy had been completed, not only in its fundamental outlines, but also in its more important details. Marx began his economic studies in Paris, in 1843, starting with the prominent Englishmen and Frenchmen. Of German economists he knew only Rau and List, and he did not want any more of them. Neither Marx nor I heard a word of Rodbertus' existence, until we had to criticise, in the "Neue Rheinische Zeitung," 1848, the speeches he made as the representative of Berlin and as Minister of Commerce. We were both of us so ignorant that we had to ask the Rhenish representatives who this Rodbertus was that had become a Minister so suddenly. But these representatives could not tell us anything about the economic writings of Rodbertus. On the other hand, Marx showed that he knew even then, without the help of Rodbertus, whence came "the surplus value of the capitalists," and he showed furthermore how it was produced, as may be seen in his "Poverty of Philosophy," 1847, and in his lectures on wage labor and

capital, delivered in Brussels in 1847, and published in Nos. 264-69 of the "Neue Rheinische Zeitung," 1849. Marx did not learn that an economist Rodbertus existed, until Lassalle called his attention to the fact in 1859, and thereupon Marx looked up the "Third Letter on Political Economy" in the British Museum.

This is the actual condition of things. And now let us see what there is to the content of Rodbertus which Marx is charged with appropriating by "robbery". Says Rodbertus: "In my third letter on political economy, I have shown practically in the same way as Marx, only more briefly and clearly, the source of the surplus-value of the capitalists." This, then, is the disputed point: The theory of surplus value. And indeed, it would be difficult to say what else there is in Rodbertus which Marx might have found worth appropriating. Rodbertus here claims to be the real originator of the theory of surplus-value of which Marx is supposed to have robbed him.

And what has this third letter on political economy to say in regard to the origin of surplus-value? Simply this: That the "rent," as he terms the sum of ground rent and profit, does not consist of an "addition to the value" of a commodity, but is obtained "by means of a deduction of value from the wages of labor, in other words, the wages represent only a part of the value of a certain product," and provided that labor is sufficiently productive, wages need not be "equal to the natural exchange value of the product of labor in order to leave enough of it for the replacing of capital and for rent." We are not informed, however, what sort of a "natural exchange value" of a product it is that leaves nothing for the "replacing" of capital, or in other words, I suppose, for the replacing of raw material and the wear and tear of tools.

I am happy to say that we are enabled to ascertain what impression was produced on Marx by this stupendous discovery of Rodbertus. In the manuscript entitled "A Contribution to the Critique of Political Economy," Section X, pages 445 and following, we find, "A deviation. Mr. Rodbertus. A new theory of ground rent." This is the only point of view from which Marx there looks upon the third letter on political economy. The Rodbertian theory of surplus-value is dismissed with the ironical remark: "Mr. Rodbertus first analyzes what happens in a country where property in land and property in capital are not separated, and then he arrives at the important discovery that rent—meaning the entire surplus-value—is only equal to the unpaid labor or to the quantity of products in which it is embodied."

Now it is a fact, that capitalist humanity has been producing surplus-value for several hundred years, and has in the course of this time also arrived at the point where people began to ponder over the origin of surplus-value. The first explanation for this phenomenon grew out of the practice of commerce and was to the effect that surplus-value arose by raising the value of the product. This idea was current among the mercantilists. But James Steuart already saw that in that case the one would lose what the other would gain. Nevertheless, this.

idea persists for a long time after him, especially in the heads of the "socialists". But it is crowded out of classical science by Adam Smith.

He says in "Wealth of Nations," Vol. I, Ch. VI: "As soon as stock has accumulated in the hands of particular persons, some of them will naturally employ it in setting to work industrious people, whom they will supply with materials and subsistence, in order to make a profit by the sale of their work, or, by what their labor adds to the value of the materials. . . . The value which the workmen add to the materials, therefore, resolves itself in this case into two parts, of which the one pays their wages, the other the profits of their employer upon the whole stock of materials and wages which he advanced." And a little farther on he says: "As soon as the land of any country has all become private property, the landlords, like all other men, love to reap where they never sowed, and demand a rent even for its natural produce. . . . The laborer . . . must give up to the landlord a portion of what his labor either collects or produces. This portion, or what comes to the same thing, the price of this portion, constitutes the rent of land."

Marx comments on this passage in the above-named manuscript, entitled, "A Contribution, etc.," page 253: "Adam Smith, then, regards surplus-value, that is to say the surplus labor, the surplus of labor performed and embodied in its product over and above the paid labor, over and above that labor which has received its equivalent in wages, as the general category, and profit and ground rent merely as its ramifications."

Adam Smith says, furthermore, Vol. I, Chap. VIII: "As soon as land becomes private property, the landlord demands a share of almost all the produce which the laborer can either raise or collect from it. His rent makes the first deduction from the produce of labor which is employed upon land. It seldom happens that the person who tills the ground has wherewithal to maintain himself till he reaps the harvest. His maintenance is generally advanced to him from the stock of a master, the farmer who employs him, and who would have no interest to employ him, unless he was to share in the produce of his labor, or unless his stock was to be replaced by him with a profit. This profit makes a second deduction from the produce of the labor which is employed upon land. The produce of almost all other labor is liable to the like deduction of profit. In all arts and manufactures the greater part of the workmen stand in need of a master to advance them the materials for their work, and their wages and maintenance till it be completed. He shares in the produce of their labor, or in the value which it adds to the materials upon which it is bestowed; and in this share consists his profit."

The comment of Marx on this passage (on page 256 of his manuscript) is as follows: "Here Adam Smith declares in so many words that ground rent and profit of capital are simply deductions from the product of the laborer, or from the value of his product, and equal to the additional labor expended on the raw material. But this deduction, as Adam Smith himself has previously explained, can consist only

of that part of labor which the laborer expends over and above the quantity of work which pays for his wages and furnishes the equivalent of wages; in other words, this deduction consists of the surplus labor, the unpaid part of his labor."

It is therefore evident that even Adam Smith knew "the source of the surplus-value of the capitalists," and furthermore also that of the surplus-value of the landlords. Marx acknowledged this as early as 1861, while Rodbertus and the swarming mass of his admirers, who grew like mushrooms under the warm summer showers of state socjalism, seem to have forgotten all about that.

"Nevertheless," continues Marx, "Smith did not separate surplus-value proper as a separate category from the special form which it assumes in profit and ground rent. Hence there is much error and incompleteness in his investigation, and still more in that of Ricardo." This statement literally fits Rodbertus. His "rent" is simply the sum of ground rent plus profit. He builds up an entirely erroneous theory of ground rent, and he takes surplus-value without any critical reservation just as his predecessors hand it over to him. On the other hand, Marx's surplus-value represents the general form of the sum of values appropriated without any equivalent return by the owners of the means of production, and this form is then seen to transform itself into profit and ground rent by very particular laws which Marx was the first to discover. These laws are traced in Volume III. We shall see there how many intermediate links are required for the passage from an understanding of surplus-value in general to that of its transformation into profits and ground rent; in other words, for the understanding of the laws of the distribution of surplus-value within the capitalist class.

Ricardo goes considerably farther than Adam Smith. He bases his conception of surplus-value on a new theory of value which is contained in the germ in Adam Smith, but which is generally forgotten when it comes to applying it. This theory of value became the starting point of all subsequent economic science. Ricardo starts out with the determination of the value of commodities by the quantity of labor embodied in them, and from this premise he derives his theory of the distribution, between laborers and capitalists, of the quantity of value added by labor to the raw materials, this value being divided into wages and profit (meaning surplus-value). He shows that the value of the commodities remains the same, no matter what may be the proportion of these two parts, and he claims that this law has only a few exceptions. He even formulates a few fundamental laws relative to the mutual relations of wages and surplus-value (the latter considered by him as profit), although his statements are too general (see Marx, CAPITAL, Vol. I, Chap. XVII, 1), and he shows that ground rent is a quantity realized under certain conditions over and above profit. Rodbertus did not improve on Ricardo in any of these respects. He either remained unfamiliar with the internal contraditions which caused the downfall of the Ricardian theory and school, or they misled him into utopian demands instead of enabling him to solve economic problems (see his "Zur Erkenntniss, etc.," page 130).

But the Ricardian theory of value and surplus-value did not have to wait for Rodbertus' "Zur Erkenntniss" in order to be utilized for socialist purposes. On page 609 of the second edition of the German original of "CAPITAL," Vol. 1, we find the following quotation: "The possessors of surplus produce or capital." This quotation is taken from a pamphlet entitled "The Source and Remedy of the National Difficulties. A Letter to Lord John Russell. London, 1821." In this pamphlet, the importance of which should have been recognized on account of the terms surplus produce or capital, and which Marx saved from being forgotten, we read the following statements:

"Whatever may be due to the capitalist" (from the capitalist standpoint) "he can never appropriate more than the surplus labor of the laborer, for the laborer must live" (page 23). As for the way in which the laborer lives and for the quantity of the surplus value appropriated by the capitalist, these are very relative things.—"If capital does not decrease in value in proportion as it increases in volume, the capitalist will squeeze out of the laborer the product of every hour of labor above the minimum on which the laborer can live . . . . the capitalist can ultimately say to the laborer: You shall not eat bread, for you can live on beets and potatoes; and this is what we have to come to" (page 24). "If the laborer can be reduced to living on potatoes, instead of bread, it is undoubtedly true that more can be gotten out of his labor; that is to say, if, in order to live on bread, he was compelled, for his own subsistence and that of his family, to keep for himself the labor of Monday and Tuesday, he will, when living on potatoes, keep only half of Monday's labor for himself; and the other half of Monday, and all of Tuesday, are set free either for the benefit of the state or for the capitalist." (Page 26.) "It is admitted that the sums of interest paid to the capitalist, either in the form of rent, money-interest, or commercial profit, are paid from the labor of others." (Page 23.) Here we have the same idea of "rent" which Rodbertus has, only the writer says "interest" instead of rent.

Marx makes the following comment (manuscript of "A Contribution, etc.," page 852): "The little known pamphlet—published at a time when the 'incredible cobbler' Mac-Culloch began to be talked about—represents an essential advance over Ricardo. It directly designates surplus-value or 'profit' in the language of Ricardo (sometimes surplus produce), or interest, as the author of this pamphlet calls it, as surplus labor, which the laborer performs gratuitously, which he performs in excess of that quantity of labor required for the reproduction of his labor-power, the equivalent of his wages. It was no more important to reduce value down to labor than it is to reduce surplus-value, represented by surplus-produce, to surplus-labor. This had already been stated by Adam Smith, and forms a main factor in the analysis of Ricardo. But neither of them said so anywhere clearly and frankly in such a way that it could not be misunderstood." We read furthermore, on page 859 of this manuscript: "Moreover, the author is limited by the economic theories which he finds at hand and which he accepts. Just as the confounding of surplus-value and profit misleads Ricardo

into irreconcilable contraditions, so this author fares by baptizing surplus-value with the name of 'interest of capital'. It is true, he advances beyond Ricardo by reducing all surplus-value to surplus-labor. And furthermore, in calling surplus-value 'interest of capital,' he emphasizes that he is referring by this term to the general form of surplus-labor as distinguished from its special forms, rent, money interest, and commercial profit. But yet he chooses the name of one of these special forms, interest, at the same time for the general form. And this causes his relapse into the economic slang."

This last passage fits Rodbertus just as if it were made to order for him. He, too, is limited by the economic categories which he finds at hand. He, too, applies the name of one of the minor categories to surplus-value, and he makes it quite indefinite at that by calling it "rent." The result of these two mistakes is that he relapses into the economic slang, that he makes no attempt to follow up his advance over Ricardo by a critical analysis, and that he is misled into using his imperfect theory, even before it has gotten rid of its egg-shells, as a basis for a utopia which is in every respect too late. The above-named pamphlet appeared in 1821 and anticipated completely Rodbertus "rent" of 1842.

This pamphlet is but the farthest outpost of an entire literature which the Ricardian theories of value and surplus-value directed against capital production in the interest of the proletariat, fighting the bourgeoisie with its own weapons. The entire communism of Owen, so far as it plays a role in economics and politics, is based on Ricardo. Apart from him, there are still numerous other writers, some of whom Marx quoted as early as 1847 in his "POVERTY OF PHILOSOPHY" against Proudhon, such as Edmonds, Thompson, Hodgskin, etc., etc., "and four more pages of et cetera." I select from among this large number of writings the following by a random choice: "An Inquiry into the Principles of the Distribution of Wealth, Most Conducive to Human Happiness, by William Thompson; a new edition. London, 1850." This work, written in 1822, first appeared in 1827. It likewise regards the wealth appropriated by the non-producing classes as a deduction from the product of the laborer, and uses pretty strong terms in referring to it. The author says that the ceaseless endeavor of that which we call society consisted in inducing, by fraud or persuasion, by intimidation or compulsion, the productive laborer to perform his labors in return for the minimum of his own product. He asks why the laborer should not be entitled to the full product of his labor. He declares that the compensations, which the capitalists filch from the productive laborer under the name of ground rent or profit, are claimed in return for the use of land or other things. According to him, all physical substances, by means of which the propertiless productive laborer who has no other means of existence but the capacity of producing things, can make use of his faculties, are in the possession of others with opposite material interests, the consent of these is required in order that the laborer may find work; under these circumstances, he says, it depends on the good will of the capitalists how much of the fruit of his own labor the laborer

shall receive. And he speaks of "these defalcations" and of their relation to the unpaid product, whether this is called taxes, profit, or theft, etc.

I must admit that I do not write these lines without a certain mortification. I will not make so much of the fact that the anti-capitalist literature of England of the 20's and 30's is so little known in Germany, in spite of the fact that Marx referred to it even in his "POVERTY OF PHILOSOPHY," and quoted from it, as for instance that pamphlet of 1821, or Ravenstone, Hodgskin, etc., in Volume I of "CAPITAL." But it is a proof of the degradation into which official political economy has fallen, that not only the vulgar economist, who clings desperately to the coat tails of Rodbertus and really has not learned anything, but also the duly installed professor, who boasts of his wisdom, have forgotten their classical economy to such an extent that they seriously charge Marx with having robbed Rodbertus of things which may be found even in Adam Smith and Ricardo.

But what is there that is new about Marx's statements on surplus-value? How is it that Marx's theory of surplus-value struck home like a thunderbolt out of a clear sky, in all modern countries, while the theories of all his socialist predecessors, including Rodbertus, remained ineffective?

The history of chemistry offers an illustration which explains this:

Until late in the 18th century, the phlogistic theory was accepted. It assumed that in the process of burning, a certain hypothetical substance, an absolute combustible, named phlogiston, separated from the burning bodies. This theory sufficed for the explanation of most of the chemical phenomena then known, although it had to be considerably twisted in some cases. But in 1774, Priestley discovered a certain kind of air which was so pure, or so free from phlogiston, that common air seemed adulterated in comparison to it. He called it "dephlogisticized air." Shortly after him, Scheele obtained the same kind of air in Sweden, and demonstrated its existence in the atmosphere. He also found that this air disappeared, whenever some body was burned in it or in the open air, and therefore he called it "fire-air." "From these facts he drew the conclusion that the combination arising from the union of phlogiston with one of the elements of the atmosphere" (that is to say by combustion) "was nothing but fire or heat which escaped through the glass." [2]

Priestly and Scheele had produced oxygen, without knowing what they had discovered. They remained "limited by the phlogistic categories which they found at hand." The element, which was destined to abolish all phlogistic ideas and to revolutionize chemistry, remained barren in their hands. But Priestley had immediately communicated his discovery to Lavoisier in Paris, and Lavoisier, by means of this discovery, now analyzed the entire phlogistic chemistry and came to the conclusion that this new air was a new chemical element, that it was not

[2] Roscoe-Schorlemmer, Ausuehrliches Lehrbuch der Chemie, Braunschweig, 1877, I, p. 13, 18.

the mysterious phlogiston which departed from a burning body, but that this new element combined with the burning body. Thus he placed chemistry, which had so long stood on its head, squarely on its feet. And although he did not obtain the oxygen simultaneously and independently of the other two scientists, as he claimed later on, he nevertheless is the real discoverer of oxygen as compared to the others who had produced it without knowing what they had found.

Marx stands in the same relation to his predecessors in the theory of surplus-value that Lavoisier maintains to Priestley and Scheele. The existence of those parts of the value of products, which we now call surplus-value, had been ascertained long before Marx. It had also been stated with more or less precision that it consisted of that part of the laborer's product for which its appropriator does not give any equivalent. But there the economists halted. Some of them, for instance the classical bourgeois economists investigated, perhaps, the proportion in which the product of labor was divided among the laborer and the owner of the means of production. Others, the socialists, declared that this division was unjust and looked for utopian means of abolishing this injustice. They remained limited by the economic categories which they found at hand.

Now Marx appeared. And he took an entirely opposite view from all his predecessors. What they had regarded as a solution, he considered a problem. He saw that he had to deal neither with dephlogisticized air, nor with fire-air, but with oxygen. He understood that it was not simply a matter of stating an economic fact, or of pointing out the conflict of this fact with "eternal justice and true morals," but of explaining a fact which was destined to revolutionize the entire political economy, and which offered a key for the understanding of the entire capitalist production, provided you knew how to use it. With this fact for a starting point Marx analyzed all the economic categories which he found at hand, just as Lavoisier had analyzed the categories of the phologistic chemistry which he found at hand. In order to understand what surplus-value is, Marx had to find out what value is. Therefore he had above all to analyze critically the Ricarian theory of value. Marx also analyzed labor as to its capacity for producing value, and he was the first to ascertain what kind of labor it was that produced value, and why it did so, and by what means it accomplished this. He found that value was nothing but crystallized labor of this kind, and this is a point which Rodbertus never grasped to his dying day. Marx then analyzed the relation of commodities to money and demonstrated how, and why, thanks to the immanent character of value, commodities and the exchange of commodities must produce the opposition of money and commodities. His theory of money, founded on this basis, is the first exhaustive treatment of this subject, and it is tacitly accepted everywhere. He analyzed the transformation of money into capital and demonstrated that this transformation is based on the purchase and sale of labor-power. By substituting labor-power, as a value-producing quality, for labor he solved with one stroke one of the difficulties which caused the downfall of the Ricardian school, viz.: the impossibility of

harmonizing the mutual exchange of capital and labor with the Ricardian law of determining value by labor. By ascertaining the distinction between constant and variable capital, he was enabled to trace the process of the formation of surplus-value in its details and thus to explain it, a feat which none of his predecessors had accomplished. In other words, he found a distinction inside of capital itself with which neither Rodbertus nor the capitalist economists know what to do, but nevertheless furnished a key for the solution of the most complicated economic problems, as is proved by this Volume II and will be proved still more by Volume III. He furthermore analyzed surplus-value and found its two forms, absolute and relative surplus-value. And he showed that both of them had played a different, and each time a decisive role, in the historical development of capitalist production. On the basis of this surplus-value he developed the first rational theory of wages which we have, and drew for the first time an outline of the history of capitalist accumulation and a sketch of its historical tendencies.

And Rodbertus? After he has read all that, he regards it as "an assault on society," and finds that he has said much more briefly and clearly by what means surplus-value is originated, and finally declares that all this does indeed apply to "the present form of capital," that is to say to capital as it exists historically, but not to the "conception of capital," that is to say, not to the utopian idea which Rodbertus has of capital. He is just like old Priestley, who stood by phlogiston to the end and refused to have anything to do with oxygen. There is only this difference: Priestley had actually produced oxygen, while Rodbertus had merely rediscovered a common-place in his surplus-value, or rather his "rent"; and Marx declined to act like Lavoisier and to claim that he was the first to discover the fact of the existence of surplus-value.

The other economic feats of Rodbertus were performed on about the same plane. His elaboration of surplus-value into a utopia has already been inadvertently criticized by Marx in his "POVERTY OF PHILOSOPHY." What may be said about this point in other respects, I have said in my preface to the German edition of that work. Rodbertus' explanation of commercial crises out of the underconsumption of the working class has been stated before him by Sismondi in his "Nouveaux Principes de l'Economie Politique," liv. IV, ch. IV.[3] However, Sismondi always had the world-market in mind, while the horizon of Rodbertus does not extend beyond Prussia. His speculations as to whether wages are derived from capital or from income belong to the domain of scholasticism and are definitely settled by the third part of this second volume of "CAPITAL". His theory of rent has remained his exclusive property and may rest in peace, until the manuscript of Marx criticizing it will be published. Finally his

[3] "Thus the concentration of wealth into the hands of a small number of proprietors narrows the home market more and more, and industry is more and more compelled to open up foreign markets, where still greater revolutions await it" (namely, the crisis of 1817, which is immediately described). Nouveaux Principes, edition of 1819 I., p. 336.

suggestions for the emancipation of the old Prussian landlords from the oppression of capital are entirely utopian; for they avoid the only practical question, which has to be solved, viz.: How can the old Prussian landlord have a yearly income of, say, 20,000 marks and a yearly expense of, say, 30,000 marks, without running into debt?

The Ricardian school failed about the year 1830, being unable to solve the riddle of surplus-value. And what was impossible for this school, remained still more insoluble for its successor, vulgar economy. The two points which caused its failure were these:

1. Labor is the measure of value. However, actual labor in its exchange with capital has a lower value than labor embodied in the commodities for which actual labor is exchanged. Wages, the value of a definite quantity of actual labor, are always lower than the value of the commodity produced by this same quantity of labor and in which it is embodied. The question is indeed insoluble, if put in this form. It has been correctly formulated by Marx and then answered. It is not labor which has any value. As an activity which creates values it can no more have any special value in itself than gravity can have any special weight, heat any special temperature, electricity any special strength of current. It is not labor which is bought and sold as a commodity, but labor-power. As soon as labor-power becomes a commodity, its value is determined by the labor embodied in this commodity as a social product. This value is equal to the social labor required for the production and reproduction of this commodity. Hence the purchase and sale of labor-power on the basis of this value does not contradict the economic law of value.

2. According to the Ricardian law of value, two capitals employing the same and equally paid labor, all other conditions being equal, produce the same value and surplus-value, or profit, in the same time. But if they employ unequal quantities of actual labor, they cannot produce equal surplus-values, or, as the Ricardians say, equal profits. Now in reality, the exact opposite takes place. As a matter of fact, equal capitals, regardless of the quantity of actual labor employed by them, produce equal average profits in equal times. Here we have, therefore, a clash with the law of value, which had been noticed by Ricardo himself, but which his school was unable to reconcile. Rodbertus likewise could not but note this contradiction. But instead of solving it, he made it a starting point of his utopia (Zur Erkenntniss, etc.). Marx had solved this contradiction even in his manuscript for his "CRITIQUE OF POLITICAL ECONOMY." According to the plan of "CAPITAL," this solution will be made public in Volume III. Several months will pass before this can be published. Hence those economists, who claim to have discovered that Rodbertus is the secret source and the superior predecessor of Marx, have now an opportunity to demonstrate what the economics of Rodbertus can accomplish. If they can show in which way an equal average rate of profit can and must come about, not only without a violation of the law of value, but by means of it, I am willing to discuss the matter further with them. In the meantime, they had better make haste. The brilliant analyses

of this Volume II and its entirely new conclusions on an almost untilled ground are but the initial statements preparing the way for the contents of Volume III, which develops the final conclusions of Marx's analysis of the social process of reproduction on a capitalist basis. When this Volume III will appear, little mention will be made of a certain economist called Rodbertus.

The second and third volumes of "CAPITAL" were to be dedicated, as Marx stated repeatedly, to his wife.

FRIEDRICH ENGELS.

London, on Marx's birthday, May 5, 1885.

The present second edition is, in the main, a faithful reprint of the first. Typographical errors have been corrected, a few inconsistencies of style eliminated, and a few short passages containing repetitions struck out.

The third volume, which presented quite unforeseen difficulties, is likewise almost ready for the printer. If my health holds out, it will be ready for the press this fall.

FRIEDRICH ENGELS.

London, July 15, 1893.

TRANSLATOR'S NOTE.

The conditions and the location of the place in which I translated volumes II and III of this work made it impossible for me to get access to the original works of the authors quoted by Marx. I was compelled, under these circumstances, to retranslate many quotations from English authors from the German translation, without an opportunity to compare my retranslated version with the English original. But whatever may be the difference in the wording of the originals and of my retranslation from the German, it does not affect the substance of the quotations in the least. The meaning of the originals will be found to be the same as that of my retranslation. The interpretation given by Marx to the various quotations from other authors, and the conclusions drawn by him from them, are not altered in the least by any deviation, which my translation may show from the original texts. If any one should be inclined to turn these statements of mine to any controversial advantage, he should remember that he cannot use them against Marx, but only against me.

ERNEST UNTERMANN.

BOOK II
The Circulation of Capital

PART I
THE METAMORPHOSES OF CAPITAL AND THEIR CYCLES

CHAPTER I

THE CIRCULATION OF MONEY-CAPITAL

The circulation process[1] of capital takes place in three stages, which, according to the presentation of the matter in Volume I, form the following series:

First stage: The capitalist appears as a buyer on the commodity and labor market; his money is transformed into commodities, or it goes through the circulation process M-C.

Second stage: Productive consumption of the purchased commodities by the capitalist. He acts in the capacity of a capitalist producer of commodities; his capital passes through the process of production. The result is a commodity of more value than that of the elements composing it.

Third stage: The capitalist returns to the market as a seller; his commodities are exchanged for money, or they pass through the circulation process C-M.

Hence the formula for the circulation process of money capital is: M-C ...P ...C'-M', the dots indicating the points where the process of circulation was interrupted, and C' and M' designating C and M increased by surplus value.

The first and third stages were discussed in Volume I only in so far as it was required for an understanding of the second stage, the process of production of capital. For this reason, the various forms which capital assumes in its different stages, and which it either

[1] From Manuscript II.

retains or discards in the repetition of the circulation process, were not considered. These forms are now the first objects of our study.

In order to conceive of these forms in their purest state, we must first of all abstract from all factors which have nothing to do directly with the discarding or adopting of any of these forms. It is therefore taken for granted at this point that the commodities are sold at their value and that this takes place under the same conditions throughout. Abstraction is likewise made of any changes of value which might occur during the process of circulation.

I. First Stage. M-C.[2]

M-C represents the exchange of a sum of money for a sum of commodities; the purchaser exchanges his money for commodities, the sellers exchange their commodities for money. It is not so much the form of this act of exchange which renders it simultaneously a part of the general circulation of commodities and a definite organic section in the independent circulation of some individual capital, as its substance, that is to say the specific use-values of the commodities which are exchanged for money. These commodities represent on the one hand means of production, on the other labor-power, and these object and personal factors in the production of commodities must naturally correspond in their peculiarities to the special kind of articles to be manufactured. If we call labor-power L, and the means of production Pm, the sum of commodities to be purchased is $C = L + Pm$, or more briefly C $\{^{L}_{Pm}$. M-C, considered as to its substance, is therefore represented by M-C $\{^{L}_{Pm}$, that is to say M-C is composed of M-L and M-Pm. The sum of money M is separated into two parts, one of which buys labor-power, the other means of production. These two series of purchases belong to entirely different markets, the one to the commodity-market proper, the other to the labor-market.

Aside from this qualitative division of the sum of commodities into which M is transformed, the formula M-C $\{^{L}_{Pm}$ also represents a very characteristic quantitative relation.

We know that the value, or price, of labor-power is paid to its owner, who offers it for sale as a commodity, in the form of wages, that is to say it is the price of a sum of labor containing surplus-value. For instance, if the daily value of labor-power is equal to the product of five hours' labor valued at three shillings, this sum figures in the contract between the buyer and seller of labor power as the price, or wages, for say, ten hours of labor time. If such a contract is made, for instance, with 50 laborers, they are supposed to work 500 hours per day for their purchaser, and one-half of this time, or 250 hours equal to 25 days of labor of 10 hours each, represent nothing but surplus-value. The quantity and the volume of the commodities to be purchased must be sufficient for the utilization of this labor-power.

[2] Beginning of Manuscript VII, started July 2, 1878.

M-C $\{^{L}_{Pm}$ then, does not merely express the qualitative relation represented by the exchange of a certain sum of money, say 422 pounds sterling, for a corresponding sum of means of production and labor-power, but also a quantitative relation between certain parts of that same money spent for the labor-power L and the means of production Pm. This relation is determined at the outset by the quantity of surplus-labor to be expended by a certain number of laborers.

If, for instance, a certain manufacturer pays a weekly wage of 50 pounds sterling to 50 laborers, he must spend 372 pounds sterling for means of production, if this is the value of the means of production which a weekly labor of 3,000 hours, 1,500 of which are surplus-labor, transforms into factory products.

It is immaterial for the point under discussion, how much additional value in the form of means of production is required in the various lines of industry by the utilization of surplus-labor. We merely emphasize the fact that the amount of money M spent for means of production in the exchange M-Pm must buy a proportional quantity of them. The quantity of means of production must suffice for the absorption of the amount of labor which is to transform them into products. If the means of production were insufficient, the surplus-labor available for the purchaser would not be utilized, and he could not dispose of it. On the other hand, if there were more means of production than available labor, they would not be saturated with labor and would not be transformed into products.

As soon as the process M-C $\{^{L}_{Pm}$ has been completed, the purchaser has more than simply the means of production and labor-power required for the manufacture of some useful article. He has also at his disposal a greater supply of labor-power, or a greater quantity of labor, than is necessary for the reproduction of the value of this labor-power, and he has at the same time the means of production required for the materialization of this quantity of labor. In other words, he has at his disposal the elements required for the production of articles of a greater value than these elements, he has a mass of commodities containing surplus-value. The value advanced by him in the form of money has then assumed a natural form in which it can be incarnated as a value generating more value. In brief, value exists then in the form of productive capital which has the faculty of creating value and surplus-value. Let us call capital in this form P.

Now the value of P is equal to that of L + Pm, it is equal to M exchanged for L and Pm. M is the same capital-value as P, only it has a different form of existence, it is capital-value in the form of money —money-capital.

M-C $\{^{L}_{Pm}$ or the more general formula M-C, a sum of purchases of commodities, a process within the general circulation of commodities, is therefore at the same time, seeing that it is a stage in the independent circulation of capital, a process of transforming capital-value from its money form into its productive form. It is the transformation of money-capital into productive capital. In the diagram of the circulation

which we are here discussing, money appears as the first bearer of capital-value, and money-capital therefore represents the form in which capital is advanced.

Money in the form of money-capital finds itself employed in the functions of a medium of exchange, in the present case it performs the service of a general purchasing medium and general paying medium. The last-named service is required inasmuch as labor-power, though first bought is not paid until it has been utilized. If the means of production are not found ready on the market, but have to be ordered, money in the process M-Pm likewise serves as a paying medium. These functions are not due to the fact that money-capital is capital, but that it is money.

On the other hand, money-capital, or capital-value in the form of money, cannot perform any other service but that of money. This service appears as a function of capital simply because it plays a certain role in the movements of capital. The stage in which this function is performed is interrelated with other stages of the circulation of money-capital. Take, for instance, the case with which we are here dealing. Money is here exchanged for commodities which represent the natural form of productive capital, and this form contains in the germ the phenomena of the process of capitalist production.

A part of the money performing the function of money-capital in the process M-C $\{^{L}_{Pm}$ assumes, in the course of this circulation, a function in which it loses its capital character but preserves its money character. The circulation of money-capital M is divided into the stages M-Pm and M-L, into the purchase of means of production and of labor-power.

Let us consider the last-named stage by itself. M-L is the purchase of labor-power by the capitalist. It is also the sale of labor-power, or we may say of labor, since we have assumed the existence of wages, by the laborer who owns it. What is M-C, or in this case M-L, from the standpoint of the buyer, is here, as in every other transaction of this kind, C-M from the standpoint of the seller, L-M from the standpoint of the laborer. It is the sale of labor-power by the laborer. This is the first stage of circulation, or the first metamorphosis, of commodities (Vol. I, Chap. III, Sect. 2a). It is for the seller of labor-power a transformation of his commodity into the money-form. The laborer spends the money so obtained gradually for a number of commodities required for the satisfaction of his needs, for articles of consumption. The complete circulation of his commodity therefore appears as L-M-C, that is to say first as L-M, or C-M, second as M-C, which is the general form of the simple circulation of commodities, C-M-C. Money is in this case merely a passing circulation-medium, a mere mediator in the exchange of one commodity for another.

M-L is the typical stage of the transformation of money-capital into productive capital. It is the essential condition for the transformation of value advanced in the form of money into capital, that is to say into a value producing surplus-value. M-Pm is necessary only for the purpose of realizing the quantity of labor bought in the process M-L.

This process was discussed from this point of view in Vol. I, Part II, under the head of "Transformation of Money into Capital". But at this point, we shall have to consider it also from another side, relating especially to money-capital as a form of capital.

M-L is regarded as a general characteristic of the capitalist mode of production. But in this case we are doing so, not so much because the purchase of labor-power represents a contract which stipulates the delivery of a certain quantity of labor-power for the reproduction of the price of labor-power, or of wages, not so much for the reason that it means the delivery of surplus-labor which is the fundamental condition for the capitalization of the value advanced, or for the production of surplus-value; but we do so rather on account of its money form, because wages in the form of money buy labor-power, and this is the characteristic mark of the money system.

Nor is it the irrational feature of the money form which we shall note as the characteristic part. We shall overlook the irrationalities. The irrationality consists in the fact that labor itself as a value-creating element cannot have any value which could be expressed in its price, and that, therefore, a certain quantity of labor cannot have any equivalent in a certain quantity of money. But we know that wages are but a disguised form in which, for instance, the price of one day's labor-power is seen to be the price of the quantity of labor materialized by this labor-power in one day. The value produced by this labor-power in six hours of labor is then expressed as the value of twelve hours of its labor.

M-L is regarded as the characteristic signature of the so-called money system, because labor there appears as the commodity of its owner, and money as the buyer. In other words, it is the money relation in the sale and purchase of human activity which is considered. It is a fact, however, that money appears at an early stage as a buyer of so-called services, without the transformation of M into money-capital, and without any change in the general character of the economic system.

It makes no difference to money into what sort of commodities it is transformed. It is the general equivalent of all commodities, which show by their prices that they represent in an abstract way a certain sum of money and anticipate their exchange for money. They do not assume the form in which they may be translated into use-values for their owners, until they change places with money. Once that labor power has come into the market as the commodity of its owner, to be sold for wages in return for labor, its sale and purchase is no more startling than the sale and purchase of any other commodity. The peculiar characteristic is not that the commodity labor-power is saleable, but that labor-power appears in the shape of a commodity.

By means of M-C $\left\{\begin{matrix} L \\ P_m, \end{matrix}\right.$ that is to say by the transformation of money-capital into productive capital, the capitalist accomplishes the combination of the objective and personal factors of production so far as they consist of commodities. If money is transformed into productive capital for the first time, or if it performs for the first time the

function of money-capital for its owner, he must begin by buying means of production, such as buildings, machinery, etc., before he buys any labor-power. For as soon as labor-power passes into his control, he must have means of production for it, in order to utilize it.

This is the capitalist's point of view.

The laborer, on the other hand, looks at this question in the following light: The productive application of his labor-power is not possible, until he has sold it and brought it into contact with means of production. Before its sale, it exists in a state of separation from the means of production which it requires for its materialization. So long as it remains in this state, it cannot be used either for the production of use-values for its owner, or for the production of commodities, by the sale of which he might live. But from the moment that it is brought into touch with means of production, it forms part of the productive capital of its purchaser, the same as the means of production.

It is true, that in the act M-L the owner of money and the owner of labor-power enter into the relation of buyer and seller, of money-owner and commodity-owner. To this extent they enter into a money relation. But at the same time the buyer also appears in the role of an owner of means of production, which are the material conditions for the productive expenditure of labor-power on the part of its owner. The means of production, then, meet the owner of labor-power in the form of the property of another. On the other hand, the seller of labor meets its buyer in the form of the labor-power of another and it must pass into the buyer's possession, it must become a part of his capital, in order that it may become productive capital. The class relation between the capitalist and the wage laborer is therefore established from the moment that they meet in the act M-L, which signifies L-M from the standpoint of the laborer. It is indeed a sale and a purchase, a money relation, but it is a sale and a purchase in which the buyer is a capitalist and the seller a wage-laborer. And this relation arises out of the fact that the conditions required for the materialization of labor-power, viz.: means of subsistence and means of production, are separated from the owner of labor-power and are the property of another.

We are not here concerned in the origin of this separation. It is a fact, as soon as the act M-L can be performed. The thing which interests us here is that M-L does not become a function of money-capital for the sole reason that it is a means of paying for a useful human activity or service. The function of money as a paying medium is not the main object of our attention. Money can be expended in this form only because labor-power finds itself separated from its means of production, including the means of subsistence required for its reproduction; because this separation can be overcome only by the sale of the labor-power to the owner of the means of production; because the materialization of labor-power, which is by no means limited to the quantity of labor required for the reproduction of its own price, is likewise in the control of its buyer. The capital relation during the process of production arises only because it is inherent in the process of circulation based on the different economic conditions, the class distinctions be-

tween the buyer and the seller of labor-power. It is not money which by its nature creates this relation; it is rather the existence of this relation which permits of the transformation of a mere money-function into a capital-function.

In the conception of money-capital, so far as it relates to the special function which we are discussing, two errors run parallel to one another or cross each other. In the first place, the functions performed by capital-value in its capacity of money-capital, which are due to its money form, are erroneously derived from its character as capital. But they are due only to the money form of capital-value. In the second and reverse case, the specific nature of the money-function, which renders it simultaneously a capital-function, is attributed to its money nature. Money is here confounded with capital, while the specific nature of the money-function is conditioned on social relations such as are indicated by the act M-L, and these conditions do not exist in the mere circulation of commodities and money.

The sale and purchase of slaves is formally also a sale and purchase of commodities. But money cannot perform this function without the existence of slavery. If slavery exists, then money can be invested in the purchase of slaves. On the other hand, the mere possession of money cannot make slavery possible.

In order that the sale of his labor-power by the laborer, in the form of the sale of labor for wages, may take place as a result of social conditions which make it the basis of the production of commodities, in order that it may not be an isolated instance, so that money-capital may perform, on a social scale, the function in the process M-C $\left\{\begin{matrix}L\\Pm,\end{matrix}\right.$ definite historical processes are required, by which the original connection of the means of production with labor-power is dissolved. These processes must have resulted in opposing the mass of the people, the laborers, as propertiless to the idle owners of the means of production. It makes no difference in this case, whether the connection between the labor-power and the means of production before its dissolution was such that the laborer belonged to the means of production and was a part of them, or whether he was their owner.

The fact which lies back of the process M-C $\left\{\begin{matrix}L\\P\end{matrix}\right.$ is distribution; not distribution in the ordinary meaning of a distribution of articles of consumpion, but the distribution of the elements of production themselves. These consist of the objective things which are concentrated on one side, and labor-power which is isolated on the other.

The means of production, the objective things of productive capital, must therefore stand opposed to the laborer as capital, before the process M-L can become a universal, social one.

We have seen on previous occasions that capitalist production, once it is established, does not only reproduce in its further development this separation, but extends its scope more and more, until it becomes the prevailing social condition. However, there is still another side to this question. In order that capital may be able to arise and take control of production, a definite stage in the development of commerce must precede. This includes the circulation of commodities, and therefore

also the production of commodities; for no articles can enter circulation in the form of commodities, unless they are manufactured for sale, and intended for commerce. But the production of commodities does not become the normal mode of production, until it finds as its basis the capitalist system of production.

The Russian landowners, who are compelled to carry on agriculture by the help of wage-laborers instead of serfs, since the so-called emancipation of the serfs, complain about two things. They wail in the first place about the lack of money-capital. They say, for instance, that large sums must be paid to wage-laborers, before the crops can be sold, and there is a dearth of ready cash. Capital in the form of money must always be available for the payment of wages, before production on a capitalist scale can be carried on. But the landowners may take hope. In due time the industrial capitalist will have at his disposal, not alone his own money, but also that of others.

The second complaint is more characteristic. It is to the effect that even if money is available, there are not enough laborers at hand at any time. The reason is that the Russian farm laborer, owing to the communal property in land, has not been fully separated from his means of production, and hence is not yet a "free wage-worker" in the full capitalist meaning of the word. But the existence of "free" wage-workers is the indispensable condition for the realization of the act M-C, the exchange of money for commodities, tthe transformation of money-capital into productive capital.

As a matter of course, the formula M-C ...P ...C' -M' does not represent the normal form of the circulation of money-capital, until capitalist production is fully developed, because it is conditioned on the existence of a social class of wage-laborers. We have seen that capitalist production does not only create commodities and surplus-values, but also gives rise to an ever growing class of wage-laborers, either by propagation or by the transformation of independent producers into proletarians.

Since the first condition for the realization of the act M-C ...P... C' -M' is the permanent existence of a class of wage-workers, capital in the form of productive capital and the circulation of productive capital must precede it.

II. Second Stage. Functions of Productive Capital.

The circulation of capital which we have here considered begins with the act of circulation represented by the formula M-C, the transformation of money into commodities, or purchase. Circulation must therefore be supplemented by the reverse metamorphosis C-M, the transformation of commodities into money, or sale. But the immediate result of M-C $\left\{\begin{matrix} L \\ P_m \end{matrix}\right.$ is the interruption of the circulation of the capital advanced in the form of money. By the transformation of money-capital into productive capital the value of capital has assumed a natural form in which it cannot continue to circulate, but must enter into consumption, more accurately into productive consumption.

The application of labor-power, labor, cannot be carried into effect anywhere but in the labor process. The capitalist cannot sell the laborer along with the commodities, because the wage-worker is not a chattel slave and the capitalist does not buy anything from the laborer but the privilege of utilizing the labor-power purchased in the person of the laborer for a certain time. On the other hand, the capitalist cannot use this labor-power in any other way than by using it up in transforming, by its help, means of production into commodities. The result of the first stage of the circulation of money-capital is therefore its entrance into the second stage, that of productive capital.

This movement is represented by the formula M-C $\{^{L}_{Pm}$ P, in which the dots indicate the place where the circulation of capital is interrupted, while its rotation continues, since it passes from the sphere of the circulation of commodities into that of production. The first stage, the transformation of money-capital into productive capital, is therefore merely the harbinger of the second, the productive stage of capital.

The act M $\{^{L}_{Pm}$ presupposes that the person performing it not only has at his or her disposal values of some useful form, but also that he or she has them in the form of money. And the act consists precisely in giving away money. A man can, therefore, remain the owner of money only on the condition, that the giving away of money at the same time implies a return of money. But money can return only through the sale of commodities. Hence the above formula assumes the owner of money to be a producer of commodities.

Now let us look at the formula M-L. The wage worker lives only by the sale of his labor-power. The preservation of this power, equivalent to the self-preservation of the laborer, requires a daily consumption. Hence the payment of wages must be continually repeated at short intervals, in order that the wage laborer may be able to repeat acts L-M or C-M-C, by means of which he is enabled to purchase the articles required for his self-preservation. For this reason the capitalist must stand opposed to the wage worker in the capacity of a money-capitalist, and his capital must be money-capital. On the other hand, if the wage laborers, the mass of direct producers, are to perform the act L-M-C, the means of subsistence required for it must be present in the form of purchasable commodities. This state of affairs necessitates a high degree of development of the circulation of products in the form of commodities, and this again must be preceded by a corresponding extension of the production of commodities. As soon as production by means of wage labor has become universal, the production of commodities must be the typical form of production. If this mode of production is general, it carries in its wake an ever increasing division of labor, that is to say an ever growing differentiation in the special nature of the products which are manufactured in the form of commodities by the various capitalists, an ever greater division of supplementary processes of production into independent specialties. To the extent that M-L develops, M-Pm also develops, that is to say the production of

means of production to that extent differentiates from the production of commodities with those means. The means of production then stand opposed as commodities to every producer of commodities and he must buy those means in order to be able to carry on his special line of commodity production. They are derived from branches of production which are entirely divorced from his own and enter into his own branch as commodities which he must buy. The objective materials of commodity production assume more and more the character of products of other commodity manufacturers which he must purchase. And to the same extent the capitalist must become a money-capitalist, in the same ratio his capital must assume the functions of money-capital.

On the other hand, the same conditions which are the cause of the fundamental constitution of capitalist production, especially the existence of a class of wage laborers, also demand the transition of all commodity production into the capitalist mode of commodity production. In proportion as the capitalist mode of production develops, it has a disintegrating effect on all older forms of production, which were mainly adjusted to the individual needs and transformed only the surplus over and above those needs into commodities. Capitalist production makes of the sale of products the main incentive, without at first apparently affecting the mode of production itself. Such was, for instance, the first effect of capitalist world commerce on such nations as the Chinese, Indians, Arabs, etc. But wherever it takes root, there it destroys all forms of commodity production which are either based on the self-employment of the producers, or merely on the sale of the surplus product. The production of commodities is first made general and then transformed by degrees into the capitalist mode of commodity production.[3]

Whatever may be the social form of production, laborers and means of production always remain its main elements. But either of these factors can become effective only when they unite. The special manner in which this union is accomplished distinguishes the different economic epochs from one another. In the present case, the separation of the so-called free laborer from his means of production is the starting point, and we have observed the way and the conditions in which these two elements are united in the hands of the capitalist, as the productive mode of existence of his capital. The actual process which combines the personal and objective materials of commodity production under these conditions, the process of production, thus becomes in its turn a function of capital, a capitalist process of production, the nature of which has been fully analyzed in the first volume of this work. Every process of commodity production at the same time becomes a process of exploiting labor-power. But it is not until the capitalist production of commodities is established that this mode of exploitation becomes universal and typical, and revolutionizes in the course of its historical development, through the organization of the labor process and the enormous improvement of technique, the entire economic structure of society, in a manner eclipsing all former epochs.

[3] End of Manuscript VII. Beginning of Manuscript VI.

The means of production and labor-power in so far as they are forms of existence of advanced capital values, are distinguished by the different roles assumed by them in the production of value, hence also of surplus-value, and known under the names of constant and variable capital. As different parts of productive capital they are furthermore distinguished by the fact that the means of production in the possession of the capitalist remain his capital even outside of the process of production, while labor-power exists in the form of individual capital only within this process. While labor-power is a commodity only in the hands of its seller, the wage worker, it becomes capital only in the hands of its buyer, the capitalist who uses it temporarily. And the means of production do not become objective parts of productive capital, until labor-power, the personal form of productive capital, is embodied in them. Human labor-power is originally no more capital than are the means of production. They assume this specific social character only under definite historically developed conditions, and the same character is impregnated upon precious metals, and still more upon money, by the same circumstances.

Productive capital, in performing its functions, consumes its own component parts for the purpose of transforming them into a mass of products of a higher value. Seeing that labor-power acts likewise merely as an organ of productive capital, the surplus-value produced by its surplus-labor over and above the value of its component elements is also gathered by capital. The surplus-labor of labor-power is the inexpensive labor of capital and thus forms surplus-value for the capitalist, a value which costs him no equivalent return. The product is, therefore, not only a commodity, but a commodity pregnant with surplus-value. Its value is equal to P + S, that is to say equal to the value of the productive capital consumed in its manufacture plus the surplus-value S created by it. Assuming that this product were represented by 10,000 pounds of yarn, let us say that means of production valued at 372 pounds sterling and labor-power valued at 50 pounds sterling were consumed in the production of this quantity of yarn. During the process of spinning, the spinners transferred the value of the means of production to the amount of 372 pounds sterling to the yarn, and at the same time they created, by means of their labor-power, new values to the amount of 128 pounds sterling. The 10,000 pounds of yarn therefore represent a value of 500 pounds sterling.

III.. Third Stage. C'-M'.

Commodities become commodity-capital by springing into existence as a direct result of commodity-production, embodying in a new form the capital values already utilized. If the production of commodities were carried on as capitalist production in all spheres of society, all commodities would be elements of commodity-capital from the outset, whether they would be composed of crude iron, Brussels laces, sulphuric acid, or cigars. The problem as to what class of commodities

is destined by its nature to rank as capital and what class to serve as general commodities, is one of the self-prepared ills of the scholastic economists.

In the form of commodities, capital has to perform the functions of commodities. The articles of which commodity capital is composed are produced for sale and must be exchanged for money, must go through the process C-M.

The commodities of the capitalist many consist of 10,000 pounds of yarn. If 372 pounds sterling represent the value of the means of production consumed in the spinning process, and new values to the amount of 128 pounds sterling have been created, the yarn has a value of 500 pounds sterling, which is expressed in its price of the same amount. This price is realized by the sale C-M. What is it that makes of this simple process of all commodity circulation at the same time a capital function? It is not any change that takes place inside of it. Neither the use-value of the product has been changed, for it passes into the hands of the buyer as an object of use, nor has anything been altered in its exchange-value, for this value has not experienced any change of magnitude, but only of form. It first existed as yarn, while now it exists as money. Thus a plain distinction is evident between the first stage C-M, and the last stage C'-M'. There the advanced money serves as money-capital, because it is transformed, by means of the circulation of commodities, into articles of a specific use-value. Here, on the other hand, the commodities can only serve as capital, since they brought this character with them from the process of production before their circulation began. During the spinning process, the spinners created new values to the amount of 128 pounds sterling in the shape of yarn. Of this sum, say 50 pounds sterling are regarded by the capitalist merely as an equivalent for wages advanced for labor-power, while 78 pounds sterling—representing an exploitation of 156 per cent—are his surplus-value.

The value of the 10,000 pounds of yarn therefore embodies first the value of the consumed productive capital P, which consists of a constant capital of 372 pounds sterling and a variable capital of 50 pounds sterling, the sum being 422 pounds sterling, equal to 8,440 pounds of yarn. Now the value of the productive capital P is equal to C, the value of the elements constituting it which the capitalist found to be in the hands of their sellers in the stage M-C. In the second place, the value of the yarn embodies a surplus-value of 78 pounds sterling, equal to 1,560 pounds of yarn. C as an expression of the value of 10,000 pounds of yarn is therefore equal to C plus surplus C, or C plus an increment of C worth 78 pounds sterling, which we shall call c, since it exists in the same commodity form as that now assumed by the original value C. The value of the 10,000 pounds of yarn, equal to 500 pounds sterling, is therefore represented by the formula $C+c=C'$. What changes C, the value of the 10,000 pounds of yarn, into C' is not its absolute value of 500 pounds sterling, for it is determined, the same as C standing for the expression of the value of any other sum of commodities, by the quantity of labor embodied in it. It is rather its relative

value, its value as compared to that of the productive capital P consumed in its production, which is the essential thing. This value is contained in it plus the surplus-value created through the productive capital. Its value exceeds that of the capital by the surplus-value c. The 10,000 pounds of yarn are the bearers of the consumed capital value increased by this surplus-value, and they are so by virtue of the capitalist process of production. C' expresses the relation of the value of the commodities to that of the capital advanced in its production, in other words the composition of the value of the commodities, of capital value and surplus-value. The 10,000 pounds of yarn represent a commodity-capital C' only because they are an altered form of the productive capital P, and this relation exists originally by virtue of the circulation of this individual capital, it applies primarily to the capitalist who produced the yarn by the help of his capital. It is, so to say, an internal, not an external relation which makes a commodity capital of the 10,000 pounds of yarn in their capacity of representatives of value. They are bearing the imprint of capital not in the absolute magnitude of their value, but in its relative magnitude, in the proportion of their value to that of productive capital embodied in them before they became commodities. If, then, these 10,000 pounds of yarn are sold at their value of 500 pounds sterling, this act of circulation, considered by itself, is identical with C-M, a mere transformation of the same value from the form of a commodity into that of money. But as a special stage in the circulation of a certain individual capital, the same act is also a realization of the capital value, embodied in the commodity, to the amount of 422 pounds sterling plus the surplus-value, likewise embodied in it, of 78 pounds sterling. That is to say, it also represents C'-M', the transformation of the commodity-capital from its commodity form into that of money.[4]

The function of C' is now that of all commodities, viz.: to transform itself into money, to be sold, to go through the circulation stage C-M. So long as the capital utilized so far remains in the form of commodity-capital and stays on the market, the process of production rests. The commodity-capital serves then neither as a creator of value nor of products. In proportion to the degree of speed with which capital throws off the commodity-form and assumes that of money, in other words, in proportion to the rapidity of the sale, the same capital-value will serve in widely different degrees as a creator of products or of values, and the scale of reproduction will be extended or abridged. It has been shown in Volume I that the effectiveness of any given capital is conditioned on factors in the productive process which are to a certain extent independent of the magnitude of its own value. Here we see that the process of circulation sets in motion new factors which are independent of the value of the capital, its effectiveness, its expansion or contraction.

The mass of commodities C', being the embodiment of the consumed capital, must furthermore pass in its entire volume through the

[4] End of Manuscript VI. Beginning of Manuscript V.

metamorphosis C'-M'. The quantity sold is here the main determinant. The individual commodity figures only as an integral part of the total mass. The 500 pounds sterling are embodied in 10,000 pounds of yarn. If the capitalist succeeds in selling only 7,440 pounds of yarn at their value of 372 pounds sterling, he has recovered only the value of his constant capital, the value expended by him for means of production. If he sells 8,440 pounds of yarn, he recovers only the value of his total capital. He must sell more, in order to obtain some surplus-value, and he must sell the entire 10,000 pounds in order to get the entire surplus-value of 78 pounds of sterling (1,560 pounds of yarn). In 500 pounds sterling he receives merely an equivalent for the commodity sold. His transaction within the process of circulation is simply C-M. If he had paid his laborers 64 pounds sterling instead of 50 pounds sterling, his surplus-value would be only 64 pounds sterling instead of 78, and the degree of exploitation would have been only 100 per cent instead of 150. But the value of the yarn would remain the same; only the relation of its component parts would be changed. The circulation-act C-M would still represent the sale of 10,000 pounds of yarn for 500 pounds sterling, which is their value.

C' is equal to C + c (or 422 plus 78 pounds st.). C equals the value of P, the productive capital, and this equals the value of M, the money advanced in the act M-C, the purchase of the elements of production, amounting to 422 pounds sterling in our example. If the mass of commodities is sold at its value, then C equals 422 pounds sterling, and c, the value of the surplus product of 1,560 pounds of yarn, equals 78 pounds sterling. If we call c, expressed in money, m, then C'-M' = (C + c)-(M + m), and the cycle M-C...P...C'-M', in its expanded form, is represented by $M\text{-}C \left\{ \begin{matrix} L \\ P_m \end{matrix} \right. \ldots P \ldots (C + c)\text{-}(M + m)$.

In the first stage, the capitalist takes articles of use out of the commodity-market proper and the labor-market. And in the third stage he throws commodities back, but only into one market, the commodity-market proper. But the fact that he extracts from the market, by means of his commodities, a greater value than he threw upon it originally, is due only to the circumstance that he throws more commodity-values back upon it than he first drew out of it. He threw the value M into it and drew out of it the equivalent C; he throws the value C + c back into it, and draws out of it the equivalent M + m.

M was in our example equal to the value of 8,440 pounds of yarn. But he throws 10,000 pounds of yarn into the market, he returns a greater value than he drew out of it. On the other hand, he threw this increased value into it only by virtue of the fact that he obtained a surplus-value through the exploitation of labor-power (this value being expressed by an aliquot part of the product). The mass of commodities becomes a commodity-capital only by virtue of this process, it is the impersonation of the used-up capital value only through it. By the act C'-M' the advanced capital-value is recovered as well as the surplus-value. The realization of both coincides with that series of sales, or with that one sale, of the entire mass of commodities, which is expressed by C'-M'. But this same act of circulation is different for

capital-value and surplus-value, because it expresses for each one of these two values a different stage of their circulation, a different section of the series of metamorphoses through which each of them passes in its circulation. The surplus-value c did not come into the world until the process of production began. It appeared for the first time on the commodity-market in the form of commodities. This is its first form of circulation, hence the act c-m is its first circulation act, or its first metamorphosis, which remains to be supplemented by the reverse circulation, or the opposite metamorphosis, m-c.[5]

It is different with the circulation which the capital-value C performs in the same circulation act C'-M', and which constitutes for it the circulation act C-M, in which C is equal to P, the M originally advanced. It opened its circulation in the form of M, money-capital, and returns through the act C-M to the same form. In other words, it has now passed through the two opposite stages of the circulation, first M-C, second C-M, and finds itself once more in the form in which it can begin its cycle anew. What constitutes for surplus-value the first transformation of the commodity-form into that of money, constitutes for capital-value its return, or retransformation, into its original money-form.

By means of M-C $\begin{cases} L \\ P_m \end{cases}$, money-capital is transformed into an equivalent mass of commodities, L and Pm. These commodities no longer perform the function of commodities, of articles of sale. Their value now exists in the hands of the capitalist who bought them, they represent the value of his productive capital P. And in the function P, productive consumption, they are transformed into commodities substantially different from the means of production, into yarn, in which their value is not only preserved but increased, rising from 422 pounds sterling to 500 pounds sterling. By means of this metamorphosis the commodities taken from the market in the first stage, M-C, are replaced by commodities of a different substance and value, which now perform the function of commodities, being exchanged for money and sold. The process of production, therefore, appears to us as an interruption of the process of circulation of capital-value, since up to production it has passed only through the phase M-C. It passes through the second and concluding phase, C-M, after C has been altered in substance and value. But so far as capital-value, considered by itself, is concerned, it has merely gone through a transformation of its use-form in the process of production. It existed in the form of 422 pounds sterling's worth of L and Pm, while now it exists in the form of 8,440 pounds of yarn valued at 422 pounds sterling. If we consider merely the two circulation phases of capital-value, apart from its surplus-value, we find that it passes through the stages M-C and C-M, in which the second C represents a different use-value, but the same exchange-value as the first C. And the process M-C-M is, therefore, a cycle

[5] This is true, no matter how we separate capital-value and surplus-value. 10,000 lbs. of yarn contain 1,560 lbs., or 78 pounds sterling, surplus-value; but one lb., or one shilling, likewise contains 2.496 ounces, or 1,728 pence of surplus-value.

which requires the return of the value advanced in money to its money-form, because the commodity here changes places twice and in the opposite direction, the first change being from the money to the commodity-form, the second from the commodity to the money-form. Capital-value is retransformed into money.

The same circulation act C'-M', which constituted the second and concluding metamorphosis, a return to the money-form, for capital value, represents for the surplus-value simultaneously embodied in the commodity-captital, and realized by its exchange for money, its first metamorphosis, its transformation from the commodity to the money-form, C-M, its first circulation phase.

We have, then, two observations to make. First, the final return of capital-value to its original money-form is a function of commodity-capital. Second, this function includes the first transformation of surplus-value from its original commodity-form to that of money. The money-form, then, plays a double role here. On the one hand, it is a return of a value, originally advanced in money, to its old form, a return to that form of value which opened the process. On the other hand, it is the first metamorphosis of a value which originally enters the circulation in the form of a commodity. If the commodities composing the commodity-capital are sold at their value, as we assume, then C plus c is transformed into M plus m, its equivalent. The sold commodity-capital now exists in the hands of the capitalist in the form of M plus m (422 pounds sterling plus 78 pounds sterling, equal to 500 pounds sterling). Capital-value and surplus-value are now present in the form of money, the form of the general equivalent.

At the conclusion of the process, capital-value has resumed the form in which it entered, and can now open a new cycle of the same kind, in the form of money-capital, and go through it. Just because the opening and concluding form of this process is that of money-capital, M, we call this form of the circulation process the circulation of money-capital. It is not the form, but merely the magnitude of the advanced value which is changed in the end.

M plus m is a sum of money of a definite magnitude, in this case 500 pounds sterling. As a result of the circulation of capital, of the sale of commodity-capital, this sum of money contains the capital-value and the surplus-value. And these values are now no longer organically connected, as they were in the yarn, they are now arranged side by side. Their sale has given both of them an independent money form; 211-250th of this money represent the capital value of 422 pounds sterling, and 39-250th constitute the surplus-value of 78 pounds sterling. This separation of capital-value and surplus-value, which results from the sale of the commodity-capital, has not only the formal meaning to which we shall refer presently. It becomes important in the process of the reproduction of capital, according to whether m is entirely, or partially, or not at all, lumped together with M, that is to say according to whether or not it continues to perform the functions of capital-value. Both m and M may also pass through widely different cycles of circulation.

In M', capital has returned to its original form M, to its money-form. But it then has a form, in which it is materialized capital.

There is in the first place a difference of quantity. It was M, 422 pounds sterling. It is now M', 500 pounds sterling, and this difference is expressed by the quantitatively different points M...M' of the cycle, the movement of which is indicated by the dots. M' is greater than M, and M'-M is equal to the surplus-value s. But as a result of this cycle M...M' it is only M' which exists now; it is the product which marks the close of the process of formation of money-capital. M' now exists independently of the movement which it started. This movement is completed, and M' exists in its place.

But M', being M plus m, or in this case 500 pounds sterling, composed of 422 pounds sterling advanced capital plus an increment of 78 pounds sterling, represents at the same time a qualitative relation. It is true that this qualitative relation does not exist outside of the quantitative relation of the parts of one and the same sum. M, the advanced capital, which is now once more present in its original form (422 pounds sterling), exists as the realization of capital. It has not only preserved itself, but also realized its own capital-form distinguished from m (78 pounds sterling), to which it stands in the relation of creator, m being its fruit, an increment born by it. It has realized its capital-form, because it is a value which has created more value. M' exists as capital relation. M no longer appears as mere money, but it is explicitly used as money-capital, as a value which has utilized itself by creating a higher value than itself. M acts as capital by virtue of its relation to another part of M', which it has created. Thus M' appears as a sum of values expressing the capital relation, being differentiated into functionally different parts.

But this expresses only a result, without showing the intermediate process which caused it.

Parts of value as such are not qualitatively different from one another, except in so far as they are values of different articles, of concrete things, embodied in different use-values. They are values of different commodities, and this difference is not due to their character as exchange-values. In money, all differences of commodities are extinguished, because it is an equivalent form common to all of them. A sum of money of 500 pounds sterling consists of equal elements of one pound sterling each. Since the intermediate links of descent are extinguished in the simple form of this sum of money, and all traces of the specific differences of the individual parts of capital in the productive process have disappeared, there exists only the mental distinction between the main sum of 422 pounds sterling, which was the capital advanced, and a surplus sum of 78 pounds sterling.

Or, again, let M' be equal to 110 pounds sterling, of which 100 may be equal to the main sum M and 10 equal to the surplus-value s. There is an absolute homogeneity, an absence of distinctions, between the two constituent parts of the sum of 110 pounds sterling. Any 10 pounds of this sum always constitute 1-11th of the sum of 110 pounds regardless of the fact that they are also 1-10th of the advanced main

sum of 100 pounds, or the excess of 10 pounds above it. Main sum and surplus sum (capital and surplus-value), may simply be expressed as fractional parts of the total sum. In our illustration, 10-11th form the main sum, and 1-11th the surplus sum. Materialized capital, at the end of its cycle, therefore appears as an undifferentiated expression, the money expression, of the capital relation.

True, this applies also to C' (C plus c). But there is this difference, that C', of which C and c are also proportional parts of the same homogeneous mass of commodities, indicates its origin P, the immediate product of which it is, while in M', a form derived immediately from circulation, the direct relation to P is obliterated.

The undifferentiated distinction between the main sum and the surplus sum, which are contained in M', so far as this expresses the result of the movement M...M', disappears as soon as it performs its active function of money-capital and is not preserved as a fixed expression of materialized industrial capital. The circulation of money-capital can never begin with M'. (although M' now performs the function of M). It can begin only with M, that is to say, it can never begin as an expression of the capital relation, but only as an advance of capital-value. As soon as the 500 pounds sterling are once more advanced as capital, in order to be again utilized, they constitute a point of departure, not one of conclusion. Instead of a capital of 422 pounds sterling, a capital of 500 pounds sterling is now advanced. It is more money than before, more capital-value, but the relation between its two constituent parts has disappeared. In fact, a sum of 500 pounds sterling might have served instead of the 422 pounds sterling as the original capital.

It is not an active function of money-capital to materialize in the form of M'; this is rather a function of C'. Even in the simple circulation of commodities, first in C-M, then in M-C^2, money M does not figure actively until in the second movement, M-C^2. Its embodiment in the form of M is the result of the first act, by virtue of which it becomes a transformation C^1. The capital relation contained in M', the relation of its constituent parts in the form of capital-value and surplus-value, assumes a functional importance only in so far as the repeated cycle M...M' splits M' into two circulations, one of them a circulation of capital, the other of surplus-value. In this case these two parts perform not only quantitatively, but also qualitatively different functions, M others than m. But considered by itself, M...M' does not include the consumption of the capitalist, but emphatically only the self-utilization and accumulation of money-capital, the latter function expressing itself at the outset as a periodical augmentation of ever renewed advances of money-capital.

Although M' (M plus m) is the undifferentiated form of capital, it is at the same time a materialization of money-capital, it is money which has generated more money. But this is different from the role played by money-capital in the first stage, M-C $\{^{L}_{P_m}$. In this first stage, M circulates as money. It assumes the functions of money capital only because it cannot serve as money unless it assumes the

form of money, because it cannot transform itself in any other way into the component parts of P, L and Pm, which stand opposed to it in the form of commodities. In this circulation act it serves as money. But as this act is the first stage in the circulation of capital-value, it is also a function of money-capital, by virtue of the specific use-value of the commodities L and Pm which are bought by it. M', on the other hand, composed of M, the capital-value, and m, the surplus-value created by M, stands for materialized capital-value, expresses the purpose and the outcome, the function of the total process of circulation of capital. The fact that it expresses this outcome in the form of money, of materialized money-capital, is due to the capital-character of money-capital, not to its money-character; for capital opened the process of circulation in the form of an advance of money. Its return to the money-form, as we have seen, is a function of C', not of money-capital. As for the difference between M and M', it is simply m, the money-form of c, the increment of C. For M' is composed of M plus m only because C' was composed of C plus c. In C', this difference and the relation of capital-value to its product, surplus-value, is already present and expressed, before both of them are transformed into M'. And in this form, these two values appear independently side by side and may, therefore, be employed in separate and distinct functions.

M' is the outcome of the materialization of C'. Both M' and C' are different forms of utilized capital-value, one of them the commodity, the other the money-form. Both of them share the quality of being utilized capital-value. Both of them are materialized capital, because capital-value here exists simultaneously with its product, surplus-value, although it is true that this relation is expressed in the undifferentiated form of the proportion of two parts of one and the same sum of money or commodity-value. But as expressions of capital, and in distinction from the surplus-value produced by it, M' and C' are the same and express the same thing, only in different forms. In so far as they represent utilized value, capital acting in its own role, they express the result of the function of productive capital, the only function in which capital-value generates more value. What is common to both of them, is that money-capital as well as commodity-capital are different modes of existence of capital. Their distinctive and specific functions cannot, therefore, be anything else but the difference between the functions of money and of commodities. Commodity-capital, the direct product of the capitalist process of production, indicates its capitalist origin and is, therefore, to that extent more rational and less difficult to understand than money-capital, in which every trace of this process has disappeared. In general, all special use-forms of commodities disappear in money.

It is only when M' itself figures as commodity-capital, when it is the direct outcome of a productive process, instead of being a transformed product of this process, that it loses its bizarre form, that is to say, in the production of money itself. In the production of gold, for instance, the formula would be M-C $\left\{\begin{matrix}L\\Pm\end{matrix}\right.$...P...M (M plus m), and M' would here figure as a commodity, because P furnishes more gold than had

been advanced for the elements of production contained in the first money-capital M. In this case, the irrational nature of the formula M...M' (M plus m) disappears. Here a part of a certain sum of money appears as the mother of another part of the same sum of money.

IV. The Rotation as a Whole.

We have seen that the process of circulation is interrupted at the end of its first phase, M-C $\{^{L}_{Pm}$, by P, which makes the commodities L and Pm parts of the substance and value of productive capital and consumes them. The result of this productive consumption is a new commodity C', which is of different composition and value than the commodities L and Pm. The interrupted process of circulation, C-M, must be completed by M-C. The basis of this second and concluding phase of circulation is C', a commodity of different composition and value than C. The process of circulation therefore appears first as M-C^1, then as C^2-M', the C^2 in this second phase representing a greater value and a different use-value than C^1, due to the interruption caused by the function of P which is the production of C' from elements of C, embodied in the productive capital P. The first form assumed by capital (vol. I, chap. IV), viz., M-C-M', or extended first M-C^1, second C^1-M', shows the same commodity twice. It is the same commodity which is exchanged for money in the first phase and again exchanged for more money in the second phase. In spite of this essential difference, these two modes of circulation share the peculiarity of transforming in their first phase money into commodities, and in the second phase commodities into money, so that the money spent in the first phase returns in the second. On the one hand, both have in common this return of money to its starting point, on the other hand, the excess of the returned money over the money first advanced. To this extent, the formula M-C...C'-M' is apparently contained in the general formula M-C-M'.

It follows furthermore that equal quantities of simultaneously existing values are placed in opposition to one another and exchanged in the two metamorphoses of circulation represented by M-C and C'-M'. The change of value is due exclusively to the metamorphosis P, the process of production, which thus appears as a natural metamorphosis of capital, as compared to the merely formal metamorphosis of circulation.

Let us now consider the total movement, M-C...P...C'-M', or its more explicit form, M-C $\{^{L}_{Pm}$...P...C'(C+c)-M'(M+m). Capital here appears as a value which goes through a series of connected metamorphoses conditioned on one another and representing so many phases of the total process. Two of these phases belong to the sphere of circulation, one of them to that of production. In each one of these phases, capital-value has a different form corresponding to a different, special function. Within this cycle, value does not only maintain itself at the magnitude in which it was originally advanced, but it increases.

Finally, in the concluding stage, it returns to the same form which it had at the beginning of the cycle. This total movement constitutes the process of rotation as a whole.

The two forms assumed by capital-value are that of money-capital and commodity-capital. In the stage of production, its form is that of of productive capital. The capital which assumes these different forms in the course of its total process of rotation, discards them one after the other, and performs a special function in each one of them, is industrial capital. The term *industrial* applies to every branch of industry run on a capitalist basis.

Money-capital, commodity-capital, productive capital are not therefore, terms indicating independent classes of capital, nor are their functions processes of independent and separate branches of industry. They are here used only to indicate special functions of industrial capital, assumed by it seriatim.

The circulation of capital proceeds normally only so long as its various phases flow uninterruptedly one into the other. If capital stops short in its first phase M-C, money-capital assumes the rigid form of a hoard; if it stops in the phase of production, the means of production remain lifeless on one side while labor-power remains unemployed on the other; and if capital stops short in its last phase C'-M', masses of unsold commodities accumulate and clog the flow of rotation.

At the same time, it is a matter of course that the rotation of capital includes the stopping of capital for a certain length of time in the various sections of its cycle. In each of these sections, industrial capital is poured into a definite mold, being either money-capital, productive capital, or commodity-capital. It does not assume a form in which it may enter a new metamorphosis, until it has gone through the function corresponding to the form preceding the new metamorphosis. In order to make this plain, we have assumed in our illustration, that the capital-value of the mass of commodities created in the phase of production is equal to the total sum of values originally advanced in the form of money, or, in other words, that the entire capital-value advanced in the form of money enters undivided from one stage into the next. Now we have seen (vol. I, chap. IV) that a part of the constant capital, the means of production proper, such as machinery, always serve repeatedly, for a greater or smaller number of times, in the same processes of production, so that they transfer their values piece-meal to the products. We shall see later, to what extent this circumstance modifies the process of rotation of capital. For the present, it suffices to say this: In our illustration, the value of the productive capital of 422 pounds sterling contained only the average wear and tear of buildings, machinery, etc., that is to say only that part of value which they transferred in the transformation of 10,600 pounds of cotton to 10,000 pounds of yarn, which represents the product of one week's spinning, or of 60 hours. In the means of production, into which the advanced constant capital of 372 pounds sterling is transformed, the instruments of labor, buildings, machinery, etc., figure only as would objects which were rented in the market for a weekly rate.

But this does not change the problem in any way. We have but to multiply the quantity of yarn produced in one week, or 10,000 pounds of yarn, with the number of weeks contained in a certain number of years, in order to transfer the entire value of the means of production bought and consumed during this period. It is then plain that the advanced money-capital must first be transformed into these means of production, must first have gone through the phase M-C, before it can be used as productive capital, P. And it is likewise plain that, in our illustration, the capital value of 422 pounds sterling, embodied in the yarn during the process of production, cannot become a part of the value of the 10,000 pounds of yarn and enter the circulation phase C'-M', until it has been produced. The yarn cannot be sold, until it has been spun.

In the general formula, the product of P is regarded as a material thing different from the elements of the productive capital, as an object existing apart from the process of production and having a different use-value than the elements of production. And if the fruit of production assumes the form of such an object, it always corresponds to this description, even if a part of it should re-enter production as one of its elements. Grain, for instance, serves as seed for its own reproduction, but the final product is always grain and has a different composition than the elements used in its production, such as labor-power, implements, and fertilizer. But there are certain independent branches of industry, in which the result of the productive process is not a new material product, not a commodity. Among these, only the industries representing communication, such as transportation proper for commodities and human beings, and the transmission of communications, letters, telegrams, etc., are economically important.

A. Cuprov[6] says on this score: "The manufacturer may first produce articles and then look for consumers" (his product, having been completed in the process of production, is transferred to the process of circulation as a separate commodity). "Production and consumption thus appear as two acts distinct from one another in space and time. In the transportation industry, which does not create any new products, but merely transfers men and things, these two acts coincide; its services (change of place) must be consumed at the same time that they are produced. For this reason the distance, within which railroads can find customers, extends at best 50 verst (53 kilometers or about 30 miles) on either side of their tracks."

The result in the transportation of either men or commodities is a change of place. Yarn, for instance, is thus transferred from England, where it was produced, to India.

Now transportation, as an industry, sells this change of location. This utility is inseparably connected with the process of transportation, which is the productive process of transportation. Men and commodities travel by the help of the means of transportation, and this traveling, this change of location, constitutes the production in which these

[6] A. Cuprov: Zeleznodoroznoje chostjajstov. Moskva, 1875, pg. 75 and 76.

means of transportion are consumed. The utility of transportation can be consumed only in this process of production. It does not exist as a use-value apart from this process, it does not, like other commodities, serve as a commodity which circulates after its process of production. The exchange value of this utility is determined, like that of any other commodity, by the value of the elements of production (labor-power and means of production) plus the surplus-value created by the surplus-labor of the laborers employed in transportation. This utility also entertains the same relations to consumption that all other commodities do. If it is consumed individually, its value is used up in consumption; if it is consumed productively by entering into the process of production of the transported commodities, its value is added to that of the commodity. The formula for the transportation industry would, therefore, be $M\text{-}C \left\{ \begin{matrix} L \\ P \end{matrix} \right. \ldots P\text{-}M'$, since it is the process of production itself which is paid for and consumed, not a product distinct and separate from it. This formula has almost the same form as that of the precious metals, only with the difference, that in this case M' represents the changed form of the utility resulting during the process of production, while in the case of the precious metals it represents the natural form of the gold or silver obtained in this process and transferred from it to other stages.

Industrial capital is the only form of existence of capital, in which not only the appropriation of surplus value or surplus product, but also its creation is a function of capital. Therefore it gives to production its capitalist character. Its existence includes that of class antagonisms between capitalists and laborers. To the extent that it assumes control over social production, the technique and social organization of the labor process are revolutionized and with them the economic and historical type of society. The other classes of capital, which appear before industrial capital amid past or declining conditions of social production, are not only subordinated to it and suffer changes in the mechanism of their functions corresponding to it, but move on it as a basis, live and die, stand and fall with this basis. Money-capital and commodity-capital, so far as they still persist as independent branches of industry along with industrial capital, are nothing but modes of existence of different functional forms either assumed or discarded by industrial capital in the sphere of circulation, made independent and developed one-sidedly by the social division of labor.

The cycle M...M' on one side intermingles with the general circulation of commodities, proceeds from it and flows back into it, is a part of it. On the other hand, it is for the individual capitalist an independent movement of his capital value, taking place partly within the general circulation of commodities, partly outside of it, but always preserving its independent character. For in the first place, its two phases taking place in the sphere of circulation, M-C and C'-M', have functionally different characters as functions of capital circulation. In M-C, the commodity C is composed of labor-power and means of production; in C'-M', capital value is realized plus surplus-value. In the second place, the process of production, P, includes productive consumption. In the

third place, the return of money to its starting point makes of the cycle M...M' a process of circulation complete in itself.

Every individual capital is therefore, on the one hand, in its two phases M-C and C'-M', an active element in the general circulation of commodities, with which it is connected either as money or as a commodity. Thus it forms a link in the general chain of metamorphoses in the world of commodities. On the other hand, it goes through its own independent circulation within the general circulation. Its independent circulation passes through the sphere of production and returns to its starting point in the same form in which it left that point. Within its own circulation, which includes its natural metamorphosis in the process of production, it changes at the same time its value. It returns not only as the same money-value, but as an increased money-value.

Let us finally consider M-C ...P...C'-M' as a special form of the process of circulation of capital, apart from the other forms which we shall analyze later. It is distinguished by the following points:

1. It appears as the circulation of money-capital, because industrial capital in its money-form, as money-capital, forms the starting and terminal point of its total process. The formula itself expresses the fact that money is not expended as money at this stage, but advanced as the money-form of capital. It expresses furthermore that exchange-value, not use-value, is the determining aim of this movement. Just because the money form of this value is its tangible and independent form, the compelling motive of capitalist production, the making of money, is most fittingly expressed by the circulation formula M...M'. The process of production appears merely as an indispensable and intermediate link, as a necessary evil of money-making. All nations with a capitalist mode of production are seized periodically by a feverish attempt to make money without the mediation of the process of production.

2. The stage of production, the function of P, represents an interruption of the two phases of circulation M-C...C'-M', which in their turn represent links in the simple circulation M-C-M'. The process of production appears formally and essentially in circulation as that which is typical of capitalist production, that is to say as a mere means of utilizing previously advanced values. The accumulation of wealth is the purpose of production.

3. Since the series of phases is opened by M-C, the second link of the circulation is C'-M'. In other words, the starting point is M, or the money-capital to be utilized, the terminal point M', or the utilized money-capital M plus m, in which M figures together with its offspring m. This distinguishes the circulation of M from that of the two other cycles P and C', in two ways. On one side, its two extremes are represented by the money-form. And money is the tangible form of value, the value of the product in its independent form, in which every trace of the use-value of the commodities has been extinguished. On the other side, the formula P...P is not necessarily transformed into P...P' (P plus p,) and in the form C-C', no difference in value is visible between the two extremes. It is, therefore, characteristic for the

formula M-M' that capital value is its starting point, and utilized capital value its terminal point, so that advanced capital value appears as the means, and utilized capital value as the end of the entire operation. And furthermore, this relation is expressed in the form of money, in the form of independent value, so that money-capital is money generating more money. The generation of surplus-value by value is not only expressed as the Alpha and Omega of the process, but more explicitly in the form of glittering money.

4. Since M', the money-capital realized as a result of C'-M', the supplementary and concluding form of M-C, has absolutely the same form in which it began its first circulation, it can immediately begin the same circulation over again as an increased (accumulated) money-capital, or as M' equal to M plus m. And it is not expressed in the formula M-M' that, in the repetition of the cycle, the circulation of m separates from that of M. Considered in its complete form, the circulation of money-capital expresses simply the process of utilization and accumulation. The consumption in it is productive consumption, as shown by the formula M-C $\left\{\begin{matrix} L \\ Pm \end{matrix}\right.$, and it is only this which is included in this circulation of individual capital. M-L means L-M, or C-M, on the part of the laborer. It is therefore the first phase of circulation which promotes his individual consumption, thus: L-M-C (means of subsistence). The second phase, M-C, no longer falls within the circulation of individual capital, but it is initiated by individual capital and an indispensable premise for it, since the laborer must above all live and maintain himself by individual consumption, in order to be always on the market for exploitation by the capitalist. But this consumption is here only assumed as the indispensable condition for the productive consumption of labor power by capital, and it is, therefore, considered only in so far as it preserves and reproduces his labor power by means of his individual consumption. But the means of production Pm, the commodities proper which enter into the circulation of capital, are only material feeding the productive consumption. The act L-M promotes the individual consumption of the laborer, the transformation of means of subsistence into flesh and blood. It is true, that the capitalist must also be present, must also live and consume in order to perform the function of a capitalist. To this end, he has, indeed, but to consume in the same way as the laborer, and this is all that is assumed in this form of the circulation process. But it is not formally expressed, since the term M' concludes the formula and indicates that it may at once re-enter on its function of increased money-capital.

In the formula C'-M', the sale of C' is directly indicated; but this sale C'-M' on the part of one is M-C, or the purchase of commodities, on the part of another, and in the last analysis a commodity is bought only for its use-value, in order to enter (leaving intermediate sales out of consideration) into the process of consumption, and this may be either productive or individual consumption, according to the nature of the commodity. But this consumption does not enter into the circulation of individual capital, the product of which is C'. This product is eliminated from this circulation from the moment that it is

sold. C' is explicitly produced for consumption by others. For this reason we note that certain spokesmen of the mercantile system (which is based on the formula M-C...P...C'-M') deliver lengthy sermons to the effect that the individual capitalist should consume only in his capacity as a worker, that capitalist nations should let other and less intelligent nations consume their own and other commodities, and that a capitalist nation should devote itself for life to the productive consumption of commodities. These sermons frequently remind us in form and content of analogous ascetic exhortations of the fathers of the church.

The rotation process of capital is therefore a combination of circulation and production, it includes both. In so far as the two phases M-C and C'-M' are processes of circulation, the rotation of capital is a part of the general circulation of commodities. But in so far as they are definite sections performing a peculiar function in the rotation of capital, which combines the spheres of circulation and production, capital goes through its own circulation in the general circulation of commodities. The general circulation of commodities serves capital in its first stage as a means of assuming that form in which it can perform the function of productive capital; in its second stage, it serves to eliminate the commodity function in which capital cannot renew its circulation; at the same time it enables capital to separate its own circulation from that of the surplus-value created by it.

The circulation of money-capital is therefore the most one-sided, and thus the most convincing and typical form of the circulation of industrial capital. Its aim and compelling motive, the utilization of value, the making and accumulation of money, is thus most clearly revealed. Buying in order to sell dearer is its slogan. The first phase M-C also indicates the origin of the elements of productive capital in the commodity market, or more generally, the dependence of the capitalist mode of production on circulation, on commerce. The circulation of money-capital is not merely the production of commodities; it is itself possible only through circulation of commodities and based on it. This is plain from the fact that the term M belongs to circulation and represents the first and most typical form of advanced capital-value. This is not the case in the other two forms of circulation.

The circulation of money-capital always remains the general expression of industrial capital, because it always implies the utilization of the advanced value. In P...P, the money-character of capital is shown only in the price of the elements of production as a value expressed in money-terms for the purpose of calculation and book-keeping.

M...M' becomes a special form of the circulation of industrial capital when new capital is first advanced in the form of money and then returned in the same form, either in passing from one branch of industry to another, or in the case that industrial capital retires from business. This includes the capital function of the surplus-value first advanced in the form of money, and becomes most evident when surplus-

value performs a function in some other business than the one in which it originated. M...M' may be the first circulation of a certain capital; it may be the last; it may be regarded as the form of the total social capital; it is that form of capital which is newly invested, either as a recently accumulated capital in the form of money, or as some old capital which is entirely transformed into money for the purpose of transfer from one branch of industry to another.

Being a form always contained in all circulations, money-capital performs this circulation precisely for that part of capital which produces surplus-value, viz., variable capital. The normal form of an advance in wages is payment in money; this process must be renewed in short intervals, because the laborer lives from hand to mouth. In his relation to the laborer, the capitalist must therefore always be a money-capitalist, and his capital must be money-capital. There can be no direct or indirect balancing of accounts in this case, such as we find in the purchase of means of production or in the sale of productive commodities, where the greater part of the money-capital really exists in the form of commodities, while the money is mainly used for purposes of calculation and figures in cash only in the balancing of accounts. On the other hand, a part of the surplus-value arising out of variable capital is spent by the capitalist for his individual consumption, which is a part of the retail trade, and this surplus-value is in the last analysis always expended in the form of money. It does not matter how large or small may be this part of surplus-value. Variable capital always appears anew as money-capital invested in wages (M-L) and m as surplus-value which may be expended for the individual consumption of the capitalist. So that M, capital advanced for wages, and m, its increment, are necessarily held and spent in the form of money.

The formula M-C...P...C'-M', with its result M' equal to M plus m, is, in a certain sense, deceptive, owing to the existence of the advanced and surplus-value in the form of the general equivalent, money. The emphasis in this formula is not on the utilization of value, but on the money-form of this process, on the fact that more money-value is finally drawn out of the circulation than had originally been advanced; in other words, the emphasis is on the multiplication of the amount of gold and silver belonging to the capitalist. The so-called monetary system is merely the expression of the abstract formula M-C-M', a movement which takes place exclusively in the circulation. And this system cannot explain the two phases M-C and C-M' in any other way than by declaring that C is sold above its value in the second phase and thus draws more money out of the circulation than was put into it in its purchase. But if M-C...P...C'-M' becomes the exclusive form of circulation, it is the basis of a more highly developed mercantile system, in which not only the circulation of commodities, but also their production, is recognized as a necessary element.

The illusive character of M-C...P...C'-M' and the resulting illusive interpretation always appear, whenever this form is considered as rigid, not as a flowing and ever renewed movement; in other words, they appear whenever this formula is considered not as one section of circu-

lation, but as the exclusive form of circulation. But it itself points toward other forms.

In the first place, this entire circulation is conditioned on the capitalist character of the process of production, and considers it and the specific social conditions created by it as the basis. M-C is equal to M-C $\{^{L}_{Pm}$; but M-L assumes the existence of the wage laborer, and regards the means of production as parts of productive capital. It assumes, therefore, that the process of labor and of utilization, the process of production, is a function of capital.

In the second place, if M...M' is repeated, the return to the money-form is just as transient as the money-form in the first phase. M-C disappears and makes room for P. The recurrent advance of money-capital and its equally persistent return in the form of money appear merely as passing moments in the general circulation.

In the third place, the repeated formula has this form: M-C...P... C'-M'. M-C...P...C'-M'. M-C...P...etc.

Beginning with the second repetition of the circulation, the cycle P...C'-M'.M-C...P appears, before the second circulation of M is completed, and all other cycles may be considered under the form of P...C'-M-C...P, so that the first phase of the first circulation is merely the passing introduction for the constantly repeated circulation of the productive capital. And this is indeed the case for the first time in the investment of industrial capital in the form of money.

On the other hand, before the second circulation of P is completed, the first circulation, that of the commodity-capital, as shown in the formula C'-M'. M-C...P...C' (or abridged C'...C') has preceded. Thus the first form already contains the other two, and the money-form disappears, so far as it is a general equivalent and not merely an expression of value used for calculation.

Finally, if we consider some newly invested capital going for the first time through the circulation M-C...P...C'-M', then M-C is the introductory phase, the preparation for the first process of production undertaken by this capital. This phase M-C is not considered as existing, but is caused by the requirements of the process of production. But this applies only to this individual capital. The general form of the circulation of industrial capital is the circulation of money-capital, whenever the capitalist mode of production exists and with it the social conditions corresponding to it. It is therefore the capitalist mode of production which is the first condition for the circulation of money-capital, and if it is not assumed for the first phase of a newly invested industrial capital, it is certainly assumed for all others. The continuous movement of this process of production requires the persistent renewal of the cycle P...P. Even the first stage, M-C $\{^{L}_{Pm}$, reveals this basic condition. For it requires on one side the existence of the wage-working class. On the other side, that which is M-C for the buyer of means of production, is C'-M' for their seller. Hence C' presupposes the existence of commodity-capital, and thus of commodities as the result of capitalist production, and this implies the function of productive capital.

CHAPTER II

THE ROTATION OF PRODUCTIVE CAPITAL

The rotation of productive capital has the general formula P...C'-M'-C...P. It signifies the periodical renewal of the function of productive capital, in other words its reproduction, or its process of production as a reproductive process generating surplus-value. It is not only production, but a periodical reproduction of surplus-value; it is the function of industrial capital in its productive form, and this function is not performed merely once, but periodically so that the terminal point of one cycle is the starting point of another. A portion of C' may re-enter directly into the same labor process as means of production out of which it came in the form of commodities (for instance, in various branches of investment of industrial capital). This merely does away with the transformation of its value into money proper, or token-money, or else it finds an independent expression merely in calculation. This part of value does not enter into the circulation. Thus it is that values enter into the process of production which do not enter into circulation. The same is also true of that part of C' which is consumed by the capitalist, and which represents surplus-value in the form of means of consumption, in their natural state. But this is inconsiderable for capitalist production. It deserves consideration, if at all, only in agriculture.

Two things are at once apparent in this form.

In the first place, while in the first form, M...M', the process of production, a function of P, interrupts the circulation of money-capital and acts only as a mediator between its two phases M-C and C'-M', it is the entire circulation process of industrial capital, its entire movement within the sphere of circulation, which intervenes here and forms the connecting link between productive capitals, which begin the circulation at one extreme and close it at another, only to make this last extreme the starting point of a new cycle. Circulation proper appears but as an instrument promoting the periodic renewal, and thus the continuous reproduction, of productive capital.

In the second place, the entire circulation assumes a form which is the reverse of that which it has in the circulation of money-capital. While the circulation of money-capital proceeds after the formula M—C—M (M—C. C—M), making exception of the determination of value, it proceeds in the case of productive capital, making the same exception, after the formula C—M—C (C—M. M—C), which is the form of the simple circulation of commodities.

I. Simple Reproduction.

Let us first consider the process C'—M'—C, which takes place between the two extremes P...P.

The starting point of this circulation is the commodity-capital C', equal to C plus c, or equal to P plus c. The function of commodity-

capital C'—M' has been considered in the first form of the circulation. It consisted in the realization of the capital-value P, contained in it, which now exists as a part of the commodity C, and likewise in the realization of the surplus-value contained in it, which now exists as a part of the same mass of commodities C and has the value of c. But in the former case, this function formed the second phase of the interrupted circulation and the concluding phase of the entire cycle. In the present case, it forms the second phase of the cycle, but the first phase of the circulation. The first cycle ends with M', and since M' as well as the original M may again open the second cycle as money-capital, it was not necessary for the moment to analyze whether the parts of M', viz., M and m (surplus-value) continue in their course together, or whether each one of them pursues its own course. This would only have been necessary, if we had followed up the first cycle in its renewed course. But in studying the cycles of productive capital, this point must be decided, because the determination of its very first cycle depends on it, and because C'—M' appears in it as the first phase of circulation which has to be supplemented by M—C. It depends on the outcome of this decision, whether our formula represents the simple reproduction, or reproduction on an enlarged scale. The character of the cycle changes according to this decision.

Let us, then, take first the simple reproduction of productive capital, assuming that the conditions are the same as those taken for a basis in the first chapter, and that the commodities are bought and sold at their value. Under these conditions, the entire surplus-value enters into the individual consumption of the capitalist. As soon as the transformation of the commodity-capital C' into money has taken place, that part of the money which represents the capital-value continues in the cycle of industrial capital; the other part, which represents surplus-value in the form of gold, enters into the general circulation of commodities as a circulation of money emanating from the capitalist but taking place outside of the circulation of his individual capital.

In our illustration, we had a commodity-capital C' of 10,000 pounds of yarn, valued at 500 pounds sterling; 422 pounds sterling of this represent the value of productive capital and continue, as the money-form of 8,440 pounds of yarn, the capital circulation begun by C', while the surplus-value of 78 pounds sterling, as the money-form of 1,560 pounds of yarn, the surplus-product, leaves this circulation and describes its own separate course within the general circulation of commodities.

$$C'\begin{pmatrix}C\\+\\c\end{pmatrix} \begin{matrix}\cdots\cdots\\ \cdot\cdot M'\\ \cdots\cdots\end{matrix} \begin{pmatrix}M\\+\\m\end{pmatrix} \begin{matrix}\cdot\cdot\ C\{^{L}_{Pm}\\ \cdots c\end{matrix}$$

The formula m—c represents a series of purchases by means of money which the capitalist spends either in commodities proper or for personal services to his cherished self or family. These purchases are made piece-meal at various times. Money, therefore, exists temporarily in the form of a supply, or hoard, of money destined for gradual con-

sumption, for money interrupted in its circulation partakes of the nature of a hoard. Its function as a circulating medium, including that of a temporary hoard, does not share in the circulation of capital having the form of money M. This money is not advanced, but spent.

We have assumed that the advanced total capital always passed entirely from one of its phases into the other. In this case, we therefore, assume that the mass of commodities produced by P represents the total value of the productive capital P, or 422 pounds sterling plus 78 pounds sterling of surplus-value created in the process of production. In our illustration, which deals with an easily analyzed commodity, the surplus-value exists in the form of 1,560 pounds of yarn; if computed on the basis of one pound of yarn, it would exist in the form of 2.496 ounces. But if the commodity were, for instance, a machine valued at 500 pounds sterling and representing the same division of values, one part of the value of this machine would indeed be represented by 78 pounds sterling of surplus-value, but these 78 pounds sterling would exist only in the machine as a whole. This machine cannot be divided into capital-value and surplus-value without breaking it to pieces and thus destroying, with its use-value, also its exchange-value. For this reason the two parts of value can be represented only ideally as portions of a mass of commodities, not as independent elements of the commodity C', such as we are able to distinguish in each pound of yarn in the 10,000 pounds of our illustration. In the case of the machine, the total commodity representing the commodity-capital must be sold before m can enter into its independent circulation. On the other hand, when the capitalist has sold 8,440 pounds of yarn, the sale of the remaining 1,560 pounds of yarn would represent an entirely separate circulation of the surplus-value in the form of c (1,560 pounds of yarn) —m (78 pounds sterling) equal to c (articles of consumption). But the elements of value of each individual portion of yarn in the 10,000 pounds may be individually separated and valuated the same as the total quantity of yarn. Just as the entire 10,000 pounds of yarn may be divided into the value of the constant capital c (7,440 pounds of yarn worth 372 pounds sterling), variable capital v (1,000 pounds of yarn worth 50 pounds sterling), and surplus-value s (1,560 pounds of yarn worth 78 pounds sterling), so every pound of yarn may be divided into c (11.904 ounces of yarn worth 8.929 d.), v (1.600 ounces of yarn worth 1.200 d.), and s (2.496 ounces of yarn worth 1.872 d.). The capitalist might also sell various portions of the 10,000 pounds of yarn successively and consume the different portions of surplus-value contained in them in the same way, thus realizing gradually the sum of c plus v. But this operation likewise requires the final sale of the entire lot, so that the value of c plus v would be made good by the sale of 8,440 pounds of yarn (vol. I, chap. IX, 2).

However that may be, by the movement C'—M', both the capital-value and surplus-value contained in C' secure a separate existence in separate sums of money. In both cases, M and m are actually transformed values, which had originally only an ideal existence in C as prices of commodities.

The formula c—m—c represents the simple circulation of commodities, the first phase of which, c—m, is included in the circulation of the commodity-capital C'—M', in short, included in the cycle of capital; while its supplementary phase m—c falls outside of the cycle and is a separate process in the general circulation of commodities. The circulation of C and c, of capital-value and surplus-value, is differentiated after the transformation of C' into M'. Hence it follows:

First, by the realization on the commodity-capital in the process C'—M', or C'—(M + m), the courses of capital-value and surplus-value, which are united so long as they are both embodied in the same mass of commodities in C'—M', are separated, for both of them henceforth appear in two independent sums of money.

Second, after this separation has taken place, m being spent as the income of the capitalist, while M continues its way as a functional form of capital-value in a course determined by this cycle, the movement C'—M' in connection with the subsequent movements M—C and m—c, may be represented in the form of two different circulations, viz.: C—M—C and c—m—c, and both of these, so far as their general form is concerned, belong to the general circulation of commodities.

By the way, in the case of commodities which cannot be cut up into their constituent parts, it is a matter of practice to isolate their different portions of value and surplus-value ideally. In the building-business of London, for instance, which is carried on mainly on credit, the contractor receives advances in proportion to the different stages in which the construction of a house proceeds. None of these stages is a house, but only an actually existing fraction of the growing house; in spite of its actuality, each stage is but an ideal portion of the entire house, but it is real enough to serve as security for an additional advance. (See on this point chapter XII, vol. II.)

Third, if the movement of capital-value and surplus-value, which proceeds unitedly so long as they are in the form of C and M, is separated only in part (so that a portion of the surplus-value is not spent as income), or is not separated at all, a change takes place in the capital-value itself within its own cycle, before it is completed. In our illustration the value of the productive capital was equal to 422 pounds sterling. If it continues its cycle M-C, for instance as 480 pounds sterling or 500 pounds sterling, then it goes through the further stages of its cycle with an increase of 58 pounds sterling or 78 pounds sterling over its original value. This change may also go hand in hand with a change in the proportion of its component parts.

C'—M', the second stage of the circulation and the final stage of cycle I (M...M'), is the second stage in our cycle and the first in the circulation of commodities. So far as the circulation is concerned, this stage must be supplemented by M'—C'. But C'—M' has not only passed the process of utilization (in this case the function of P, the first stage), but has also realized as its result the commodity C'. The process of utilization of capital, and the realization on the commodities which are its product, are therefore completed in C'—M'.

We have started out with simple reproduction and assumed that m—c separates entirely from M—C. Since both circulations, c—m—c as well as C—M—C, belong to the circulation of commodities, so far as their general form is concerned (and do not show, for this reason, any difference in the value of their extremes), it is easy to conceive of the process of capitalist production, after the manner of vulgar economy, as a mere production of commodities, of use-value destined for consumption of some sort, which the capitalist produces for no other purpose than that of getting in their place commodities with different use-values, or exchanging them, as vulgar economy erroneously states.

C' appears from the very outset as commodity-capital, and the purpose of the entire process, the accumulation of wealth, does not exclude an increasing consumption on the part of the capitalist in proportion as his surplus-value (and thus his capital) increases; on the contrary, it promotes such an increasing consumption.

Indeed, in the circulation of the income of the capitalist, the produced commodity c, or the ideal fraction of the commodity C corresponding to it, serves merely for its transformation, first into money, and from money into a number of other commodities required for individual consumption. But we must not, at this point, overlook the trifling circumstance that c is that part of the commodity-value which did not cost the capitalist anything, since it is the embodiment of surplus-labor and steps originally on the stage as a part of the commodity-capital C'. This c is, by the varying nature of its existence, bound to the cycle of circulating capital-value, and if this cycle is clogged, or otherwise disturbed, not only the consumption of c is restricted or entirely arrested, but also the disposal of that series of commodities which are to take the place of c. The same is true in the case that the movement C'—M' is a failure, or that only a part of C' is sold.

We have seen that c—m—c, as representing the circulation of the revenue of the capitalist, enters into the circulation of capital only so long as c is a part of the value of C', of the commodity-capital; but that, as soon as it materializes in the form of m—c, that is to say, as soon as it completes the entire cycle c—m—c, it does not enter into the movements of the capital advanced by the capitalist, although this advance is its cause. It is connected with the movements of capital only in so far as the existence of capital presupposes the existence of the capitalist, and this is conditioned on the consumption of surplus-value by the capitalist.

Within the general circulation, C', for instance yarn, passes only as a commodity; but as an element in the circulation of capital it performs the function of commodity-capital, and capital-value alternately assumes and discards this form. After the sale of the yarn to a merchant, it has passed out of the circulation of the capital which produced it, but nevertheless, as a commodity, it moves always in the cycle of the general circulation. The circulation of one and the same mass of commodities continues, although it may have ceased to be an element in the independent cycle of the capital of the manfacturer. Hence the actual and final metamorphosis of the mass of commodities thrown into

circulation by the capitalist by means of C—M, their final elimination in consumption, may be separated in space and time from that metamorphosis in which this same mass of commodities performs the function of commodity-capital. The same metamorphosis which has been completed in the circulation of capital still remains to be accomplished in the sphere of the general circulation.

This state of things is not changed by the transfer of this yarn to the cycle of some other industrial capital. The general circulation comprises as much the interrelations of the various independent fractions of social capital, in other words, the totality of the individual capitals, as the circulation of those values which are not thrown on the market as capital, but enter into individual consumption.

The different relations in the cycle of capital, according to whether it is a part of the general circulation, or forms certain links in the indepent cycles of capital, may be further understood when we consider the circulation of M', or of M plus m. M as money-capital, continues the cycle of capital. On the other hand m, spent as revenue in the act m—c, enters into the general circulation, but is eliminated from the cycle of capital. Only that part enters the capital cycle which performs the function of additional money-capital. In c—m—c, money serves only as coin, and the purpose of this circulation is the individual consumption of the capitalist. It is significant for the idiocy of vulgar economy that it pretends to regard this circulation, which does not enter into the circulation of capital but is merely the circulation of that part of the surplus-product which is consumed as revenue, as the characteristic cycle of capital.

In its second phase, M—C, the capital-value M (which is equal to P, the value of the productive capital that at this point re-opens the cycle of industrial capital) is again present, delivered of its surplus-value. Therefore it has once more the same magnitude which it had in the first stage of the cycle of money-capital, M—C. In spite of the different place at which we now find it, the function of money-capital, into which form the commodity-capital has now been transformed, is the same: Transformation into Pm and L, into means of production and labor-power.

Simultaneously with c—m, capital-value in the function of commodity-capital (C'—M') has also gone through the phase C—M, and enters now into the supplementary phase M—C $\{^{L}_{Pm}$. Its complete circulation is, therefore, C—M—C Pm.

First: Money-capital M appeared in cycle I (M...M') as the original form in which capital-value is advanced; it appears at the very outset as a part of that sum of money into which commodity-capital transformed itself in the first phase of circulation, C'—M'. It is from the beginning the transformation of P by means of the sale of commodities into the money-form. Money-capital exists here as that form of capital-value which is neither its original nor its final one, since the phase M—C, which supplements the phase C—M, can only be completed by again discarding the money-form. Therefore, that part of M—C

which is at the same time M—L appears now no longer as a mere advance of money in the purchase of labor-power, but also as an advance by means of which the same 1,000 pounds of yarn, valued at 50 pounds, which form a part of the commodity-value created by labor-power, are given to the laborer in the form of money. The money thus advanced to the laborer is merely a transformed equivalent of a fraction of the value of the commodities produced by himself. And for this very reason, the act M—C, so far as it means M—L, is by no means simply a replacement of a commodity in the form of money by a commodity in the form of a use-value, but it includes other elements which are in a way independent of the general circulation of commodities.

M' appears as a changed form of C', which is itself a product of a previous function of P, of the process of production. The entire sum of money M is therefore a money-expression of past labor. In our illustration, 10,000 pounds of yarn (worth 500 pounds sterling), are the product of the spinning process. Of this quantity, 7,440 pounds represent the advanced constant capital c (worth 372 pounds sterling); 1,000 pounds represent the advanced variable capital v (worth 50 pounds sterling); and 1,560 pounds represent the surplus-value s (worth 78 pounds sterling). If in M', only the original capital of 422 pounds sterling is again advanced, other conditions remaining the same, then the laborer receives next week, in M—L, only a part of the 10,000 pounds of yarn produced in this week (the money-value of 1,000 pounds of yarn). As a result of C—M, money is always the expression of past labor. If the supplementary act M—C takes place at once on the commodity-market and M is given in return for commodities existing in this market, then this act is again a transformation of past labor from the money-form into the commodity-form. But M—C differs in the matter of time from C—M. True, these two acts may exceptionally take place at the same time, for instance when the capitalist who performs the act M—C and the other capitalist for whom this act signifies C—M mutually ship their commodities at the same time and M is used only to square the balance. The difference in time between the performance of C—M and M—C may be considerable or insignificant. Although M, as the result of C—M, represents past labor, it may, in the act M—C, represent the changed form of commodities which are not as yet on the market, but will be thrown upon it in the future, since M—C need not take place until C has been produced anew M may also stand for commodities which are produced simultaneously with the C whose money-expression M is; for instance, in the movement M—C (purchase of means of production), coal may be bought before it has been mined. In so far as m represents an accumulation of money which is not spent as revenue, it may stand for cotton which will not be produced until next year. The same holds good of the revenue of the capitalist represented by m—c. It also applies to wages, in this case to L equal to 50 pounds sterling; this money is not only the money-form of the past labor of the laborers, but at the same time a draft on simultaneously performed labor or on future labor. The laborer may buy for his wages a coat which will not be made until next week. This

applies especially to the vast number of necessary means of subsistence which must be consumed almost as soon as they have been produced, to prevent their being spoiled. Thus the laborer receives in the money which represents his wages the changed form of his own future labor or that of others. By means of a part of the laborer's past labor, the capitalist gives him a draft on his own future labor. It is the laborer's simultaneous or future labor which represents the not yet existing supply that will pay for his past labor. In this case, the idea of the formation of a supply disappears altogether.

Second: In the circulation C—M—C $\{^{L}_{Pm}$ the same money changes places twice; the capitalist first receives it as a seller and gives it away as a buyer; the transformation of commodities into the money-form serves only for the purpose of retransforming it from money into commodities; the money-form of capital, its existence as money-capital, is therefore only a passing factor in this movement; or, so far as the movement proceeds, money-capital appears only as a circulating medium when it serves to buy things; on the other hand, money-capital performs the function of a paying medium when capitalists buy mutually from one another and square only the balance of their accounts.

Third: The function of money-capital, whether it is a mere circulating medium or a paying medium, mediates only the renewal of C by L and Pm, that is to say, the renewal of the commodities produced by productive capital, such as yarn (after deducting the surplus-value used as revenue), out of its constituent elements, in other words, the retransformation of capital-value from its commodity-form into the elements constituting this commodity. In the last analysis, the function of money-capital mediates only the retransformation of commodity-capital into productive capital.

In order that the cycle may be completed normally, C' must be sold at its value and completely. Furthermore, C—M—C does not signify merely the replacing of one commodity by another, but also the replacing of the same relative values. We assume that this takes place here. As a matter of fact, however, the values of the means of production vary; it is precisely capitalist production which has for its characteristic a continuous change of value-relations, and this is conditioned on the ever changing productivity of labor, which is another characteristic of capitalist production. This change in the value of the factors of production will be discussed later on, and we merely refer to it here. The transformation of the elements of production into commodity-products, of P into C', takes place in the sphere of production, while the retransformation from C' into P takes place in the sphere of circulation; it is accomplished by way of the simple metamorphosis of commodities, but its content is a phase in the process of reproduction, regarded as a whole. C—M—C, considered as a form of the circulation of capital, includes a change of substance due to this function. The process C—M—C requires that C should be identical with the elements of production of the quantity of commodities C', and that these elements maintain their relative proportions toward one another. It is, therefore

understood that the commodities are not only bought at their value, but also that they do not undergo any change of value during their circulation. Otherwise this process cannot run normally.

In M...M', the factor M represents the original form of capital-value, which is discarded only to be resumed. In P...C'—M'—C...P, the factor M represents a form which is only assumed in this process and which is discarded before this process is over with. The money-form appears here only as a passing independent form of capital-value. Capital is just as anxious to assume this form in C' as it is to discard it in M' after barely assuming it, in order to again transform itself into productive capital. So long as it remains in the money-form, it does not perform the function of capital and does not, therefore, generate new values; it then lies fallow. M serves here as a circulating medium, but as a circulating medium of capital. The semblance of independence, which the money-form of capital-value possesses in the first form of the circulation of money-capital, disappears in this second form, which, therefore, is the negation of the first form and reduces it to a concrete form. If the second metamorphosis M—C meets with any obstacles—for instance, if there are no means of production in the market—the uninterrupted flow of the process of reproduction is arrested, quite as much as it is when capital in the form of commodity-capital is held fast. But there is this difference: It can remain longer in the money-form than in that of commodities. It does not cease to be money, if it does not perform the functions of money-capital; but it does cease to be a commodity, or even a use-value, if it is interrupted too long in its functions of commodity-capital. Furthermore, it is capable, in its money-form, of assuming another form instead of its original one of productive capital, while it does not change places at all if held in the form of C'.

C'—M'—C includes processes of circulation only for C', and they are phases in its reproduction, but the actual reproduction of C, into which C' is transformed, is necessary for the completion of C'—M'—C. This, however, is conditioned on a process of reproduction which lies outside of the process of reproduction of the individual capital represented by C'.

In the first form, M—C Pm prepares only the first transformation of money-capital into productive capital; in the second form, it prepares the retransformation of commodity-capital into productive capital; that is to say, so far as the investment of industrial capital remains the same, the commodity-capital is retransformed into the same elements of production out of which it originated. Here as well as in the first form, the process of production is in a preparatory stage, but it is a return to it and its renewal, it is for the purpose of repeating the process of self-utilization.

It must be noted, once more, that M—L is not merely the exchange of commodities, but the purchase of a commodity L, which is to serve for the production of surplus-value, just as M—Pm is a process which is indispensable for the same end.

When M—C $\{^{L}_{Pm}$ has been completed, M has been retransformed into productive capital P, and the cycle begins anew.

The elaborated form of P...C'—M'—C...P is

$$P..... \left| \begin{matrix} C \\ + \\ c \end{matrix} \right| ..... \left| \begin{matrix} M \\ + \\ m \end{matrix} \right| ..... C\{^{L}_{Pm}\ L.....P$$

The transformation of money-capital into productive capital is the purchase of commodities for the purpose of producing commodities. Consumption falls within the cycle of capital only in so far as it is productive consumption; its premise is that surplus-value is produced by means of the commodities so consumed. And this is quite different from a production, even though it be a production of commodities, which has for its end the existence of the producer. A replacing of one commodity by another for the purpose of producing surplus-value is a different matter than the exchange of products which is perfected merely by means of money. But some economists use this sort of exchange as a proof that there can be no overproduction.

Apart from the productive consumption of M, which is transformed into L and Pm, this cycle contains the first phase M—L, which signifies, from the standpoint of the laborer L—M, or C—M. In the laborer's circulation, L—M—C, which includes his individual consumption, only the first factor falls within the cycle of capital by means of L—M. The second act, M—C, does not fall within the circulation of individual capital, although it is conditioned on it. But the continuous existence of the laboring class is necessary for the capitalist class, and this requires the individual consumption of the laborer, made possible by M—C.

The act C'—M' requires only that C' be transformed into money, that it be sold, in order that capital-value may continue its cycles and surplus-value be consumed by the capitalist. Of course, C' is bought only because the article is a use-value and serviceable for individual or productive consumption. But if C' continues to circulate, for instance, in the hand of the merchant who has bought the yarn, this does not interfere with the continuation of the cycle of individual capital which produced the yarn and sold it to the merchant. The entire process proceeds uninterruptedly and simultaneously with the individual consumption of the capitalist and the laborer. This point is important in a discussion of commercial crises.

As soon as C' has been sold for money, it may re-enter into the material elements of the labor process, and thus of the reproductive process. Whether C' is bought by the final consumer or by a merchant, does not alter the case. The quantity of commodities produced by capitalist production depends on the scale of production and on the continual necessity for expansion following from this production. It does not depend on a predestined circle of supply and demand, nor on certain wants to be supplied. Production on a large scale can have no other buyer, apart from other industrial capitalists, than the wholesale merchant. Within certain limits, the process of reproduction may take

place on the same or on an increased scale, although the commodities taken out of it may not have gone into individual or productive consumption. The consumption of commodities is not included in the cycle of the capital which produced them. For instance, as soon as the yarn has been sold, the cycle of the capital-value contained in the yarn may begin anew, regardless of what may become of the sold yarn. So long as the product is sold, everything is going its regular course from the standpoint of the capitalist producer. The cycle of his capital-value is not interrupted. And if this process is expanded—including an increased productive consumption of the means of production—this reproduction of capital may be accompanied by an increased individual consumption (demand) on the part of the laborers, since this individual consumption is initiated and mediated by productive consumption. Thus the production of surplus-value, and with it the individual consumption of the capitalist, may increase, the entire process of reproduction may be in a flourishing condition, and yet a large part of the commodities may have entered into consumption only apparently, while in reality they may still remain unsold in the hands of dealers, in other words, they may still be actually in the market. Now one stream of commodities follows another, and finally it becomes obvious that the previous stream had been only apparently absorbed by consumption. The commodity-capitals compete with one another for a place on the market. The succeeding ones, in order to be able to sell, do so below price. The former streams have not yet been utilized, when the payment for them is due. Their owners must declare their insolvency, or they sell at any price in order to fulfil their obligations. This sale has nothing whatever to do with the actual condition of the demand. It is merely a question of a demand for payment, of the pressing necessity of transforming commodities into money. Then a crisis comes. It becomes noticeable, not in the direct decrease of consumptive demand, not in the demand for individual consumption, but in the decrease of exchanges of capital for capital, of the reproductive process of capital.

If the commodities Pm and L, into which M is transformed in the performance of its function of money-capital, in its capacity as capital-value destined for retransformation into productive capital, if, I say, those commodities are to be bought or paid at different dates, so that M—C represents a series of successive purchases or payments, then a part of M performs the act M—C, while another part persists in the form of money, and does not serve in the performance of simultaneous or successive acts M—C, until the conditions of this process itself demand it. This part of M is temporarily withheld from circulation, in order to perform its function at the proper moment. This storing of M for a certain time is a function conditioned on its circulation and intended for circulation. Its existence as a fund for purchase and payment, the suspension of its movement, the condition of its interrupted circulation, are conditions in which money performs one of its functions as money-capital. I say money-capital; for in this case the money remaining temporarily at rest is itself a part of money-capital M (of M' —m equal to M), of that part of commodity-capital which is equal to

P, of that value of productive capital from which the cycle proceeds. On the other hand, all money withdrawn from circulation has the form of a hoard. In the form of a hoard, money is thus likewise a function of money-capital, just as the function of money in M—C as a medium of purchase or payment becomes a function of money-capital. For capital-value here exists in the form of money, the money-form is a condition of industrial capital in one of its stages, prescribed by the interrelations of processes within the cycle. At the same time it is here once more obvious that money-capital performs no other functions than those of money within the cycle of industrial capital, and that these functions assume the significance of capital functions only by virtue of their interrelations with the other stages of this cycle.

The representation of M' as a relation of m to M, as a capital relation, is not so much a function of money-capital, as of commodity-capital C', which in its turn, as a relation of c to C, expresses but the result of the process of production, of the self-utilization of capital which took place in it.

If the movement of the process of circulation meets with obstacles, so that M must suspend its function M—C on account of external conditions, such as the condition of the market, etc., and if it therefore remains for a shorter or longer time in its money-form, then we have once more money in the form of a hoard which it may also assume in the simple circulation of commodities, as soon as the transition from C—M to M—C is interrupted by external conditions. It is an involuntary formation of a hoard. In the present case, money has the form of fallow, latent, money-capital. But we will not discuss this point any further for the present.

In both cases, the suspension of money-capital in the form of money is the result of an interruption of its movements, no matter whether this is advantageous or harmful, voluntary or involuntary, in accord with its functions or contrary to them.

II. Accumulation and Reproduction On An Enlarged Scale.

Since the proportions of the expansion of the productive process are not arbitrary, but determined by technical conditions, the produced surplus-value, though intended for capitalization, frequently does not attain a size sufficient for its function as additional capital, for its entrance into the cycle of circulating capital-value, until several cycles have been repeated so that it must be accumulated until that time. Surplus-value thus assures the rigid form of a hoard and is, then, latent capital. It is latent, because it cannot function as capital so long as it persists in the money-form.[6a] The formation of a hoard thus appears as a phenomenon included in the process of capitalist accumulation,

[6a] The term "latent" is borrowed from the idea of latent heat in physics, which has now been almost replaced by the theory of the transformation of energy. Marx therefore uses in the third part, which is of later date, another term borrowed from the idea of potential energy, viz.: "potential," or, analogous to the virtual velocities of D'Alembert, "virtual capital".—F. E.

accompanying it, but nevertheless essentially different from it. For the process of reproduction is not expanded by latent capital. On the contrary, latent money-capital is here formed, because the capitalist producer cannot at once expand the scale of his production. If he sells his surplus-product to a producer of gold or silver, or, what amounts to the same thing, to a merchant who imports additional gold or silver from foreign countries for a part of the national surplus-product, then his latent money-capital forms an increment of the national gold or silver hoard. In all other cases, the surplus-value, for instance the 78 pounds sterling, which were a circulating medium in the hand of the purchaser, have only assumed the form of a hoard in the hands of the capitalist. In other words, a different repartition of the national gold or silver hoard has taken place, that is all.

If the money serves in the transactions of our capitalist as a means of payment, in such a way that the commodities are to be paid for by the buyer on long or short terms, then the surplus-product intended for capitalization is not transformed into money, but into creditor's claims, into titles of ownership of a certain equivalent, which the buyer may either have in his possession, or which he may expect to possess. It does not enter into the reproductive process of the cycle any more than money which is invested in interest-bearing papers, although it may enter into the cycles of other individual industrial capitals.

The entire character of capitalist production is determined by the utilization of the advanced capital-value, that is to say, in the first instance, by the production of as much surplus-value as possible; in the second place, by the production of capital, in other words, by the transformation of surplus-value into capital (see vol. I, chap. XXIV). But, as we have seen in volume I, the further development makes it a necessity for every individual capitalist to accumulate, or to produce on an enlarged scale, in order to produce more and more surplus-value, and this appears as a personal motive of the capitalist for his own enrichment. The preservation of his capital is conditioned on its continuous enlargement. But we do not revert any further to our previous analysis.

We considered first simple reproduction, and we assumed that the entire surplus-value was spent as revenue. But in reality and under normal conditions, only a part of the surplus-value can be spent as revenue, and another part must be capitalized. And it is quite immaterial, whether a certain surplus-value, produced within a certain period, is entirely consumed or entirely capitalized. In the average movement—and the general formula cannot represent any other—both cases occur. But in order not to complicate the formula, it is better to assume that the entire surplus-value is accumulated. The formula $P...C'—M'—C' \left\{ {}^{L}_{Pm} \right. ...P$ stands for productive capital, which is reproduced on an enlarged scale and with enlarged values and which begins its second cycle as enlarged productive capital, or, what amounts to the same, which renews its first cycle. As soon as this second cycle is begun, we have once more P as a starting point; only P is a larger productive capital than the first P was. Hence, if the second cycle begins with M' in the formula M—M', this M' functions as M, as an

advanced capital of a definite size. It is a larger money-capital than the one with which the first cycle was opened; but all relations to its growth by the capitalization of surplus-value have disappeared, as soon as it appears in the function of advanced money-capital. This origin is extinguished in its form of money-capital which begins its cycle. This also applies to P', as soon as it becomes the starting point of a new cycle.

If we compare P...P' with M...M', or with the first cycle, we find that they have not the same significance. M...M', taken by itself as an individual cycle, expresses only that M, money-capital, or industrial capital in its cycle as money-capital, is money generating more money, value generating more value, in other words, producing surplus-value. But in the cycle of P, the process of utilization is completed as soon as the first stage, the process of production, is over with, and after going through the second stage (the first stage of the circulation), C'—M', the capital-value plus surplus-value exists already as materialized money-capital, as M', which appeared as the last extreme in the first cycle. The fact that surplus-value has been produced is registered in the first considered formula P...P by c—m—c (see expanded formula previously given). This, in its second stage, falls outside of the circulation of capital and represents the circulation of surplus-value as revenue. In this form, where the entire movement is represented by P...P and where there is no difference in value between the two extremes, the utilization of the advanced value, or the production of surplus-value, is represented in the same way as in M...M', only the act C'—M', which appears as the last stage in M—M', and as the second stage of the cycle, appears as the first stage of the circulation P...P.

In P...P', the term P' does not express the fact that surplus-value has been produced, but that the produced surplus-value has been capitalized, that capital has been accumulated, and that P' as distinguished from P consists of the original capital-value plus the value of capital accumulated by its movements.

M', as the closing link of M...M', and C', as it appears within all these cycles, do not express the movement, but its result, if taken by themselves: they represent the result, in the form of money or commodities of the utilization of capital-value, and capital-value therefore appears as M plus m, or C plus c, as a relation of capital-value to its surplus-value, its offspring. But whether this result appears in the form of M' or C', it is not a function of either money-capital or commodity-capital. As special and different forms corresponding to special functions of industrial capital, money-capital can perform only money functions, and commodity-capital only commodity functions. Their difference is merely that of money and commodity. Industrial capital, in its capacity of productive capital, can likewise consist only of the same elements as those of any other process of labor which creates products: on one side objective means of production, on the other labor-power as the productive element. Just as industrial capital can exist within the process of production only in a composition which corresponds to the requirements of all production, even if it is not capitalist production so it can exist in the sphere of circulation only in

the two forms corresponding to it, viz., that of a commodity or of money. Now the sum of the elements of production reveals its character of productive capital at the outside by the fact that the labor-power belongs to another from whom the capitalist purchases it, just as he purchases his means of production from others who own them, so that the process of production itself appears as a productive function of industrial capital. In the same way money and commodities appear as forms of circulation of the same industrial capital, hence their functions as those of the circulation of this capital, which either introduce the function of productive capital or originate from it. The money function and the commodity function become at the same time functions of money-capital and commodity-capital for no other reason than that they enter into relationship with the functional forms through which industrial capital passes in the different stages of its process of circulation. It is, therefore, a mistake to attempt to derive the specific characters of money and commodities, and their specific functions as such, from their capital-character, and it is likewise a mistake to derive the qualities of productive capital from its existence in means of production.

As soon as M' or C' have become fixed in the relation of M plus m, or C plus c, in other words, as soon as they become parts of the relation between capital-value and its offspring surplus-value, they give expression to this relation either in the form of money or of commodities, without changing the nature of the relation itself. This relation is not due to any qualities or functions of either money or commodities as such. In both cases the characteristic quality of capital, that of being a value generating more value, is expressed only as a result. C' is alway the product of the function of P, and M' is always merely a form of C' changed in the cycle of industrial capital. As soon as the realized money-capital begins its special function as money-capital anew, it ceases to express the capital-relation conveyed by the formula M' equal to M plus m. After M...M' has been completed and M' begins the cycle anew, it no longer figures as M' but as M, even if the entire capital-value contained in M' is capitalized. The second cycle begins in our case with a money-capital of 500 pounds sterling, instead of 422 pounds in the first cycle. The money-capital, which opens the cycle, is larger by 78 pounds sterling than before; this difference exists in the comparison of one cycle with another, but it does not exist within each cycle. The 500 pounds sterling advanced as money-capital, 78 pounds of which formerly existed as surplus-value, do not play any different role than some other 500 pounds sterling by which another capitalist opens his first cycle. The increased P' opens a new cycle as P just as P did in the simple reproduction P...P.

In the stage M'—C' $\left\{\begin{matrix} L \\ Pm \end{matrix}\right.$, the increased magnitude is indicated only by C', but not by L' and Pm'. Since C is the sum of L and Pm, the C', but not by L' and Pm'. Since C is the sum of L and Pm, the term C' indicates sufficiently that the sum of the L and Pm contained in it is greater than the original P. In the second place, the terms L' and Pm' would be incorrect, because we know that the growth of capital implies a change in the relative proportions of the values com-

posing it, and that, with the progressive changing of this proportion, the value of Pm increases, while that of L always decreases relatively, if not absolutely.

III. Accumulation of Money.

Whether or not m, the surplus-value transformed into gold, is immediately combined with the circulating capital-value and is thus enabled to enter into the cycle together with the capital M in the magnitude of M', depends on circumstances which are independent of the mere existence of m. If m is to serve as money-capital in a second independent business, to be run by the side of the first, it is evident that it cannot be used for this purpose, unless it is of the minimum size required for it. And if it is intended to use it for the extension of the original business, the condition of the substances composing P and their relative values likewise demand a minimum magnitude for m. All the means of production employed in this business have not only a qualitative, but also a definite quantitative relation toward one another. These proportions of the substances and of their values entering into the productive capital determine the minimum magnitude required for m, in order to be capable of transformation into additional means of production and labor-power, or only into means of production as an addition to the productive capital. For instance, the owner of a spinning loom cannot increase the number of his spindles without at the same time purchasing a corresponding number of carders and preparatory looms, apart from the increased expense for cotton and wages, which such an extension of his business demands. In order to carry this out, the surplus-value must have reached a considerable figure (one pound sterling per spindle is generally assumed for new installations). So long as m does not reach this figure, the cycle of the original capital must be repeated several times, until the sum of the successively produced surplus-values m can take part in the functions of M, in the process $M'—C' \left\{ \begin{matrix} L \\ P_m \end{matrix} \right.$. Even mere changes of detail, for instance, in the spinning machinery, made for the purpose of making it more productive require greater expenditures for spinning material, preparatory looms, etc. In the meantime, m is accumulated, and its accumulation is not its own function, but the result of repeated cycles of P...P. Its own function consists in persisting in the form of money, until it has received sufficient additions from the outside by means of successive cycles of utilization of capital to have acquired the minimum magnitude necessary for its active function. Only when it has reached this magnitude, can it actually serve as money-capital and eventually take part in the functions of the active money-capital M as its accumulated part. But until that time it is accumulated and exists only in the form of a hoard in a process of gradual growth. The accumulation of money, the formation of a hoard, appears here as a process which accompanies temporarily the accumulation by which industrial capital expands the scale of its productive action. This is a temporary phenomenon, for so long as the hoard remains in this condition, it does not perform the function of

capital, does not take part in the process of utilization, and remains a sum of money which grows only by virtue of the fact that other money, existing without the initiative of the hoard, is thrown into the same safe.

The form of a hoard is simply the form of money not in circulation. It is money interrupted in its circulation and stored up in the form of money. As for the process of forming a hoard, it is found in all systems of commodity-production, and it plays a role as an end in itself only in the undeveloped, pre-capitalist forms of this production. In the present case, the hoard assumes the form of money-capital, and goes through the process of forming a hoard as a temporary corollary of the accumulation of capital, merely because the money here figures as latent money-capital, and because the formation of a hoard as well as the surplus- value hoarded in the form of money represent a functionally prescribed and preliminary stage required for the transformation of surplus-value into capital actually performing its functions. It is this end which gives it the character of latent money-capital. Hence the volume, which it must have acquired before it can take part in the process of capital, is determined in each case by the values of which the productive capital is composed. But so long as it remains in the condition of a hoard, it does not perform the functions of money-capital, but is merely sterile money-capital; its functions have not been interrupted, as in a previous case, but it is as yet incapable of performing them.

We are here discussing the accumulation of money in its original and real form of an actual hoard of money. But it may also exist in the form of mere outstanding money, of credits granted by a capitalist who has sold C'. As concerns its other forms, where this latent money-capital exists in the meantime in the shape of money breeding more money, such as interest-bearing deposits in a bank, in drafts, or in bonds of some sort, these do not fall within the discussion at this point. Surplus-value realized in the form of money then performs special capital-functions outside of that cycle of industrial capital which originated it. In the first place, these functions have nothing to do with that cycle of industrial capital as such, in the second place, they represent capital-functions which are to be distinguished from the functions of industrial capital and which are not yet developed at this stage.

IV. Reserve Funds.

In the case which we have just discussed, surplus-value in the form of a hoard represents accumulated funds, a money-form temporarily assumed by the accumulation of capital and to that extent a condition of this accumulation. However, such accumulated funds may also perform special services of a subordinate nature, that is to say they may enter into the circulation-process of capital, even if this process has not assumed the form of P—P', in other words, without an expansion of capitalist reproduction.

If the process C'—M' is prolonged beyond its normal size, so that commodity-capital meets with abnormal obstacles during its transfor-

mation into the money-form, or if, after the completion of this transformation, the price of the means of production into which the money-capital is to be transformed has risen above the level occupied by it in the beginning of the cycle, the hoard held as accumulated funds may be used in the place of money-capital, or of a part of such capital. In that case, the accumulated funds of money serve as reserve funds for the purpose of counterbalancing disturbances of the circulation.

When in use as such a reserve fund, accumulated money differs from the fund of purchase or paying media discussed in the cycle P—P'. These media are a part of money-capital performing its functions, they are forms of existence of a part of capital-value in general going through the process of its circulation, and its different parts perform their functions successively at different times. In the continuous process of production, money-capital in reserve is always formed, obligations being incurred today which will not be paid until later, and large quantities of commodities being sold today, while other large quantities are not to be bought until some other day. In these intervals, a part of the circulating capital exists continuously in the form of money. A reserve fund, on the other hand, is not a part of money-capital in the performance of its functions. It is rather a part of capital in a preliminary stage of its accumulation, of surplus-value not yet transformed into active capital.

Of course, it requires no explanation, that the capitalist, when pressed for funds, does not concern himself about the definite functions of the money in his hands. He simply employs whatever money he has for the purpose of keeping the circulation-process of his capital in motion. For instance, in our illustration, M is equal to 422 pounds sterling, M' to 500 pounds sterling. If a part of the capital of 422 pounds sterling exists in the form of money as a fund for paying or buying, it is intended that all of it should enter into circulation, conditions remaining the same, and that it is sufficient for this purpose. The reserve fund, on the other hand, is a part of the 78 pounds sterling of surplus-value. It cannot enter the circulation process of the capital of 422 pounds sterling, unless this circulation takes place under changed conditions; for it is a part of the accumulated funds, and figures here under conditions, where the scale of the reproduction has not been enlarged.

Accumulated money-funds represent latent money-capital, or the transformation of money into money-capital.

The following is the general formula for the cycle of productive capital, combining simple reproduction and reproduction on an enlarged scale: $P...C'—M'.\ M—C\left\{\begin{matrix}L\\P_m\end{matrix}\right...P\ (P')$.

If P equals P, then M in 2) is equal to M'—m; if P equals P', then M in 2) is greater than M'—m, that is to say, m has been completely or partially transformed into money-capital.

The cycle of productive capital is that form, under which classical political economy discusses the rotation process of industrial capital.

CHAPTER III

THE CIRCULATION OF COMMODITY-CAPITAL

The general formula for the cycle of commodity-capital is:

C'—M'—C...P...C'.

C' appears not alone as the product, but also as the premise of the two previous cycles, since M—C includes for one capital that which C'—M' includes for the other, at least in so far as a part of the means of production represents the commodity-product of other individual capitals going through the circulation process. In our case, for instance, coal, machinery, etc., represent the commodity-capital of the mine-owner, of the capitalist machine-manufacturer, etc. Furthermore, we have shown in chapter I, IV, that not only the cycle P...P, but also the cycle C'...C' is assumed even in the first repetition of M...M', before this second cycle of money-capital is completed.

If reproduction takes place on an enlarged scale, then the final C' is greater than the initial C' and we shall then call the final one C''.

The difference between the third form and the first two is on the one hand, that in this case the total circulation opens the cycle with its two opposite phases, while in form I the circulation is interrupted by the process of production, and in form II the total circulation with its two complementary phases appears as a connecting link for the process of reproduction, intervening as a mediating movement between P...P. In the case of M...M', the cycle has the form M—C...C' —M' = M—C—M. In the case of P...P it has the opposite form, namely, C'—M'. M—C = C—M—C. In the case of C'—C', it likewise has this last form.

On the other hand, when the cycles I and II are repeated, even if the final points M' and P' are at the same time the starting points of the renewed cycle, the form in which they were originally generated disappears. M' = M plus m, and P' = P' plus p, begin the new cycle as M and P. But in form III, the starting point C must be designated as C', also in the case of the renewal of the cycle on the same scale, for the following reason. As soon as M' as such opens a new cycle in the form I, it performs the functions of money-capital M, as an advance in the form of money of the capital value to be utilized. The size of the advanced money-capital, increased by the accumulation resulting from the first cycle, is greater. But whether the size of the advanced money-capital is 422 pounds sterling or 500 pounds sterling, it nevertheless appears merely as a capital-value. M' no longer exists as a utilized capital pregnant with surplus-value, for it is still to be utilized. The same is true of P...P', for P' must always perform the functions of P, of capital-value used for the generation of surplus-value, and must renew its cycle for this purpose.

Now the circulation of commodity-capital does not open with capital-value, but with augmented capital-value in the form of commodities. It includes from the start not only the cycle of capital-value represented by commodities, but also of surplus-value. Hence, if simple

reproduction takes place in this form, C' at the starting point is equal to C' at the closing point. If a part of the surplus-value enters into the circulation of capital, C'', an enlarged C', appears at the close, but the succeeding cycle is once more opened by C'. This is merely a larger C' than that of the preceding cycle, and it begins its new cycle with a proportionately increased accumulation of capital-value, which includes a proportionate increase of newly produced surplus-value. In every case, C' always opens the cycle as a commodity-capital which is equal to capital-value plus surplus-value.

C' as C does not appear in the circulation of some individual industrial capital as a form of this capital, but as a form of some other industrial capital, so far as the means of production are its products. What is M—C (or M—Pm) for the first capital, is C'—M' for this second capital.

In the circulation act M—C $\{^{L}_{Pm}$ the factors L and Pm have identical relations, in so far as they are commodities in the hands of those who sell them; on the one hand the laborers who sell their labor-power, on the other hand the owners of the means of production, who sell these. For the purchaser, whose money here performs the functions of money-capital, L and Pm represent merely commodities, so long as he has not bought them, so long as they confront his money-capital in the form of commodities owned by others. Pm and L here differ only in this respect that Pm may be C', or capital, in the hands of its owner, if Pm is the commodity-form of his capital, while L is always nothing else but a commodity for the laborer, and does not become capital, until it is made a part of P in the hand of its purchaser.

For this reason, C' can never open any cycle as a mere commodity-form of capital-value. As commodity-capital it is always the representative of two things. From the point of view of use-value it is the product of the function of P, in the present case yarn, whose elements L and Pm, coming from the circulation, have been active in creating this product. And from the point of view of exchange-value, commodity-capital is the capital-value P plus the surplus-value m produced by the function of P.

It is only in the circulation of C' itself that C equal to P, and equal to the capital-value, can and must separate from that part of C' in which surplus-value is contained, from the surplus-product representing the surplus-value. It does not matter, whether these two parts can be actually separated, as in the case of yarn, or whether they cannot be separated, as in the case of a machine. They may always be separated, as soon as C' is transformed into M'.

If the entire commodity-product is separable into independent homogenous parts, as is the case in our 10,000 lbs. of yarn, so that the act C'—M' is performed by means of a number of successive sales, then capital-value in the form of commodities can perform the functions of C and can be separated from C', before the surplus-value, or the entire value of C', has been realized.

In the 10,000 lbs. of yarn at 500 pounds sterling, the value of 8,440 lbs., equal to 422 pounds sterling, is separated from the surplus-

value. If the capitalist sells first 8,440 lbs. at 422 pounds sterling, then these 8,440 lbs. of yarn represent C, or the capital-value, in the form of commodities. The surplus-product of 1,560 lbs. of yarn, likewise contained in C', and valued at 78 pounds sterling, does not circulate until later. The capitalist may accomplish C—M—C $\{^{L}_{Pm}$ before the surplus product c—m—c circulates.

Or, if he sells 7,440 lbs. of yarn at 372 pounds sterling, and then 1,000 lbs. of yarn at 50 pounds sterling, he might replace the means of production (the constant capital c) with the first part of C and the variable capital v, the labor-power, with the second part of C, and then proceed as before.

But if such successive sales take place, and the conditions of the cycle permit it, the capitalist, instead of separating C' into c plus v plus s, may make such a separation also in the case of aliquot parts of C'.

For instance, 7,440 lbs. of yarn, valued at 372 pounds sterling, representing a constant capital as parts of C', namely, of 10,000 lbs. of yarn valued at 500 pounds sterling, may be separated into 5,535 lbs. of yarn valued at 276.768 pounds sterling, which replace the constant part, the value of the means of production used up in producing 7,440 lbs. of yarn; 744 lbs. of yarn valued at 37.200 pounds sterling, which replace only the variable capital; and 1,160.640 lbs. of yarn valued at 58.032 pounds sterling, which are the surplus-product and represent surplus-value. If he sells his 7,440 lbs. of yarn, he can replace the capital-value contained in them after the sale of 6,279.360 lbs. of yarn at 313.968 pounds sterling, and he can spend as his revenue the value of the surplus-product of 1,160.640 pounds, or 58.032 pounds sterling.

In the same way, he may separate 1,000 lbs. of yarn, valued at 50 pounds sterling, or equal to the variable capital-value, into its aliquot parts and sell them successively, as follows: 744 lbs. of yarn at 37.200 pounds sterling, for the constant capital-value of 1,000 lbs. of yarn; 100 lbs. of yarn at 5 pounds sterling, for the variable capital-value; or together 844 lbs. of yarn at 42.2 pounds sterling, for replacing the capital-value contained in 1,000 lbs. of yarn; finally, 156 lbs. of yarn at 7.8 pounds sterling, representing the surplus-product contained in 1,000 lbs. of yarn, which may be spent as such.

Finally, the capitalist may divide the remaining 1,560 lbs. of yarn, valued at 78 pounds sterling, provided he succeeds in selling them, in such a way that the sale of 1,160 lbs. of yarn, valued at 58.032 pounds sterling, replaces the value of the means of production contained in those 1,560 lbs. of yarn, and 156 lbs. of yarn, valued at 7.8 pounds sterling, replaces the variable capital-value; or a total of 1,316.640 lbs. of yarn, valued at 65.832 pounds sterling, for replacing the total capital-value; finally, the surplus-product of 243.360 lbs., valued at 12.168 pounds sterling, remains, to be spent as revenue.

Just as all the elements of c, v, and s, contained in the yarn, are divisible into the same component parts, so may every individual pound of yarn, valued at 1 sh., or 12 d., be divided.

c=0.744 lbs. of yarn=8.928 d.
v=0.100 lbs. of yarn=1.200 d.
s=0.156 lbs. of yarn=1.872 d.

c+v+s=1.00 lb. of yarn=12.00 d.

If we add the results of the three above partial sales, we obtain the same result as we should when selling the entire 10,000 lbs. at one time.

We have the following parts of constant capital:

In the first lot 5,535.360 lbs. of yarn at £276.768.
In the second lot 744.000 lbs. of yarn at £37.200.
In the third lot 1,160.640 lbs. of yarn at £58.032.

Total.....7,440.000 lbs. of yarn at £372.000.

Furthermore, the following parts of variable capital:

In the first lot 744.000 lbs. of yarn at £37.200.
In the second lot 100.000 lbs. of yarn at £5.000.
In the third lot 156.000 lbs. of yarn at £7.800.

Total.....1,000.000 lbs. of yarn at £50.000.

Finally, the following parts of surplus-value:

In the first lot 1,160.740 lbs. of yarn at £58.032.
In the second lot 156.000 lbs. of yarn at £7.800.
In the third lot 343.360 lbs. of yarn at £12.168.

Total.....1,560.000 lbs. of yarn at £78.000

Grand Total:

Constant capital.....7,450 lbs. of yarn at £372.
Variable capital.....1,000 lbs. of yarn at £50.
Surplus-value.....1,560 lbs. of yarn at £78.

Total.....10,000 lbs. of yarn at £500.

C'—M' stands in itself merely for the sale of 10,000 lbs. of yarn. These 10,000 lbs. of yarn are a commodity like all other yarn. The purchaser is interested in the price of 1 sh. per lb., or 500 pounds sterling for 10,000 lbs. If he analyzes during the negotiations the different values of which this lot is composed, he does so simply with the malignant intention of proving that it can be sold at less than 1 sh. per pound and still leave a fair profit to the seller. But the quantity purchased by him depends on his own requirements. If he is, for

instance, the owner of a cloth-factory, the amount of his purchase depends on the composition of his own capital invested in this plant, not on that of the owner of the yarn from whom he buys. The conditions, in which C' has to replace on one side the capital used up in its production (or the component parts of this capital), and on the other to serve as a surplus-product for the spending of surplus-value or for the accumulation of capital, exist only in the cycle of that capital, which exists as a commodity-capital in the form of 10,000 lbs. of yarn. These conditions have nothing to do with the sale itself. In the present case we have also assumed that C' is sold at its value, so that it is only a question of its transformation from the commodity-form into that of money. Of course, it is essential for C', when performing a function in the cycle of this individual capital by which the productive capital is to be replaced, that it should be known to what extent, if at all, the price and the value vary in the sale. But this does not concern us here in the discussion of the distinctions of form.

In form I, or M...M', the process of production intervenes midway between the two complementary and opposite phases of the circulation of capital and is past before the concluding phase C'—M' begins. Money has been advanced as capital, transformed into means of production and labor power, transferred from these to the commodity-product, and this in its turn changed into money. It is a complete cycle of business, which results in money, the universal medium. The renewal of the cycle is then possible, but not necessary. M...P...M' may either be the last cycle, concluding the function of some individual capital withdrawn from business, or the first cycle of some new capital beginning its active function. The general movement is here M...M', from money to more money.

In form II, or P...C'—M'—C...P(P'), the entire circulation process follows after the first P and takes place before the second P; but it takes place in the opposite direction from that of form I. The first P is the productive capital, and its function is the productive process, on which the succeeding circulation process is conditioned. The concluding P, on the other hand, does not stand for the productive process; it is only the return of the industrial capital to its form of productive capital. And it has that form by virtue of the last phase of circulation, in which the transformation of capital-value into L plus Pm was accomplished, those subjective and objective factors which combine to form the productive capital. The capital, whether it be P or P', is in the end once more present in a form in which it may again perform the function of productive capital, in which it must go through the productive process. The general form of the movement P...P'(P) is that of reproduction and does not indicate that capital is to be increased by new values, as does M...M'. This enables classic political economy to ignore so much easier the capitalistic form of the process of production and to pretend that production itself is the purpose of this process; just as though it were only a question of producing as much as possible, as cheaply as possible, and of exchanging the product for the greatest variety of other products, either for the renewal of the production (M—C), or for con-

sumption (m—c). It is then quite likely that the peculiarities of money and money-capital may be overlooked, for M and m appear here merely as passing media of circulation. The entire process seems so simple and natural, but natural in the sense of a shallow rationalism. In the same way, the profit is occasionally overlooked in the commodity-capital and it is mentioned merely as a commodity when discussing the productive circulation as a whole. But as soon as the question of the values composing it comes up for discussion, it is spoken of as commodity-capital. Accumulation, of course, is seen in the same light as production.

In form III, or C'—M'—C...P...C' the two phases of the circulation process open the cycle, in the same order which obtains in form II, or P...P; next follows P with its function, the productive process, the same as in form I; the cycle closes with the result of the process of production, C'. While form II closes with P, the return of productive capital to its mere form, so form III closes with C', the return of commodity-capital to its form. Just as in form II the capital, in its concluding form of P, must renew its cycle by beginning with the process of production, so in this case, where the industrial capital re-appears in the form of commodity-capital, the cycle is re-opened by the circulation-phase C'—M'. Both forms of the cycle are incomplete, because they do not close with M', that is to say with capital-value retransformed into money and utilized. Both cycles must, therefore, be continued and include the reproduction. The total cycle of form III is represented by C'...C'.

The third form is distinguished from the two first by the fact that it is the only one in which the utilized capital-value appears as the starting point of its utilization, instead of the original value which is to be utilized. C' as a capital-relation is the starting point and has a determining influence on the entire cycle, for it includes the cycle of capital-value as well as that of surplus-value in its first phase, and the surplus-value is compelled to act partly as revenue by going through the circulation c—m—c, partly to perform the function of an element of capital accumulation, at least in the average of the cycles, if not in all of them.

In the form C'...C' the consumption of the entire commodity-product is assumed as the condition of the normal course of the cycles of capital itself. The individual consumption of the laborer and the individual consumption of the unaccumulated part of the surplus-product comprise the entire individual consumption. Hence the consumption in its totality—individual as well as productive consumption—are conditional factors in the cycle C'. Productive consumption, which includes the individual consumption of the laborer as a corollary, since labor-power is a continuous product of the laborer's individual consumption, within certain limits, is performed by every individual capital itself. Individual consumption, in so far as it is not required for the existence of the individual capitalist, is here only regarded as a social act, not as an act of the individual capitalist.

In forms I and II, the aggregate movement appears as a movement of advanced capital-value. In form III, the utilized capital, in the

shape of the total commodity-product, is the starting point and has the nature of moving capital, commodity-capital. Not until the transformation into money has been accomplished does this movement separate into movements of capital and revenue. The distribution of the total social product as well as the special distribution of the product of every individual capital for purposes of individual consumption or for reproduction is included in the cycle of capital under this form.

In M...M', the possible expansion of the cycle is included, and depends on the volume of m entering into the renewed cycle.

In P...P, the new cycle may be started by P with the same or even with a smaller, value, and yet may represent a reproduction on an enlarged scale, for instance in the case where certain elements of commodities become cheaper by increased productivity of labor. On the other hand, a productive capital which has increased in value may, in the opposite case, represent a reproduction on a decreased scale with less raw material, for instance, if some elements of production have become dearer. The same is true of C'...C'.

In C'...C' capital in the form of commodities is the premise of production. It re-appears as a premise within this cycle in the second C. If this C has not yet been produced or reproduced, the cycle is arrested in its course. This C must be reproduced, for the greater part as C' of some other industrial capital. In this cycle, C' is found as the point of departure, of transit, and of conclusion; it is always there. It is a permanent condition of the process of reproduction.

C'...C' is distinguished from forms I and II by still another feature. All three cycles have this in common, that capital begins its course in the same form in which it ends the cycle, and thus re-assumes the original form whenever it renews the same cycle. The initial form M,P,C', is always the one in which capital-value (in III together with its increment of surplus-value) is advanced, in other words always the original starting form of this cycle. The concluding form M',P,C', on the other hand, is always a changed form of a functional one, which preceded the final form in the circulation and is not the original one.

Thus M' in I is a changed form of C', the final P in II is a changed form of M, and this transformation is accomplished in I and II by a simple transaction in the circulation of commodities, by a formal change of position of commodity and money; in III, C' is a changed form of the productive capital P. But here, in III, the transformation does not merely concern the functional form of capital, but also its magnitude as a value; and in the second place, the transformation is not the result of a formal change of position pertaining to the circulation process, but of an actual modification experienced by the use-form and value of the commodity parts of productive capital in the process of production.

The forms m,P,C', at the starting end, always precede every one of the cycles I, II, III. The return of these forms at the terminal end is conditioned on the series of metamorphoses in the cycle itself. C', as the terminal product of an individual cycle of industrial capital, presupposes only that form P of the industrial capital which does not

belong to the circulation, M', since the terminal point of it representing the changed form of C' (C'—M'), presupposes the existence of M in the hand of the buyer, that is to say outside of the cycle M...M', but drawn into it and made it its terminal form by the sale of C'. In the same way, the final P in II presupposes the existence of L and PM(C) outside of II, but incorporated as its final form by means of M—C. But apart from this last extreme, neither the cycle of individual money-capital presupposes the existence of money-capital in general, nor the cycle of individual productive capital that of productive capital, in these cycles. In I, M may be the first money-capital; in II, P may be the first productive capital appearing on the historical scene. But in III,

$$C' \begin{cases} C \ldots\ldots \\ \ldots\ M' \\ c \ldots\ldots \end{cases} \begin{cases} M \ldots\ldots C \left\{ \begin{matrix} L \\ Pm \end{matrix} \right. \ldots\ldots P \ldots\ldots C' \\ m \ldots\ldots c \end{cases}$$

C is presupposed twice outside of the cycle. The first time, it is assumed to exist in the cycle C'—M'—C $\left\{ \begin{matrix} L \\ Pm \end{matrix} \right.$. The C in this formula, so far as it consists of Pm, is a commodity in the hands of the seller; it is itself a commodity-capital, in so far as it is the product of a capitalist process of production; and even if it is not, it appears as a commodity-capital in the hands of the merchant. The second time it is assumed in c, in the formula c—m—c, where it must likewise be at hand in the form of a commodity, in order to be available for purchase. At any rate, whether they are commodity-capital or not, L and Pm are commodities as well as C' and maintain towards one another the relation of commodities. The same is true of the second c in the formula c—m—c. Inasmuch as C' is equal to C (L plus Pm), it is composed of commodities and must be replaced by equal commodities in the circulation. In the same way, the second c in c—m—c must be replaced by equal commodities in the circulation.

With the capitalist mode of production for a basis, as the prevailing mode, all commodities in the hands of the seller must be commodity-capital. And they retain this character in the hand of the merchant, or assume it, if they did not have it before. Or they would have to be commodities, such as imported articles, which replace some original commodity-capital by bestowing upon it another form of existence.

The commodity-elements L and Pm, of which the productive capital is composed, do not possess the same form as modes of existence of P, which they have on the various commodity-markets where they are gathered. They are now combined, and so combined they can perform the functions of productive capital.

C appears as the premise of C within the cycle III, because capital in commodity-form is its starting point. The cycle is opened by the transformation of C' (in so far as it performs the functions of capital-value, whether increased by surplus-value or not) into those commodities which are its elements of production. And this transformation comprises the entire process of circulation, C—M—C (equal to L plus

Pm), and is its result. C here stands at both extremes, but the second extreme, which receives its form C by means of M—C from the commodity-market on the outside, is not the last extreme of the cycle, but only of its two first stages comprising the process of circulation. Its result is P, which then performs its function, the process of production. It is only as the result of this prpcess, not as that of the circulation, that C' appears as the terminal point of the cycle and in the same form as the starting point, C'. On the other hand, in M...M' and P...P, the final extremes M' and P are the immediate results of the process of circulation. In these instances, it is only M' and P which are supposed to exist at the end in the hands of another. So far as the process of circulation takes place between the extremes, neither M in the hands of another as money, nor P as the productive process of another, are the premises of these cycles. But C'...C' requires the existence of C (equal to L plus Pm) as commodities in the hands of others who are their owners. These commodities are drawn into the cycle by the introductory process of circulation and transformed into productive capital, and as a result of the functions of this capital, C' once more appears at the end of the cycle.

But just because the cycle C'...C' presupposes for its realization the existence of some other industrial capital in the form of C (equal to L plus Pm)—and Pm comprises various other capitals, in our case machinery, coal, oil, etc.,—it demands of itself that it be considered not merely as the general form of the cycle, that is to say as a social form common to every industrial capital (except when it is first invested). It is not merely a common mobile form of all industrial capitals, but also the sum of all industrial capitals in action. It is a movement of the aggregate capital of the capitalist class, in which every individual capital appears only as a part whose movements intermingle with those of the others and are conditioned on them. For instance, if we regard the aggregate of commodities annually produced in a certain country, and analyze the movements by which a part of this aggregate product replaces the productive capital in all individual businesses, while another part enters into the individual consumption of the various classes, then we consider C'...C' as the formula indicating the movements of social capital as well as of the surplus-value, or surplus-product, generated by it. The fact that the social capital is equal to the sum of the individual capitals (including the stocks and state capital, so far as governments employ productive wage-labor in mining, railroading, etc., and perform the function of capitalists), and that the aggregate movement of social capital is equal to the algebraic sum of the movements of individual capitals, does not militate against the possibility that this movement, seen as the movement of some individual capital, may present other phenomena than the same movement studied as a part of the aggregate movement of social capital. In the later case, when studied in connection with all its parts, the movement simultaneously solves problems the solution of which does not follow from the study of the cycles of some individual capital, but must be taken for granted.

C'...C' is the only cycle in which the originally advanced capital-value constitutes only a part of the value opening the movement at one extreme, and in which the movement thus reveals itself at the outset as the total movement of the industrial capital. It includes that part of the product which replaces the productive capital as well as that part which creates a surplus-product and which is on an average either spent as revenue or employed as an element of accumulation. In so far as the expenditure of surplus-value in the form of revenue is included in this cycle, the individual consumption is likewise included. The latter is furthermore included for the reason, that the starting point C, commodity, exists in the form of some article of use; but every article produced by capitalist methods is a commodity-capital, no matter whether its use-form destines it for productive or for individual consumption, or for both. M...M' indicates only the quality of value, the utilization of the advanced capital-value for the purposes of the entire process; P...P(P') indicates the process of production of capital in the form of a process of reproduction with a productive capital of the same or of increased value (accumulation); C'...C', while it indicates at the outset that it is a part of the capitalist production of commodities, comprises productive and individual consumption from the start, and productive consumption with its implied generation of more value appears only as one branch of its movement. Finally, since C' may have a use-value which cannot enter any more into any process of production, it follows as a matter of course that the different elements of value of C' expressed by parts of the product must occupy a different position, according to whether C'...C' is regarded as the formula for the movement of the total social capital, or for the independent movement of some individual industrial capital. All these peculiarities point to the fact that this cycle implies more than the mere cycle of some individual capital.

In the formula C'...C', the movement of the commodity-capital, that is to say of the total product created by capitalist methods, appears simultaneously as the premise of the independent cycle of individual capital and as its effect. If this formula is grasped in its peculiarities, then it is no longer sufficient to be content with the knowledge that the metamorphoses C'—M' and M—C are on the one hand functionally defined sections in the metamorphoses of capital, on the other links in the general circulation of commodities. It becomes necessary to follow the ramifications of the metamorphoses of one industrial capital among those of other individual capitals and with that part of the total product which is intended for individual consumption. In the analysis of an individual industrial capital, we therefore base our studies mainly on the two first formulas.

The cycle C'...C' appears as the movement of an individual and independent capital in the case of agriculture, where calculations are made from crop to crop. In figure II, the sowing is the starting point, in figure III the harvest, or, to speak with the physiocrats, figure II starts out with the *avances*, and figure III with the *reprises*. The movement of capital-value in III appears from the outset only

as a part of the movement of the general mass of products, while in I and II the movement of C' is only a part of the movement of some individual capital.

In figure III, the commodities on the market are the continuous premise of the processes of production and reproduction. If this formula is regarded as fixed, all elements of the process of production seem to originate in the circulation of commodities and to consist only of commodities. This one-sided conception overlooks those elements of the processes of production, which are independent of the commodity-elements.

Since C'...C' has for its starting point the total product (total value), it follows that (making exception of foreign trade) reproduction on an enlarged scale, productivity remaining otherwise the same, can take place only when the part of the surplus-product to be capitalized already contains the material elements of the additional productive capital; so that a surplus-product is at once produced in that form which enables it to perform the functions of additional capital, so far as the production of one year can serve as the basis of next year's production, or in so far as this can take place simultaneously with the simple process of reproduction in the same year. Increased productivity can increase only the substance of capital, but not its value; of course, it creates additional material for the generation of more value.

C'...C' is the basis of Quesnay's *Tableau Economique*, and it shows great discrimination on his part that he selected this form instead of P...P as opposed to M...M' (which is the isolated formula retained by the mercantilists).

CHAPTER IV

THE THREE DIAGRAMS OF THE PROCESS OF CIRCULATION

The three diagrams may be formulated in the following manner, using the sign Tc for "total process of circulation":

I. M—C...P...C'—M'

II. P...Tc...P

III. Tc...P(C').

If we take all three diagrams together, all premises of the process appear as its effects, as premises produced by itself. Every element appears as a point of departure, transit, and return to the starting point. The total process appears as the unity of the processes of production and circulation. The process of production mediates the process of circulation, and vice versa.

All three cycles have the following point in common: The creation of more value as the compelling motive. Diagram I express this by its form. Diagram II begins with P, the process of creating surplus-values. Diagram III begins the cycle with the utilized value and closes

with renewed utilized value, even if the movement is repeated on the same scale.

So far as C—M means M—C from the point of view of the buyer, and M—C means C—M from the point of view of the seller, the circulation of capital presents only the features of the ordinary metamorphosis of commodities, subject to the laws relative to the amount of money in circulation, as analyzed in volume I, chap. III, 2. But if we do not cling to this formal aspect, but rather consider the actual connection of the metamorphoses of the various individual capitals, in other words, if we study the interrelation of the cycles of individual capitals as partial movements of the process of reproduction of the total social capital, then the mere change of form between money and commodities does not explain matters.

In a continuously revolving circle, every point is simultaneously a point of departure and point of return. If we interrupt the rotation, not every point of departure is a point of return. We have seen, for instance, that not only does every individual cycle imply the existence of the others, but also that the repetition of one cycle in a certain form necessitates the rotation of this cycle through its other forms. The entire difference thus assumes a formal aspect, it appears as a mere subjective difference made for the convenience of the observer.

In so far as every one of these cycles is studied as a special form of movement through which various individual industrial capitals are passing, their differences have but an individual nature. But in reality every individual industrial capital is contained simultaneously in all three cycles. These three cycles, the forms of reproduction assumed by the three modes of capital, rotate continuously side by side. For instance, one part of capital value which now performs the function of commodity-capital, is transformed into money-capital, but at the same time another part leaves the process of production and enters the circulation as a new commodity-capital. The cycle C'...C' is thus continuously rotating, and so are the two other forms. The reproduction of capital in each one of its forms and stages is just as continuous as the metamorphoses of these forms and their successive transition through the three stages. The entire circulation is thus actually a unit with these three forms.

We assumed in our analysis that the entire volume of capital-value acts either as money-capital, productive capital, or commodity-capital. For instance, we had those 422 pounds sterling first in the role of money-capital, then we transformed them entirely into productive capital, and finally into commodity-capital, into yarn valued at 500 pounds sterling and containing 78 pounds sterling of surplus-value. Here the various stages are so many interruptions. So long as, for instance, those 422 pounds sterling retain the form of money, that is to say until the purchases M—C (L plus Pm) have been made, the entire capital exists only in the form of money-capital and performs its functions. But as soon as it is transformed into productive capital, it performs neither the functions of money-capital nor of commodity-capital. Its entire process of circulation is interrupted, just as on the

other hand its entire process of production is interrupted, as soon as it performs any functions in one of its two circulation stages, either as M or as C. From this point of view, the cycle P...P would not only present a periodical renewal of the productive capital, but also the interruption of its function, the process of production, up to the time when the process of circulation is completed. Instead of proceeding continuously, production took place in jumps and was renewed only in periods of uncertain duration, according to whether the two stages of the process of circulation were completed fast or slowly. This would apply, for instance, to a Chinese artisan, who works only for private customers and whose process of production is interrupted until he receives a new order.

This is true of every individual part of capital in process of circulation, and all parts of capital pass through this circulation in succession. For instance, the 10,000 lbs. of yarn are the weekly product of some spinner. These 10,000 lbs. of yarn leave the sphere of production in their entirety and enter the sphere of circulation. The capital-value contained in them must all be converted into money-capital, and so long as it retains the form of money-capital, it cannot return into the process of production. It must first go into circulation and be reconverted into the elements of productive capital, L plus Pm. The process of rotation of capital is a succession of interruptions, leaving one stage and entering the next, discarding one form and assuming another. Every one of the stages not only causes the next, but also excludes it.

But continuity is the characteristic mark of capitalist production, conditioned on its technical basis, although not absolutely attainable. Let us see, then, what passes in reality. While the 10,000 lbs. of yarn appear on the market as commodity-capital and are transformed into money (regardless of whether it is a paying, purchasing, or calculating medium), new cotton, coal, etc., take the place of the yarn in the process of production, having been reconverted from the form of money and commodities into that of productive capital and performing its functions. At the time when these 10,000 lbs. of yarn are converted into money, the preceding 10,000 lbs. are going through the second stage of circulation and are reconverted from money into the elements of productive capital. All parts of capital pass successively through the process of rotation and are simultaneously in its different stages. The industrial capital thus exists simultaneously in all the successive stages of its rotation and in the various forms corresponding to its functions. That part of industrial capital, which is for the first time converted from commodity-capital into money, begins the cycle C'...C', while industrial capital as a rotating body of aggregates, has passed through it. One hand advances money, the other receives it. The inauguration of the cycle M...M' at one place coincides with its return to the starting point of another. The same is true of productive capital.

The actual rotation of industrial capital in its continuity is therefore not alone the unity of the processes of production and circulation, but also the unity of its three cycles. But it can be such a unity only if

every individual part of capital can go successively through the various stages of the rotation, pass from one phase and from one functional form to another, so that the industrial capital, being the aggregate of all these parts, is found simultaneously in its various phases and functions and describes all three cycles at the same time. The succession of these parts is conditioned on their simultaneous existence side by side, that is to say, on the division of capital. In a systematized manufacture, the product is as much ubiquitous in the various stages of its process of formation, as it is in the transition from one phase of production to another. As the individual industrial capital has a definite volume which does not merely depend on the means of the capitalist and which has a minimum magnitude for every branch of production, it follows that its division must proceed according to definite proportions. The magnitude of the available capital determines the volume of the process of production, and this, again, determines the size of the commodity-capital and money-capital which perform their functions simultaneously with the process of production. The simultaneous functions, which enable the production to proceed continuously, are only due to the rotation of the various parts of capital which pass successively through their different stages. The simultaneousness is merely the result of the succession. For if the rotation of one phase, for instance of C'—M', is interrupted for one of the parts of capital, if the commodity cannot be sold, then the cycle of this part is broken and the reproduction of its elements of production cannot take place; the succeeding parts, which come out of the process of production in the shape of C', find the conversion of their function blocked by their predecessors. If this is continued for some time, production is restricted and the entire process arrested. Every stop of the succession carries disorder into the simultaneousness of the cycles, every obstruction of one stage causes more or less obstruction in the entire rotation, not only of the obstructed part of capital, but of the total individual capital.

The next form, in which the process presents itself, is that of a succession of phases, so that the transition of capital into a new phase is conditioned on its departure from another. Every special cycle has therefore one of the functional forms of capital for its point of departure or return. On the other hand, the aggregate process is indeed the unity of its three cycles, which are the different forms in which the continuity of the process expresses itself: The total rotation appears as its own specific cycle to every functional form of capital, and every one of these cycles contributes to the continuity of the process. The rotation of one functional form requires that of the others. This is the inevitable requirement for the aggregate process of production, especially for the social capital, that it is at the same time a process of reproduction, and thus a rotation of each one of its elements. Different aliquot parts of capital pass successively through the various stages and functional forms. By this means, every functional form passes simultaneously with the others through its own cycles, although other parts of capital are continuously presented by each form. One part of capital, continually changing, continually reproduced, exists as a commodity-capital which

is converted into money; another as money-capital converted into productive capital; and a third as productive capital converted into commodity-capital. The continuous existence of all three forms is brought about by the rotation of the aggregate cycle through these three phases.

Capital as a whole, then, exists simultaneously side by side in its different phases. But every part passes continuously and successively from one phase and functional form into the next one and performs a function in all of them. Its forms are fluid and their simultaneousness is brought about by their succession. Every form follows and precedes another, so that the return of one capital part to a certain form is conditioned on the return of another part to some other form. Every part describes continuously its own cycle, but it is always another part which assumes a certain form, and these special cycles are simultaneous and successive parts of the aggregate rotation.

The continuity of the aggregate process is realized only by the unity of the three cycles, and would be impossible with the above-mentioned interruptions. The social capital always has this continuity and its process always rests on the unity of the three cycles.

The continuity of the reproduction is more or less interrupted so far as the individual capitals are concerned. In the first place, the masses of value are frequently distributed at various periods and in unequal portions over the various stages and functional forms. In the second place, these portions may be differently distributed, according to the character of the commodity which is to be produced. In the third place, the continuity may be more or less interrupted in those branches of production which are dependent on the seasons, either on account of natural causes, such as agriculture, fishing, etc., or on account of conventional circumstance such as the so-called season-work. The process proceeds most regularly and uniformly in the factories and in mining. But this difference of the various branches of production does not cause any difference in the general forms of the process of rotation.

Capital, as a value creating more value, is not merely conditioned on class-relations, on a definite social system resting on the existence of labor in the form of wage-labor. It is also a movement, a rotation through various stages, comprising three different cycles. Therefore it can be understood only as a thing in motion, not as a thing at rest. Those who look upon the self-development of value as a mere abstraction forget that the movement of industrial capital is the realization of this abstraction. Value here passes through various forms in which it maintains itself and at the same time increases its value. As we are here concerned in the form of this movement, we shall not take into consideration the revolutions which capital-value may undergo during its rotation. But it is clear that capitalist production can only exist and endure, in spite of the revolutions of capital-value, so long as this value creates more value, that is to say, so long as it goes through its cycles as a self-developing value, or so long as the revolutions in value can be overcome and balanced in some way. The movements of capital

appear as the actions of some individual industrial capitalist who performs the functions of a buyer of labor-power, a seller of commodities, and an owner of productive capital, and who brings about the process of rotation by his activity. If social capital-value experiences a revolution in value, it may happen that the capital of the individual capitalist succumbs and fails, because it cannot adapt itself to the conditions of this conversion of values. To the extent that such revolutions in value become acute and frequent, the automatic nature of self-developing value makes itself felt with the force of elementary powers against the foresight and calculations of the individual capitalist, the course of normal production becomes subject to abnormal speculation, and the existence of individual capitals is endangered. These periodical revolutions in value, therefore, prove that which they are alleged to refute, namely, the independent nature of value in the form of capital and its increasing independence in the course of its development.

This succession of the metamorphoses of rotating capital includes the continuous comparison of the changes of value brought about by rotation with the original magnitude of capital. When the growing independence of value as compared to the power of creating value, of labor-power, has been inaugurated by the act M—L (purchase of labor-power) and is realized during the process of production as an exploitation of labor-power, this rise of independence on the part of value does not re-appear in that cycle, in which money, commodities, and elements of production are merely passing forms of rotating capital-value, and in which the former magnitude of value compares itself to the present changed value of capital.

"Value," says Bailey, in opposition to the idea of the growing independence of value characteristic of capitalist production, which he regards as an illusion of certain economists, "value is a relation between contemporary commodities, because such only admit of being exchanged with each other." This criticism is directed against the comparison of commodity-values of different periods of time, which amounts to the comparison of the expenditure of productive labor required for the manufacture of equal commodities at different periods, once that the value of money for every period has been fixed. His opposition is due to his general misunderstanding, for he thinks that exchange-value is value itself, that the form of value is identical with the volume of value; so that values of commodities cannot be compared, so long as they do not perform active service as exchange values and are not actually exchanged for each other. He has not the least inkling of the fact that value performs only the functions of capital, in so far as it remains identical with itself and is compared with itself in those different phases of its rotation which are not at all contemporary, but succeed one another.

In order to study the formula of this rotation in its purity, it is not sufficient to assume that the commodities are sold at their value, but that this takes place under conditions which are otherwise equal. Take, for instance, the cycle P...P and make abstraction of all technical revolutions within the process of production, by which the productive

capital of a certain individual capitalist might be depreciated; make abstraction furthermore of all reactions, which a change in the elements of value of productive capital might cause in the value of the existing commodity-capital, which might be increased or lowered, if a stock of it were kept on hand. Take it also, that C', or 10,000 lbs. of yarn, have been sold at their value of 500 pounds sterling; 8,440 lbs., equal to 422 pounds sterling, reproduce the capital-value contained in C'. But if the prices of cotton, coal, etc., have increased (we do not consider mere fluctuations in price), these 422 pounds sterling may not suffice for the full reproduction of the elements of productive capital; in that case, additional money-capital is required and money-value is tied up. The opposite takes place, if those prices fall, and money-capital is set free. The process takes a normal course only so long as the values remain constant; it proceeds practically normal, so long as the disturbances during the repetition of the process balance one another. But to the extent that these disturbances increase in volume, the industrial capitalist must have at his disposal a greater money-capital, in order to tide himself over the period of compensation; and as the scale of each individual process of production and thus the minimum size of the capital to be advanced increase in the process of capitalist production, we have here another circumstance to add to those others which transform the functions of the industrial capitalist more and more into a monopoly of great money-capitalists, who may be individuals or associations.

We remark incidentally that a difference in the form of M...M' on one side, and of P...P and C'...C' on the other appears, if a change in the value of the elements of production occurs.

In the cycle M...M', the formula of newly invested capital, which for the first time appears in the role of money-capital, a fall in the value of elements of production, such as raw materials, auxiliary materials, etc., will require a smaller investment of money-capital than would have been necessary before this fall for the purpose of starting a business of a definite size, because the scale of the process of production depends on the mass and volume of the means of production (provided the productivity remains unchanged), which a given quantity of labor-power can assimilate; but it does not depend on the value of these means of production nor on that of the labor-power (the latter has an influence only on the creation of more value). Take the opposite case. If the value of the elements of production of certain commodities is increased, which are required as elements of a certain productive capital, then more money-capital is required for the establishment of a business of definite proportions. In both cases it is only the quantity of the money-capital required for investment which is affected. In the former case, money-capital is set free, in the latter it is tied up, provided the advent of new industrial capitals proceeds normally in a given branch of production.

The cycles P...P and C'...C' assume the character of M...M' only to the extent that the movement of P and C' is at the same time accumulation, so that additional m, money, is converted into money-capital.

Apart from this case, they are differently affected than M...M' by a change of value of the elements of production; here, too, we do not take into consideration the reaction of such changes in value on those parts of capitals which are engaged in the process of production. It is not the original investment, which is here directly affected, not a capital engaged in its first rotation, but one in a process of reproduction; in other words, C'...C $\{^{L}_{Pm}$, the reconversion of commodity-capital into its elements of production, so far as they are composed of commodities. In a reduction of value (or price), three cases are possible: The process of reproduction is continued on the same scale; in that case a part of the available money-capital is set free and money-capital is accumulated, although no actual accumulation (production on an enlarged scale), or the transformation of m (surplus-value) into funds for accumulation initiating and accompanying it, has previously taken place. Or, the process of reproduction is renewed on a more enlarged scale than would have been ordinarily the case, provided the technical proportions admit it. Or, finally, a larger stock of raw materials, etc., is laid in.

The opposite takes place if the value of the elements of reproduction of a commodity-capital increases. In that case, reproduction does not take place on its normal scale (work is done in a shorter time, for instance); or additional money-capital must be employed in order to maintain the old scale (money-capital is tied up); or the money-fund of the accumulation, if available, is entirely or partially employed for the enlargement of the process of reproduction to its old scale. This is also tying up money-capital, only the additional money-capital does not come from the outside, from the money-market, but out of the pockets of the industrial capitalist himself.

However, there may be modifying circumstances in P...P and C'...C'. If our cotton spinner has a large stock of cotton (a large proportion of his productive capital in the form of a stock of cotton), a part of his productive capital is depreciated by a fall in the price of cotton; but if this price has risen, this part of his productive capital is enhanced in value. On the other hand, if he had tied up a large part of his capital in the form of commodity-capital, for instance in cotton yarn, a part of his commodity capital, or for that matter of any of his rotating capital, is depreciated by a fall in the price of cotton, or enhanced by a rise in that price. Finally take the process C'—M—C $\{^{L}_{Pm}$. If C'—M, the realization on the commodity-capital, has taken place before a change in the value of the elements of C, then capital is affected only in the way indicated in the first case, that is to say, in the second act of circulation, M—C $\{^{L}_{Pm}$; but if such a change has occurred before the realization of C'—M, then, other conditions remaining equal, a fall in the price of the cotton causes a corresponding fall in the price of yarn, and a rise in the price of cotton a rise in the price of yarn. The effect on the various individual capitals in the same branch of production may differ widely according to the circumstances in which they find themselves. Money-capital may also be set free or tied up by differences in the duration of the process of circulation, in other words, by the pace

of the circulation. But this belongs in the discussion of the periods of turn-over. At this point, we are only interested in the real difference arising from changes of values in the elements of productive capital between M...M' and the other two cycles of the process of rotation.

In the section of circulation indicated by M—C $\left\{\begin{matrix} L \\ Pm \end{matrix}\right.$, at a period of developed and prevailing capitalist modes of production, a large portion of the commodities composing Pm, means of production, will be rotating commodity-capital of some one else. From the standpoint of the seller, therefore, the transaction is C'—M', the transformation of commodity-capital into money-capital. But this does not apply absolutely. In the opposite case, in those sections of its process of rotation, where industrial capital performs either the functions of money or of commodities, the cycle of industrial capital, whether as money-capital or as commodity-capital, crosses the circulation of commodities of the most varied social modes of production, so far as they produce commodities. No matter whether a commodity is the product of slavery, of peasants (Chinese, Indian ryots), of communes (Dutch East Indies), or of state enterprise (such as existed in former epochs of Russian history on the basis of serfdom), or of half-savage hunting tribes, etc., commodities and money of such modes of production, when coming in contact with commodities and money representing industrial capital, enter as much into its rotation as into that of surplus-values embodied in the commodity-capital, provided the surplus-value is spent as revenue. They enter into both of the cycles of circulation of commodity-capital. The character of the process of production from which they emanate is immaterial. They perform the function of commodities on the market, and enter into the cycles of industrial capital as well as into those of the surplus-value carried by it. It is the universal character of the commodities, the world character of the market, which distinguishes the process of rotation of the industrial capital. What is true of foreign commodities is also true of foreign money. Just as commodity-capital has only the character of commodities in contact with foreign money, so this money has only the character of money in contact with commodity-capital. Money here performs the functions of world-money.

However, two points must be noted here.

First. As soon as the transaction M—Pm is completed, the commodities (Pm) cease to be such and become one of the modes of existence of industrial capital in its function of productive capital. Henceforth their origin is obliterated. They exist only as forms of industrial capital and are embodied in it. But it still remains necessary to reproduce them, if their places are to be filled, and to this extent the capitalist mode of production is conditioned on other modes of production outside of its own stage of development. But it is the tendency of capitalist production to transform all production as much as possible into a production of commodities. The mainspring, by which this is accomplished, is the implication of other modes of production into the circulation process of capitalist production. And developed commodity-production is capitalist production. The intervention of industrial capital promotes

this transformation everywhere, and simultaneously with it also the transformation of all direct producers into wage laborers.

Second. The commodities entering into the process of circulation (including the means of existence necessary for the reproduction of the labor-power of the laborer, who receives variable capital in the form of wages), regardless of their origin and of the social form of the productive process by which they were created, entertain the relation of commodity-capital, in the form of merchandise or merchant's capital, toward industrial capital. Merchant's capital, by its very nature, includes commodities of all modes of production.

Capitalist production does not only imply production on a large scale, but also necessarily sale on a large scale, in other words, sale to the dealer, not to the individual consumer. Of course, so far as a consumer is himself a productive consumer, an industrial capitalist, whose industrial capital produces means of production for some other branch of industry, a direct sale of one industrial capitalist's product to many other capitalists takes place (orders, etc.). To this extent, every industrial capitalist is a direct seller and his own dealer, also, when he sells to the merchant.

Trading in commodities as a function of merchant's capital is the premise of capitalist production and develops more and more in the course of development of this mode of production. Therefore we use it occasionally for the illustration of various aspects of the process of capitalist circulation; but in the general analysis of this process, we assume that commodities are sold directly without the intervention of the merchant, because this intervention obscures various points of the movement.

See, for instance, Sismondi, who presents the matter somewhat naively, in the following words: "Commerce employs considerable capital, which at first sight does not seem to be a part of that capital whose movements we have just described. The value of the cloth in the stores of the cloth-merchant seems at first to be entirely foreign to that part of the annual production which the rich give to the poor as wages in order to make from work. However, this capital has simply replaced the other of which we have spoken. For the purpose of clearly understanding the progress of wealth, we have begun with its creation and followed its movements to their conclusion. We have then seen that the capital employed in manufacture, for instance in the manufacture of cloth, was always the same; and when it was exchanged for the income of the consumer, it was merely divided into two parts; one of them serving as revenue for the capitalist in the form of the product, the other serving as revenue to the laborers in the form of wages while they were manufacturing new cloth.

But it was soon found that it would be to the advantage of all to replace the different parts of this capital one by another and, if 10,000 dollars were sufficient for the entire circulation between the manufacturer and the consumer, to divide them equally between the manufacturer, the wholesale dealer, and the retail merchant. The first then did the same work with only one-third of this capital which he had

formerly done with the entire capital, because, as soon as his work of manufacturing was completed, he found that the merchant bought from him much more readily than he could have found the consumer. On the other hand, the capital of the wholesale dealer was much sooner replaced by that of the retail merchant. . . . The difference between the sums advanced for wages and the purchase price paid by the last consumer was considered the profit of those capitals. It was divided between the manufacturer, the wholesale dealer, and the retail merchant, from the moment that they had divided their functions, and the work accomplished was the same, although it had required three persons and three parts of capital instead of one (Nouveaux Principes, I, pages 159, 160). All the merchants contributed indirectly to production; for having consumption for its object, production cannot be regarded as completed, until the product is placed into the reach of the consumer (Ibidem, page 157)."

We operate in the discussion of the general forms of the rotation, in short in the entire second volume, with money as metallic money, to the exclusion of symbolic money, of mere tokens of value, which are the specialties of certain states, and of credit-money, which is not yet developed. In the first place, this is the historical order; credit-money plays only a very minor role, or none at all, during the first epoch of capitalist production. In the second place, the necessity of this order is demonstrated theoretically by the fact, that everything which Tooke and others have hitherto produced of a critical nature in regard to the circulation of credit-money was compelled to hark back to the question, what would be the aspect of the matter if nothing but metal-money were in circulation. But it must not be forgotten, that metal-money may serve as a purchase medium and as a paying medium. For the sake of simplicity, we consider it in this second volume generally only in its first functional form.

The process of circulation of industrial capital, which is only a part of its individual process of rotation, is determined by the general laws outlined in volume I, chapter III, in so far as it is a series of transactions within the general circulation of commodities. The same mass of money, for instance 500 pounds sterling, starts successively so many more industrial capitals (or eventually individual capitals in the form of commodity-capitals) in circulation, the greater the velocity of rotation of money is, and the more rapidly therefore every individual capital passes through the metamorphoses of commodities or money. One and the same volume of capital-value therefore requires so much less money for its circulation, the more this money performs the functions of a paying medium; the more, for instance, in the reproduction of some commodity-capital by its corresponding means of production, nothing but balances have to be squared; and the shorter the time of the payments is, for instance in paying wages. On the other hand, assuming that the velocity of the circulation and all other conditions remain the same, the volume of money required for the circulation of money-capital is determined by the sum of the prices of commodities (price multiplied by the volume of commodities), or,

if the volume and value of the commodities are given, by the value of money itself.

But the laws of the general circulation of commodities apply only to the extent that the process of circulation of capital consists of a series of simple transactions in circulation; they do not apply to the extent that such transactions are definite functional sections in the rotation of individual industrial capitals.

In order to make this plain, it is best to study the process of circulation in its uninterrupted and connected form, such as it appears in the following two formulas:

$$\text{II)}\ P\ldots C' \begin{cases} C\text{——} \begin{cases} M\text{—}C\{^{L}_{Pm}\ldots P\ (P') \\ m\text{—}c \end{cases} \\ \text{——}M' \\ c\text{——} \end{cases}$$

$$\text{III)}\ C' \begin{cases} C\text{——} \begin{cases} M\text{—}C\{^{L}_{Pm}\ldots P\ldots C' \\ m\text{—}c \end{cases} \\ \text{——}M' \\ c\text{——} \end{cases}$$

As a series of transaction, in circulation, the process of circulation, whether in the form of C—M—C or of M—C—M, represents merely the two opposite lines of metamorphoses of commodities, and every individual metamorphosis in its turn includes its opposite on the part of the commodity or money in the hands of another.

C—M on the part of the owner of some commodity means M—C on the part of its buyer; the first metamorphosis of the commodity in C—M is the second metamorphosis of the commodity appearing in the form of M; the opposite applies to M—C. The statements concerning the intermingling of the metamorphosis of a certain commodity in one stage with that of another in another stage apply to the circulation of capital to the extent that the capitalist performs the functions of a buyer and seller of commodities, so that his capital in the form of money meets the commodities of another, or in the form of commodities the money of another. But this intermingling is not identical with the intermingling of the metamorphoses of capitals.

In the first place, M—C (Pm), as we have seen, may represent an intermingling of the metamorphoses of different individual capitals. For instance, the commodity-capital of the cotton-spinner, yarn, is partly replaced by coal. One part of his capital is in the form of money and is transformed into commodities, while the capital of the capitalist producer of coal exists in the form of commodities and is therefore transformed into money; the same transaction of circulation in this case represents opposite metamorphoses of two industrial capitals in different departments of production, the series of metamorphoses of these capitals intermingles in it. But we have also seen, that the Pm into which M is transformed need not be commodity-capital in the strictest sense, that is to say need not be a functional form of industrial capital, need not be produced by a capitalist. It is always a question of M—C on one side, and C—M on the other, but not always of intermingling metamorphoses of capitals. Furthermore M—L, the purchase

of labor-power, never intermingles with any metamorphoses of capital, for labor-power, though a commodity from the point of view of the laborer, does not become capital until it is sold to the capitalist. On the other hand, in the process C'—M', it is not necessary that M' should represent transformed commodity-capital; it may be the money-equivalent of labor-power (wages), or of the product of some independent laborer, some slave, serf, or some commune.

In the second place, a definite functional role played by every metamorphosis of some individual capital within the process of circulation need not represent a corresponding opposite metamorphosis in the rotation of the other capital, provided we assume that the entire production of the world-market is carried on capitalistically. For instance, in the cycle P...P, the M' which pays for C' may be merely the money-form of the surplus-value of the buyer, in case that the commodity is an article for consumption; or, in M'—C' $\begin{cases} L \\ Pm \end{cases}$ where accumulated capital is concerned, it may simply replace the advanced capital of the seller of Pm, or it may not return into the rotation of his capital at all by being side-tracked into expenditures as revenue.

This shows that the manner in which the different component parts of the aggregate social capital, of which individual capitals are merely components performing independent functions, mutually replace one another in the process of circulation (in regard to capital as well as surplus-value), is not apparent from the simple intermingling of the metamorphoses in the circulation of commodities. Such intermingling occurs in the transactions of capital circulation as it does in all other circulation of commodities, but it requires a different method of analysis. Hitherto nothing but general phrases have been employed by economists for this purpose, and if we test those phrases, they contain nothing but indefinite ideas borrowed from the intermingling of metamorphoses common to all circulations of commodities.

One of the most obvious peculiarities of the process of rotation of industrial capital, and therefore of capitalist production, is the fact that on the one side, the component elements of productive capital are derived from the commodity-market, are continually renewed out of it, and are sold as commodities; that, on the other side, the product of the labor-process comes forth from it as a commodity and must be continually sold over and over as a commodity. Compare, for instance, a modern tenant of Lower Scotland with an old-fashioned small farmer on the continent. The former sells his entire product and has therefore to reproduce all its elements, even his seeds, by means of the market; the latter consumes the greater part of his product directly, buys and sells as little as possible, fashions tools, clothing, etc., so far as possible himself.

Such comparisons have led to the classification of production into natural economy, the money-system, and the credit-system, as being the three characteristic stages of economy in the development of social production.

But in the first place, these three forms do not represent any equivalent phases of development. The so-called credit-system is itself merely a modification of the money-system, so far as both terms express transactions between the producers themselves. In the developed capitalist production, the money-system appears only as the basis of the credit-system. The money-system and credit-system thus correspond only to different stages in the development of capitalist production, but they are by no means independent modes of economy as compared to natural economy. With the same justification, one might place the various forms of natural economy as equivalents by the side of those two systems.

In the second place, it is not the process of production itself which is emphasized as the distinguishing mark of the two systems of that classification, the money-system, the credit-system, but rather the mode of transaction between the various producers under those systems. Then the same should apply to the natural economy, which should in that case be classified as the exchange-system. A completely rounded system of natural economy, such as the state of the Incas in Peru, would not fall under any of these classifications.

In the third place, the money-system is common to all production of commodities, and the product appears as a commodity in the most varied organisms of social production. The characteristic mark of capitalist production would then be only the extent to which the product is manufactured for purposes of trade, as a commodity, and the extent to which its own elements of formation enter as commodities into the economy which creates that product.

It is true that capitalist production has for its general form the production of commodities. But it is so and becomes more so in its development, only because labor itself here appears as a commodity, because the laborer sells labor, that is to say the function of his labor-power, and our assumption is that he sells it at a value determined by its cost of reproduction. To the extent that labor becomes wage-labor, the producer becomes an industrial capitalist. For this reason capitalist production (and the production of commodities) does not reach its full scope until the agricultural laborer becomes a wage-laborer. In the relation of capitalist and wage-laborer, the relation between the buyer and the seller, the money-relation, becomes an imminent relation of production. And this relation has its foundation in the social character of production, not of circulation. The character of the circulation rather depends on that of production. It is, however, quite characteristic of the bourgeois horizon, which is entirely bounded by the craze for making money, not to see in the character of the mode of production the basis of the corresponding mode of circulation, but vice versa.[7]

The capitalist throws less value in the form of money into the circulation than he draws out of it, because he throws into it more

[7] End of Manuscript V. What follows to the end of the chapter is a note found in a Manuscript of 1877 or 1878 amid extracts from other works.

value in the form of commodities than he had withdrawn from it. To the extent that he is simply a personification of capital, an industrial capitalist, his supply of commodity-value is always larger than his demand for that value. The equality of his supply and demand in this respect would indicate that his capital had not produced any surplus-value; it would not have performed the functions of productive capital; the productive capital would have been converted into commodity-capital which would not be impregnated with surplus-value; it would not have drawn any surplus-value in commodity-form out of labor-power during the process of production, it would not have performed any capital-functions at all. The capitalist must indeed "sell dearer than he has bought," but he succeeds only in doing so, because the capitalist process of production enables him to transform the cheaper commodity, which contains less value, into a dearer commodity with increased value. He sells dearer, not because he gots more than the value of his commodity, but because his commodity contains a greater value than that contained in the natural elements of its production.

The rate at which value is added to the capital of the capitalist increases in proportion to the difference between his supply and his demand, that is to say in proportion as the surplus of the commodities which he places on the market exceeds the value of the commodities which he has taken from it. His aim is not to equalize his supply and demand, but to make the difference between them as much as possible in favor of his supply.

What is true of the individual capital, also applies to the capitalist class.

In so far as the capitalist personifies but his industrial capital, his own demand is only for means of production and labor-power. His demand for Pm, expressed in value, is smaller than his advanced capital; he buys means of production of a value smaller than his capital, and therefore much smaller than the value of the commodity-capital which he takes back to the market.

As regards his demand for labor-power, its value is determined by the proportion of his variable capital to his total capital, as expressed by $V \div C$. Its proportion in capitalist production decreases continually more than his demand for means of production. His purchases of Pm steadily increase over his purchases of L.

Inasmuch as the laborer generally converts his wages into means of existence, and for the overwhelmingly larger part necessities of life, the demand of the capitalist for labor-power is indirectly also a demand for the articles of consumption assimilated by the working class. But this demand is equal to v and not one atom greater. If the laborer saves a part of his wages—we do not consider any questions of credit at all—he converts a part of his wages into a hoard and does not perform the functions of a purchaser to that extent. The limit of the maximum demand of the capitalist is C, equqal to c plus v, but his supply for the market is c plus v plus s. If the composition of his commodity-capital is $80c + 20v + 20s$, his demand is equal to $80c + 20v$,

or one-fifth smaller in value than his supply. His demand as compared to his supply decreases in proportion as the percentage of the mass of surplus-value produced by him (his rate of profit) increases. Although the demand of the capitalist for labor-power, and thus indirectly for necessities of life, decreases continually compared to his demand for means of production in the further development of production, it must not be forgotten that day by day his demand for Pm is always smaller than his capital. His demand for means of production must, therefore, be always smaller in value than the commodity-product of the capitalist who, working with a capital of equal value and conditions like his, furnishes him with those means of production. It does not alter the case if many capitalist instead of one furnish him with means of production. Take it that his capital is 1,000 pounds sterling, and its constant part 800 pounds sterling; then his demand on all the capitalists supplying him is equal in value to 800 pounds sterling. Together they supply for each 1,000 pounds sterling means of production valued at 1,200 pounds sterling, assuming that the rate of profit is the same for all of them, regardless of the rate at which they share in the 1,000 and of the proportion which the share of each one may represent in his total capital. The demand of the buying capitalist covers only two-thirds of the supply of the sellers, while his total demand equals only four-fifths of the value of his own supply to the market.

It still remains to anticipate the analysis of the problem of turnover. Let the total capital of the capitalist be 5,000 pounds sterling, of which 4,000 pounds is fixed and 1,000 pounds circulating capital; these 1,000 pounds sterling are composed of 800 c plus 200 v, as assumed before. His circulating capital must be turned over five times per year in order that his fixed capital may be turned over once. His commodity-product is then equal in value to 6,000 pounds sterling, it is valued at 1,000 pounds sterling more than his advanced capital, so that the same proportion of surplus-value is obtained as before:

5,000 C ÷ 1,000 s = 100 (c + v) ÷ 20 s.

This turn-over does not change anything in the proportion of the total demand of the capitalist to his total supply. The former remains one-fifth smaller than the latter.

Take it that his fixed capital must be reproduced in 10 years. Hence he sinks every year one tenth, or 400 pounds sterling, so that he has only a value of 3,600 pounds of fixed capital left plus 400 pounds in money. Inasmuch as repairs are necessary which do not exceed the average, they represent nothing but capital invested later. We may look at the matter from the standpoint that he has allowed for the expenses for repairs when calculating the value of his investment, so far as this enters into the annual commodity-product, so that they are included in that one-tenth of sinking fund. If the repairs cost less than the average he has so much money in pocket, and in the reverse case he loses it. At any rate, although his demand, after his total capital has been turned over once a year, still remains at 5,000 pounds sterling which was the value of the original capital advanced, it in-

creases so far as the circulating part of this capital is concerned, while it decreases so far as the fixed part is concerned.

We now come to the question of reproduction. Take it that the capitalist consumes the entire surplus-value composed of money m and reconverts only the original capital-value C into productive capital. Then the demand of the capitalist is equal to his supply; but this does not refer to the movements of his capital. As a capitalist, his demand is only for four-fifths of the value of his supply. He consumes one-fifth as a non-capitalist; he consumes it, not in the performance of his function as capitalist, but for his private requirements or pleasure.

His calculation, expressed in percentages, stands as follows:

Demand as capitalist.....100, supply 120.
Demand as man of the world. 20, supply 0.

Total demand.....120, supply 120.

This assumption amounts to a non-existence of capitalist production, and thus the non-existence of the industrial capitalist himself. For capitalism is destroyed in its very foundation if we assume that its compelling motive is enjoyment instead of the accumulation of wealth.

But such an assumption is also technically impossible. The capitalist must not only form a reserve-capital as a protection against fluctuations of value and as a fund enabling him to wait for favorable conditions of the market for sale and purchase; he must also accumulate capital, in order to extend his production and embody the progress of technique in his productive organization.

In order to accumulate capital, he must first withdraw a part of the surplus-value from circulation which he obtained from that circulation in the form of money, and must hoard it until it has increased sufficiently for the extension of his old business or the opening of a side-line. So long as the formation of the hoard continues, it does not increase the demand of the capitalist. The money is then inactive. It does not withdraw from the commodity-market any equivalent in commodities for the money-equivalent which it withdrew for commodities supplied to it.

Credit is not considered here. And credit includes the depositing, on the part of the capitalist, of accumulating money in a bank on payment of interest as shown by a running account.

CHAPTER V

THE TIME OF CIRCULATION[8]

We have seen that the movement of capital through the sphere of production and the two phases of circulation takes place in a succession of time. The duration of its sojourn in the sphere of production is its time of production, that of its stay in the sphere of circulation its time of circulaion.

The time of production naturally includes the labor-process, but is not comprised in it. We must first remember that a part of the constant capital exists in the form of instruments of production, such as machinery, buildings, etc., which serve for the repeated labor-processes until they are worn out. Periodical interruptions of the labor-process by night, etc., interrupt the function of these instruments of production, but not their location on the place of production. They belong to this place when they are not in function as well as when they are. On the other hand, the capitalist must have a definite supply of raw material and auxiliary substances in readiness, in order that the process of production may take place for a longer or shorter time on a previously determined scale, without being dependent on the accidents of a daily supply from the market. This supply of raw material, etc., is consumed productively by degrees. There is, therefore, a difference between its time of production[9] and its time of function. The time of production of the means of production in general comprises, therefore, first, the time during which they serve as means of production by taking part in the productive process; second, the stops during which a certain process of production, and thus the function of the means of production embodied in it, is interrupted; third, the time during which the means of production are held in readiness as requirements for the process of production, during which they represent productive capital, without having entered into the process of production.

The difference so far discussed is always the difference between the time which the productive capital passes in the sphere of production and that in the process of production. But the process of production itself may require interruptions of the labor-process, and thus of the labor time, and during such pauses the object of labor is exposed to the influence of physical processes without the intervention of human labor. The process of production, and thus the function of the means of production, continue in this case, although the labor-process, and thus the function of the means of production as instruments of labor, have been interrupted. This applies, for instance, to the grain, after it has been sowed, the wine fermenting in the cellar, the labor-material of many manufacturers, such as tanneries, where the material is given over to chemical processes. The time of production is then greater

[8] Beginning of Manuscript IV.

[9] Time of production of the means of production does not mean, in this case, the time required for their production, but the time during which they take part in the process of production of a certain commodity.—F. E.

than the labor-time. The difference between the two consists in an excess of the time of production over the labor-time. This excess always arises by the latent existence of productive capital in the sphere of production, without performing its function in the process of production itself, or by the performance of its function in the productive process without taking part in the labor-process.

That part of the latent productive capital, which is held in readiness as a requirement for the productive process, such as cotton, coal, etc., in a spinnery, produces neither products nor value. It is fallow capital, although its fallow condition is a requirement for the uninterrupted flow of the process of production. The buildings, apparatus, etc., necessary for the storage of the productive supply (latent capital) are requirements of the productive process and therefore component parts of the advanced productive capital. They perform their function as conservators of the elements of production in a preliminary stage. Inasmuch as labor-processes are required in this stage, they add to the cost of the raw material, etc., but they are productive labor and produce surplus-value, because a part of this labor, like all wage-labor, is not paid. The normal interruptions of the entire process of production, the pauses in which the productive capital does not perform any functions, create neither value nor surplus-value. Hence the tendency to keep the work going at night (Volume I, Chapter X, 4).—The intervals in the labor-time, which the object of labor must endure in the process of production itself, create neither value nor surplus-value. But they advance the product, form a part of its life, a process through which it must necessarily pass. The value of the apparatus, etc., is transferred to the product in proportion to the entire time, during which they perform their function; the product is brought to this stage by labor itself, and the employment of these apparatus is as much a requirement of production as the wasting of a part of the cotton which does not enter into the product, but nevertheless transfers its value to that product. The other parts of latent capital, such as buildings, machinery, etc., that is to say those instruments of labor whose function is interrupted only by the regular pauses of the productive process (irregular interruptions caused by the restriction of production, crises, etc., are total losses) create additional values without entering into the creation of the product. The total value which this part of capital adds to the product is determined by the average time which it lasts; for its own value, being use-value, diminishes during the time that it performs its functions as well as during that in which it does not.

Finally, the value of the constant part of capital, which continues in the productive process although the labor-process is interrupted, reappears in the result of the productive process. Labor itself has here placed the means of production in a condition where they pass without further assistance through certain useful processes, the result of which is a definite advantage or a change in the form of the use-values. Labor always transfers the value of the means of production to the product, to the extent that it really consumes them to good effect as means of production. And it does not change the case whether labor has to be

exerted continually on its object in order to produce this effect or whether it merely gives the first impulse for it by placing the means of production in a condition wherein they undergo the intended transformation through the influence of natural processes, without further assistance from labor.

Whatever may be the reason for the excess of the time of production over the labor-time—whether it is that the means of production are still latent capital in a stage preliminary to the actual productive process, or that their function is interrupted within the process of production by its pauses, or that the process of production itself requires an interruption of the labor-process—in none of these cases do the means of production assimilate any labor. And if they do not assimilate any labor, they do not imbibe any surplus-labor. Hence the productive capital does not increase its value, so long as it remains in that part of its time of production which exceeds the labor-time, no matter how indispensable these pauses may be for the realization of the process of increasing value. It is plain that the productivity and increment of a given productive capital in a given time are so much greater, the more nearly the time of production and labor-time are equal. Hence we have the tendency of capitalist production to reduce the excess of the time of production over the labor-time as much as possible. But although the time of production of a certain capital may exceed its labor-time, it always includes the latter, and its excess is a logical condition of the process of production. The time of production, then, is always that time in which a capital produces use-values and surplus-values, and in which it performs the functions of productive capital, although it includes time in which it is either latent or produces without creating surplus-values.

Within the sphere of circulation, capital abides as commodity-capital and money-capital. Its two processes of circulation consist in its transformation from the commodity-form into that of money, and from the money-form into that of commodities. It does not alter the character of these processes as transactions in circulation, of processes in the simple metamorphosis of commodities, that this transformation of commodities into money is at the same time a realization of the surplus-values embodied in the commodities, and that the transformation of money into commodities is at the same time a transformation or reconversion of capital-value into the forms of its elements of production.

The time of circulation and time of production mutually exclude one another. During its time of circulation, capital does not perform the functions of productive capital and therefore produces neither commodities nor surplus-value. If we study the cycle in its simplest form, so that the entire capital-value passes in one bulk from one phase into the other, we can plainly see that the process of production is interrupted and therefore also the production of surplus-value, so long as its time of circulation lasts, and that the renewal of the process of production will take place promptly or slowly, according to the length of the time of circulation. But if the various parts of capital pass

through the cycle successively, so that the rotation of the entire capital-value proceeds successively by the rotation of its component parts, then it is evident that the part performing continually the function of productive capital must be so much smaller, the longer the aliquot parts of capital-value remain in the sphere of circulation. The expansion and contraction of the time of circulation are therefore a check on the contraction or expansion of the time of production or of the volume which a given capital can assume for its productive function. To the extent that the metamorphoses of circulation of a certain capital are reduced, to the extent that the time of circulation approaches zero, its productivity and increment of surplus-value will increase. For instance, if a capitalist executes an order, so that he receives payment for his goods on delivery, and if this payment is made in his own elements of of production, the time of circulation of his capital approaches zero.

In short, the time of circulation of a certain capital limits its time of production and the process of creating surplus-value. And this limitation is proportional to the duration of the time of circulation. Seeing that this time may increase or decrease in different ratios, it may limit the time of production in various degrees. But political economy sees only the seeming effect, that is to say the effect of the time of circulation on the creation of surplus-values in general. It takes this negative effect for a positive one, because its results are positive. It clings so much the more to this semblance, as this seems to prove that capital has a mystic source from which surplus-value flows toward it through the circulation, independently of its process of production and the exploitation of labor. We shall see later that even scientific political economy has been deceived by this appearance of things. Various phenomena contribute to this deception: 1. The capitalist method of calculating profit, in which the negative cause figures as a positive one, seeing that with capitals in different spheres of investment, with different times of circulation only, a longer time of circulation tends toward an increase of prices, in short, serves as one of the causes which bring about an equalization of profits. 2. The time of circulation is but a factor in the period of turn-over; and this period includes both the time of production and reproduction. What is really due to the period of turn-over seems to be due to the time of circulation. 3. The conversion of commodities into variable capital (wages) is conditioned on their previous conversion into money. In the accumulation of capital, the conversion into additional variable capital takes place in circulation, or during the time of circulation. It thus appears as though this accumulation were due to the time of circulation.

Within the sphere of circulation, capital passes through the two opposite phases of C—M and M—C, no matter in what succession. Hence its time of circulation is likewise divided into two parts, viz.: the time required for its conversion from money into commodities, and that required for its conversion from commodities into money. We have already learned from the analysis of the simple circulation of commodities (Vol. I, Chap. III), that C—M, the sale, is the most

difficult part of its metamorphosis and that, therefore, under ordinary conditions, it takes up the greater part of its time of circulation. As money, value exists in its ever convertible form. But as a commodity, value must first be transformed into money in order to assume such a directly convertible form of continual readiness. However, in the process of circulation of capital, its phase C—M deals with commodities which constitute definite elements of productive capital in a certain investment. The means of production may not be on the market and must first be produced, or they must be ordered from distant markets, or their ordinary supply is interrupted, or prices change, etc., in short there are a multitude of circumstances which are not visible in the simple change of form from M to C, but which nevertheless require more or less time for this part of the phase of circulation. C—M and M—C may not only be separate in time, but also in space, the selling and the buying market may be located apart. In the case of factories, for instance, the buyer and seller are frequently different persons. In the production of commodities, circulation is as necessary as production itself, so that agents are just as much needed in circulation as in production. The process of reproduction includes both functions of capital, therefore it also includes the necessity of having representatives for both of them, either in the person of the capitalist or of wage-workers as his agents. But this is no more a good reason for mistaking the agents in circulation for those in production, than it is to confound the functions of commodity-capital and money-capital with those of productive capital. The agents of circulation must be paid by the agents of production. And since capitalists who mutually sell and buy do not create either values or products by these transactions, this state of affairs is not changed if they are enabled or compelled by the expansion of their business to charge others with those transactions.

In some businesses, the buyers and sellers get their wages in the form of percentages on the profits. It does not alter the matter to use the phrase that they are paid by the consumer. The consumers can pay only inasmuch as they are themselves instrumental in producing an equivalent in commodities as agents of production or appropriate it out of the product of other agents in production, whether it be by means of legal titles or of personal services.

There is a difference between C—M and M—C, which has nothing to do with the different forms of commodities and money, but arises from the capitalist character of production. Intrinsically, C—M as well as M—C is merely a conversion of a given value out of one form into another. But C'—M' is at the same time a realization of the surplus contained in C'. Not so M—C. For this reason the sale is more important than the purchase. M—C is under normal conditions a necessary act for the creation of more value by means of the value contained in it, but it is not the realization of surplus-value; it is the intimation of its production, not its after-affect.

The form in which a commodity exists, the form of its use-value, prescribes definite limits for the circulation of commodity-capital

C'—M'. Use-values are naturally perishable. Hence, if they are not productively or individually consumed within a certain time, in other words, if they are not sold within a certain period, they spoil and thus lose with their use-value also the faculty of being bearers of surplus-value. The capital-value, or eventually the surplus-value, contained in them is lost. The use-values do not remain the bearers of perennial capital-value increasing by the addition of surplus-value, unless they are continually reproduced and replaced by new use-values of the same or of some other order. The sale of the use-values in the form of finished commodities, their transfer to the productive or individual consumption by means of this sale, is the ever recurring requirement for their reproduction. They must change their old use-form within a certain time, in order to continue their existence in a new form. Exchange-value maintains itself only by means of this constant renewal of its substance. The use-values of certain commodities spoil sooner or later; the time between their production and consumption may therefore be long or short; they may retain the form of commodity-capital in phase C—M of the circulation for a shorter or longer term and endure a shorter or a longer time of circulation. The limit of the time of circulation of a certain commodity-capital imposed by the spoiling of the substance of the commodity is the absolute limit of this part of the time of circulation, or of the time of circulation of commodity-capital as such. To the extent that a commodity is perishable, to the extent that it must be sold and consumed as soon as possible after its production, its capacity for removal from its place of production is restricted, the sphere of its circulation is narrowed, its selling market is localized. For this reason a commodity is so much less suited for capitalist production as it is perishable, as its physical composition limits its time of circulation. It is available for this purpose only in thickly populated districts, or to the extent that the improvement of transportation brings places closer together. But the concentration of the production of such articles into a few hands and in a populous district may create a relatively large market even for them, for instance, such as the product of large beer-breweries, dairies, etc.

CHAPTER VI

THE EXPENSES OF CIRCULATION

I. GENUINE EXPENSES OF CIRCULATION

1. The Time of Purchase and Sale

The transformations of capital from commodities into money and from money into commodities are at the same time transactions of the capitalist, acts of purchase and sale. The time in which these transformations take place constitutes from the personal standpoint of the capitalist a purchase and selling time, it is the time during which he performs the functions of a buyer and seller on the market. Just as

the time of circulation of capital is a necessary part of its time of reproduction, so the time in which the capitalist buys and sells and remains in the market is a necessary part of the time in which he performs the functions of a capitalist, in which he personifies capital. It is a part of his business time.

[9a]Since we have assumed that commodities are bought and sold at their values, these transformations constitute merely a conversion of the same value from one form into another, from the form of commodities into that of money or vice versa, a change of composition in substance. If commodities are sold at their values, then the magnitude in the hands of the buyer and seller remains unchanged. Only the form of its existence is changed. If the commodities are not sold at their values, then the sum of the converted values remains the same; the plus on one side is offset by a minus on the other.

The metamorphoses C—M and M—C are transactions between buyers and sellers; they require time to perfect the trade, the more so as this represents a struggle in which each seeks to get the best of the other; for to businessmen applies the statement: "When Greek meets Greek, then comes the tug of war." The conversion of a commodity costs time and labor-power, not for the purpose of creating values, but in order to accomplish the conversion of value from one form into another. The mutual attempt to appropriate an extra share of this value changes nothing fundamentally. This work, increased by the evil designs on either side, does not create value any more than the work done in a civil process increases the value of the object of contention. It is with this labor, which is a necessary part of the totality of the capitalist process of production, including the circulation or included by it, as it is with the labor of combustion of some element used for the generation of heat. This labor of combustion does not generate any heat, although it is a necessary part in the process of combustion. In order to employ coal as fuel, it must combine with oxygen, and for this purpose coal must be brought to the condition of carbonic acid gas; in other words, a physical change of form must take place. The separation of carbon molecules, which are united into a solid mass, and the breaking up of these molecules into their atoms, must precede the new combination, and this requires a certain effort, which is not transformed into heat, but taken from it. If the owners of commodities are not capitalists, but direct producers, the time required for buying and selling is so much loss of labor time, and for this reason such transactions were deferred in ancient and medieval times to holidays.

Of course, the dimensions acquired by the business in commodities in the hands of the capitalists cannot transform this labor, which does not create any values and promotes merely changes of form, into labor productive of surplus-value. Nor can this miracle of transubstantiation be accomplished by unloading this work of "combus-

[9a] From here to 10 are statements taken from a note at the end of Manuscript VIII.

tion" from the shoulders of the industrial capitalists to those of paid employees who attend to it exclusively. These employees will not tender their services out of pure love for the capitalists. The collector of some real-estate owner or the messenger of some bank is indifferent to the fact that their labor does not add any value to the rent or to the money carried to the bank in bags.[10]

For the capitalist who has others working for him, selling and buying become primary functions. Seeing that he appropriates the products of many on a large social scale, he must sell on the same scale and then reconvert the money into elements of production. But still neither the sale nor the purchase creates any values. An illusion is here created by the function of merchant's capital. But without entering at this point into a detailed discussion of this fact, we can plainly see this much: If a function, which is unproductive in itself, although a necessary link in reproduction, is transformed by a division of labor from an incidental occupation of many into an exclusive occupation of a few, the character of this function is not changed thereby. One merchant, as an agent promoting the transformation of commodities by assuming the role of a mere buyer and seller, may abbreviate by his operations the time of sale and purchase for many producers. To that extent he may be regarded as a machine which reduces a useless expenditure of energy or helps to set free some time of production.[11]

In order to simplify the matter, seeing that we shall not discuss the merchant as a capitalist and his capital as merchant's capital until later, we shall assume that this buying and selling agent is a man who sells his labor-power. He expends his labor-power and labor-time in the operations C—M and M—C. And he makes his living that way, just as another does by spinning or by making pills. He performs a necessary function, because the process of reproduction itself includes an unproductive function. He works as well as any other man, but intrinsically his labor creates neither products nor values. He belongs himself to the unproductive expenses of production. His services do not transform an unproductive function into a productive one, nor unproductive into productive labor. It would be a miracle, if such a

[10] See explanation 9*a*.

[11] "The expenses of commerce, although necessary, must be regarded as a burden." (Quesnay, Analyse du Tableau Economique, in Daire, Physiocrates, part I. Paris, 1846, page 71.) According to Quesnay, the "profit," which the competition between merchants produces, and which he sees in the fact that competition compels them "to figure a discount on their loss or gain . . . . . is really nothing but a prevention of loss for the seller at first hand or for the consuming buyer. Now, a prevention of loss on the expenses of commerce is not a real product or an increase of wealth through commerce, considering it simply as an exchange, whether with or without the cost of transportation." (Pages 145 and 146.) "The expenses of commerce are always paid by those who sell the products and who would enjoy the full prices paid for them by the buyers, if there were no incidental expenses." (Page 163, Ibidem.) The "proprietaires" and "productuers" are "salariants," the merchants are "salaries." (Page 164, Quesnay, Problemes Economiques, in Daire, Physiocrates, Part I. Paris, 1846.)

transformation could be accomplished by a mere transfer of a function. His usefulness consists rather in the fact that a small part of the labor-power and labor-time of society is tied up in this unproductive function. We shall assume that he is a wage-worker, even though better paid than others. Whatever may be his wages, in the role of a wage-worker he always works a part of his time for nothing. He may receive in wages the value of the product of eight working hours, when he performs his functions for ten hours. But his two hours of surplus-labor do not produce any surplus-values any more than his eight hours of necessary labor, although by means of these eight hours of necessary labor a part of the social product is transferred to him. In the first place, looking at it from the standpoint of society, his labor-power is used up for ten hours in a mere function of circulation. It cannot be used otherwise for productive labor. In the second place, society does not pay for those two hours of surplus-labor, although they are expended by the man who worked during that time. Society does not appropriate any surplus-product or value through them. But the expenses of circulation, which he represents, are thereby reduced by one-fifth, from ten hours to eight. Society does not pay any equivalent for this fifth of this actual time of circulation, of which he is the agent. But if this man is employed by a capitalist, then the non-payment of these two hours reduces the expenses of circulation of his capital, which represent a deduction from his income. For the capitalist this is a positive gain, because the negative limit for the utilization of his capital is thereby reduced. So long as small independent producers of commodities spend a part of their own time in selling and buying, this shows itself either as time spent during the intervals of their productive function, or as a reduction of their time of production.

At all events, the time required for this purpose is an expense of circulation, which does not add any increment to the converted values. It is the expense which is required in order to convert them from commodities into money. Inasmuch as the capitalist producer of commodities appears as an agent of circulation, he differs from the direct producers of commodities only by the fact that he buys and sells on a larger scale and therefore is a greater factor in circulation. And if the expansion of his business compels or enables him to hire his own wage-laborers as agents of circulation, the nature of this phenomenon is not changed in any way. A certain amount of labor-power and labor-time must be expended in the process of circulation, so far as it is merely a change of form. But this now appears as an additional expenditure of capital. A part of the variable capital must be expended in the purchase of these labor-powers active only in circulation. This advance of capital creates neither products nor values. It reduces to that extent the volume of the productive function of capital. It is as though one part of the product were transformed into a machine, which buys or sells the rest of the product. This machine deducts so much from the product. It does not participate in the productive process, although it can reduce the labor-power required for the circulation. It constitutes simply a part of the expenses of circulation.

2. *Bookkeeping*

Apart from the actual selling and buying, labor-time is expended in bookkeeping, which assimilates more materialized labor, such as pens, ink, paper, desks, office-expenses. This function, therefore, requires labor-power and materials. It is the same condition of things which we observed in the case of the time of sale and purchase.

As a principle of unity within its cycles, as a value in process of rotation, whether it be in the sphere of production or in both phases of the sphere of circulation, capital exists ideally only in the form of accounting money, principally in the mind of the producer of commodities, more especially the capitalist producer of commodities. This movement is fixed and controlled by bookkeeping, which includes also the determination of prices, or the calculation of the prices of commodities. The movement of production, especially of the production of values—in which the commodities figure as bearers of value, as mere names of things, the ideal existence of which as values is crystallized in accounting money—thus is symbolically reflected in imagination. So long as the individual producer of commodities keeps account only in his head (for instance a farmer; a bookkeeping tenant is not known until capitalist production introduces him), or incidentally, outside of his time of production, makes a note of his expenses, receipts, instalment days, etc., just so long does it appear intelligible that this function, and the materials consumed by it, such as paper, etc., require an additional expenditure of labor-time and materials, which is necessary, but constitutes a deduction from the time available for productive consumption and from the materials which are used in the actual process of production and are embodied in the creation of products and values.[12] The nature of the function itself is not changed. The volume which it assumes by its concentration in the hands of the capitalist producer of commodities, who transforms it from a function of many small producers into that of one single capitalist within a process of large-scale production does not alter the case, neither is its nature affected by its separation from those productive functions, which it accompanied incidentally, nor by its modification into an independent function of agents exclusively entrusted with it.

The division of labor, the assuming of independence, does not make a function productive, if it was not so before it became independent. If a capitalist invests his capital anew, then he must invest a part of it in hiring a bookkeeper, etc., and materials for bookkeeping. If his

[12] In the Middle Ages, we find bookkeeping for agriculture only in the convents. But we have seen in Vol. I, that a bookkeeper was installed for agriculture as early as the primitive Indian communes. Bookkeeping is then made an independent function of a communal officer. This division of labor saves time, pains, and expenses, but production and bookkeeping for production remain as much two different things as a cargo of a ship and the way-bill. In the person of the bookkeeper, a part of the labor-power of the commune is withdrawn from production, and the cost of his function is not reproduced by his own labor, but by a deduction from the communal product. What is true of the bookkeeper of an Indian commune is true under changed circumstances of the bookkeeper of the capitalists. (From Manuscript II.)

capital is already in active operation, in the process of continual reproduction, then he must continually reconvert a part of his commodity-product by means of its transformation into money, into a bookkeeper, salesman, etc. This part of his capital is withdrawn from production and belongs to the expenses of circulation, deductions from the total product (including the labor-power itself, which is expended wholly for this function).

But there is a certain difference between the expenses incidental to bookkeeping, or the unproductive expenditure of labor-time on one side, and that of mere selling and buying time on the other. The latter arise only from the definite social form of the process of production, they are due to the fact that it is a production of commodities. Bookkeeping, for the control and ideal survey of the process, becomes necessary to the extent that the process assumes a social scale and loses its purely individual character. It is, therefore, more necessary in capitalist production than in scattered handicraft and agricultural production, and still more necessary in co-operative than in capitalist production. But the expenses of bookkeeping are reduced to the extent that production is concentrated and becomes social bookkeeping.

We are here concerned only about the general character of the expenses of circulation, which arise out of the general metamorphoses. It is superfluous to discuss all its details. To what extent phenomena, which are mere incidents in changes of form due to the social character of the process of production, may deceive the eyes when they cease to be imperceptible and incidental accompaniments of individual production, we may observe in the case of the mere handling of money, when it is concentrated into an exclusive function of banks on a large scale, or of a cashier in individual businesses. But it must be remembered, that these expenses of circulation do not change their character by changing their form.

3. *Money*

Whether a product is intended for a commodity or not, it is always a materialized form of wealth, a use-value to be productively or individually consumed. If it is a commodity, its value is ideally expressed in its price, which does not change its actual use-value. But the fact that certain commodities, such as gold and silver, may perform the function of money and as such reside exclusively in the process of circulation (even in the form of a hoard, a reserve fund, etc., they remain in the sphere of circulation, although latent), is due to the definite social form of the process of production, which is a production of commodities. Since capitalist production gives to all its products the general form of commodities, and since the overwhelming mass of products are produced for sale and must therefore assume the form of money, and since the commodity-part of the social wealth grows continually in proportion, it follows that the quantity of gold and silver employed as means of circulation, paying medium, reserve fund, etc., must likewise increase. These commodities performing the function of money do not enter either into productive or into individual consump-

tion. They represent social labor fixed in a form in which it may serve as a mere machine in circulation. Apart from the fact that a part of the social wealth is tied up in this unproductive form, the wearing out of the money constantly requires its reproduction, or the conversion of more social labor, in the form of products, into more gold and silver. These expenses of reproduction are considerable in capitalistically developed nations, because there is a large part of the wealth tied up in the form of money. Gold and silver as money-commodities represent social expenses of circulation, due to the social form of production. They are dead expenses of commodity-production in general, and they increase with the development of this production, especially when capitalized. They represent a part of the social wealth which must be sacrificed in the process of circulation.[13]

II. EXPENSES OF STORAGE

Expenses of circulation, which are due to a mere change of form in circulation, ideally speaking, do not enter into the value of the commodities. The capital parts expended for them are deductions from the productively expended capital, so far as the capitalist is concerned. Not so the expenses of circulation which we shall consider now. They may arise from processes of production, which are continued only in circulation, the productive character of which is merely concealed by the form of the circulation. Or, on the other hand, they may represent from the standpoint of society mere unproductive expenses of subjective or materialized labor, while for this very reason they may become productive of value for the individual capitalist, by making an addition to the price of his commodities. This follows from the simple fact that these expenses are different in different spheres of production, or even for different individual capitalists in the same sphere of production. When added to the prices of commodities, they are divided in proportion as they fall upon the shoulders of the various individual capitalists. But all labor which adds value can also add surplus-value, and will always do so under capitalist production, the value created by it depending on the amount of the labor, the surplus-value added depending on the amount which the capitalist pays for it. In other words, expenses which increase the price of a commodity without adding anything to its value, which therefore are dead expenses so far as society is concerned, may be a source of profit for the individual capitalist. On the other hand, in so far as the addition to the price of commodities merely distributes these expenses of circulation equally, the unproductive character of this expenditure is not changed. For instance, insurance companies divide the

[13] "The money circulating in a country is a certain portion of the capital of the country, absolutely withdrawn from productive purposes, in order to facilitate or increase the productiveness of the remainder; a certain amount of wealth is, therefore, as necessary in order to adopt gold as a circulating medium, as it is to make a machine, in order to facilitate any other production." (Economist, Vol. V, Page 519.)

losses of individual capitalists among the capitalist class. But this does not alter the fact that these equalized losses are losses so far as the aggregate social capital is concerned.

1. *General Formation of Supply*

During its existence as commodity-capital, or its stay on the market, in other words, in the interval between the process of production from which it originates and the process of consumption into which it enters, the product forms a supply of commodities. As a commodity on the market, and therefore in the form of supply, the commodity-product figures twice in each cycle: The first time as the commodity-product of that rotating capital whose cycle is being considered; the second time as the commodity-product of another capital, which must be found ready on the market, in order to be bought and converted into productive capital. It is, indeed, possible that this last-named commodity-capital is not produced until ordered. In that case, an interruption occurs until it has been produced. But the flow of the process of production and reproduction requires that a certain mass of commodities (means of production) should be always on the market, that there should be a supply of them. In the same way, productive capital comprises the purchase of labor-power, and the money-form is here only that form of the value of means of existence which the laborer must find at hand on the market, for the greater part. We shall discuss this more in detail in a short while; suffice it to make this point at present.

From the standpoint of the rotating capital-value, which has been transformed into a commodity-product and must now be sold or reconverted into money, which, therefore, has for the moment the function of commodity-capital on the market, the condition in which it forms a supply is contrary to its intentions and its stay on the market is involuntary. The sooner the sale is effected, the smoother runs the process of reproduction. The delay in the phase C'—M' prevents the actual change of substance which must take place in the rotation of capital and obstructs its further function as productive capital. On the other hand, so far as M—C is concerned, the constant presence of a supply of commodities on the market is a requirement for the flow of the process of reproduction and of the investment of new or additional capital.

The demurrage of the commodity-capital as a supply on the market requires buildings, stores, storage places, warehouses, in other words, an expenditure of constant capital; furthermore the payment of labor-power for storing the commodities. Finally, the commodities spoil and are exposed to injurious elementary influences. Additional capital is required to protect them, and this capital must be invested in materialized labor as well as in labor-power.[14]

[14] Corbet calculates, in 1841, that the cost of storing wheat for a season of nine months amounts to a loss of 1½ per cent in quantity, 3 per cent for interest on the price of wheat, 2 per cent for warehouse rental, 1 per cent for

We see, then, that the sojourn of commodity-capital as a supply on the market causes expenses which belong to the expenses of circulation, since they do not fall within the sphere of production. These expenses of circulation differ from those mentioned under I, by the fact that they enter in part into the value of the commodities, in other words, that they increase the price of commodities. Under all circumstances the capital and labor-power required for the conservation and storage of the commodity-supply are withdrawn from the direct process of production. On the other hand, the capitals thus employed, including their labor-power, must be reproduced by the social product. Their expenditure, therefore, reduces the productivity of labor-power to that extent, so that a greater amount of capital and labor is needed to obtain a certain intended effect. They are dead expenses.

Inasmuch as the expenses of circulation arising out of the formation of a supply of commodities are due merely to the time required for the transformation of existing commodity-values into money, in other words, inasmuch as they are due to the prevailing social form of production, which makes the production of commodities and their transformation into money imperative, they share the character of the expenses of circulation enumerated under I. On the other hand, the value of the commodities is here preserved or increased, because the use-value, the product itself, is placed in conditions which require an outlay of capital. The commodities are submitted to operations, which expend additional labor on the use-values. But the computation of the values of commodities, the bookkeeping incidental to this process, the transactions of sale and purchase, do not influence the use-values in which the exchange-values of the commodities are embodied. These transactions concern merely the form of the values. Although, in the present case, the expenses of keeping a supply (which is done involuntarily) arise only from a delay of the metamorphosis and from its necessity, these expenses differ from those mentioned under I, in that they are not made for the purpose of effecting a change of form, but for the purpose of preserving the value embodied in the commodity as a use-value, which cannot be preserved in any other way than by preserving the use-value, the product, itself. The use-value is neither increased nor raised in value, on the contrary, it diminishes. But its diminution is restricted and it is preserved. Neither is the advanced value contained in the commodity increased, although new materialized and subjective labor is added.

We have now to investigate furthermore, to what extent these expenses arise from the peculiar nature of the production of commodities

sifting and drayage, ½ per cent for delivery, together 7 per cent, or 3 sh. 6 d. on a price of 50 sh. per quarter. (Th. Corbet, An Inquiry Into the Causes and Modes of the Wealth of Individuals, etc., London, 1841.) According to the testimony of Liverpool merchants before the railroad commission, the net expenses of grain storage in 1865 amounted to 2 d. per month per quarter, or 9 to 10 d. per ton. (Royal Commission on Railways, 1867. Evidence, page 19, Nr. 331.)

in general and from the prevailing absolute form of this mode of production, its capitalistic form; and to what extent they are common to all social production and merely assume a peculiar form and mode of expression in capitalist production.

Adam Smith has expressed the strange opinion, that the formation of a supply is a phenomenon peculiar to capitalist production alone.[15] More recent economists, for instance Lalor, insist on the other hand, that it declines with the development of capitalist production. Sismondi even regards this as one of the drawbacks of this mode of production.

As a matter of fact, the supply exists in three forms: In the form of productive capital, in the form of a fund for individual consumption, and in the form of a commodity-supply or commodity-capital. The supply in one form decreases relatively, when it increases in another, although it may increase absolutely in all three forms simultaneously.

It is plain from the outset, that wherever production is carried on for direct consumption on the part of the producer, and only to a minor extent for exchange or sale, where the social product does not assume the character of commodities at all, or only to a small degree, there the supply in the form of commodities can be only a small and insignificant part of the social wealth. On the other hand, the supply for consumption is relatively large, especially that of the means of existence. We have but to take a look at ancient agriculture, in order to understand this. The overwhelming part of the product there constitutes directly a supply of means of production and means of existence, without becoming a supply of commodities, because it remains in the hands of its producers and owners. It does not assume the form of a supply of commodities, and for this reason Adam Smith declares that there is no supply at all in societies based on this form of production. He confounds the form of the supply with the supply itself and believes that society hitherto lived from hand to mouth or trusted to the luck of the next day.[16] This is a naive misunderstanding.

A supply in the form of productive capital exists in the shape of

[15] Wealth of Nations, Book II, Introduction.

[16] Instead of a supply arising from the conversion of the product into a commodity, and of the supply of articles of consumption into commodities, as Adam Smith thinks, this transformation, on the contrary, causes violent crises in the economy of the producer during the transition from production for use to production for sale. In India, for instance, the custom of storing up large quantities of grain in years of superfluity, when little could be gotten for it, was observed until very recent times. (Return, Bengal and Orissa Famine. H. of C., 1867, I, page 230, Nr. 74.) The sudden increase in the demand for cotton, jute, etc., led in many parts of India to a restriction of rice culture, a rise in the price of rice, and a sale of old supplies of the producers. Then followed the unexampled export of rice to Australia, Madagascar, etc., in 1864-66. This accounts for the acute character of the famine of 1866, which cost the lives of more than a million inhabitants in the district of Orissa alone (l. c. 174, 175, 213, 214, and III. Papers relating to the Famine in Behar, pages 32, 33, where the "drain of the old stock" is emphasized as one of the causes of the famine).—From Manuscript II.

means of production, which are either in operation in the process of production, or at least in the hands of the producer, so that they are latent in the process of production. We have seen previously, that with the development of the productivity of labor, and therefore with the development of the capitalist mode of production, which develops the socially productive power of labor more than all previous modes of production, there is a steady increase of the mass of means of production, which are permanently embodied in the productive process as instruments of labor and perform their function in it for a longer or shorter time at repeated intervals (buildings, machinery, etc.); also, that this increase is at the same time the premise and result of the development of the productivity of social labor. It is especially capitalist production, which is characterized by relative as well as absolute growth of this sort of wealth. The material forms of existence of constant capital, the means of production, do not consist merely of such instruments of labor, but also of raw material in various stages of finish and of auxiliary substances, with the enlargement of the scale of production and the increase in the productivity of labor by cooperation, division, machinery, etc., the mass of raw materials and auxiliary substances used in the daily process of reproduction, grows likewise. These elements must be ready at hand in the shop. The volume of this form of productive capital increases absolutely. In order that the process may flow along smoothly—apart from the fact whether this supply may be renewed daily or only at fixed intervals—there must always be more raw material, etc., accumulated at the place of production than is used up, say, daily or weekly. The continuity of the process requires that the fulfilment of its conditions should neither depend on its possible interruption by daily purchases, nor on the daily or weekly sale of the product, so that the regularity of its reconversion into its elements of production may not be broken. But it is evident that the productive capital may be latent, or form a supply, in different proportions. There is, for instance, quite a difference, whether a spinner must have on hand a supply of cotton or coal for three months or for one. Plainly this supply may decrease relatively, while it may at the same time increase absolutely.

This depends on various conditions, all of which practically amount to the requirement that there shall be a greater rapidity, regularity, and security in furnishing the necessary amount of raw material always in such a way that there may be no interruption. To the extent that these conditions are not fulfilled, to the extent that there is no rapidity, regularity, and security of supply, the latent part of the productive capital in the hands of the producer, that is to say the supply of raw materials waiting to be used, must increase in size. These conditions are inversely proportional to the degree of development of capitalist production, and thus to the productive power of social labor. The same applies to the supply in this form.

However, that which appears as a decrease of the supply, for instance, to Lalor, is in part merely a decrease of the supply in the

form of commodity-capital, or of the actual commodity-supply; it is only a change of form of the same supply. If, for instance, the mass of coal daily produced in a certain country, and therefore the scale and energy of the coal-industry, are great, the spinner does not need a large store of coal in order to insure the continuity of his production. The security of the continuous reproduction of the coal supply makes this unnecessary. In the second place, the rapidity with which the product of one process may be transferred as means of production to another process depends on the development of the means of transportation and communication. The cheapness of transportation plays a great role in this question. The continually renewed transport, for instance, of coal from the mine to the spinnery would be more expensive than the storing up of a large supply for a long time when the price of transportation is relatively cheap. These two circumstances are due to the process of production itself. In the third place, the development of the credit-system exerts an influence on this question. The less the spinner is dependent on the immediate sale of his yarn for the renewal of his supply of cotton, coal, etc.,—and this dependence will be so much smaller, the more the credit-system is developed—the smaller can be the relative size of these supplies, in order to insure independence from the hazards of the sale of yarn for the continuous production of yarn on a given scale. In the fourth place, many raw materials, and half-finished products, etc., require long periods of time for their production, and this applies especially to all raw materials furnished by agriculture.

If no interruption of the process of production is to take place, there must be a certain amount of raw materials on hand for the entire period, in which no new products can take the places of the old. If this supply decreases in the hands of the capitalist, it proves merely that it increases in the hands of the merchant in the form of a supply of commodities. The development of transportation, for instance, makes it possible to convey the cotton stored in the import warehouses of Liverpool rapidly to Manchester, so that the manufacturer can renew his supply in small portions according to his needs. But in that case, the cotton remains in so much larger quantities as a commodity-supply in the hands of the merchants in Liverpool. It is therefore merely a question of a change of form, and Lalor and others have overlooked this. And from the standpoint of social capital, the same quantity of products still remains in the form of a supply. The quantity of the supply required for, say, a whole nation during the period of one year decreases to the extent that the means of transportation are developed. If a large number of sailing vessels trade between America and England, the opportunities of England for the renewal of its supply of cotton are increased and the quantity of the cotton supply to be held in storage on an average decreases. The same effect is produced by the development of the world-market and thus of the multiplication of the sources of supply of the same articles. Various quantities of this supply are carried to the market from different countries and at different intervals.

2. *The Commodity-Supply in Particular*

We have already seen that the product assumes the general form of commodities on the basis of capitalist production, and to the extent that the scale and scope of this production increase, this character becomes prevalent. Even if production retains the same scale, there will still be a far greater proportion of the product in the form of commodities, compared to other modes of production. And all commodities, and therefore all commodity-capital, which is but another expression for commodities in the form of capital-value, constitute an element of the commodity-supply, unless they pass immediately from the sphere of production into productive or individual consumption, instead of remaining on the market in the interval between production and consumption. If the scale of production remains the same, the commodity-supply, that is to say, the individualization and fixation of the commodity-form of the product, grows therefore with the development of capitalist production. We have seen, furthermore, that this is merely a change of form on the part of the supply, that is to say the supply in the form of commodities increases on one side, while on the other the supply in the form of direct means of production for consumption decreases. It is merely a question of a changed form of the social supply. The fact that it is not only the relative size of the commodity-supply compared to the aggregate social product which increases, but also its absolute size, is due to the growth of the aggregate product with the advance of capitalist production.

With the development of capitalist production, the scale of production becomes less and less dependent on the immediate demand for the product and falls more and more under the determining influence of the amount of capital available in the hands of the individual capitalist, of the instinct for the creation of more value inherent in capital, of the need for the continuity and expansion of its processes of production. This necessarily increases the mass of products required in each branch of production in the shape of commodities. The amount of capital fixed for a longer or shorter period in the form of commodity-capital grows proportionately. In short, the commodity-supply increases.

Finally, the majority of the members of human society are transformed into wage workers, into people who live from hand to mouth, who receive their wages weekly and spend them daily, who therefore must find a supply of the necessities of life ready at hand. Although the individual elements of this supply may be in continuous flow, a part of them must always suffer delay in order that the supply may be ever renewed.

All these characteristics are due to the form of capitalist production and to the metamorphoses incidental to it, which the product must undergo in the process of circulation.

Whatever may be the social form of the supply of products, its preservation requires an outlay for buildings, storage facilities, etc., which protect the product; furthermore for means of production and

labor, more or less of which must be expended, according to the nature of the product, in order to preserve it against injurious influences. The more the supply is socially concentrated, the smaller are the relative expenses. These expenses always consume a part of the social labor, either in a materialized or in a subjective form; they require an outlay of capital which does not enter into the productive process itself and thus diminish the product. They constitute the cost of preserving the social wealth, and are, therefore, necessary expenses, without regard to the fact whether the existence of the social product in the form of a commodity-supply is due merely to the social form of production, to the commodity-form and its metamorphoses, or whether we regard the commodity-supply merely as a special form of the supply of products, a supply common to all societies, though not always in the form of a commodity-supply, which is a form of the supply of products belonging to the process of circulation.

The question is now, to what extent these expenses enter into the value of the commodities.

If the capitalist has converted the capital advanced by him for means of production and labor-power into a product, into a mass of commodities ready for sale, and these commodities remain in stock unsold, then it is not only the creation of values by means of his capital which is interrupted. The expenses required for the conservation and storage of this supply in buildings, etc., and for additional labor, signify a positive loss for him. The final buyer would laugh in his face, if he were to say to him: "My articles were unsalable for six months, and their preservation during that period did not only make so and so much of my capital unproductive, but also cost me so much extra-expenses." "So much the worse for you," would the buyer say. "Here is another seller, whose articles were completed the day before yesterday. Your articles are old and probably more or less injured by the ravages of time. Therefore you will have to sell cheaper than your rival."

It does not alter the life-processes of a commodity, whether its producer is a direct producer or a capitalist producer who is merely a representative of the actual producer. The product must be converted into money. The expenses caused by the fixation of the product in the form of commodities are a part of the individual adventures of the seller, and the buyer does not concern himself about them. The buyer does not pay for the time of circulation of the commodities. Even if the capitalist holds his goods back intentionally, in times of an actual or expected revolution of values, it depends on the materialization of this revolution of values, on the correctness or incorrectness of the seller's speculation, whether he will recover his outlay or not. Inasmuch, therefore, as the formation of a supply involves a delay in the circulation, the expenses caused thereby do not add anything to the value of the commodities. On the other hand, there cannot be any supply without a sojourn of the commodities in circulation, without the stay of capital for a longer or shorter time in the form of a commodity; hence there cannot be any supply without a delay of the circulation.

It is the same with money, which cannot circulate without the formation of a money-reserve. Hence there cannot be any circulation of commodities without a supply of commodities. If this necessity does not confront the capitalist in C'—M', it will do so in M—C; not so far as his own commodity-capital is concerned, but that of other capitalists, who produce means of production for him and necessities of life for his laborers.

It appears that the nature of the case is not altered, whether the formation of a supply is voluntary or involuntary, that is to say whether the producer accumulates a supply intentionally or whether his product forms a supply in consequence of the resistance offered to its sale by the conditions of the process of circulation. But it is useful for the solution of this question to know what distinguishes the voluntary from the involuntary formation of a supply. The involuntary formation of a supply arises from, or is identical with, an interruption of the circulation, which is independent of the knowledge of the producer of commodities and thwarts his will. And what characterizes the voluntary formation of a supply? The seller seeks to get rid of his commodity as much as ever. He always offers his product as a commodity. If he were to withdraw it from sale, it would be only a latent, not an effective organ of the commodity-supply. The commodity as such is still as much as ever a bearer of exchange-value and can become effective only by discarding the commodity-form and assuming the money form.

The commodity-supply must have a certain size, in order to satisfy the demand during a given period. The continual extension of the circle of buyers is one of the factors in the calculation. For instance, in order to last to a certain day, a part of the commodities on the market must retain the form of commodities while the remainder continue in flow and are converted into money. The part which is delayed while the rest keep moving decreases continually, to the extent that the size of the entire supply decreases, until it is all sold. The delay of the commodities is thus calculated on as a necessary requirement of their sale. The size of the supply must be larger than the average sale or the average extent of the demand. Otherwise the excess over this average could not be satisfied. At the same time, the supply must be continually renewed, because it is continually dissolved. This renewal cannot come from anywhere in the last instance than from production, from a new supply of commodities. Whether this comes from abroad or not does not alter the case. The renewal depends on the periods required by the commodities for their reproduction. The commodity-supply must last during these periods. The fact that it does not remain in the hands of the original producer, but passes through various stores from the wholesaler to the retailer, changes merely the aspect, not the nature, of the thing. From the point of view of society, a part of capital still retains the form of a commodity-supply, so long as the commodities have not been consumed productively or individually. The producer tries to keep a supply corresponding to his average demand, in order to be somewhat independent of the

process of production and to insure for himself a steady circle of customers. Corresponding to the periods of production, terms of sale are formed and the commodities form a supply for a longer or shorter time, until they can be replaced by new commodities of the same kind. The continuity and regularity of the process of circulation, and therefore of the process of reproduction, which includes the circulation, is safeguarded only by the formation of a supply.

It must be remembered that C'—M' may have been transacted for the producer of C, although C may still be on the market. If the producer were to keep his own commodities until they are sold to the last consumer, he would have to invest two capitals, one as a producer and one as a merchant. For the commodity itself, whether we look upon it as an individual commodity or as a part of social capital, it is immaterial whether the expenses of the formation of a supply fall on the shoulders of its producer or on those of a series of merchants from A to Z.

In so far as the commodity-supply is nothing but the commodity-form of the supply which would exist at a given scale of social production either as a productive supply or as a supply of means of consumption, if it did not have the form of a commodity-supply, the expenses required for its conservation and formation, that is to say the expenses for materialized and subjective labor, are merely converted expenses for maintaining either the social fund for production or the social fund for consumption. The increase of the value of commodities caused by them distributes these expenses simply pro rata to the different commodities, since the cost is different for different kinds of commodities. And the expenses for the formation of the supply are as much as ever deductions from the social wealth, although they are one of its requirements.

The circulation of commodities is normal only to the extent that the formation of a commodity-supply is its premise and necessarily arises by means of it, only in so far as this apparent stagnation is a part of the rotation itself, just as it is in the case of the formation of a money-reserve. But as soon as the commodities resting in the reservoirs of circulation refuse to give space to the succeeding wave so that the reservoirs are overstocked, the commodity-supply expands just as the hoards do, if the circulation of money is clogged. It does not make any difference whether this stop occurs in the magazines of the industrial capitalist or in the warehouses of the merchant. The supply is in that case not the premise of the uninterrupted sale, but the result of the impossibility of selling the goods. The expenses remain the same, but since they now arise entirely out of the form, that is to say, out of the necessity of selling the commodities, and out of the obstacles to this metamorphosis into money, they do not enter into the values of the commodities, but cause deductions, losses, from the value to be realized. Since the normal and abnormal form of the supply cannot be distinguished externally, and both of them are clogging the circulation, these phenomena may be confounded and may deceive the agent in production so much easier as the process of circulation of the capital

of the producer may continue smoothly, while that of the commodities he has sold to merchants may be arrested. If the size of production and consumption increase, other conditions remaining the same, then the size of the commodity-supply increases likewise. It is renewed and absorbed just as fast, but its size is greater. Hence the growing size of the commodity-supply caused by a delay in the circulation may be mistaken for a symptom of the expansion of the process of reproduction, especially when the development of the credit-system makes it possible to mystify the real nature of the movement.

The expenses of the formation of the supply consist (1) of quantitative losses of the mass of the product (for instance, in the case of a supply of flour); (2) in a spoiling of the quality; (3) in the materialized and individual labor required for the conservation of the supply.

It is not necessary to enter at this place into all the details of the expenses of circulation such as packing, sorting, etc. The general law is that *all expenses of circulation, which arise only from changes of form, do not add any value to the commodities.* They are merely expenses required for the realization of value, or for its conversion from one form into another. The capital invested in those expenses (including the labor employed by it) belongs to the dead expenses of capitalist production. They must be made up out of the surplus-product and are, from the point of view of the entire capitalist class, a deduction from the surplus-value or surplus product, just as the labor required for the purchase of the necessities of life is lost time for the laborer. But the expenses of transportation play a too prominent role to pass them by without a few short remarks.

Within the rotation of capital and the metamorphoses of commodities which are a part of that rotation, the mutation-processes of social labor take place. These mutation-processes may require a change of location on the part of the products, their transportation from one place to another. Still, a circulation of commodities may take place without their change from place to place, and a transportation of products without a circulation of commodities, or even without a direct exchange of products. A house which is sold by A to B does not wander from one place to another, although it circulates as a commodity. Movable commodity-values, such as cotton or iron ore, remain in the same warehouse at a time when they are passing through dozens of circulation processes, when they are bought and resold by speculators.[17] That which really changes its place here is the title of ownership, not the thing itself. On the other hand, transportation played a prominent role in the land of the Incas, although the social product did not circulate either as a commodity or by means of exchange.

Even though the transportation industry under capitalist production appears as a cause of expenses of circulation, this special form does not alter the nature of the problem.

Quantities of products are not increased by transportation, neither is the eventual alteration of their natural qualities, with a few excep-

[17] Storch calls this *circulation factice.*

tions, the result of premeditated action, but an inevitable evil. But the use-value of things has no existence except in consumption, and this may necessitate a change of place on the part of the product, in other words, it may require the additional process of production of the transportation industry. The productive capital invested in this industry adds value to the transported products, partly by transferring value from the means of transportation, partly by adding value through the labor-power used in transportation. This last-named addition of value consists, as it does in all capitalist production, of a reproduction of wages and of surplus-value.

Within each process of production, the change of place of the object of labor and the required instruments of labor and labor-power —such as cotton which passes from the carding to the spinning room, or coal which is hoisted from the shaft to the surface—play a great role. The transition of the finished product, in the role of a finished commodity, from one independent place of production to another in a different location shows the same phenomenon on a larger scale. The transport of the products from one factory to another is finally succeeded by the passage of the finished products from the sphere of production to that of consumption. The product is not ready for consumption until it has completed these movements.

We have shown previously that a general law of the production of commodities decrees: The productivity of labor and its faculty of creating value stand in opposition to one another. This is true of the transportation industry as well as of any other. The smaller the amount of materialized and subjective labor required for the transportation of the commodities over a certain distance, the greater is the productivity of labor, and vice versa.[18]

The absolute magnitude of the value which the transportation of the commodities adds to them is smaller in proportion as the productivity of the transportation industry increases, and vice versa, and directly proportional to the distance travelled, other conditions remaining the same.

The relative magnitude of the value added to the prices of commodities by the cost of transportation, other conditions remaining the same, is directly proportional to their volume and weight. But there are many modifying circumstances. Transportation requires, for

[18] Ricardo quotes Say, who considers it one of the blessings of commerce that it increases the price, or the value, of the products by transportation "Commerce," writes Say, "enables us to obtain a commodity at its original place of production and to transport it to another place for consumption; it enables us, therefore, to increase the value of commodities by the entire difference between their price at the first and that at the second place." Ricardo remarks with reference to this: "True, but how is the additional value given to it? By adding to the cost of production, first, the expenses of conveyance, secondly, the profit on the advances of capital made by the merchant. The commodity is only more valuable, for the same reason that every other commodity may become more valuable, because more labor is expended on its production and conveyance before it is purchased by the consumer. This must not be mentioned as one of the advantages of commerce." (Ricardo, Principles of Political Economy, 3rd ed., London, 1821, pp. 309-310.)

instance, more or less provision for protection against accidents, and therefore more or less expenditure of labor and instruments of labor, according to the relative fragility, perishable nature, explosiveness of the articles. In this department, the railroad magnates show a greater talent or inventing fantastic species than botanists and zoologists. The classification of the articles on English railroads fills volumes and rests in general on the tendency of transforming the many-sided natural qualities of commodities into so many difficulties of transportation and inevitable excuses for exploitation. "Glass, which was formerly valued at the rate of 11 pounds sterling per crate, is now valued at only 2 pounds sterling in consequence of industrial improvements and the abolition of the glass-tax, but the railway rates are as high as ever and exceed the cost of transportation by water. Formerly glass and glass-ware for lead work was carried for 10 shillings per ton within a radius of 50 miles of Birmingham. Now the rates have been raised to thrice that figure on the pretext of the risk involved by the fragility of the article. But if anything is broken, the railway management does not pay for it."[19] The fact that the relative magnitude of the value added by the cost of transportation to the articles is inversely proportional to their values furnishes a special excuse for the railroads to tax the articles in direct proportion to their values. The complaints of the industrials and merchants on this score are found on every page of the testimony of witnesses given before the royal commission on railways.

The capitalist mode of production reduces the cost of transportation for the individual commodities by the development of the means of transportation and communication, by their concentration, the scale of their traffic, etc. It increases that part of the materialized and subjective social labor, which is expended in the transportation of commodities, first by converting the great majority of all products into commodities, secondly, by substituting distant for local markets.

The circulation, that is to say the actual perambulation of the commodities through space, is carried on in the form of transportation. The transportation industry forms on one hand an independent branch of production, and thus a special sphere of investment of productive capital. On the other hand, it is distinguished from other spheres of production by the fact that it represents a continuation of a process of production within the process of circulation and for its benefit.

[19] Royal Commission of Railways, p. 31, No. 630.

PART II
THE TURN-OVER OF CAPITAL

CHAPTER VII

THE PERIOD AND NUMBER OF TURN-OVERS

We have seen that the entire time of ratation of a given capital is equal to the sum of its time of circulation plus its time of production. It is the period of time from the moment of the advance of capital-value in a definite form to the return of the rotating capital-value in the same form.

The compelling motive of capitalist production is always the creation of value by means of the advanced value, no matter whether this value is advanced in its independent money-form, or in commodities, in which case its value is only ideally independent in the price of the advanced commodities. In both cases this capital-value passes through various forms of existence during its rotation. Its identity with itself is confirmed by the books of the capitalists, or in the ideal form of calculating money.

No matter whether we consider the formula M...M' or the formula P...P, both forms imply (1) that the advanced value performs the function of capital-value and has created more value; (2) that it has returned to the form in which it began its rotation, having completed its cycle. The creation of more value by means of the advanced value M and the return of capital to this money-form is plainly visible in M...M'. But the same takes place in the second formula. For the starting point of P is the existence of the elements of production, of commodities having a given value. The formula includes the creation of value by means of the advanced value (C' and M') and the return to the original form, for in the second P the advanced value has again the form of the elements of production in which it was originally advanced.

We have seen previously: "If production be capitalistic in form, so, too, will be reproduction. Just as in the former the labor-process figures but as a means towards the self-expansion of capital, so in the latter it figures but as a means of reproducing as capital, i. e., as self-expanding value, the value advanced." (Vol. I, chap. XXIII).

The three formulæ (I) M...M', (II) P...P, and (III) C'...C', present the following distinctions: In formula II, P...P, the renewal of the process by the process of reproduction is expressed as a reality, while it is only implied as a probability in formula I. But both of these formulæ differ from III by the fact that in them the advanced capital-value, either in the form of money or of material elements of production, is the starting and returning point. In M...M', the return to M' means M plus m. If the process is renewed on the same scale, M is again the starting point and m does not enter into it, but shows merely that M

performed the function of capital and created surplus-value m, which it threw off. In the formula P...P, capital-value P advanced in the form of means of production is likewise the starting point. This form includes the creation of more value. If simple reproduction takes place, the same capitalist renews the same process in the same form P. If accumulation takes place, then P' (equal in magnitude of value to M' and C') reopens the cycle as an expanded capital-value. But it begins with the advanced capital-value in its original form, although it is of greater value than before. In form III, on the other hand, capital-value does not begin the process as an advance, but as an expanded value, as the aggregate wealth existing in the form of commodities, of which the advanced value is but a part. This last form is important for the third part of this volume, in which the movement of the individual capitals is discussed in connection with the movements of the aggregate social capital. But it is not available for the discussion of the turn-over of capital, which always begins with the advance of capital-value in the forms of money or commodities, and which always requires the return of the rotating capital-value to the form in which it had been advanced. Of these cycles I and II, the former is serviceable in the study of the influence of the turn-over on the formation of surplus-value, the latter in the study of its influence on the formation of the product.

Economists have not distinguished the different relations of the turn-over of capital to its cycles any more than they have distinguished between these cycles. They generally consider the formula M...M, because it dominates the individual capitalist and serves for a basis of his calculations, even if money is the starting point of this cycle only in the form of calculating money. Others start out from the outlay of capital in the form of elements of production and follow the cycle to the point of return, without alluding to the form of the returns, be they commodities or money. For instance, "the economic cycle, . . . the whole course of production, from the time that outlays are made till returns are received. In agriculture, seed time is its commencement, and harvesting its ending." (S. P. Newman, *Elements of Political Economy,* Andover and New York, p. 81). Others begin with C, the third form. Says Th. Chalmers, in his work on "Political Economy," (2nd Ed., London, 1832, p. 84 and following), in substance: The world of the productive traffic may be regarded as rotating in a cycle, which we will call the economic cycle. Each cycle is completed, whenever the business after passing through its successive transactions, returns to its starting point. The beginning may be made at the point where the capitalist gets his receipts, which return his capital. From this point, the capitalist proceeds once more to hire his laborers and parcel out to them their subsistence, or rather the means to purchase it with wages. They manufacture for him the articles which are his specialty. And the capitalist then takes his articles to the market and brings the cycle of this one series of transactions to a close by selling and receiving in the price of his commodities a return for his entire investment of capital.

As soon as the entire capital-value invested by some individual capitalist in any one branch of production has completed the cycle of its movements, it finds itself once more in the form in which it started and is ready to repeat the same process. It must repeat this process, if value is to perpetuate itself as capital-value and create more value. The individual cycle is but a fragment in the life of capital, it is a period which is continually repeated. At the end of the period M...M' capital has once more the form of money-capital, which passes anew through that series of metamorphoses in which its process of reproduction, or self-expansion, is included. At the end of the period P...P, capital has resumed the form of elements of production, which are the requirement for a renewal of its cycle. The rotation of capital, considered as a periodical process, not as an individual event, constitutes its turn-over. The duration of this turn-over is determined by the sum of its time of production plus its time of circulation. This sum constitutes the time of turn-over. It measures the passing of time while the entire capital-value goes through the period of its cycle until it reaches the next one. It counts the periods in the life of capital, or, the time of the renewal, repetition, of the process of self-expansion, which is the process of production, of the same capital-value.

Apart from the individual adventures which may accelerate or retard the time of turn-over of individual capitals, this time is different according to the different spheres of investment of capitals.

Just as the working day is the natural unit for the function of labor-power, so the year is the natural unit for the periods of turn-over of rotating capital. The natural basis of this unit is found in the fact that the most important crops of the temperate zone, which is the mother country of capitalist production, are annual products.

If we designate the year as the unit of the time of turn-over by T, the time of turn-over of a given capital by t, and the number of its turn-overs by n' then $n=\frac{T}{t}$. If, for instance, the time of turn-over t is 3 months, then n is equal to $\frac{12}{3}$, or 4: in other words, capital is turned over four times per year. If it is equal to 18 months then $n=\frac{12}{18}=\frac{2}{3}$, capital completes only two-thirds of its turn-over in one year. If its time of turn-over is several years, it is computed in multiples of one year.

From the point of view of the capitalist, the time of turn-over is the time for which he must advance his capital in order to create value with it and have it returned in its original form.

Before we can study the influence of the turn-over on the processes of production and self-expansion, we must take a look at two new forms which accrue to capital from the process of circulation and influence the form of its turn-over.

CHAPTER VIII

FIXED CAPITAL AND CIRCULATING CAPITAL

I. Distinctions of Form

We have seen in vol. I, chap. VIII, that a portion of the constant capital retains that form of the use-value, in which it entered into the process of production and does not share in the transfer to the products toward the creation of which it contributes. In other words, it performs for a longer or shorter period, in the ever repeated labor process, the same function. This applies, for instance, to buildings, machinery, etc., in short to all things which we comprise under the name of instruments of labor. This part of constant capital yields value to the product in proportion as it loses its own exchange-value with the dwindling of its use-value. This transfer of value from an instrument of production to the product which it helps to create is determined by a calculation of averages. It is measured by the average duration of its function from the moment that the instrument of labor transfers its parts to the product to the moment that it is completely spent and must be reproduced, or replaced by a new specimen of the same kind.

This, then, is the peculiarity of this part of constant capital of the instruments of labor:

A certain part of capital has been advanced in the form of constant capital, of instruments of labor, which now perform their function in the labor-process so long as their own use-value lasts, which they bring with them into this process. The finished product, with the elements it absorbed from the instruments of production, is pushed out of the process of production and transferred as a commodity to the sphere of circulation. But the instruments of labor never leave the sphere of production once that they have entered it. Their function holds them there. A certain portion of the advanced capital-value is *fixed* in this form by the function of the instruments of labor in the process of production. In the performance of this function, and thus by the wear and tear incidental to it, a part of the value of the instruments of labor is transferred to the product, while another remains fixed in the instruments of labor and thus in the process of production. The value thus fixed decreases constantly until the instrument of labor is worn out, its value having been distributed during a shorter or longer period, over a mass of products which emanated from a series of currently repeated labor processes. But so long as an instrument of labor is still effective and has not been replaced by a new specimen of the same kind, a certain amount of constant capital-value remains fixed in it, while another part of the value originally fixed in it is transferred to the product and circulates as a component part of the commodity-supply. The longer an instrument lasts, the slower it wears out, the longer will its constant capital-value remain fixed in this form of use-value. But whatever may be its durability, the proportion in which it yields its value is always inverse to its entire

time of service. If of two machines of equal value, one wears out in five years and the other in ten, then the first yields twice as much value in the same time as the second.

This value fixed in the instruments of labor circulates as well as any other. We have seen that all capital-value is constantly in circulation, and that in this sense all capital is circulating capital. But the circulation of the portion of capital which we are now studying is peculiar. In the first place, it does not circulate in its use-form, but it is merely its exchange-value which circulates, and this takes place gradually and piecemeal, in proportion as it is transferred to the product which circulates as a commodity. During the entire period of its service, a portion of its value always remains fixed in it, independent of the commodities which it helps to produce. It is this peculiarity which gives to this portion of capital the character of *fixed capital*. On the other hand, all other substantial parts of the capital advanced in the process of production form the *circulating*, or *fluid, capital*.

Some portions of the means of production do not yield their substance to the product. Such are auxiliary substances, which are consumed by the instruments of labor themselves in the performance of their functions, such as coal consumed by a steam engine; or substances which merely assist in the operation, such as gas for lighting, etc. It is only their value which forms a part of the value of products. In circulating its own value, the product circulates theirs. To this extent they share the fate of the fixed capital. But they are entirely consumed in every labor-process which they enter, and must therefore be replaced by new specimens of their kind in every new labor-process. They do not preserve their own use-form while performing their function. Hence no portion of capital-value remains fixed in their natural use-value during their service. The fact that this portion of the auxiliary substances does not pass bodily into the product, but yields only its value to swell thereby the value of the product, although the function of these substances is confined to the sphere of production, has misled some economists, for instance Ramsay—who also confounded fixed capital with constant capital—to class them among the fixed capital.

That part of the means of production which yields its substance to the product, in other words, the raw materials, may eventually assume forms which enable it to pass into individual consumption. The instruments of labor, properly so called, that is to say, the material bearers of the fixed capital, can be consumed only productively and cannot pass into individual consumption, because their substance does not enter into the product, into the use-value which they help to create, but they rather retain their independent form until they are completely worn out. The means of transportation are an exception to this rule. The useful effect which they produce by their productive function during their stay in the sphere of production, that is to say, the change of location passes simultaneously into the individual consumption, for instance into that of a traveller. He pays for its use in the same way in which he pays for the use of other articles of consumption. We have seen that sometimes the raw material

and auxiliary substances pervade one another, for instance in the manufacture of chemicals. In the same way, instruments of labor, raw material and auxiliary substances may pervade one another. In agriculture, for instance, the substances employed for the improvement of the soil pass into the plants and help to form the product. On the other hand, their influence is distributed over a lengthy period, say four or five years. A portion of them, therefore, passes into the product and enhance its value, while another portion remains fixed in its old use-form and retains its value. It persists as an instrument of production and retains the form of fixed capital. An ox is fixed capital, so long as it is a beast of toil. If it is eaten, it does not perform the functions of an instrument of production, and is, therefore, not fixed capital.

That which determines whether a certain portion of the capital-value invested in means of production is fixed capital, or not is exclusively the peculiar manner in which this value circulates. This peculiar manner of circulation arises from the peculiar manner in which the means of production yield their value to the product, that is to say the manner in which the means of production participate in the creation of values in the process of production. This, again, arises from the special nature of the function of these means of production in the labor-process.

We know that the same use-value, which comes as a product from one labor-process, passes as a means of production into another. It is only the function of a product as a means of production in the labor-process which stamps it as fixed capital. But to the extent that it arises itself out of such a process, it is not fixed capital. For instance, a machine, as a product, as a commodity of the machine manufacturer, belongs to his commodity-capital. It does not become fixed capital, until it is employed productively in the hands of its purchaser.

All other circumstances being equal,, the degree of fixity increases with the durability of the means of production. This durability determines the magnitude of the difference between the capital-value fixed in the instruments of labor and between that part of its value which is yielded to the product in successive labor-processes. The slower this value is yielded—and some of it is given up in every repetition of the labor-process—the larger will be the fixed capital, and the greater will be the difference between the capital employed and the capital consumed in the process of production. As soon as this difference has disappeared, the instrument of labor has ceased to live and lost, with its use-value, also its exchange-value. It has ceased to be the bearer of value. Since an instrument of labor, the same as every other material bearer of constant capital, yields value only to the extent that its use-value is converted into exchange-value, it is evident that the period in which its constant capital-value remains fixed will be so much longer, the longer it lasts in the process of production, the more slowly its use-value is lost.

If any one means of production, which is not an instrument of labor, strictly speaking, such as auxiliary substances, raw material, partly finished articles, etc., yields and circulates its value in the same way as the instruments of production, then it is likewise the material

bearer, the form of existence, of fixed capital. This is the case with the above-mentioned improvements of the soil, which add chemical substances to the soil, the influence of which is distributed over several periods of production, or years. In this case, a portion of the value continues to exist independently of the product, it persists in the form of fixed capital, while another portion has been transferred to the product and circulates with it. And in the latter case, it is not alone a portion of the value of the fixed capital which is transferred to the product, but also a portion of the use-value, the substance in which this portion of value is embodied.

Apart from the fundamental mistake—the confounding of the categories "fixed capital and circulating capital" with the categories "constant capital and variable capital"—the confusion of the economists in the matter of definitions is based on the following points:

They make of certain qualities, embodied in the substances of the instruments of labor, direct qualities of fixed capital, for instance, the physical immobility of a house. It is always easy in that case to prove that other instruments of labor, which are likewise fixed capital, have an opposite quality, for instance, physical mobility, such as a vessel's.

Or, they confound the definite economic form, which arises from the circulation of value, with some quality of the object itself, as though things which are not at all capital in themselves, but rather become so under given social conditions, could be of themselves and intrinsically capital in some definite forms, such as fixed or circulating capital. We have seen in volume I that the means of production in every labor-process, regardless of the social conditions in which it takes place, are divided into instruments of labor and objects of labor. But both of them do not become capital until the capitalist mode of production is introduced, and then they become "productive capital," as shown in the preceding part. Henceforth the distinction between instruments and objects of labor, based on the nature of the labor-process, is reflected in the new distinction between fixed and circulating capital. It is then only that a thing which performs the function of an instrument of labor, becomes fixed capital. If it can serve also in other capacities, owing to its material composition, it may be fixed capital or not, according to the functions it performs. Cattle as beasts of toil are fixed capital; if they are fattened, they are raw material which finally enters into circulation as commodities, in other words, they are circulating, not fixed, capital.

The mere fixation of some means of production for a certain length of time in repeated labor-processes, which are consecutively connected and form a period of production, that is to say, the entire period required to complete a certain product, demands advances from the capitalist for a longer or shorter term, just as fixed capital does, but this does not give to his capital the character of fixed capital. Seeds, for instance, are not fixed capital, but only raw material which is held for about a year in the process of production. All capital is held in the process of production, so long as it performs the functions of productive capital, and so are, therefore, all elements of productive capital,

whatever may be their substantial composition, their function and the mode of circulation of their value. Whether the period of fixation lasts a long or a short time, according to the manner of the process of production or the effect aimed at, it does not determine the distinction between fixed and circulating capital.[20]

A portion of the instruments of labor, which determine the general conditions of labor, may be located in a fixed place, as soon as it enters on its duties in the process of production or is prepared for them, for instance, machinery. Or it is produced from the outset in its locally fixed form, such as improvements of the soil, factory buildings, kilns, canals, railroads, etc. The constant fixation of the instrument of labor in the process of production is in that case also due to its mode of material existence. On the other hand, an instrument of labor may continually be shifted bodily from place to place, may move about, and nevertheless be continually in the process of production, for instance, a locomotive, a ship, beasts of burden, etc. Neither does immobility in the one case bestow the character of fixed capital on the instrument of labor, nor does mobility in the other case deprive it of this character. But the fact that some instruments of labor are attached to the soil and remain so fixed, assigns to this portion of fixed capital a peculiar role in the economy of nations. They cannot be sent abroad, cannot circulate as commodities on the market of the world. The titles to this fixed capital may be exchanged, it may be bought and sold, and to this extent it may circulate ideally. These titles of ownership may even circulate on foreign markets, for instance in the form of stocks. But the change of the persons of the owners of this class of fixed capital does not alter the relation of the immobile, substantially fixed part of national wealth to its circulating part.[21]

The peculiar circulation of fixed capital results in a peculiar turnover. That part of value which is lost by wear and tear circulates as a part of the value of the product. The product converts itself by means of its circulation from commodities into money; hence the value of the instrument of labor circulated by the product does the same, and this value is precipitated in the form of money by the process of circulation in the same proportion in which the instrument of labor loses its value in the process of production. This value has then a double existence. One part of it remains attached to the form of its use-value in the process of production, another is detached from the instrument of labor and becomes money. In the performance of its function, that part of the value of an instrument of labor which exists in its natural form constantly decreases, while that which is transformed into money constantly increases, until at last the instrument is exhausted and its entire value, detached from its body, has assumed the form of money. Here the peculiarity in the turn-over of this element of productive capital becomes apparent. The transformation of its value into money keeps

[20] On account of the difficulty of determining what constitutes the distinguishing mark of fixed and circulating capital, Mr. Lorenz Stein thinks that this distinction is suitable only for lighter study.

[21] End of Manuscript IV, beginning of Manuscript II.

pace with the like transformation of the commodity which is its bearer. But its reconversion from the form of money into that of a use-value separates itself from the reconversion of the commodities into their other elements of production and is determined by its own period of reproduction, that is to say by the time during which the instrument of labor has worn out and must be replaced by another specimen of the same kind. If a machine lasts for, say, a period of ten years, then the period of turn-over of the value originally advanced for it amounts to ten years. It need not be replaced until this period has expired, and performs its function in this natural form until then. Its value circulates in the meantime piecemeal as a part of the value of the commodities which it turns out successively, and it is thus gradually transformed into money, until it has entirely assumed the form of money at the end of ten years and is reconverted from money into a machine, in other words, has completed its turn-over. Until this time arrives, its value is meanwhile accumulated in the form of a reserve fund of money.

The other elements of productive capital consist partly of those elements of constant capital which exist in auxiliary and raw materials, partly of variable capital which is invested in labor-power.

The analysis of the processes of labor and self-expansion (vol. I, chap. VII) showed that these different elements behave differently in their role of producers of commodities and values. The value of that part of constant capital which consists of auxiliary and raw materials—the same as of that part which consists of instruments of labor—reappears in the value of the product as transferred value, while labor-power actually adds the equivalent of its value to the product by means of the labor-process, in other words, actually reproduces its value. Furthermore, a part of the auxiliary material, fuel, gas, etc., is consumed in the process of labor without entering bodily into the product, while another part of them enters bodily into the product and forms a part of its substance. But all these differences are immaterial so far as the mode of circulation and turn-over is concerned. To the extent that auxiliary and raw materials are entirely consumed in the creation of the product, they transfer their value entirely to the product. Hence this value is entirely circulated by the product, transformed into money and from money back into the elements of production of the commodity. Its turn-over is not interrupted, as that of fixed capital is, but it rather passes uninterrupted through the entire cycle of its transformations, so that these elements of production are continually reproduced in substance.

As for the variable part of productive capital, which is invested in labor-power, it buys labor-power for a definite period of time. As soon as the capitalist has bought labor-power and embodied it in his process of production, it forms a component part of his capital, definitely speaking, the variable part of his capital. Labor-power performs its function daily during a period of time, in which it not only reproduces its own daily value, but also adds a surplus-value in excess of it to the product. We do not consider this surplus-value for the moment. After labor-power has been bought, say, for a week, and per-

formed its function, its purchase must be continually renewed within the accustomed space of time. The equivalent of its value, which labor-power embodies in its product during its function and which is transformed into money by means of the circulation of the product, must be continually reconverted from money into labor-power, must continually pass through the complete cycle of its transformations, in other words, must be turned over, lest the continuous rotation of its production be interrupted.

That part of the value of capital, then, which has been advanced for labor-power, is entirely transferred to the product—we still leave the question of surplus-value out of consideration—passes with it through the two metamorphoses belonging to the circulation, and always remains in the process of production by means of this continual reproduction. Whatever may be the differences by which labor-power is distinguished, for far as the formation of value is concerned, from those parts of constant capital which do not represent fixed capital, it nevertheless has this manner of turn-over in common with them, as compared to the fixed capital. It is these elements of productive capital—the values invested in labor-power and in means of production which are not fixed capital—that by their common characteristics of turn-over constitute the circulating capital as opposed to the fixed capital.

We have already stated that the money which the capitalist pays to the laborer for the use of his labor-power is but the form of the general equivalent for the means of subsistence required by the laborer. To this extent, the variable capital consists in substance of means of existence. But in this case, where we are discussing the turn-over, it is a question of form. The capitalist does not buy the means of the existence of the laborer, but his labor-power. And that which forms the variable part of capital is not the subsistence of the laborer, but his active labor-power. The capitalist consumes productively in the labor-process the labor-power of the laborer, not his means of existence. It is the laborer himself who converts the money received for his labor-power into means of subsistence, in order to reproduce his labor-power, to keep alive, just as the capitalist converts a part of the surplus-value realized by the sale of commodities into means of existence for himself, and yet would not thereby justify the statement that the purchaser of his commodities pays him with means of existence. Even if the laborer receives a part of his wages in the form of means of existence, this is still a second transaction in our days. He sells his labor-power at a certain price, with the understanding that he shall receive a part of this price in means of production. This changes merely the form of the payment, but not the fact that that which he actually sells is his labor-power. It is a second transaction, which does not take place between the parties in their capacity as laborer and capitalist, but on the part of the laborer as a buyer of commodities and on that of the capitalist as a seller of commodities; while in the first transaction, the laborer is a seller of a commodity (his labor-power) and the capitalist its buyer. It is the same with the capitalist who replaces his commodity by another, for instance when he takes iron for a machine which

he sells to some iron-works. It is, therefore, not the means of subsistence of the laborer which determine the character of circulating capital as opposed to fixed capital. Nor is it his labor-power. It is rather that part of the value of productive capital which is invested in labor-power that receives this character in common with some other parts of constant capital by means of the manner of its turn-over.

The value of the circulating capital—invested in labor-power and means of production—is advanced only for the time during which the product is in process of formation, in harmony with the scale of production dependent on the volume of the fixed capital. This value enters entirely into the product, is therefore fully returned by the sale of the product in the circulation, and can be advanced anew. The labor-power and means of production carrying the circulating part of capital are withdrawn from the circulation to the extent that is required for the formation and sale of the finished product, but they must be continually replaced and reproduced by purchasing them back and reconverting them from money into elements of production. They are withdrawn from the market in smaller quantities at a time than the elements of fixed capital, but they must be withdrawn so much more frequently and the advance of capital invested in them must be repeated in shorter periods. This continual reproduction is promoted by the continuous conversion of the product which circulates the entire value of these elements. And finally, they pass through the entire cycle of metamorphoses, not only so far as their value is concerned, but also their material substance. They are continually reconverted from commodities into the elements of production of the same commodities.

Together with its value, labor-power always adds surplus-value to the product, and this surplus-value represents unpaid labor. This is just as continuously circulated by the finished product and converted into money as its other elements of value. But in this instance, where we are first concerned about the turn-over of capital-value, and not of the surplus-value turned over at the same time, we dismiss the latter for the present.

From the foregoing, the following deductions are made:

1. The definite distinctions of the forms of fixed and circulating capital arise merely from the different turn-overs of the capital-value employed in the process of production, the productive capital. This difference of turn-over arises in its turn from the different manner in which the various elements of productive capital transfer their value to the product; they are not due to the different participation of these elements in the production of value, nor to their characteristic role in the process of self-expansion. The difference in the transfer of value to the product —and therefore the different manner of circulating this value by means of the product and renewing it in its original material form by means of its metamorphoses—arises from the difference of the material forms in which the productive capital exists, one portion of it being entirely consumed during the creation of the individual product, and another being used up gradually. Hence it is only the productive capital, which can be divided into fixed and circulating capital. But this

distinction does not apply to the other two modes of existence of industrial capital, that is to say commodity-capital and money-capital, nor does it express the difference of these two capitals as compared to productive capital. It applies only to productive capital and its internal processes. No matter how much money-capital and commodity-capital may perform the functions of capital and circulate, they cannot become circulating capital as distinguished from fixed capital, until they have been transformed into circulating elements of productive capital. But because these two forms of capital dwell in the circulation, the economists since the time of Adam Smith, as we shall presently see, have been misled into confounding them with the circulating parts of productive capital under the head of circulating capital. Money-capital and commodity-capital are indeed circulating capital as distinguished from productive capital, but they are not circulating capital as opposed to fixed capital.

2. The turn-over of the fixed part of capital, and therefore also its time of turn-over, comprises several turn-overs of the circulating parts of capital. In the same time in which the fixed capital turns over over once, the circulating capital turns over several times. One of the component parts of the value of productive capital acquires the definite form of fixed capital only in the case that the instrument of production in which it is embodied is not worn out in the time required for the finishing of the product and its removal from the process of production as a commodity. One part of its value must remain tied up in the form of the old use-value, while another part is circulated by the finished product, and this circulation simultaneously carries with it the entire value of the circulating parts of productive capital.

3. The value invested in the fixed part of productive capital is advanced in a lump-sum for the entire period of employment of that part of the instrument of labor which constitutes the fixed capital. Hence this value is thrown into the circulation by the capitalist all at one time. But it is withdrawn from the circulation only in portions corresponding to the degree in which those values are realized which the fixed capital yields successively to the commodities. On the other hand, the means of production themselves, in which a portion of the productive capital becomes fixed, are withdrawn from the circulation in one bulk and embodied in the process of circulation for the entire period which they last. But they do not require reproduction, they need not be replaced by new specimens of the same kind, until this time is gone by. They continue for a shorter or longer period to contribute to the creation of the commodities to be thrown into circulation, without withdrawing from circulation the elements of their own reproduction. Hence they do not require from the capitalist a renewal of his advances during this period. Finally, the capital-value invested in fixed capital passes through the cycle of its transformations, not in its bodily substance, but only with its ideal value, and even this it does only in successive portions and gradually. In other words, a portion of its value is continually circulated and converted into money as a part of the value of the commodities, without reconverting itself from money

into its original bodily form. This reconversion of money into the natural form of an instrument of labor does not take place until at the end of its period of usefulness, when the instrument has been completely worn out.

4. The elements of circulating capital are as continually engaged in the process of production—provided it is to be uninterrupted—as the elements of fixed capital. But the elements of circulating capital held in this condition are continually reproduced in their natural form (the instruments of production by other specimens of the same kind, and labor-power by renewed purchases) while in the case of the elements of fixed capital, neither the substance has to be renewed during their employment, nor the purchases. There are always raw and auxiliary materials in the process of production, but always new specimens of the same kind, whenever the old elements have been consumed in the creation of the finished product. Labor-power is likewise always in the process of production, but only by means of ever new purchases, and frequently with changed individuals. But the same identical buildings, machinery, etc., continue their function during repeated turn-overs of the circulating capital in the same repeated processes of production.

II. Composition, Reproduction, Repair, and Accumulation of Fixed Capital

In the same investment of capital, the individual elements of fixed capital have a different life-time, and therefore different periods of turn-over. In a railroad, for instance, the rails, ties, earthworks, station-buildings, bridges, tunnels, locomotives, and carriages have different periods of wear and of reproduction; hence the capital advanced for them has different periods of turn-over. For a long term of years, the buildings, platforms, water tanks, viaducts, tunnels, excavations, dams, in short everything called "works of art" in English railroading, do not require any reproduction. The things which wear out most are the rails, ties, and rolling stock.

Originally, in the construction of modern railways it was the current opinion, nursed by the most prominent practical engineers, that a railroad would last a century and that the wear and tear of the rails was so imperceptible, that it could be ignored for all financial and practical purposes; from 100 to 150 years was supposed to be the life-time of good rails. But it was soon learned that the life-time of a rail, which naturally depends on the velocity of the locomotives, the weight and number of trains, the diameter of the rails themselves, and on a multitude of other minor circumstances, did not exceed an average of 20 years. In some railway-stations, which are centers of great traffic, the rails even wear out every year. About 1867, the introduction of steel rails began, which cost about twice as much as iron rails but which on the other hand last more than twice as long. The life-time of wooden ties was from 12 to 15 years. It was also found that freight cars wear out faster than passenger cars. The life-time of a locomotive was calculated in 1867 at about 10 to 12 years.

The wear and tear is first of all a result of usage. As a rule, the rails wear out in proportion to the number of trains. (R. C. No. 17,645.)[22] If the speed was increased, the wear and tear increased faster in proportion than the square of the velocity, that is to say, if the speed of the trains increased twofold, the wear and tear increased more than fourfold. (R. C. No. 17,046.)

Wear and tear are furthermore caused by the influence of natural forces. For instance, the ties do not only suffer from actual wear, but also from mold. The cost of maintenance does not depend so much on the wear and tear incidental to the railway traffic, as on the quality of the wood, the iron, the masonry, which are exposed to the weather. One single month of hard winter will injure the track more than a whole year of traffic. (R. P. Williams, On the Maintenance of Permanent Way. Lecture given at the Institute of Civil Engineers, Autumn, 1867.)

Finally, here as everywhere else in great industry, the virtual wear and tear plays a role. After the lapse of ten years, one can generally buy the same quantity of cars and locomotives for 30,000 pounds sterling, which would have cost 40,000 pounds sterling at the beginning of that time. Thus one must calculate on a depreciation of 25 per cent on the market price of this material, even though no depreciation of its use-value has taken place. (Lardner, Railway Economy.)

Tubular bridges in their present form will not be renewed, writes W. P. Adams in his "Roads and Rails," London, 1862. Ordinary repairs of them, removal and replacing of single parts, are not practicable. (There are now better forms for such bridges.) The instruments of labor are largely modified by the constant progress of industry. Hence they are not replaced in their original, but in their modified form. On the one hand, the quantity of the fixed capital invested in a certain natural form and endowed with a certain average vitality in that form constitutes one reason for the gradual pace of the introduction of new machinery, etc., and therefore an obstacle to the rapid general introduction of improved instruments of labor. On the other hand, competition enforces the introduction of new machinery before the old is worn out, especially in the case of important modifications. Such a premature reproduction of the instruments of labor on a large social scale is generally enforced by catastrophes or crises.

By wear and tear (excepting the so-called virtual wear) is meant that part of value which is yielded gradually by the fixed capital to the product in course of creation in proportion to the average degree in which it loses its use-value.

This wear and tear takes place partly in such a way that the fixed capital has a certain average life-time. It is advanced for this entire period in one sum. After the lapse of this period, it must be replaced. So far as living instruments of labor are concerned, for instance horses, their reproduction is timed by nature itself. Their average life-time as

[22] The quotations marked R. C. are from the works: Royal Commission of Railways. Minutes of Evidence taken before the commissioners. Presented to both houses of Parliament, London, 1867. The questions and answers are numbered, as indicated above.

means of production is determined by laws of nature. As soon as this term has expired, the worn-out specimens must be replaced by new ones. A horse cannot be replaced piecemeal, it must be replaced by another horse.

Other elements of fixed capital permit of a periodical or partial renewal. In this instance, the partial or periodical renewal must be distinguished from the gradual extension of the business.

The fixed capital consists in part of homogeneous elements, which do not, however, last the same length of time, but are renewed from time to time and piecemeal. This is true, for instance, of the rails in railway stations, which must be replaced more frequently than those of the remainder of the track. It also applies to the ties, which for instance on the Belgian railroads in the fifties had to be renewed at the rate of 8 per cent, according to Lardner, so that all the ties were renewed in the course of 12 years. Hence we have here the following proposition: A certain sum is advanced for a certain kind of fixed capital for, say, ten years. This expenditure is made at one time. But a certain part of this fixed capital, the value of which has been transferred to the value of the product and converted with it into money, is bodily renewed every year, while the remainder persists in its original natural form. It is this advance in one sum and the reproduction in natural form by small degrees, which distinguish this capital in the role of fixed from circulating capital.

Other parts of the fixed capital consist of heterogeneous elements, which wear out in unequal periods of time and must be so replaced. This applies particularly to machines. What we have just said concerning the different life-times of different parts of fixed capital applies in this case to the life-time of different parts of the same machine, which performs a part of the function of this fixed capital.

With regard to the gradual extension of the business in the course of the partial renewal, we make the following remarks: Although we have seen that the fixed capital continues to perform its functions in the process of production in its natural state, a certain part of its value, proportionate to the average wear and tear, has circulated with the product, has been converted into money, and forms an element in the money reserve fund intended for the renewal of the capital pending its reproduction in the natural form. This part of the value of fixed capital transformed into money may serve to extend the business or to make improvements in machinery with a view to increasing the efficiency of the latter. Thus reproduction takes place in larger or smaller periods of time, and this is, from the standpoint of society, reproduction on an enlarged scale. It is extensive expansion, if the field of production is extended; it is intensive expansion, if the efficiency of the instruments of production is increased. This reproduction on an enlarged scale does not result from accumulation—nor from the transformation of surplus-value into capital—but from the reconversion of the value which has detached itself in the form of money from the body of the fixed capital and has resumed the form of additional, or at least of more efficient, fixed capital of the same kind. Of course, it depends partly on

the specific nature of the business, to what extent and in what proportion it is capable of such expansion, and to what amount, therefore, a reserve-fund must be collected, in order to be invested for this purpose; also, what period of time is required, before this can be done. To what extent, furthermore, improvements in the details of existing machinery can be made, depends, of course, on the nature of these improvements and the construction of the machine itself. That this is well considered from the very outset in the construction of railroads, is apparent from a statement of Adams to the effect that the entire construction should follow the principle of a beehive, that is to say, it should have a faculty for unlimited expansion. All oversolid and preconceived symmetrical structures are impracticable, because they must be torn down in the case of an extension. (Page 123 of the above-named work.)

This depends largely on the available space. In the case of some buildings, additional stories may be built, in the case of others lateral extension and more land are required. Within capitalist production, there is on one side much waste of wealth, on the other much impracticable lateral extension of this sort (frequently to the injury of labor-power) in the expansion of the business, because nothing is undertaken according to social plans, but everything depends on the infinitely different conditions, means, etc., with which the individual capitalist operates. This results in a great waste of the productive forces.

This piecemeal re-investment of the money-reserve fund, that is to say of that part of fixed capital which has been reconverted into money, is easiest in agriculture. A field of production of a given space is capable of the greatest possible absorption of capital. The same applies also to natural reproduction, for instance to stock raising.

The fixed capital requires special expenditures for its conservation. A part of this conservation is provided by the labor-process itself; the fixed capital spoils, if it is not employed in production. (See vol. I, chap. VIII; and chap. XV, on wear and tear of machinery when not in use.) The English law therefore explicitly regards it as a waste, if rented land is not used according to the custom of the country. (W. A. Holdsworth, barrister-at-law, *The Law of Landlord and Tenant.* London, 1857, p. 96.) The conservation due to use in the labor-process is a natural and free gift of living labor. And the conserving power of labor is of a twofold character. On the one hand, it preserves the value of the materials of labor by transferring it to the product, on the other hand it preserves the value of the instruments of labor, provided it does not transfer this value in part to the product, by preserving their use-value by means of their activity in the process of production.

The fixed capital requires also a positive expenditure of labor for its conservation. The machinery must be cleaned from time to time. This is additional labor, without which the machinery would become useless; it is labor required to ward off the injurious influences of the elements, which are inseparable from the process of production; it is expended for the purpose of keeping the machinery in perfect working

order. The normal life-time of fixed capital is, of course, so calculated that all the conditions are fulfilled under which it can perform its functions normally during that time, just as we assume in placing a man's average life at 30 years that he will wash himself. Nor is it here a question of reproducing the labor contained in the machine, but of labor which must be constantly added in order to keep it in working order. It is not a question of the labor performed by the machine itself, but of labor spent on it in its capacity of raw material, not of an instrument of production. The capital expended for this labor belongs to the circulating capital, although it does not enter into the actual labor-process to which the product owes its existence. This labor must be continually expended in production, hence its value must be continually replaced by that of the product. The capital invested in it belongs to that part of circulating capital, which has to cover the general expenses and is distributed over the produced values according to an annual average. We have seen that in industry, properly so-called, this labor of cleaning is performed gratis by the working men during pauses, and this frequently during the process of production itself, and many accidents are due to this custom. This labor is not counted in the price of the product. The consumer receives it free of charge to this extent. On the other hand, the capitalist thus receives the conservation of his machinery for nothing. The laborer pays this expense in his own person, and this is one of the mysteries of the self-preservation of capital, which constitutes in point of fact a legal claim of the laborer on the machinery, on the strength of which he is a part-owner of the machine even from the legal standpoint of the bourgeoisie. However, in various branches of production, in which the machinery must be taken out of the process of production for the purpose of cleaning, and where this labor of cleaning cannot be performed between pauses, for instance in the case of locomotives, this labor of conservation counts with the running expenses and is therefore an element of circulating capital. A locomotive must be taken to the shop after a maximum of three days' work in order to be cleaned; the boiler must cool off before it can be washed out without injury. (R. C. No. 17,823.)

The actual repairs, the small jobs, require expenditures of capital and labor, which are not contained in the originally advanced capital and cannot therefore be reproduced and covered, in the majority of cases, by the gradual replacement of the value of fixed capital. For instance, if the value of the fixed capital is 10,000 pounds sterling, and its total life-time 10 years, then these 10,000 pounds, having been entirely converted into money after the lapse of ten years, will replace only the value of the capital originally invested, but they do not replace the value of the capital, or labor, added in the meantime for repairs. This is an element of additional value which is not advanced all at one time, but rather whenever occasion arises for it, so that the terms of its various advances are accidental from the very nature of the conditions. All fixed capital demands such additional and occasional expenditure of capital for materials of labor and labor-power.

The injuries to which individual parts of the machinery are exposed are naturally accidental, and so are therefore the necessary repairs. Nevertheless two kinds of repairs are to be distinguished in the general mass, which have a more or less fixed character and fall within various periods of life of the fixed capital. These are the diseases of childhood and the far more numerous diseases in the period following the prime of life. A machine, for instance, may be placed in the process of production in ever so perfect a condition, still the actual work will always reveal shortcomings which must be remedied by additional labor. On the other hand, the more a machine passes beyond the prime of life, when therefore, the normal wear and tear has accumulated and has rendered its material worn and weak, the more numerous and considerable will be the repairs required to keep it in order for the remainder of its average life-time; it is the same with an old man, who needs more medical care to keep from dying than a young and strong man. In spite of its accidental character, the labor of repairing is therefore unequally distributed over the various periods of life of fixed capital.

From the foregoing, and from the otherwise accidental character of the labor of repairing, we make the following deductions.

In one respect, the actual expenditure of labor-power and labor-material for repairs is as accidental as the conditions which cause these repairs; the amount of the necessary repairs is differently distributed over the various life-periods of fixed capital. In other respects, it is taken for granted in the calculation of the average life of fixed capital that it is constantly kept in good working order, partly by cleaning (including the cleaning of the rooms), partly by repairs such as the occasion may require. The transfer of value through wear and tear of fixed capital is calculated on its average life, but this average life itself is based on the assumption that the additional capital required for keeping machine in order is continually advanced.

On the other hand it is also evident that the value added by this extra expenditure of capital and labor cannot be transferred to the price of the products simultaneously as it is made. For instance, a manufacturer of yarn cannot sell his yarn dearer this week than last merely because one of his machines broke a wheel or tore a belt this week. The general expenses of the spinning industry have not been changed by this accident in some individual factory. Here as in all determinations of value, the average decides. Experience teaches the average extent of such accidents and of the necessary labors of conservation and repair during the average life-time of the fixed capital invested in a given branch of industry. This average expense is distributed over the average life-time. It is added to the price of the product in corresponding aliquot parts and hence also reproduced by means of its sale.

The extra capital which is thus reproduced belongs to the circulating capital, although the manner of its expenditure is irregular. As it is highly important to remedy every injury to a machine immediately, every large factory employs in addition to the regular factory hands a

number of other employees, such as engineers, wood-workers, mechanics, smiths, etc. The wages of these special employees are a part of the variable capital, and the value of their labor is distributed over their product. On the other hand, the expenses for means of production are calculated on the basis of the above-mentioned average, according to which they form continually a part of the value of the product, although they are actually advanced in irregular periods and therefore transferred in irregular periods to the product or the fixed capital. This capital, invested in regular repairs, is in many respects a peculiar capital, which can be classed neither with the circulating nor the fixed capital, but still belongs with more justification to the former, since it is a part of the running expenses.

The manner of bookkeeping does not, of course, change in any way the actual condition of the things of which an account is kept. But it is important to note that it is the custom of many businesses to class the expenses of repairing with the actual wear and tear of the fixed capital, in the following manner: Take it that the advanced fixed capital is 10,000 pounds sterling, its life-time 15 years; the annual wear and tear 666 and 2/3 pounds sterling. But the wear and tear is calculated at only ten years, in other words, 1,000 pounds sterling are added annually for wear and tear of the fixed capital to the prices of the produced commodities, instead of 666 and 2/3 pounds sterling. Thus 333 and 1/3 pounds sterling are reserved for repairs, etc. (The figures 10 and 15 are chosen at random.) This amount is spent on an average for repairs, in order that the fixed capital may last 15 years. This calculation does not alter the fact that the fixed capital and the additional capital invested in repairs belong to different categories. On the strength of this mode of calculation it was, for instance, assumed that the lowest estimate for the conservation and reproduction of steamships was 15 per cent, the time of reproduction therefore equal to 6-2/3 years. In the sixties, the English government indemnified the Peninsular and Oriental Co. for it at the rate of 16 per cent, making the time of reproduction equal to 6-1/3 years. On railroads, the average life-time of a locomotive is 10 years, but the wear and tear including repairs is assumed to be 12-1/2 per cent, reducing the life-time down to 8 years. In the case of passenger and freight cars, 9 per cent are estimated, or a life-time of 11-1/9 years.

Legislation has everywhere made a distinction, in the leases of houses and other things, which represent fixed capital for their owners, between the normal wear and tear which is the result of time, the influence of the elements, and normal use and between those occasional repairs which are required for keeping up the normal life-time of the house during its normal use. As a rule, the former expenses are borne by the owner, the latter by the tenant. The repairs are further distinguished as ordinary and substantial. The last-named are partly a renewal of the fixed capital in its natural form, and they fall likewise on the shoulders of the owner, unless the lease explicitly states the contrary. For instance, the English law, according to Hodsworth

(Law of Landlord and Tenant, pages 90 and 91), prescribes that a tenant from year to year is merely obliged to keep the buildings water-and-wind proof, so long as this is possible without substantial repairs, and to attend only to such repairs as are known as ordinary. And even in this respect the age and the general condition of the building at the time when the tenant took possession must be considered, for he is not obliged to replace either old or worn-out material by new, or to make up for the inevitable depreciation incidental to the lapse of time and normal usage.

Entirely different from the reproduction of wear and tear and from the work of preserving and repairing is the insurance, which relates to destruction caused by extraordinary phenomena of nature, fire, flood, etc. This must be made good out of the surplus-value and is a deduction from it. Or, considered from the point of view of the entire society, there must be a continuous overproduction, that is to say, a production on a larger scale than is necessary for the simple replacement and reproduction of the existing wealth, quite apart from an increase of the population, in order to be able to dispose of the means of production required for making good the extraordinary destruction caused by accidents and natural forces.

In point of fact, only the smallest part of the capital needed for making good such destruction consists of the money-reserve fund. The most important part consists in the extension of the scale of production itself, which is either actual expansion, or a part of the normal scope of the branches of production which manufacture the fixed capital. For instance, a machine factory is managed with a view to the fact that on the one side the factories of its customers are annually extended, and that on the other hand a number of them will always stand in need of total or partial reproduction.

In the determination of the wear and tear and of the cost of repairing, according to the social average, there are necessarily great discrepancies, even for investments of capital of equal size and in equal conditions, in the same branch of production. In practice, a machine lasts in the case of one capitalist longer than its average time, while in the case of another it does not last so long. The expenses of the one for repairs are above, of the other below the average, etc. But the addition to the price of the commodities resulting from wear and tear and from repairs is the same and is determined by the average. The one therefore gets more out of this additional price than he really spent, the other less. This as well as other circumstances which produce different gains for different capitalists in the same branch of industry with the same degree of the exploitation of labor-power renders an understanding of the true nature of surplus-value difficult.

The boundary between regular repairs and replacement, between expenses of repairing and expenses of renewal, is more or less shifting. Hence we see the continual dispute, for instance in railroading, whether certain expenses are for repairs or for reproduction, whether they must be paid from running expenses or from the capital itself. A transfer of expenses for repairs to capital-account instead of revenue-account is

the familiar method by which railway managements artificially inflate their dividends. However, experience has already furnished the most important clues for this. According to Lardner, page 49 of the previously quoted work, the additional labor required during the first period of life of a railroad is not counted under the head of repairs, but must be regarded as an essential factor of railway construction, and is to be charged, therefore, to the account of capital, since it is not due to wear and tear or to the normal effect of the traffic, but to the original and inevitable imperfection of railway construction. On the other hand, it is the only correct method, according to Captain Fitzmaurice (Committee of Inquiry of Caledonian Railway, published in Money Market Review, 1867), to charge the revenue of each year with the depreciation, which is the necessary concomitant of the transactions by which this revenue has been earned, regardless of whether this sum has been spent or not.

The separation of the reproduction and conservation of fixed capital becomes practically impossible and useless in agriculture, at least in so far as it does not operate with steam. According to Kirchhoff (Handbuch der landwirth-schaftlichen Betriebslehre, Berlin, 1862, page 137), "It is the custom to estimate on a general average the annual wear and tear and conservation of the implements, according to the differences of existing conditions, at from 15 to 20 per cent of the purchasing capital, wherever there is a complete, though not excessive, supply of implements on the farm."

In the case of the rolling stock of a railroad, repairs and reproduction cannot be separated. According to T. Gooch, Chairman of the Great Western Railway Co. (R. C. No. 17, 327-29), his company maintained its rolling stock numerically. Whatever number of locomotives they might have, would be maintained. If one of them became worn out in the course of time, so that it was more profitable to build a new one, it was built at the expense of the revenue, in which case the value of the material remaining from the old locomotive was credited to the revenue. There always was a good deal of material left. The wheels, the axles, the boilers, in short, a good part of the old locomotive remained.

"To repair means to renew ; for me there is no such word as 'replacement' ; . . . once that a railway company has bought a car or a locomotive, they ought to keep them in such repair that they will run for all eternity (17,784). We calculate 8½ d. per English freight mile for locomotive expenses. Out of this 8½ d. we maintain the locomotives forever. We renew our machines. If you want to buy a machine new, you spend more money than is necessary. . . . You can always find a few wheels, an axle, or some other part of an old machine in condition to be used, and that helps to construct cheaply a machine which is just as good as an entirely new one (17,790). I now produce every week one new locomotive, that is to say, one that is as good as new, for its boiler, cylinder, and frame are new." (17,843). (Archibald Sturrock, locomotive superintendent of Great Northern Railway, in R. C., 1867).

Lardner says, likewise about cars, on page 116 of his work, that in the course of time, the supply of locomotives and cars is continually renewed ; at one time new wheels are put on, at another a new frame is constructed. Those parts on which the motion is conditioned and which are most exposed to wear and tear are gradually renewed ; the machines and cars may then undergo so many repairs that not a trace of the old material remains in them. . . Even if the old cars and locomotives get so that they cannot be repaired any more, pieces of them are still worked into others, so that they never disappear wholly from the track. The rolling stock is therefore in process of continuous reproduction ; that which must be done at one time for the track, takes place for the rolling stock gradually, from year to year. Its existence is perennial, it is in process of continuous rejuvenation.

This process, which Lardner here describes relative to a railroad, is not typical for an individual factory, but may serve as an illustration of continuous and partial reproduction of fixed capital intermingled with repairs, within an entire branch of production, or even within the aggregate production considered on a social scale.

Here is a proof to what extent clever managers may manipulate the terms *repairs* and *replacement* for the purpose of making dividends. According to the above quoted lecture of R. B. Williams, various English railway companies deducted the following sums from the revenue-account, as averages of a period of years, for repairs and maintenance of the track and buildings, per English mile of track per year:

London & North Western	£370
Midland	£225
London & South Western	£257
Great Northern	£360
Lancashire & Yorkshire	£377
South Eastern	£263
Brighton	£266
Manchester & Sheffield	£200

These differences arise only to a minor degree from differences in the actual expenses ; they are due almost exclusively to different modes of calculation, according to whether expenses are charged to the account of capital or revenue. Williams says in so many words that the lesser charge is made, because this is necessary for a good dividend, and a high charge is made, because there is a greater revenue which can bear it.

In certain cases, the wear and tear, and therefore its replacement, is practically infinitesimal so that nothing but expenses for repairs have to be charged. The statements of Lardner relative to works of art, which are given in substance below, also apply in general to all solid works, docks, canals, iron and stone bridges, etc. According to him, pages 38 and 39 of his work, the wear and tear which is the result of the influence of long periods of time on solid works, is almost imperceptible in short spaces of time ; after the lapse of a long period, for instance of centuries, such influences will nevertheless require the

partial or total renewal of even the most solid structures. This imperceptible wear and tear, compared to the more perceptible in other parts of the railroad, may be likened to the secular and periodical inequalities in the motions of world-bodies. The influence of time on the more massive structures of a railroad, such as bridges, tunnels, viaducts, etc., furnishes illustrations of that which might be called secular wear and tear. The more rapid and perceptible depreciation, which is compensated by repairs in shorter periods, is analogous to the periodical inequalities. The compensation of the accidental damages, such as the outer surface of even the most solid structures will suffer from time to time, is likewise included in the annual expenses for repairs ; but apart from these repairs, age does not pass by such structures without leaving its marks, and the time must inevitably come, when their condition will require a new structure. From a financial and economic point of view, this time may indeed be too far off to be taken into practical consideration.

These statements of Lardner apply to all similar structures of a secular duration, in the case of which the capital advanced for them need not be reproduced according to their gradual wear and tear, but only the annual average expenses of conservation and repairs are to be transferred to the prices of the products.

Although, as we have seen, a greater part of the money returning for the compensation of the wear and tear of the fixed capital is annually, or even in shorter periods, reconverted into its natural form, nevertheless every capitalist requires a sinking fund for that part of his fixed capital, which becomes mature for complete reproduction only after the lapse of years and must then be entirely replaced. A considerable part of the fixed capital precludes gradual reproduction by its composition. Besides, in cases where the reproduction takes place piecemeal in such a way that every now and then new pieces are added in compensation for worn-out ones, a previous accumulation of money is necessary to a greater or smaller degree, according to the specific character of the branch of production, before replacement can proceed. It is not any arbitrary sum of money which suffices for this purpose ; a sum of a definite size is required for it.

If we study this question merely on the assumption that we have to deal with the simple circulation of commodities, without regard to the credit system, which we shall treat later, then the mechanism of this movement has the following aspect: We showed in Volume I, chapter III, 3a, that the proportion in which the total mass of money is distributed over a hoard and means of production varies continually, if one part of the money available in society lies fallow as a hoard, while another performs the functions of a medium of circulation or of an immediate reserve-fund of the directly circulating money. Now, in the present case, the money accumulated in the hands of a great capitalist in the form of a large-sized hoard is set free all at once in circulation for the purchase of mixed capital. It is on its part again distributed over the society as medium of circulation and hoard. By means of the sinking fund, through which the value of the fixed capital flows back to its starting point in proportion to its wear and tear, a part of

the circulating money forms again a hoard, for a longer or shorter period, in the hands of the same capitalist whose hoard had been transformed into a medium of circulation and passed away from him by the purchase of fixed capital. It is a continually changing distribution of the hoard existing in society, which performs alternately the function of a medium of exchange and is again separated as a hoard from the mass of the circulating money. With the development of the credit-system, which necessarily runs parallel with the development of great industries and capitalist production, this money no longer serves as a hoard, but as capital, not in the hands of its owner, but of other capitalists who have borrowed it.

CHAPTER IX

THE TOTAL TURN-OVER OF ADVANCED CAPITAL: CYCLES OF TURN-OVER

We have seen that the fixed and circulating parts of productive capital turn over in different ways and at different periods, also that the different constituents of the fixed capital of the same business have different periods of turn-over according to their different durations of life and, therefore, of their different periods of reproduction. (As concerns the actual or apparent difference in the turn-over of different constituents of circulating capital in the same business, see the close of this chapter, under No. 6.)

1. The total turn-over of advanced capital is the average turn-over of its constituent parts ; the mode of its calculation is given later. Inasmuch as it is merely a question of different periods of time, nothing is easier than to compute their average. But

2. It is a question, not alone of a quantitative, but also of a qualitative difference.

The circulating capital entering into the process of production transfers its entire value to the product and must, therefore, be continually reproduced in its natural form by the sale of the product, if the process of production is to proceed without interruption. The fixed capital entering into the process of production transfers only a part of its value (the wear and tear) to the product and continues despite this wear and tear, to perform its function in the process of production. Therefore it need not be reproduced until after the lapse of intervals of various duration, at any rate not as frequently as the circulating capital. This necessity of reproduction, this term of reproduction, is not only quantitatively different for the various constituent parts of fixed capital, but, as we have seen, a part of the perennial fixed capital may be replaced annually or at shorter intervals and added in natural form to the old fixed capital. In the case of fixed capital of a different composition, the reproduction can take place only all at once at the end of its life-time.

It is, therefore, necessary to reduce the specific turn-overs of the various parts of fixed capital to a homogeneous form of turn-over, so that they remain only quantitatively different so far as the duration of their turn-over is concerned.

This quantitative homogeneity does not materialize, if we take for our starting point P—P, the form of the continuous process of production. For definite elements of P must be continually reproduced in their natural form, while others need not to be. This homogeneity of turn-over is found, however, in the form 'M—M'. Take, for instance, a machine valued at 10,000 pounds sterling, which lasts ten years and one-tenth, or 1,000 pounds of which are annually reconverted into money. These 1,000 pounds have been converted in the course of one year from money-capital into productive capital and commodity-capital, and then reconverted into money-capital. They have returned to their original money-form, just as did the circulating capital, if we study it from this point of view, and it is immaterial whether this money-capital of 1,000 pounds sterling is once more converted, at the end of the year, into the natural form of a machine or not. In calculating the total turn-over of the advanced productive capital, we, therefore, fix all its elements in the mold of money, so that the return to the money-form concludes the turn-over. We assume that value has always been advanced in money, even in the continuous process of production, where this money-form of value exists only as calculating money. Then we are enabled to compute the average.

3. If follows that the capital-value turned over during one year may be larger than the total value of the advanced capital, on account of the repeated turn-overs of the circulating capital within the same year, even if by far the greater part of the advanced productive capital consists of fixed capital, whose period of reproduction, and therefore of turn-over, comprises a cycle of several years.

Take it that the fixed capital is 80,000 pounds sterling its period of reproduction 10 years, so that 8,000 pounds of this capital annually return to their money-form, or complete one-tenth of its turn-over. Let the circulating capital be 20,000 pounds sterling, and its period of turn-over be five times per year. The total capital would then be 100,000 pounds sterling. The turned over fixed capital is 8,000 pounds, the turned-over circulating capital five times 20,000, or 100,000 pounds sterling. Then the capital turned over during one year is 108,000 pounds sterling, or 8,000 pounds more than the advanced capital. 1 + 2-25 of the capital have turned over.

4. The turn-over of the values of the advanced capital therefore is to be distinguished from its actual time of reproduction, or from the actual time of turn-over of its component parts. Take, for instance, a capital of 4,000 pounds sterling and let it turn over five times per year. The turned over capital is then five times 4,000, or 20,000 pounds sterling. But that which returns at the end of its turn-over and is advanced anew is the original capital of 4,000 pounds sterling. Its magnitude is not changed by the number of its periods of turn-over, during which it performs anew its functions as capital. (We do not consider the question of surplus-value here.)

In the illustration under No. 3, then, the sums returned at the end of one year into the hands of the capitalist are (a) a sum of values in the circulating parts of the capital, and (b) a sum of 8,000 pounds, which have been set free by wear and tear from the advanced fixed capital ; at the same time, this same fixed capital remains in the process of production, but with the reduced value of 72,000 pounds, instead of 80,000 pounds sterling. The process of production, therefore, would have to be continued for nine years longer, before the advanced fixed capital would have outlived its term and ceased to perform any service as a creator of products and values, so that it would have to be replaced. The advanced capital-value, then, has to pass through a cycle of turn-overs, in the present case a cycle of ten years, and this cycle is determined by the life-time, in other words by the period of reproduction, or turn-over of the invested fixed capital.

To the same extent that the volume of the value and the duration of the fixed capital develop with the evolution of the capitalist mode of production, does the life of industry and of industrial capital develop in each particular investment into one of many years, say of ten years on an average. If the development of fixed capital extends the length of this life on one side, it is on the other side shortened by the continuous revolution of the instruments of production, which likewise increases incessantly with the development of capitalist production. This implies a change in the instruments of production and the necessity of continuous replacement on account of virtual wear and tear, long before they are worn out physically. One may assume that this life-cycle, in the essential branches of great industry, now averages ten years. However, it is not a question of any one definite number here. So much at least is evident that this cycle comprising a number of years, through which capital is compelled to pass by its fixed part, furnishes a material basis for the periodical commercial crises in which business goes through successive periods of lassitude, average activity, overspeeding, and crisis. It is true that the periods in which capital is invested are different in time and place. But a crisis is always the starting point of a large amount of new investments. Therefore it also constitutes, from the point of view of society, more or less of a new material basis for the next cycle of turn-over.[22a]

5. On the mode of calculation of the turn-overs, Scrope, an American economist, says in substance the following in his work on political economy (published by Alonzo Potter, New York, 1841, pages 141 and 142): In some lines of business the entire capital advanced is turned over, or circulated, several times inside of a year. In some others, one portion is turned over more than once a year, another portion not so often. It is the average period required by the entire capital for the purpose of passing through the hands of the capitalist, or in order to turn over once, which must furnish the basis on which the capitalist figures his profits. Take it, that a certain individual engaged

[22a] "Municipal production is bound to a cycle of days, agricultural production to one of years." (Adam G. Mueller, Die Elements der Staatskunst. Berlin, 1809, II, page, 178.) This is the naive conception of industry and agriculture held by the romantic school.

in a certain business has invested half of his capital for buildings and machinery, which are replaced once in every ten years ; one-quarter for tools, etc., which are replaced in two years ; and the last quarter, invested in wages and raw materials, which quarter is turned over twice per year. Let his entire capital be $50,000. Then his annual expenditure will be:

50,000/2, or $25,000 in 10 years, or $ 2,500 in one year.
50,000/4, or $12,500 in 2 years, or $ 6,250 in one year.
50,000/4, or $12,500 in ½ year, or $25,000 in one year.

$33,750 in one year.

The average time, then, in which his capital is turned over once, is 16 months. Take another case: One quarter of the entire capital of $50,000 circulates in 10 years ; another quarter in one year ; the other half twice in one year. The annual expenditure will then be:

12,500/10	1,250
12,500	12,500
25,000 × 2	50,000
Turned over in one year	63,750

6. Real and apparent differences in the turn-over of the various component parts of capital. Scrope also says in the same place that the capital invested by a manufacturer, landlord, or merchant in wages circulates most rapidly, as it is probably turned over once a week, if he pays his laborers weekly, by the weekly receipts from his sales or from paid bills. The capital invested in raw materials and finished supplies does not circulate so fast ; it may be turned over two or four times per year, according to the time passing between the purchase of the one and the sale of the other, provided that the capitalist buys and sells on equal terms of credit. The capital invested in tools and machinery circulates still more slowly, as it is turned over, that is to say consumed and circulated, probably on an average of once in five or ten years ; many tools, however, are used up in one single series of manipulations. The capital invested in buildings, for instance, in factories, stores, storerooms, barns, streets, irrigation works, etc., circulates almost imperceptibly. But of course these structures are likewise worn out just the same as the others, so long as they serve in production, and must be replaced, in order that the producer may be able to continue his operations. They are merely consumed and reproduced more slowly than the others. The capital invsted in them is probably turned over in twenty or fifty years. So far Scrope.—

Scrope here confounds the differences in the flow of certain parts of the circulating capital, caused by terms of payment and conditions of credit so far as the individual capitalist is concerned, with the turnovers due to the nature of capital. He says that wages are paid weekly on account of the weekly receipts from paid sales or bills. We must

note in the first place, that certain differences occur relative to wages, according to the length of the term of payment, that is to say the length of time for which the laborer must give credit to the capitalist, whether it be a week, a month, three months, six months, etc. In this case, the rule stated in volume I, chapter III, 3b, holds good, to the effect that "the quantity of the means of payment required for all periodical payments (in this case the quantity of the money-capital to be advanced at one time) is in inverse proportion to the length of their periods."

In the second place, it is not only the entire new value added to the product by means of one week's labor which enters completely into the weekly product, but also the value of the raw and auxiliary materials consumed by the weekly product. These values circulate with the product containing them. They assume the form of money by the sale of the product and must be reconverted into the same elements of production. This applies as well to the labor-power as to the raw and auxiliary materials. But we have already seen (chapter IV, 2, A) that the continuity of the production requires a supply of means of production, different for various branches of industry, and different within one and the same branch for the various component parts of the circulating capital, for instance, for coal and cotton. Hence, although these materials must be continually replaced in their natural form, they need not be bought continually. How often new purchases of them must be made, depends on the magnitude of the available supply, on the time it takes to use it up. In the case of the labor-power, there is no such storing of a supply. The reconversion into money of the capital invested in labor-power goes hand in hand with that of the capital invested in raw and auxiliary materials. But the reconversion of the money, on one side into labor-power, on the other into raw materials, proceeds separately on account of the special terms of purchase and payment of these two constituents of productive capital, one of them being bought as a productive supply for long terms, the other, labor-power, for shorter terms, for instance, for terms of one week. On the other hand, the capitalist must keep a supply of finished commodities besides a supply of materials for production. Apart from the difficulties of selling, etc., a certain quantity must be produced, say for instance, on order. While the last portion of this quantity is being produced, the finished product is waiting in storage until the order can be completely filled. Other differences in the turn-over of circulation capital arise as soon as some of its individual elements must stay in some preliminary stage of the process of production, such as the drying of wood, etc., longer than others.

The credit-system, to which Scrope here refers, and commercial capital, modify the turn-over for the individual capitalist. They modify the turn-over on a social scale only in so far as they do not accelerate merely production, but also consumption.

CHAPTER X

THEORIES OF FIXED AND CIRCULATING CAPITAL: THE PHYSIOCRATS AND ADAM SMITH

In Quesnay's analysis, the distinction between fixed and circulating capital assumes the form of *avances primitives* and *avances annuelles*. He correctly represents this distinction as one to be made with regard to productive capital, to capital directly engaged in the process of production. But owing to the fact that he regards the capital invested in agriculture, the capital of the capitalist farmer, as the only really productive capital, he makes these distinctions only for the capital of this farmer. This also accounts for the annual period of turn-over of one part of the capital, and the more than annual (decennial) of the other part. Incidentally it may be noted, that in the course of their development the physiocrats applied these distinctions also to other kinds of capital, to industrial capital in general. The distinction between annual advances and others extending over a longer period retained such lasting value for social science that many economists, even after Adam Smith, returned to it.

The distinction between these two kinds of advances is not made, until money has been transformed into the elements of productive capital. It is a distinction which applies solely to the divisions of productive capital. Quesnay, therefore, never thinks of classing money either among the primitive or the annual advances. In their capacity as advances on production, these two categories confront on one side the money, on the other the commodities existing on the market. Furthermore, the distinction between these two elements of productive capital is correctly defined as testing on the different manner in which they enter into the value of the finished product, and this implies the different way in which their values are circulated together with those of the products. From this, again, follows the different method of their reproduction, the value of the one being entirely replaced annually, that of the other only partially and in longer intervals.[23]

[23] Compare with regard to Quesnay the *Analyse du Tableau Economique* in *Physiocrates*, edition of Daire, part I, Paris, 1846. There we read, for instance, that the annual advances consist of the expenses incurred annually for the work of cultivation; these advances must be distinguished from the primitive ones, which form the funds for the establishment of the farming business." (Page 59). In the works of the later physiocrats, these advances are sometimes termed capital, for instance by Dupont de Nemours in his *Origine et Progres d'une Science Nouvelle*, 1767, Daire edition, I, page 291, where he speaks of "capital or advances," furthermore by Le Trosne: "As a result of the longer or shorter duration of the employment of manual labor, a nation possesses a considerable fund of wealth independent of its annual reproduction, and this fund is a capital accumulated in long periods and originally paid by productive acts, which are always continued and increased." (Daire, II, page 928.) Turgot employs the term "capital" more regularly for advances, and identifies the advances of the manufacturers still more with those of the tenants of land. (Turgot, *Reflexions sur la Formation et la Distribution des Richesses*, 1766.)

The only progress made by Adam Smith is the generalization of the categories. He no longer applies them to one special form of capital, the tenant's capital, but to every form of productive capital. Hence it follows as a matter of fact that the distinction between an annual period of turn-over and one of longer duration, derived from agriculture, is replaced by the general distinction of the different periods of turn-over, so that one turn-over of the fixed capital always comprises more than one turn-over of the circulating capital, regardless of the periods of turn-over of the circulating capital, whether they be annual, more than annual, or less. Thus Adam Smith transforms the annual advances into circulating capital, and the primitive advances into fixed capital. But his progress is confined to this generalization of the categories. His analyses are far inferior to those of Quesnay.

His unclearness is manifested at the very outset by the crudely empirical manner in which he broaches the subject: "There are two different ways in which a capital may be employed so as to yield a revenue or profit to its employer." (Wealth of Nations. Book II, Chap. I, page 189, Aberdeen edition, 1848.)

As a matter of fact, the ways in which value may be employed so as to perform the functions of capital and yield surplus-value to its owner are as different and varied as the spheres of investment of capital. It is a question of the different spheres of production in which capital may be invested. If put in this way, the question implies still more. It includes the other question of the way in which value, even if it is not employed as productive capital, may perform the functions of capital for its owner, for instance, as interest-bearing capital, merchants' capital, etc. At this point we are already far away from the real object of the analysis, that is to say from the question: How does the division of productive capital into its various elements affect their periods of turn-over, leaving out of consideration their different spheres of investment?

Adam Smith continues immediately: "First, it may be employed in raising, manufacturing, or purchasing goods, and selling them again with a profit." He does not tell us anything else in this statement than that capital may be employed on agriculture, manufacture, and commerce. He speaks only of the different spheres of investment of capital, including commerce, in which capital is not directly embodied in the process of production and does not perform the functions of productive capital. In so doing he abandons the foundation on which the physiocrats base the distinctions of the elements of productive capital and their influence on its periods of turn-over. He goes still farther and uses merchants' capital as an illustration of a problem, which concerns exclusively differences of productive capital in the process of production and the creation of value, which differences cause those of its turn-over and reproduction.

He continues: "The capital employed in this manner yields no revenue or profit to its employer, while it either remains in his possession or continues in the same shape." The capital employed in this manner! Smith is referring to capital invested in agriculture, in industry, and he tells us later on that a capital so employed is divided into fixed

and circulating capital! But the investment of capital "in this manner" cannot make fixed or circulating capital of it.

Or does he mean to say that capital employed in the production of commodities and their sale at a profit must again be sold after its transformation into commodities and must pass in the first place from the possession of the seller into that of the buyer, and in the second place from its commodity-form into the money-form, so that it is of no use to its owner so long as it retains the same form in his hands? In that case, the problem amounts to this: The same capital-value, which formerly performed the functions of productive capital in a form typical of the process of production, now performs those of commodity-capital and money-capital in forms typical of the process of circulation, where it is no longer either fixed or circulating capital. And this applies equally to those elements of value which are added by means of raw and auxiliary material, in other words to circulating capital, and to those which are added by the consumption of instruments of production, or to fixed capital. We do not get any nearer to the distinction between fixed and circulating capital in this way.

Adam Smith says furthermore: "The goods of the merchant yield him no revenue or profit till he sells them for money, and the money yields him as little till it is again exchanged for goods. His capital is continually going from him in one shape, and returning to him in another, and it is only by means of such circulation, or successive exchanges, that it can yield him any profit. Such capitals, therefore, may very properly be called circulating capital."

That which Adam Smith here calls circulating capital, is a thing which I shall call capital of circulation, that is to say, capital in a form characteristic of the process of circulation, changes of form due to exchange (a change of substance and of hands), in other words, commodity-capital and money-capital, as distinguished from the form of productive capital which is characteristic of the process of production. These are not special divisions made by the industrial capitalist of this capital, but different forms assumed and discarded by the advanced capital-value during its course of life, in ever renewed cycles. The great backward step of Adam Smith as compared with the physiocrats is that he does not discriminate between these forms and those which arise in the circulation of capital-value through its successive metamorphoses while it exists in the form of productive capital, and which are due to different ways in which the various elements of productive capital take part in the formation of values and transfer their own value to the products. We shall see the consequences of confounding these fundamentals, productive capital and capital in the sphere of circulation (commodity-capital and money-capital) on one side, and fixed and circulating capital on the other. The capital-value advanced in fixed capital is as much circulated by the product as that which has been advanced in the circulating capital, and both are equally transformed into money-capital by the circulation of commodity-capital. The difference arises only from the fact that the value of fixed capital circulates piece-meal and is, therefore, reproduced in the same way in shorter or longer intervals in its natural form.

That Adam Smith means nothing else by this term of *circulating capital* in the above passage but capital of circulation, that is to say, capital in the form of commodity-capital and money-capital characteristic of the process of circulation, is shown by his singularly ill-chosen illustration. He selects for this purpose a kind of capital which does not belong to the process of production, but to the sphere of circulation. This is merchants' capital, which consists only of capital of circulation.

How absurd it is to start out with an illustration, in which capital does not perform the functions of productive capital, is immediately shown by himself. "The capital of a merchant is altogether a circulating capital." But later on we learn that the difference between circulating and fixed capital arises out of the essential differences within the productive capital itself. On one side, Adam Smith has the distinction of the physiocrats in mind, on the other the different forms assumed by capital-value in its cycles. And these things are jumbled together by him without any discrimination.

But it is quite incomprehensible how profit should arise by the transformation of money and commodities, by the mere exchange of one of these forms for the other. And an explanation becomes impossible for Adam Smith, because he starts out with merchants' capital which moves only in the sphere of circulation. We shall return to this later. Let us first hear what he has to say about fixed capital.

"Secondly, it (capital) may be employed in the improvement of land, in the purchase of useful machines and instruments of trade, or in such like things as yield a revenue or profit without changing masters or circulating any further. Such capitals, therefore, may very properly be called fixed capitals. Different occupations require very different proportions between the fixed and circulating capitals employed in them. . . . . Some part of the capital of every master artificer or manufacturer must be fixed in the instruments of his trade. This part, however, is very small in some, and very great in others. . . . . The far greater part of the capital of all such master artificers (such as tailors, shoemakers, weavers) however, is circulated, either in the wages of their workmen, or in the price of their materials, and to be repaid with a profit by the price of the work."

Apart from the naive determination of the source of profit, the weakness and confusion of these statements becomes at once apparent when we consider, e.g., that, for a machine manufacturer, a machine is his product, which circulates as commodity-capital, or in Adam Smith's words, "is parted with, changes masters, circulates farther." According to his own definition, therefore, this machine would not be fixed, but circulating capital. This confusion is due to the fact that Smith confounds the distinction between fixed and circulating capital, which arises out of the different circulation of the various elements of productive capital, with differences of form successively assumed by the same capital when performing the functions of productive capital within the sphere of production, while in the circulation it becomes capital of circulation, that is to say commodity-capital and money-capital. According to the place which the same things occupy in the life-processes of capital, they may, in the opinion of Adam Smith, perform the

functions of fixed capital (means of production, elements of productive capital), or of "circulating" commodity-capital (products transferred from the sphere of production to that of circulation).

But Adam Smith suddenly changes the entire basis of his division, and contradicts the statements with which he had opened his analysis a few lines previously. This is done especially by the statement that "there are two different ways in which a capital may be employed so as to yield a revenue or profit to its employer," that is to say as circulating or as fixed capital. These two categories would, therefore, be different methods of employment of different capitals independent of one another, some being employed in industries, others in agriculture. But immediately he says: "Different occupations require very different proportions between the fixed and circulating capitals employed in them." Here fixed and circulating capital are no longer different independent investments of different capitals, but different proportions of the same productive capital, which represent different portions of the total value of this capital in different spheres of investment. They are here differences arising from the appropriate division of the productive capital itself and valid only with respect to it. But this is contrary to the distinction of commercial capital, which according to him is circulating capital as compared to fixed capital, when he says: "The capital of a merchant is altogether a circulating capital." It is indeed a capital performing its functions entirely within the sphere of circulation, and is for this reason distinguished form productive capital embodied in the process of production. But for this very reason it cannot be regarded as a constituent part of the circulating portion of productive capital, as distinguished from its fixed portion.

In the illustrations given by Adam Smith, he defines the instruments of trade as fixed capital, and the portion of productive capital invested in wages and raw materials, including auxiliary materials, as circulating capital, "repaid with a profit by the price of the work."

He starts out, then, from the various constituents of the labor-process, from labor-power (labor) and raw materials on one side, and instruments of labor on the other. And these are constituents of capital, because a quantity of values is invested in them for the purpose of performing the functions of capital.

To this extent they are material elements, modes of existence of productive capital, that is to say, of capital serving in the process of production. But why is one of these constituents called fixed? Because "some parts of the capital must be fixed in the instruments of trade." But the other parts are also fixed in wages and raw materials. Machines, however, and "instruments of trade . . . . such like things . . . . yield a revenue or profit without changing masters or circulating any further. Such capitals, therefore, may very properly be called fixed capitals."

Take, for instance, the mining industry. No raw material at all is used there, because the object of labor, such as copper, is the product of nature, which must be obtained first of all by labor. The copper to be obtained, the product of the process, which circulates later on as a commodity, or commodity-capital, does not form an element

of productive capital. No part of its value is thus invested. On the other hand, the other elements of the productive process, such as labor-power, and auxiliary materials such as coal, water, etc., do not enter bodily into the product. The coal is entirely consumed and only its value enters into the product, just as a part of the value of the machine is transferred to it. The laborer, finally, remains just as independent so far as the product, the copper, is concerned, as the machine. Only the value which he produces by his labor becomes a part of the value of the copper. But in this illustration, not a single constituent part of productive capital changes masters, nor do any of them circulate further, because, none of them enter bodily into the product. What becomes of the circulating capital in this case? According to Adam Smith's own definition, the entire capital employed in mining would consist only of fixed capital.

On the other hand, let us look at some other industry, which utilizes raw materials that form the substance of its product, and auxiliary materials that enter bodily into the product, instead of only so far as their value is concerned, as in the case of coal for fuel. Simultaneously with the product, for instance with the yarn, the raw material composing it, the cotton, likewise changes masters, and passes from the process of production to that of consumption. But so long as the cotton performs the function of an element of productive capital, its owner does not sell it, but manipulates it for the purpose of making it into yarn. He does not take his hand from it. Or, to use Smith's crudely erroneous and trivial terms, he does not make any profit by parting with it, by its changing masters, or by circulating it. He does not permit his materials to circulate any more than his machines. They are fixed in the process of production, the same as the spinning machines and the factory-buildings. Indeed, a part of the productive capital in the form of coal, cotton, etc., must be just as continually fixed as that in the form of instruments of labor. The difference is only that the cotton, coal, etc., required for the process of production, say, for one week, is always entirely consumed in the manufacture of the weekly product, so that new specimens of cotton, coal, etc., must be supplied ; in other words, these elements of productive capital consist continually of new specimens of the same species, identical only so far as the species is concerned, while the same individual spinning machine, the same individual factory-building, continue their participation in a whole series of weekly productions without being replaced by new specimens of their kind. All the elements of productive capital constituting its parts must be continually fixed in the process of production, for it cannot proceed without them. And all the elements of productive capital, whether fixed or circulating, are equally distinguished as productive capital from capital of circulation, that is to say, commodity-capital and money-capital.

It is the same with labor-power. A part of the productive capital must be continually fixed in it, and the same identical labor-powers, just as in the case of the machines, are everywhere employed for a certain length of time by the same capitalist. The difference between labor-power and machines in this case is not that the machines are

bought once for all (which is not even the case when they are paid for in instalments), while the laborer is not. The difference is rather that the labor expended by the laborer enters wholly into the value of the product, while the value of the machines enters piecemeal into it.

Smith confounds different definitions, when he says of circulating capital as compared to fixed: "The capital employed in this manner yields no revenue or profit to its employer, while it either remains in his possession or continues in the same shape." He places the merely formal metamorphosis of the commodity, which the product in the form of commodity-capital undergoes in the sphere of circulation and which brings about the change of masters of the commodities, on the same level with the bodily metamorphosis which the different elements of productive capital undergo during the process of production. He unceremoniously jumbles together the transformation of commodities into money, of money into commodities, or purchase and sale, with the transformation of elements of production into products. His illustration for circulating capital is merchants' capital which is transformed from commodities into money and from money into commodities—the metamorphosis C—M—C belonging to the circulation of commodities. But this metamorphosis within the circulation signifies for the industrial capital in action that the commodities into which the money is retransformed are elements of production (means of production and labor power), in other words, that it renders the function of industrial capital continuous, that it makes of the process of production a continuous one, a process of production. This entire metamorphosis takes place in circulation. It is the process of circulation which brings about the bodily transition of the commodities from one master to another. On the other hand, the metamorphoses experienced by productive capital within the process of production take place in the labor-process and are necessary for the purpose of transforming the elements of production into the desired product. Adam Smith clings to the fact that a part of the means of production (the instruments of labor, strictly speaking) serve in the labor-process (yield a profit to their master, as he erroneously expresses it) without changing their natural form and wear out only by degrees; while another part, the materials, change their form and fulfil their duty as means of production by virtue of this very fact. This difference in the behavior of the elements of productive capital in the labor-process, however, serves only as the point of departure for the difference between fixed capital and capital which is not fixed, but it is not this difference itself. This is evident from the mere fact that this different behavior is common to all modes of production, whether they are capitalist or not. But on the other hand, this different behavior of the substances is accompanied by a different yield of value to the product, and this in its turn corresponds to a different reproduction of value by the sale of the product. And this is what constitutes the difference in question. Hence capital is not fixed capital because it is fixed in the means of production, but because a part of the value invested in means of production remains fixed in them, while another part circulates as a part of the value of the product.

"If it (the stock) is employed in procuring future profit, it must procure this profit by staying with him (the employer), or by going from him. In the one case it is a fixed, in the other it is a circulating capital." (Page 189).

In this statement, it is the crudely empirical conception of profit derived from the ideas of the ordinary capitalist, which is remarkable, being contrary to the better esoteric understanding of Adam Smith. Not only the price of the materials, but also that of the labor-power is reproduced by the price of the product, and so is that part of value which is transferred by wear and tear from the instruments of labor to the product. Under no circumstances does this reproduction yield any profits. Whether a value advanced for the production of a commodity is reproduced entirely or in part, at one time or gradually, by the sale of that commodity, cannot change anything except the manner and time of its reproduction. But it can in no way transform that which is common to both, the reproduction of value, into a production of surplus-value. We meet here once more the common idea that surplus-value arises only through sale, in the circulation, because it is not realized until the product is sold, until it circulates. As a matter of fact, the different genesis of the profit is in this case but a mistaken phrase for the truth that the different elements of productive capital are differently employed, and have a different effect in the labor-process as different productive elements. In the final analysis, the difference is not attributed to the process of production or self-expansion, not to the function of productive capital itself, but it is supposed to apply only subjectively to the individual capitalist, whom one part of capital serves a useful purpose in one way, while another does in a different way.

Quesnay, on the other hand, had derived this difference from the process of reproduction and its requirements. In order that this process may be continuous, the value of the annual advances must be annually reproduced in full by the value of the annual product, while the value of the capital stock is reproduced only by degrees, for instance, in ten years, and is not fully worn out to the point of replacement by another specimen of the same kind until then. Adam Smith here falls far below Quesnay.

Nothing remains therefore to Adam Smith for the determination of the fixed capital but the fact that it is represented by instruments of production which do not change their form in the process of production and continue to serve in production until they are worn out, as distinguished from the product, in the formation of which they co-operate. He forgets that all elements of productive capital are continually confronted in their natural form (instruments of labor, materials, and labor-power) by the product and by the circulating commodity, and that the difference between the part consisting of materials and labor-power and that consisting of instruments of labor is this: Labor-power is always purchased afresh, not bought for good like the instruments of labor ; the materials manipulated in the labor-process are not the same identical specimens throughout, but always new specimens of the same kind. At the same time the false impression

is created that the value of the fixed capital does not participate in the circulation, although Adam Smith has previously analyzed the wear and tear of fixed capital as a part of the price of the product.

In mentioning the circulating capital as distinguished from the fixed, he does not emphasize the fact, that this distinction rests on the circumstance that circulating capital is that part of productive capital which must be fully reproduced by the value of the product and must therefore fully share in its metamorphoses, while this is not so in the case of the fixed capital. On the contrary, he jumbles it together with those forms which capital assumes in its transition from the sphere of production to that of circulation, that is to say, commodity-capital and money-capital. But both forms, commodity-capital as well as money-capital, are bearers of the value of the fixed and the circulating parts of productive capital. Both of them are capitals of circulation, as distinguished from productive capital, but they do not represent circulating capital as distinguished from fixed capital.

Finally, owing to the entirely confused idea of the making of profit by the staying of the fixed capital in the process of production, and the passing from it and circulating of the circulating capital, the essential difference between the variable capital and the circulating parts of the constant capital in the process of self-expansion and the formation of surplus-value is hidden under the identity of form, so that the entire secret of capitalist production is obscured still more; by the application of the common term "circulating capital" this essential difference is abolished; political economy subsequently went still farther by neglecting the distinction between variable and constant capital and dwelling on the difference between fixed and circulating capital as the essential and typical distinction.

After Adam Smith has defined fixed and circulating capital as two different ways of investing capital, each of which yields a profit by itself, he says: "No fixed capital can yield any revenue but by means of a circulating capital. The most useful machines and instruments of trade will produce nothing without the circulating capital which affords the materials they are employed upon, and the maintenance of the workmen who employ them." (Page 188.)

Here it becomes apparent what the previously used phrases "yield a revenue, make a profit, etc.," signify, viz., that both parts of capital serve in the formation of the product.

Adam Smith then gives the following illustration: "That part of the capital of the farmer which is employed in the implements of agriculture is a fixed, that which is employed in the wages and maintenance of his laboring servants is a circulating capital." (Here the difference of fixed and circulating capital is correctly applied as referring to the different circulation, the turn-over of different constituent parts of productive capital.) "He makes a profit of the one by keeping it in his own possession, and of the other by parting with it. The price or value of his laboring cattle is a fixed capital" (here he is again correct in that it is the value, not the material substance, which determines the difference), "in the same manner as that of the instruments of husbandry; their maintenance" (meaning that of the laboring cattle)

"is a circulating capital, in the same way as that of the laboring servants. The farmer makes his profit by keeping the laboring cattle and parting with their maintenance." (The farmer keeps the fodder of the cattle, he does not sell it. He uses it to feed the cattle, while the exploits the cattle themselves as instruments of labor. The difference is only this: The feed used for the maintenance of the cattle is wholly consumed and must be continually reproduced by new feed, either by means of the products of agriculture or by their sale; while the cattle themselves are reproduced only to the extent that each specimen becomes worn out.) "Both the price and the maintenance of the cattle which are bought in and fattened, not for labor, but for sale, are a circulating capital. The farmer makes his profit by parting with them." (Every producer of commodities, hence the capitalist producer likewise, sells his product, the result of his process of production, but this is not a means of constituting this product a part of either the fixed or the circulating part of his productive capital. The product has now rather that form in which it is released from the process of production and compelled to perform the function of commodity-capital. The fattened stock serve in the process of production as raw material, not as instruments of labor like the laboring cattle. Hence the fattened cattle enter bodily into the product, and their whole value enters into it, just as that of the auxiliary material, the feed, does. The fattened cattle are, therefore, a circulating part of the productive capital, but they are not so, because the sold product, these same cattle, have the same natural form as the raw material, that is to say these cattle when not yet fattened. This is a mere coincidence. At the same time Adam Smith might have seen by this illustration that it is not the material form of the elements of production, but their function within the process of production, which determines the value contained in them as a fixed or circulating one.) "The whole value of the seed, too, is a fixed capital. . . . . Though it goes backwards and forwards between the ground and the granary, it never changes masters, and therefore it does not properly circulate. The farmer makes his profit not by its sale, but by its increase."

At this point, the utter thoughtlessness of Smith's distinction reveals itself. According to him, the seeds would be fixed capital, if there would be no change of masters, that is to say, if the seeds were directly reproduced out of the annual product by subtracting them from it. On the other hand, they would be circulating capital, if the entire product were sold and a part of its value employed for the purchase of another's seed. In the one case, there would be a change of masters, in the other there would not. Smith once more confounds circulating and commodity-capital at this point. The product is the material bearer of the commodity-capital, but of course only that part of it which actually enters into the circulation and does not re-enter directly into the process of production, from which it came as a product.

Whether the seed is directly subtracted as a part of the product, or whether the entire product is sold and a part of its value converted in the purchase of another man's seed, in either case it is mere reproduction which takes place, and no profit is produced by it. In the

one case, the seed enters into circulation with the remainder of the product as a commodity, in the other it figures only in book-keeping as a part of the value of the advanced capital. But in both cases, it remains a circulating part of the productive capital. It is entirely consumed in getting the product ready, and it must be entirely reproduced by means of it, in order to make self-expansion possible.

According to Adam Smith, raw and auxiliary materials lose their independent form, which they carried as use-values into the labor process. Not so the instruments of labor proper. An instrument, a machine, a factory-building, a vessel, etc., serve in the labor-process only so long as they preserve their original form and enter the labor-process to-morrow in the same form in which they did yesterday. Just as they preserve their independent form as compared to the product during life, in the labor-process, so they do after death. The corpses of machines, shops, factory-buildings, still exist independently of the products, which they helped to form. (Book I, chapter VIII, page 227.)

These different ways in which means of production are used in the formation of the product, some of them preserving their independent form as compared to the product, others changing or losing it entirely, —this difference pertaining to the labor-process itself, regardless of whether it is carried on for home use, without exchange, without any production of commodities, as it was, for instance, in the patriarchal family, is falsified by Adam Smith, (1) by vitiating it with the irrelevant definition of profit, saying that some of the elements of production yield a profit to their owner by preserving their form, while others do so by losing it ; (2) by jumbling together the changes of a part of the elements of production in the labor-process with that metamorphosis in the circulation of commodities which consists of the exchange, the sale and purchase, of products and involves a change of masters of the circulating commodities.

The turn-over presumes the reproduction by the intervention of the circulation, by the sale of the product, by its conversion into money and its reconversion from money into elements of production. But to the extent that a part of the product of the capitalist producer serves him directly as his own means of production, he figures as its seller to himself, and this transaction is so entered in his books. This part of the reproduction is not accomplished by the intervention of the circulation, but proceeds directly. But a part of the product thus reemployed as means of production replaces circulating, not fixed, capital, to the extent (1) that its value passes wholly into the product, and (2) that it is itself wholly reproduced in its natural form by means of the new product.

Adam Smith, however, tells us what circulating and fixed capital consist of. He enumerates the things, the material elements, which form fixed, and those which form circulating capital, just as though this character were due to the natural substance of those things, instead of to their definite function within the capitalist process of production. And yet in book II, chapter I, he makes the remark that although a certain thing, for instance, a residence, which is reserved for direct

consumption, "may yield a revenue to its proprietor, and thereby serve *in the function of a capital* to him, it cannot yield any to the public, nor serve in the function of a capital to it, and the revenue of the whole body of the people can never be in the smallest degree increased by it." (Page 186). Here, then, Adam Smith clearly states that the character of capital is not inherent in the things themselves, but is a function with which they may or may not be invested, according to circumstannces. But what is true of capital in general, is also true of its subdivisions.

The same things form constituent parts of the circulating or fixed capital, according to whether they perform this or that function in the labor-process. A domestic animal, for instance, as a laboring animal (instrument of labor), represents the material mode of existence of fixed capital, while as stock for fattening (raw material) it is a constituent part of the circulating capital of the farmer. On the other hand, the same things serve either as constituent parts of productive capital, or belong to the fund for direct consumption. A house, for instance, when performing the function of a workshop, is a fixed part of produotive capital ; when serving as a residence, it is not at all a form of productive capital. The same instruments of labor may in many cases serve now as means of reproduction, now as means of consumption.

It was one of the errors following from the conception of Smith that the capacity of fixed and circulating capital was regarded as vested in the things themselves. The mere analysis of the labor-process on his part, in book I, chapter V, shows that the capacity of instruments of labor, materials of labor, and products changes according to the different role played by one and the same thing in the process. The determination of what is fixed or circulating capital, in its turn, is based on the definite roles played by these elements in the labor-process, and therefore also in the process of the formation of value.

In the second place, in enumerating the things of which fixed and circulating capital may consist, Smith plainly discloses the fact that he jumbles together the distinction between fixed and circulating capital, applicable and justified only with reference to productive capital (capital in its productive form), with the distinction between productive capital and those of its form which belongs to the process of circulation, viz., commodity-capital and money-capital. He says in the same place (pages 187, 188): "The circulating capital consists . . . of the provisions, materials, and finished work of all kinds that are in the hands of their respective dealers, and of the money that is necessary for circulating and distributing them, etc." Indeed, if we look closer, we observe that he has here, contrary to previous statements, used circulating capital as being equivalent to commodity-capital and money-capital, that is to say to two forms of capital which do not belong to the process of production at all, which are not circulating capital as opposed to fixed, but capital of circulation as opposed to productive capital. It is only in co-ordination with these that those constituents of productive capital, which are advanced in materials (raw materials

or partly finished products) are actually embodied in the process of production, play a role. He says:

". . . The third and last of the three portions into which the general stock of society naturally divides itself, is the circulating capital, of which the characteristic is, that it affords a revenue only by circulating or changing masters. This is composed likewise of four parts: first, of the money . . ." (but money is never a form of productive capital, of capital performing its function in the productive process; it is always merely one of the forms assumed by capital within its process of circulation) . . . "secondly, of the stock of provisions which are in the possession of the butcher, the grazier, the farmer . . . and from the sale of which they expect to derive a profit. . . . Fourthly and lastly, of the work which is made up and completed, but which is still in the hands of the merchant and manufacturer. And, thirdly, of the materials, whether altogether rude or more or less manufactured, of clothes, furniture, and buildings, which are not yet made up into any of those three shapes but which remain in the hands of the growers, the manufacturers, the mercers and drapers, the timber-merchants, the carpenters and joiners, the brick-makers, etc."

His second and fourth counts contain nothing but products which have been released by the process of production and must be sold; in short, they are products which now perform the function of commodities, or commodity-capital, and which, therefore, have a form and occupy a place in the process, in which they are not elements of productive capital, no matter what may be their destination, whether they answer their final purpose as use-values in individual or productive consumption. The products mentioned under "secondly" are foodstuffs, those under "fourthly" all other finished products, which in their turn consist only of finished instruments of labor or finished articles of consumption not included in the foodstuffs under count two.

The fact that Smith at the same time speaks of the merchant, shows his confusion. To the extent that the producer transfers his product to the merchant, it does no longer form any part of his capital. From the social point of view, it is indeed still a commodity-capital, although in other hands than those of its producer; but for the very reason that it is a commodity-capital, it is neither a circulating nor a fixed capital.

Under every mode of production not carried on for direct home-consumption the product must circulate as a commodity, that is to say, it must be sold, not in order to make a profit out of it, but that the producer may be able to live at all. Under the capitalist mode of production we have the further fact that the surplus-value embodied in a certain commodity is realized by its sale. In its capacity as a commodity, the product leaves the process of production and is, therefore, neither a fixed nor a circulating element of this process.

By the way, Smith here testifies against himself. The finished products, whatever may be their material form, their use-value, their utility, are all commodity-capital, that is to say, capital in a form typical of the process of circulation. Being in this form, they are not constituent parts of any productive capital which their owner may have.

Of course, this does not argue against the fact that, after their sale, they *may* become constituent parts of productive capital in the hands of their purchaser, and then represent either fixed or circulating capital. This shows that the same things which at a certain time appear on the market as commodity-capital distinct from productive capital may or may not perform the function of productive capital after they have been removed from the market.

The product of the cotton spinner, yarn, is the commodity-form of his capital, is a commodity-capital from his point of view. It cannot again perform the function of some constituent part of his productive capital, neither as raw material nor as an instrument of labor. But in the hands of the weaver who buys it, it is embodied in his productive capital as one of its circulating parts. For the spinner, on the other hand, the yarn is the bearer of the value of his fixed and circulating capital (not considering the surplus-value). So is a machine, the product of a machine-maker, the commodity-form of his capital, commodity-capial from his point of view. And so long as it persists in this form, it is neither fixed nor circulating capital. But if it is sold to a manufacturer for use in his production, it becomes a fixed part of his productive capital. Even if a certain product re-enters as a use-value for the purpose of production into the same process from which it emanated, for instance, coal in the production of coal, even then that part of the output of coal which is intended for sale represents neither fixed nor circulating capital, but commodity-capital.

On the other hand, the utility-form of a certain product may be such that it is incapacitated for service as an element of productive capital, either as raw material or an instrument of labor. This is the case, for instance, with articles of food. Nevertheless it is a commodity-capital for its producer, in which the value of his fixed as well as his circulating capital is incorporated ; and it is the representative of the value of either the one or the other of these two forms according to whether the capital employed in its production has to be reproduced in full or partially, in other words, according to whether this capital transfers its full or its partial value to the product.

With Smith, in his count No. 3, the raw material (raw material, partly finished product, auxiliary material), does not figure as a part embodied in the productive capital, but merely as a special kind of use-values of which the social product generally consists, a mass of commodities existing apart from the other material elements, foodstuffs, etc., enumerated under Nos. 2 and 4. On the other hand, these materials are indeed incorporated in the productive capital and therefore also classed as its elements in the hands of the producer. The confusion arises from the fact that they are partly regarded as performing a function in the hands of the producer (in the hands of the growers, the manufacturers, etc.), and partly in the hands of merchants (mercers, drapers, timber-merchants), where they are merely commodity-capital, not elements of productive capital.

Indeed, Adam Smith forgets here, in the enumeration of the elements of circulating capital, all about the fact that the distinction of fixed and circulating capital applies only to the productive capital.

He rather places commodity-capital and money-capital, the two forms of capital typical of the process of circulation, opposite of the productive capital, but quite unconsciously.

Finally, it is worthy of note that Adam Smith forgets to mention labor-power as one of the elements of productive capital. And there are two reasons for this.

We have just seen that, apart from money-capital, circulating capital is only another name for commodity-capital. But to the extent that labor-power circulates on the market, it is not capital, not a form of commodity-capital. It is not capital at all; the laborer is not a capitalist, although he brings his commodity to market, namely, his own skin. Not until labor-power has been sold and incorporated in the process of production, in other words, until it has ceased to circulate as a commodity, does it become an element of productive capital, variable capital and the source of surplus-value, a circulating part of productive capital so far as the turnover of the capital-value invested in it is concerned. Since Smith here confounds the circulating capital with commodity-capital, he cannot place labor-power under his category of circulating capital. Hence the commodity-capital here appears in the form of commodities which the laborer buys with his wages, that is to say, means of subsistence. In this form, the capital-value invested in wages is supposed to belong to the circulating capital. That which is incorporated in the process of production is labor-power, the laborer himself, not the means of subsistence by which the laborer maintains himself. True, we have seen in volume I, chapter XXIII, that, from the point of view of society, the reproduction of the laborer himself by means of his individual consumption belongs to the process of reproduction of social capital. But this does not apply to the individual and isolated process of production which we are studying here. The "acquired and useful abilities" which Smith mentions under the head of fixed capital are on the contrary elements of circulating capital, when they are abilities of the wage-worker and have been sold by him with his labor.

It is a great mistake on the part of Smith to divide the entire social wealth into (1) a fund for immediate consumption, (2) fixed capital, and (3) circulating capital. According to this, wealth would have to be classified as (1) a fund for consumption, which would not represent a part of social capital engaged in the performance of its functions, although some parts of it may continually assist in this performance; and (2) as capital. In other words, a part of the wealth would be performing the functions of capital, another those of non-capital or a fund for consumption. And it seems that it is here an indispensable requirement for all capital to be either fixed or circulating, about in the same way that it is a natural necessity for a mammal to be either male or female. But we have seen that the distinction of being fixed or circulating applies solely to the elements of productive capital, that, therefore, there is also a considerable quantity of capital—commodity-capital and money-capital—existing in a form which does not permit of its being either fixed or circulating.

Seeing that the entire mass of social products, under capitalist production, circulates on the market as commodity-capital, with the exception of that part of the product which is directly consumed by the individual capitalist producers in its natural form as means of production without being sold or bought, it is evident that not only the fixed and circulating elements of productive capital, but also all the elements of the fund for consumption are derived from the commodity-capital. This is equivalent to saying that, on the basis of capitalist production, both means of production and of consumption first appear as commodity-capital, even though they are intended for later use as means of production or consumption. Labor-power itself is likewise found on the market as a commodity, if not as commodity-capital.

This accounts for the following confusion in Adam Smith: "Of these four parts" (meaning *circulating capital,* that is to say, capital in its forms of commodity-capital and money-capital typical of the process of circulation, which Adam Smith transforms into four parts by making distinctions between the substantial parts of commodity-capital) "three—provisions, materials, and finished work, are either annually or in a longer or shorter period, regularly withdrawn from it, and placed either in the fixed capital, or in the stock reserved for immediate consumption. Every fixed capital is both originally derived from, and requires to be continually supported by, a circulating capital. All useful machines and instruments of trade are originally derived from a circulating capital, which furnishes the materials of which they are made and the maintenance of the workmen who make them. They require, too, a capital of the same kind to keep them in constant repair." (Page 188).

With the exception of that part of the product which is immediately consumed as means of production, the following general rule applies to capitalist production: All products are taken to market as commodities and, therefore, circulate as capital in the form of commodities, as the commodity-capital of the capitalist, regardless of whether these products must or may serve in their natural form, as use-values, in the performance of their function as elements of productive capital in the process of production, in other words, as means of production and, therefore, as fixed or circulating parts of productive capital, or whether they can serve only as means of individual, not of productive, consumption. All products are thrown upon the market as commodities ; all means of production or consumption, all elements of productive and individual consumption, must therefore be released from the market by purchasing them as commodities.

Of course, this truism is correct. It applies for this reason to the fixed as well as the circulating elements of productive capital, for instruments of labor as well as raw material in all its forms. (This, moreover, is leaving aside the fact that there are certain elements of productive capital which are furnished ready by nature and are not products.) A machine is bought on the market as well as cotton. But this implies by no means that every fixed capital comes originally from some circulating capital ; it is only through the confusion, on the part of Smith, of capital of circulation with circulating capital, with capital

that is not fixed, that this erroneous conclusion is reached. And to cap the climax, Smith refutes himself. According to him, machines, as commodities, form a part of No. 4, the circulating capital. To say that they come from the circulating capital means that they were performing the function of commodity-capital before they performed the function of machines, but that substantially they are derived from themselves ; so is cotton, as the circulating element of some spinner's capital, derived from the cotton on the market. But as for deriving fixed capital from circulating capital for the reason that labor and raw material are required for the making of machines, as Adam Smith is doing in his further arguments, we say that in the first place, fixed capital is also required for the making of machines, and in the second place, fixed capital, such as machinery, is likewise required for the making of raw materials, since the productive capital always includes instruments of labor, but not always raw materials. He himself says immediately afterwards: "Lands, mines, and fisheries, require all both a fixed and circulating capital to cultivate them ;"—thus he admits that not only circulating, but also fixed capital is required for the production of raw materials—"and"—renewed confusion at this point—"their produce replaces with a profit, not only those capitals, but all the others in society." (Page 188). This is entirely wrong. Their produce furnishes the raw materials, auxiliary substances, etc., for all other branches of industry. But their value does not reproduce the value of all other social capitals ; it reproduces merely the value of their own capital (plus the surplus-value). Adam Smith is here stampeded by his recollection of the physiocrats.

Socially speaking, it is true that that part of the commodity-capital which consists of products available for immediate or later service as insrtuments of labor—unless they are produced uselessly and cannot be sold—must in fact perform this service whenever they cease to be commodities and become actual elements of the productive capital, in stead of being merely its prospective ones.

But there is a distinction arising from the natural form of the product.

A spinning machine, for instance, has no use-value, unless it is consumed in spinning, so that it performs its function as an element of production and, from the point of view of the capitalist, constitutes a fixed part of his capital. But a spinning machine is movable. It may be exported from the country in which it was produced and sold in a foreign country directly or indirectly, for raw materials, etc., or even for champagne. In that case it has served only as commodity-capital in the country in which it was produced, but never as fixed capital, not even after its sale.

But products which are localized by being imbedded in the soil, and therefore can be consumed only locally, such as factory buildings, railroads, bridges, tunnels, wharves, etc., improvements of the soil, etc., cannot be bodily exported. They are not movable. They are either useless, or they must serve as fixed capital, in the country that produced them, as soon as they have been sold. From the point of view of their capitalist producer, who builds factories or improves land

for speculation and sale, these things are forms of his commodity-capital, or, according to Adam Smith, a form of circulating capital. But from the point of view of society, these things must finally serve in the same country as fixed capital in some process of production fixed by their own locality, unless they are to be useless. This does not imply by any means that immovable things are fixed capital of themselves. They may belong to the fund for consumption, for instance residence houses, and in that case they do not belong to the social capital at all, although they are an element of the social wealth, of which capital is only a part. The producer of these things, to use the language of Smith, makes a profit by their sale. In other words, circulating capital! Their user, their final purchaser, can use them only by utilizing them in the process of production. Therefore, fixed capital!

Titles to property, for instance railroad shares, may change hands every day, and their owner may even make a profit by their sale to foreign countries, so that the title may be exported, if not the railroad. But nevertheless these things themselves must either lie fallow in the country that produced them, or serve as a fixed part of some productive capital. In the same way the manufacturer A may make a profit by the sale of his factory to the manufacturer B, but this does not prevent the factory from serving as fixed capital, the same as before.

However, it does not follow that fixed capital necessarily consists of immovable things, because the locally fixed instruments of labor, which cannot be detached from the soil, must to all intents and purposes serve at some time as fixed capital in the same country, even though they may serve as commodity-capital for their producer and do not constitute any elements of his fixed capital, which is made up of the instruments of labor required by him for the building of factories, railroads, etc. A ship and a locomotive produce their effects only by motion; yet they serve as fixed capital for the owner who uses them, although not for him who produced them. On the other hand, some things which are very decidedly fixed in the process of production, which live and die in it and never leave it any more after they have entered it, are circulating parts of the productive capital. Such are, for instance, the coal consumed by the machine in the process of production, the gas used for lighting the factory, etc. They are circulating capital not because they bodily leave the process of production together with the product and circulate as commodities, but because their entire value is transferred to that of the product in whose production they assisted, so that their value must be entirely reproduced by the sale of the product.

In the last quotation from Adam Smith, notice must furthermore be taken of the following phrase: "A circulating capital which furnishes . . . . . the maintenance of the workmen who make them" (meaning machines, etc.).

In the works of the physiocrats, that part of capital which is advanced for wages figures correctly under the *Avances annuelles* as distinguished from the *Avances primitives*. On the other hand it is not the labor-power used as a part of the productive capital of the farmer

which figures in their accounts, but the foodstuffs given to the farm laborers (the maintenance of workmen, as Smith calls it). This corresponds exactly to their specific doctrine. For according to them the value added to the product by labor (like the value added to the product by raw material, instruments of labor, etc., in short by all the substantial parts of constant capital) is equal only to the value of the articles of consumption paid to the laborers and necessary for the maintenance of their labor functions. Their doctrine stands in the way of their discovering the distinction between constant and variable capital. If it is labor that produces surplus-value in addition to the reproduction of its own price, then it does so in industry as well as in agriculture. But since, according to their system, surplus-value arises only in one branch of production, namely, agriculture, it does not come out of labor, but out of the special activity (assistance) of nature in this branch. And only for this reason agricultural labor is for them productive labor, as distinguished from other kinds of labor.

Adam Smith classes the maintenance of labourers among the circulating capital as distinguished from fixed.

1. Because he confounds circulating capital as distinguished from fixed with forms of capital belonging to the sphere of circulation, with capital of circulation; this mistake persisted after him without being criticized. He therefore confounds the commodity-capital with the circulating part of the productive capital, and in that case it is a matter of course that, whenever the social product assumes the form of commodities, the maintenance of the laborers as well as that of the non-laborers, the materials as well as the instruments of labor, must be taken out of the commodity-capital.

2. But the physiocratic conception likewise intermingles with the analysis of Smith, although it contradicts the esoteric—really scientific—part of his own deductions.

The advanced capital is universally converted into productive capital, that is to say, it assumes the form of elements of production which are themselves the products of past labor. Labor-power is included in them. Capital can serve in the process of production only in this form. Now, if instead of labor-power itself we take the laborer's necessities of life into which the variable part of capital has been converted, it is evident that these necessities of life are not essentially different, so far as the formation of values is concerned, from the other elements of productive capital, from the raw materials and the food of the laboring cattle, with whom Smith, after the manner of the physiocrats, places the laborers on the same level, in one of the passages quoted above. The necessities of life cannot expand their own value or add any surplus-value to it. Their value, like that of the other elements, can re-appear only in that of the product. They cannot add any more to their value than they have themselves. They, like raw materials, partly finished articles, etc., differ from fixed capital composed of instruments of labor only in that they are entirely consumed in the product of the capitalist who pays for them and uses them in the manufacture of this product, so that their value must be entirely reproduced by this product while in the case of the fixed capital

this takes place gradually and piecemeal. The part of productive capital advanced for labor-power (or for the laborer's articles of consumption) differs here only in the matter of material from the other material elements of productive capital, not in the matter of the process of production or self-expansion. It differs only in so far as it falls into the same category, namely, that of circulating capital, with one part of the objective elements active in the formation of the product (materials, Adam Smith calls them), while another part of these belongs in the category of fixed capital.

The fact that the capital invested in wages belongs to the circulating part of productive capital and shares this circulating quality, as distinguished from the fixed character of productive capital, with a part of the material objects, the raw materials etc., instrumental in creating the product, has nothing whatever to do with the role played by this variable part of capital in the process of self-expansion, as distinguished from the constant part of capital. It refers merely to the manner in which this part of the invested capital-value is reproduced out of the value of the product by way of the circulation. The purchase and repeated purchase of labor-power belongs in the process of circulation. But it is only within the process of production that the value invested in labor-power (not for the benefit of the laborer, but that of the capitalist) is converted from a definite constant into a variable magnitude and only thus the advanced value is converted into capital-value, into self-expanding value. But by classing the value advanced for articles of consumption among the circulating elements of productive capital, as Smith does, instead of the value invested in labor-power, the understanding of the difference between variable and constant capital, and thus the understanding of the capitalist process of production in general, is rendered impossible. The mission of this part of capital of being variable as distinguished from the constant capital invested in material objects instrumental in production, is hidden under the mission of the capital invested in labor-power of serving in the turn-over as a circulating part of productive capital. And the obscurity is made complete by enumerating the laborer's maintenance among the elements of productive capital, instead of his labor-power. It is immaterial, whether the value of labor-power is advanced in money or immediately in articles of consumption. However, under capitalist production, the last-named eventuality can be but an exception.[24]

By thus emphasizing the role of the circulating capital as the determining element of the capital-value invested in labor-power, by using this physiocratic conception without the fundamental premise of the physiocrats, Adam Smith haply rendered the understanding of the role of variable capital as a determinant of capital invested in labor-power impossible for his followers. The more profound and correct

[24] To what extent Adam Smith has blocked his own way to an understanding of the role of labor-power in the process of self-expansion is proven by the following sentences, which places the labor of human laborers on the same level with that of laboring cattle, after the manner of the physiocrats. "Not only his (the farmer's) laboring servants, but his laboring cattle are productive laborers." (Book II, chap. V, p. 243.)

analyses given by him in other places did not survive, but this mistake of his did. Other writers after him went even farther. They were not content to make it the essential characteristic of capital invested in labor-power to be circulating, as distinguished from fixed, capital ; they rather made it an essential mark of circulating capital to be invested in articles of consumption for laborers. This resulted naturally in the doctrine of a labor fund of definite magnitude consisting of requirements of life, which on one side established a physical limit for the share of the laborers in the social product, and on the other had to be fully expended in the purchase of labor-power.

CHAPTER XI

THEORIES OF FIXED AND CIRCULATING CAPITAL: RICARDO

Ricardo mentions the distinction between fixed and circulating capital merely for the purpose of illustrating the exceptions to the law of value, namely, in cases where the rate of wages affects the prices. The discussion of this point is reserved for volume III.

But the original confusion is apparent at the outset in the following indifferent parallel: "This difference in the degree of durability of fixed capital, *and* this variety in the proportions in which the two sorts of capital may be combined." (Principles, page 25.)

And if we ask him which two sorts of capital he is referring to, we are told: "The proportions, too, in which the capital that is to support labor, and the capital that is invested in tools, machinery, and buildings, may be variously combined." (l. c.) In other words, fixed capital consists of instruments of labor, and circulating capital is such as is invested in labor. "Capital that is to support labor" is a senseless term culled from Adam Smith. On one hand, the circulating capital is here confounded with the variable capital, that is to say, with that part of productive capital which is invested in labor. On the other hand, twice confounded conceptions arise for the reason that the distinction is not between variable and constant capital and derived from the process of self-expansion, but from the process of circulation repeating the old confusion of Smith.

1. The difference in the degree of durability of fixed capital and the difference in the proportion in which constant and variable capital may be combined, are conceived as being of equal significance. But the last-named difference determines the difference in the production of surplus-value ; the first-named, on the other hand, refers merely to the manner in which a given value is transferred from a means of production to the product, in so far as the process of self-expansion is concerned ; and as for the process of circulation, this difference refers only to the period of the reproduction of the advanced capital, or, from another point of view, the time for which it has been advanced. Of course, if one looks upon the capitalist process of production in the light of a completed phenomenon, instead of seeing through its internal

machinery, then these differences coincide. In the distribution of the social surplus-value among the various capitals invested in different lines of production, the proportions of the different periods of time for which capital has been advanced (for instance, the different durability of fixed capital) and the different organic composition of capital (and therefore also the different circulation of constant and variable capital) contribute equally toward an equalization of the general rate of profit and the conversion of values into prices of production.

2. From the point of view of the process of circulation, we have on one side the instruments of labor—fixed capital, on the other the materials of labor and wages—circulating capital. But from the point of view of the process of production and self-expansion, we have on one side means of production (instruments of labor and raw materials)—constant capital; on the other, labor-power—variable capital. It is immaterial for the organic composition of capital (Book I, Chap. XXV, 2,) whether the same quantity of constant capital consists of many instruments of labor and little raw materials, or of much raw material and few instruments of labor, but everything depends on the proportion of the capital invested in means of production to that invested in labor-power. Vice versa, from the point of view of the process of circulation, of the difference between fixed and circulating capital, it is just as immaterial in what proportions a given amount of circulating capital is divided between raw material and wages. From one of these points of view the raw material is classed in the same category with the instruments of labor, as compared to the capital-value invested in labor-power; from the other the capital-value invested in labor-power ranks with that invested in raw material, as compared to that invested in instruments of labor.

For this reason, the capital-value invested in materials of labor (raw and auxiliary materials) does not appear on either side. It disappears entirely. For it does not agree with the side of fixed capital, because its mode of circulation coincides entirely with that of the capital-value invested in labor-power. And on the other hand, it must not be placed on the side of circulating capital, because in that case the identification of the distinction between fixed and circulating capital with that of constant and variable capital, which had been carried over from Adam Smith and tacitly perpetuated, would abolish itself. Ricardo has too much logical instinct not to feel this, and for this reason that part of capital disappears entirely for him.

It is to be noted at this point that the capitalist, to use the language of political economy, advances the capital invested in wages for different periods, according to whether he pays these wages weekly, monthly, or quarterly. But in reality, the reverse takes place. The laborer advances his labor to the capitalist for one week, one month, or three months, according to whether he is paid by the week, by the month, or every three months. If the capitalist really were to *buy* labor-power, instead of only paying for it, in other words, if he were to pay the laborer in advance for a day, a week, a month, or three months, then he would be justified in claiming that he advanced wages for

those periods. But since he does not pay until labor has lasted for days, weeks, or months, instead of buying it and paying for the time which it is intended to last, we have here a confusion of terms on the part of the capitalist, who performs the trick of converting an advance of labor made to the capitalist by the laborer into an advance of money made to the laborer by the capitalist. It does not alter the case that the capitalist may not get any returns from his product by way of the circulation in the shape of a reproduction of his product or of its value (increased by the surplus value embodied in it) until after a certain length of time, according to the different periods required for its manufacture, or for its circulation. It does not concern the seller of a commodity what its buyer is going to do with it. The capitalist does not get a machine cheaper, because he must advance its entire value at one time, while this value returns to him only gradually and piecemeal by way of the circulation; nor does he pay more for cotton, because its value is assimilated fully by the product into which it is made over, and is therefore fully recovered at one time by the sale of the product.

Let us return to Ricardo.

1. The characteristic mark of variable capital is that a certain given, and to that extent constant, part of capital representing a given sum of values (supposed to be equal to the value of labor-power, although it is immaterial for this discussion whether wages are equal to the value of labor-power or higher or lower than it) is exchanged for a self-expanding power which creates value, namely, labor-power, which not only reproduces the value paid for it by the capitalist, but produces a surplus-value, a value not previously existing and not paid for by any equivalent. This chracteristic mark of the capital-value advanced for wages, which distinguishes it as a variable capital from constant capital, disappears whenever the capital-value advanced for wages is considered solely from the point of view of the circulation, for then it appears as a circulating capital as distinguished from the fixed capital invested in instruments of labor. This is apparent from the simple fact that it is then classed under one head, namely, under that of circulating capital, together with a part of the constant capital, namely, that which is invested in raw materials, and thus distinguished from another part of constant capital, namely, that invested in instruments of labor. The surplus-value, the very fact which converts the advanced sum of values into capital, is entirely ignored under these circumstances. Furthermore, the fact is ignored that the value added to the product by the capital invested in wages is newly produced (and therefore actually reproduced), while the value transferred from the raw material to the product is not newly produced, nor actually reproduced, but only preserved in the value of the product and merely reappears as a part of the value of the product. The distinction, as seen from the point of view of the contrast between fixed and circulating capital, consists now simply in this: The value of the instruments of labor used for the production of a certain commodity is transferred only partially to the value of the commodity and is therefore only partially recovered by its sale, is only partially and gradually

returned. On the other hand, the value of the labor-power and materials of labor (raw materials, etc.) used in the production of a certain commodity is entirely assimilated by it, and is therefore entirely recovered by its sale. From this standpoint, and with reference to the process of circulation, one part of capital appears as fixed, the other as circulating. In both cases it is a matter of the transfer of definite advanced values to the product and of their recovery by the sale of the product. The only difference which is essential at this point is whether the transfer of values, and consequently their recovery, proceed gradually or in one bulk. By this means the really decisive difference between the variable and constant capital is blotted out, the whole secret of the production of surplus-value and of capitalist production, namely, the circumstances which transform certain values and the things in which they are contained into capital, are obliterated. All constituent parts of capital are then distinguished merely by their mode of circulation (and, of course, circulation concerns itself solely with already existing values of definite size). And the capital invested in wages then shares a peculiar mode of circulation with a part of capital invested in raw materials, partly finished articles, auxiliary substances, as distinguished from another part of capital invested in instruments of labor.

It is, therefore, easy to understand why the bourgeois political economy instinctively clung to Adam Smith's confusion of the categories of "constant and variable capital" with the categories "fixed and circulating capital," and repeated it parrotlike from generation to generation for a century. The capital invested in wages is not in the least distinguished by bourgeois political economy from capital invested in raw materials, and differs only formally from constant capital to the extent that it is partially or in bulk circulated by the product. In this way the first requirement for an understanding of the actual movement of capitalist production, and thus of capitalist exploitation, is buried at one stroke. It is henceforth but a question of the reappearance of advanced values.

In Ricardo the uncritical adoption of the Smithian confusion is annoying, and not only more so than in the later apologetic writers, in whom the confusion of terms is rather otherwise than annoying, but also more than in Adam Smith himself, because Ricardo is comparatively more consistent and clear in his analysis of value and surplus-value, and indeed rescues the esoteric Adam Smith from the exoteric Adam Smith.

Among the physiocrats this confusion is not found. The distinction between *avances annuelles* and *avances primitives* refers only to the differnt periods of reproduction of the various parts of capital, especially of agricultural capital ; while their ideas concerning the production of surplus-value form a part of their theory, apart from these distinctions, being upheld by them as the salient point of this theory. The formation of surplus-value is not explained out of capital as such, but only attributed to one special sphere of production of capital, namely, agriculture.

2. The essential point in the determination of variable capital—and therefore for the conversion of any sum of values into capital—is that the capitalist exchanges a definite given, and to that extent constant, magnitude of values for a power which creates values, a magnitude of values for a production, a self-expansion, of values. It does not alter this essential fact that the capitalist may pay the laborer either in money or in means of subsistence. This alters merely the mode of existence of the value advanced by the capitalist, seeing that in one case it has the form of money for which the laborer himself buys his means of subsistence on the market, in the other case that of means of subsistence which he consumes directly. A developed capitalist production rests indeed on the assumption that the laborer is paid in money and more generally on the assumption that the process of production is promoted by the process of circulation, in other words, by the monetary system. But the production of surplus-value—and consequently the capitalization of the advanced sum of values—has its source neither in the money-form, nor in the natural form, of wages, or of the capital invested in the purchase of labor power. It arises out of the exchange of value for a power creating value, the conversion of constant into a variable magnitude.

The greater or smaller fixity of the instruments of labor depends on the degree of their durability, on their physical properties. According to the degree of their durability, other circumstances being equal, they will wear out fast or slowly, will serve a long or a short time as fixed capital. The raw material in metal factories is just as durable as the machines used in manufacturing, and more durable than many parts of these machines, such as leather, wood, etc. Nevertheless the metal serving as raw material forms a part of the circulating capital, while the instrument of labor, although probably built of the same metal, is a part of the fixed capital, when in use. Hence it is not the substantial physical nature, nor its great or small durability, to which the same metal owes its place, now in the category of the fixed, now of the circulating, capital. This distinction is rather due to the role played by it in the process of production, being an object of labor in one case, and an instrument of labor in another.

The function of an instrument of labor in the process of production requires generally that it should serve for a longer or shorter period in ever renewed labor processes. Its function, therefore, determines the greater or lesser durability of its substance. But it is not the durability of the material of which it is made that gives to it the character of fixed capital. The same material, if in the shape of raw material, becomes a circulating capital, and among those economists who confound the distinction between commodity-capital and productive-capital with that between circulating and fixed capital the same material, the same machine, are circulating capital as products and fixed capital as instruments of labor.

Although it is not the durability of the material of which it is made that gives to an instrument of labor the character of fixed capital, nevertheless its role as such an instrument requires that it should be composed of relatively durable material. The durability of its materials

is, therefore, a condition of its function as an instrument of labor, and consequently the material basis of the mode of circulation which renders it a fixed capital. Other circumstances being equal, the greater or lesser durability of its material endows it in a higher or lower degree with the quality of fixedness, in other words, its durability is closely interwoven with its quality of being a fixed capital.

If the capital-value advanced for labor-power is considered exclusively from the point of view of circulating capital in distinction from fixed capital, and if consequently the distinction between constant and variable capital is confounded with that between fixed and circulating capital, then it is natural to attribute the character of circulating capital, in distinction from fixed capital, to the substantial reality of the capital invested in labor-power, just as the substantial reality of the instrument of labor constitutes an essential element of its character of fixed capital, and to determine the circulating capital by the substantial reality of the variable capital.

The real substance of the capital invested in wages is labor itself, active, value-creating, living labor, which the capitalist trades for dead, materialized labor and embodies in his capital, by which means alone the value in his hands is transformed into a self-expanding value. But this self-expanding power is not sold by the capitalist. It is always solely a constituent part of his productive capital, the same as his instruments of labor; it is never a part of his commodity-capital, as, for instance, the finished product which he sells. Within the process of production, as parts of his productive capital, the instruments of labor are not distinguished from labor-power as fixed capital any more than the raw materials and auxiliary substances are identified with it as circulating capital. Labor confronts both of them as a personal factor, while they are objective things—speaking from the point of view of the process of production. Both of them stand opposed to labor-power, to variable capital, as constant capital—speaking from the point of view of the process of self-expansion. Or, if mention is to be made here of a difference in substance, so far as it affects the process of circulation, it is only this: It follows from the nature of value which is nothing but materialized labor, and from the nature of active labor-power which is nonthing but labor in process of materialization, that labor-power continually creates value and surplus-value during the process of its function; that the thing which on the part of labor-power appears as motion and a creation of value, appears on the part of its product as rest and as a created value. If the labor-power has performed its function, then capital no longer consists of labor-power on one side, and means of production on the other. The capital value invested in labor is then value added with a surplus-value to the product. In order to repeat the process, the product must be sold, and new labor-power must be bought with the money so obtained, in order to be once more embodied in the productive capital. It is this which then gives to the capital invested in labor-power, and to that invested in raw materials, etc., the character of circulating capital as distinguished from the capital remaining fixed in instruments of labor.

But if the secondary quality of the circulating capital, which it shares with a part of the constant capital (raw and auxiliary materials), is made the essential mark of capital invested in labor-power, to wit, the transfer of the full value invested in it to the product in whose manufacture it is consumed, instead of a gradual and successive transfer such as takes place in the case of the fixed capital, and the consequent total reproduction of this value by the sale of the product, then the value invested in wages must likewise consist, not of active labor-power, but of the material elements which the laborer buys with his wages ; in other words, it must consist of that part of the social commodity-capital which passes into the individual consumption of the laborer, of means of subsistence. In that case, the fixed capital would consist of the more durable instruments of labor which are reproduced more slowly, and the capital invested in labor-power would consist of the means of subsistence, which must be more rapidly reproduced.

However, the boundaries of greater or smaller durability pass imperceptibly into one another.

"The food and clothing consumed by the laborer, the buildings in which he works, the implements with which his labor is assisted, are all of a perishable nature. There is, however, a vast difference in the time for which these different capitals will endure: a steam-engine will last longer than a ship, a ship than the clothing of the laborer, and the clothing of the laborer longer than the food which he consumes." (Ricardo, etc., page 27).

Ricardo does not mention the house, in which the laborer lives, his tools of consumption, such as knives, forks, dishes, etc., all of which have the same quality of durability as the instruments of labor. The same things, the same classes of things, appear in one place as means of consumption, in another as intruments of labor.

The difference, as stated by Ricardo, is this: "According as capital is rapidly perishable and requires to be frequently reproduced or is of slow consumption, it is classed under the heads of circulating or fixed capital."

He remarks in addition thereto: "A division not essential, and in which the line of demarcation cannot be accurately drawn."

Thus we have once more arrived among the physiocrats, where the distinction between *avances annuelles* and *avances primitives* was one referring to the period of consumption, and consequently also to the different time of reproduction of the invested capital. Only, that which in their case constitutes a phenomenon important for society and for this reason is assigned in the *Tableau Economique* a place of interrelation with the process of circulation, becomes here, in Ricardo's own words, a subjective and unessential division.

As soon as the capital-value invested in labor-power differs from that invested in instruments of labor only by its period of reproduction and term of circulation, as soon as one part of capital consists of means of subsistence, another of instruments of labor, so that these differ from those only by the degree of their durability, which durability is further different for the various kinds of each class, it follows as a matter of

course that all specific difference between the capital invested in labor-power and that invested in means of production is obliterated.

This runs very much counter to Ricardo's theory of value, likewise to his theory of profit, which is actually a theory of surplus-value. He does not consider the difference between fixed and circulating capital any further than is required by the way in which differennt proportions of both of them, in equal capitals invested in different branches of production, influence the law of value, particularly the extent to which an increase or decrease of wages in consequence of these conditions affects prices. But even within this restricted analysis, he commits the gravest errors on account of the confusion in the definitions of fixed and circulating, constant and variable capital. Indeed, he starts his analysis on an entirely wrong basis. In the first place, in so far as the capital-value invested in labor-power has to be considered under the head of circulating capital, he gives a wrong definition of circulating capital and misunderstands particularly the circumstances which place the capital-value invested in labor-power under this heading. In the second place, he confounds the definition, according to which the capital-value invested in labor-power is a variable capital, with that according to which it is circulating as distinguished from fixed capital.

It is evident from the beginning that the definition of capital-value invested in labor-power as circulating capital is a secondary one, obliterating its specific difference in the process of production. For on one hand, the values invested in labor-power are identified in this definition with those invested in raw materials. A classification which identifies a part of the constant capital with the circulating capital does not appreciate the specific difference of variable from constant capital. On the other hand, while the values invested in labor-power are indeed distinguished from those invested in instruments of labor, the distinction is based only on the fact that the values incorporated in them are transferred to the product in different periods of time, not on the fact that this transfer is significant for the radically different manner in which either of them passes into the production of values.

In all of these cases, it is a question of the *manner* in which a given value, invested in the process of production of commodities, whether the investment be made in wages, in the price of raw materials, or in that of instruments of labor, is transferred to the product, then circulated by it, and returned to its starting point by the sale of the product, or reproduced. The only difference lies here in the "how," in the particular manner of the transfer, and therefore also in the circualtion of this value.

Whether the price of labor-power previously agreed upon by contract in each case is paid in money or in means of subsistence, does not alter in any way the fact that it is a fixed price. However, it is evident in the case of wages paid in money, that it is not the money which passes into the process of production in the way that the value as well as the material, of the means of production do. But if the means of subsistence which the laborer buys with his wages are directly classed in the same category with raw materials, as the material form of circulating capital distinguished from instruments of labor, then the

matter assumes a different aspect. While the value of *these* things, the instruments of labor, is transferred to the product in the process of production, the value of *those* things, the means of subsistence, reappears in the labor-power that consumes them and is likewise transferred to the product by the exertion of this power. In every one of these cases it is a question of the mere reappearance of the values invested in production by means of transfer to the product. The physiocrats for this reason took this aspect of the matter seriously and denied that industrial labor could create any values. This is shown by a previously quoted passage of Wayland, in which he says that it is immaterial in which form the capital reappears, and that the different kinds of food, clothing, and shelter which are required for the existence and well-being of man are likewise changed, being consumed in the course of time while their value reappears. (Elements of Political Economy, pages 31 and 32). The capital values invested in production in the form of means of production and means of subsistence both reappear in the value of the product. By this means the transformation of the capitalist process of production into a complete mystery is happily accomplished and the origin of the surplus-value incorporated in the product is entirely concealed.

At the same time, this perfects the fetishism typical of bourgeois political economy, which pretends that the social and economic character of things, arising from the process of social production, is a natural character due to the material substance of those things. For instance, instruments of labor are designated as fixed capital, a scholastic mode of definition which leads to contradictions and confusion. Just as we demonstrated in the case of the process of production (Vol. I, chapter VII), that it depends on the role, the function, performed by the various material substances in a certain process of production, whether they served as instruments of labor, raw materials, or products, just so we now claim that instruments of labor are fixed capital only in cases where the process of production is a capitalist process of production and the means of production are, therefore, capital and possess the economic form and social character of capital. And in the second place, they are fixed-capital only when they transfer their value to the product in a certain peculiar way. Unless they do so, they remain instruments of labor without being fixed-capital. In the same way, auxiliary materials, such as manure, if they transfer their value in the same peculiar manner as the greater part of the instruments of labor, become fixed capital, although they are not instruments of labor. It is not the definitions, which are essential in determining the character of these things. It is their definite functions which express themselves in definite categories.

If it is considered as one of the qualities exhibited by means of subsistence under all circumstances to be capital invested in wages, then it will also be a quality of this "circulating" capital "to support labor." (Ricardo, page 25.) If the means of subsistence were not "capital," then they would not support labor, according to this; while it is precisely their character of capital which endows them with the [illegible] capital by means of the labor of others.

If means of subsistence are of themselves capital circulating after being converted into wages, it follows furthermore that the magnitude of wages depends on the proportion of the number of laborers to the existing quantity of circulating capital—a favourite economic law—while as a matter of fact the quantity of means of subsistence withdrawn from the market by the laborer, and the quantity of means of subsistence available for the consumption of the capitalist, depend on the proportion of the surplus-value to the price of labor.

Ricardo as well as Barton[25] everywhere confound the relation between variable and constant capital with that between circulating and fixed capital. We shall see later, to what extent this vitiates Ricardo's analyses concerning the rate of profit.

Ricardo furthermore identifies the distinctions which arise in the turn-over from other causes than the difference between fixed and circulating capital, with these same differences: "It is also to be observed that the circulating capital may circulate, or be returned to its employer, in very unequal times. The wheat bought by a farmer to sow is comparatively a fixed capital to the wheat purchased by a baker to make into loaves. The one leaves it in the ground, and can obtain no return for a year: the other can get it ground into flour, sell it as bread to his customers, and have his capital free, to renew the same, or commence any other employment in a week." (Pages 26 and 27.)

In this passage, it is characteristic that wheat, although not serving as a means of subsistence, but as raw material when used for sowing, is supposed in the first place to be circulating capital, because it is in itself a food, and in the second place a circulating capital, because its reproduction extends over one year. However, it is not so much the slow or rapid reproduction which makes a fixed capital of a means of production, but rather the manner in which it transfers its value to the product.

The confusion caused by Adam Smith has brought the following results:

1. The distinction between fixed and circulating capital is confounded with that betwen productive capital and commodity-capital. For instance, a machine is said to be circulating capital when on the market as a commodity, and fixed capital when incorporated in the process of production. Under these circumstances, it is impossible to ascertain why one kind of capital should be more fixed or circulating than another.

2. All circulating capital is identified with capital invested, or about to be invested, in wages. This is the case with John Stuart Mill, and others.

3. The difference between variable and constant capital, which had been previously mistaken by Barton, Ricardo, and others, for that between circulating and fixed capital, is finally identified with this last-named difference, for instance by Ramsay, who calls all means

[25] Observations on the Circumstances Which Influence the Condition of the Labouring Classes of Society, London, 1817.

of production, raw materials, etc., including instruments of labor, fixed capital, and only that which is invested in wages circulating capital. But on account of the reduction of the problem to this form, the real difference between variable and constant capital is not understood.

4. The latest English, and especially Scotch, economists, who look upon all things from the inexpressibly petty point of view of a bank clerk, such as MacLeod, Patterson, and others transform the difference between fixed and circulating capital into one of money at call and money not at call.

CHAPTER XII

THE WORKING PERIOD

Take two branches of production, with equal working days, for instance of ten hours each, one of them a cotton spinnery, the other a locomotive factory. In one of these branches, a definite quantity of finished product, cotton yarn, is completed daily, or weekly ; in the other, the productive process may have to be repeated for three months in order that the finished product, a locomotive, may be ready. In one case, the product is made up of separate lots, and the same labor is repeated daily or weekly. In the other case, the labor process is continuous and extends over a prolonged number of daily labor-processes which, in their continuity, result in the finished product. Although the duration of the working day is the same in both cases, there is a marked difference in the duration of the productive act, that is to say, in the duration of the repeated labor-processes which are required in order to complete the finished product, to get it ready for its role as a commodity on the market, in other words, to convert it from a productive into a commodity-capital. The difference between fixed and circulating capital has nothing to do with this. The difference just indicated would exist, even if the very same proportions of fixed and circulating capital were employed in both branches of production.

These differences in the duration of the productive acts are found not alone in two different spheres of production, but also within one and the same sphere of production, according to the volume of the intended product. An ordinary residence house is built in less time than a large factory and therefore requires a smaller number of consecutive lobor-processes. While the building of a locomotive requires three months, that of an ironclad requires one year or more. The production of grain extends over nearly a year, that of horned cattle over several years, and the production of timber may require from twelve to one hundred years. A country road may be completed in a few months, while a railroad requires years. An ordinary carpet is made in about a week, while *Gobelins* requires years, etc. The differences in the duration of the productive act are, therefore, infinitely manifold.

It is evident that a difference in the duration of the productive act must beget a difference in the velocity of the turn-over, even if the

invested capitals are equal, in other words, must make a difference in the time for which a certain capital is advanced. Take it that a cotton spinnery and a locomotive factory employ the same amount of capital, that the proportion between their constant and variable capital is the same, likewise that between fixed and circulating capital, and that finally their working day is of equal length and its division between necessary and surplus-labor the same. In order to eliminate, furthermore, all the external circumstances arising out of the process of circulation, we shall assume that both the yarn and the locomotive are made to order and will be paid on delivery of the finished product. At the end of the week, the cotton spinner recovers his outlay for circulating capital (making exception of surplus-value), likewise the wear and tear of fixed capital incorporated in the value of the yarn. He can, therefore, repeat the same cycle with the same capital. It has completed its turn-over. The locomotive manufacturer, on the other hand, must advance ever new capital for wages and raw material every week for three months in succession, and it is only after three months, after the delivery of the locomotive, that the circulating capital gradually invested in one and the same productive act for the manufacture of one and the same commodity once more returns to a form in which it can renew its cycle. The wear and tear of his machinery is likewise covered only at the end of three months. The investment of the one is made for one week, that of the other is the investment of one week multiplied by twelve. All other circumstances being assumed as equal, the one must have twelve times more circulating capital at his disposal than the other.

It is, however, an immaterial condition that the capitals advanced weekly should be equal. Whatever may be the quantity of the invested capital, it is advanced for one week in one case, and for twelve weeks in the other, before the same operation can be repeated with it, or another inaugurated.

The difference in the velocity of the turn-over, or in the length of time for which the capital is advanced before the same capital-value can be employed in a new process of production or self-expansion, arises here from the following circumstances:

Take it that the manufacture of a locomotive, or of any other machine, requires 100 working days. So far as the laborers employed in the manufacture of yarn or of the locomotive are concerned, 100 working days constitute in either case a discontinuous magnitude, representing, according to our assumption, 100 consecutive, but separate labor-processes of ten hours each. But with reference to the product —the machine—these 100 working days are a continuous magnitude, a working day of 1,000 working hours, one single connected act of production. I call such a working day, which is formed by the succession of more or less numerous connected working days, a *working period*. If we speak of a working day, we mean the length of working time during which the laborer must daily spend his labor-power, must work day by day. But if we speak of a working period, then we mean a number of consecutive working days required in a certain branch of production for the completion of the finished product. In

this case, the product of every working day is but a partial one, being elaborated from day to day and receiving its complete form only at the end of a longer or shorter period of labor, when it is at last a finished use-value.

Interruptions, disturbances of the process of social production, for instance, by crises, therefore have very different effects on labor products of a discontinuous nature and those that require for their completion a prolonged and connected working period. In one case, to-day's production of a certain mass of yarn, coal, etc., is not followed by tomorrow's production of yarn, coal, etc. Not so in the case of ships, buildings, railroads, etc. It is not only the work which is interrupted, but also a connected working period. If the work is not continued, the means of production and labor so far expended in its manufacture are wasted. Even if work is resumed, a deterioration has taken place in the meantime.

For the entire duration of the working period, the value daily transferred to the product by the fixed capital accumulates successively until the product is finished. In this way, the difference between the fixed and circulating capital is revealed in its practical significance. The fixed capital is invested in the process of production for a long period, it need not be reproduced until after the expiration of, perhaps, a period of several years. Whether a steam-engine transfers its value daily to some yarn, which is the product of a discontinuous labor process, or for three months to a locomotive, which is the product of a continuous process, is immaterial for the investment of the capital required for the purchase of the steam-engine. In the one case, its value is recovered in small doses, for instance, weekly, in the other case in larger quantities, for instance, quarterly. But in either case, the reproduction of the steam-engine may not take place until after twenty years. So long as every individual period which returns a part of the value of the steam-engine by the sale of the product is shorter than the life-time of this engine, the same engine continues its service in successive working periods of the process of production.

It is different with the circulating portions of the invested capital. The labor-power bought for this week is consumed in the course of the same week and transferred to the product. It must be paid for at the end of this week. And this investment of capital in labor-power is repeated every week for three months without enabling the capitalist to use the investment of this part of capital in this week's labor-power for the purchase of next week's. Every week, additional capital must be invested for the payment of labor-power, and, leaving aside the question of credit, the capitalist must be able to advance wages for three months, even if he pays them only in weekly instalments. It is the same with the other portion of circulating capital, the raw and auxiliary materials. One shift of labor after another is transferred to the product. It is not alone the value of the expended labor-power which is continually transferred to the product during the labor-process, but also surplus-value. This product, however, is unfinished, it has not yet the form of a finished commodity, it cannot yet circulate.

This applies likewise to the capital-value transferred to the product by the raw and auxiliary materials.

According as the working period required by the specific nature of the product, or by the useful effect aimed at, is short or long, a continuous investment of additional circulating capital (wages, raw, and auxiliary materials) is required, none of its parts being in a form adapted for circulation and for the promotion of the repetition of the same operation. Every one of these parts is on the contrary held by the growing product as one of its parts in the sphere of production, in the form of productive capital. Now, the time of turn-over is equal to the sum of the time of production and the time of circulation. Hence a prolongation of the time of production reduces the velocity of the turn-over quite as much as the prolongation of the time of circulation. In the present case, the following must be furthermore noted:

1. The prolonged stay in the sphere of production. The capital invested, for instance, in the labor-power, raw, and auxiliary materials of the first week, the same as the portions of value transferred to the product by the fixed capital, are held in the sphere of production for the entire term of three months, and, being incorporated in a growing and as yet unfinished product, cannot pass into the circulation of commodities.

2. Since the working period required for the completion of the productive act lasts three months, and forms one connected labor-process, a new quantity of circulating capital must be continually added week after week to the preceding quantity. The amount of the successively invested additional capital grows, therefore, with the length of the working period.

We have assumed that equal capitals are invested in the spinnery and the machine factory, that these capitals contain equal proportions of constant and variable, fixed and circulating capital, that the working days are equal, in short, that all circumstances are equal with the exception of the duration of the working period. In the first week, the outlay for both is the same, but the product of the spinner can be sold and the returns from the sale employed in the purchase of new labor-power and raw materials, in short, production can be resumed on the same scale. The machine manufacturer, on the other hand, cannot reconvert the circulating capital expended in the first week into money until at the end of three months, when his product is finished and he can begin operations afresh. There is, in other words, first a difference in the return of the same quantity of capital invested. But, in the second place, the same amount of productive capital is employed during the three months in the spinnery and in the machine factory, but the magnitude of the outlay of capital in the case of the yarn manufacturer is different from that of the machine manufacturer. For in the one case, the same capital is rapidly renewed and the same operation can be repeated, while in the other case, the capital is renewed by relatively slow degrees, so that ever new quantities of capital must be added to the old up to the time of the completion of the term of its reproduction. It is, therefore, not only the time of reproduction of

definite portions of capital, or the time of investment, which is different, but also the quantity of the capital to be advanced according to the duration of the productive process, although the capital employed daily or weekly is the same. This circumstance is worthy of note for the reason that the time of investment may be prolonged, as we shall see in the cases treated in the next chapter, without thereby increasing the amount of the capital to be invested in proportion to this increase in time. The capital must be advanced for a longer time, and a larger amount of capital is held in the form of productive capital.

In undeveloped stages of capitalist production, enterprises requiring a long working period, and hence a large investment of capital for a long time, such as the building of streets, canals, etc., especially when they can be carried out only on a large scale, are either not managed on a capitalist basis at all, but rather at the expense of the municipality or state (in older times generally by means of forced labor, so far as labor-power was concerned); or, such products as require a long working period are manufactured only for the smaller part by the help of the private resources of the capitalist himself. For instance, in the building of a house, the private person on whose account the house is built advances money in instalments to the contractor. The owner thus pays for his house in instalments to the extent that his productive process proceeds. But in the developed capitalist era, when on the one hand masses of capital are concentrated in the hands of single individuals, while on the other hand associations of capitalists (stock companies) appear by the side of individual capitalists and the credit system is simultaneously developed, a capitalist contractor builds only in exceptional cases to the order of private individuals. He makes it his business to build rows of houses and sections of cities for the market, just as individual capitalists make it their business to build railroads as contractors.

To what extent capitalist production has revolutionized the building of houses in London is shown by the testimony of a contractor before the Banking Committee of 1857. When he was young, he said, houses were generally built to order and the payments made in instalments to the contractor when certain stages of the building were completed. Very little was built on speculation. Contractors used to consent to this mainly to give their hands regular employment and thus keep them together. In the last forty years, all this has changed. Very little is now built to order. If a man wants a house, he selects one from among those built on speculation or still in process of building. The contractor no longer works for his customers, but for the market. Like every other industrial capitalist, he is compelled to have finished articles on the market. While formerly a contractor had perhaps three or four houses at a time building for speculation, he must now buy a large piece of real estate (which in continental language means, rent it for ninety-nine years, as rule), build from 100 to 200 houses on it, and thus engage in an enterprise which exceeds from twenty to fifty times his resources. The funds are secured by taking up mortgages, and money is placed at the disposal of the contractor to the extent that the building of the individual houses is progressing.

Then, if a crisis comes along and interrupts the payment of the advance instalments, the entire enterprise generally collapses. In the best case, the houses remain unfinished until the coming of better times, in the worst case they are sold at auction at half-price. Without building on speculation, and that on a large scale, no contractor can get along nowadays. The profit from building itself is extremely small. The main profit of the contractor comes from raising the ground rent, by a careful selection and utilization of the building lots. By this method of speculation anticipating the demand for houses nearly the whole of Belgravia and Tyburnia, and the countless thousands of villas in the vicinity of London, have been built. (Abbreviated from the Report of the Select Committee on Bank Acts. Part I, 1857, Evidence, Questions 5413-18 ; 5535-36.)

The execution of enterprises with considerably long working periods and on a large scale does not fall fully within the province of capitalist production, until the concentration of capitals is very pronounced, and the development of the credit system offers, on the other hand, the comfortable expedient of advancing another's money instead of one's own capital and thus risking its loss. It goes without saying that the fact whether or not the capital advanced in production belongs to the one who uses it or to someone else has no influence on the velocity and time of turn-over.

The circumstances which augment the product of the individual working day, such as co-operation, division of labor, employment of machinery, shorten at the same time the working period of connected acts of production. Thus machinery shortens the building time of houses, bridges, etc. ; a mowing and threshing machine, etc., shorten the working period required to transform the ripe grain into a finished product. Improved shipbuilding reduces by increased speed the time of turn-over of capital invested in navigation. Such improvements as shorten the working period and thereby the time for which circulating capital must be advanced are, however, generally accompanied by an increased outlay for fixed capital. On the other hand, the working period in certain branches of production may be shortened by the mere extension of co-operation. The completion of a railroad is hastened by the employment of huge armies of laborers and the carrying on of the work in many places at once. The time of turn-over is in that case hastened by an increase of the advanced capital. More means of production and more labor-power must be combined under the command of the capitalist.

While the shortening of the working period is thus mostly accompanied by an increase of the capital advanced for this shortened time, so that the amount of capital advanced increases to the extent that the time for which the advance is made decreases, it must be noted that the essential point, apart from the existing amount of social capital, is the degree in which the means of production or subsistence, or their control, is scattered or concentrated in the hands of individual capitalists, in other words, the degree of concentration of capitals. Inasmuch as credit promotes the concentration of capital in one hand, it hastens

and intensifies by its contribution the shortening of the working period and thereby of the time of turn-over.

In branches of production in which the working period is continually, or occasionally, determined by definite natural conditions, no shortening of the working period can take place by the above-mentioned means. Says Walter Good, in his "Political, Agricultural, and Commercial Fallacies," (London, 1866, page 325): "The expression, 'more rapid turn-over' cannot be applied to grain crops, as only one turn-over per year is possible. As for cattle, we will simply ask: How is the turn-over of bi- or tri-ennial sheep, and of quadrennial and quinquennial oxen to be hastened?"

The necessity of securing ready money (for instance, for the payment of fixed tithes, such as taxes, ground rent, etc.) solves this question by selling or killing cattle before they have reached the normal economic age, to the great detriment of agriculture. This also causes finally a rise in the price of meat. We read on pages 12 and 13 of the above-named work that the people who formerly were mainly engaged in the raising of cattle for the purpose of supplying the pastures of the midland counties in summer, and the stables of the eastern counties in winter, have been so reduced by the fluctuations and sinking of the corn prices that they are glad to avail themselves of the high prices of butter and cheese ; they carry the former every week to the market, in order to cover their running expenses, while they take advance payments on the cheese from some middleman who calls for it as soon as it can be transported and who, of course, makes his own prices. As a result of this, agriculture being ruled by the laws of political economy, the calves, which were formerly taken south from the dairy districts to be raised, are now sacrificed in masses, frequently when they are only eight or ten days old, in the stock yards of Birmingham, Manchester, Liverpool, and other neighboring cities. But if the malt were untaxed, the farmers would not only have made more profits and been able to keep their young cattle until they would have been older and heavier, but the malt would also have served instead of milk for the raising of calves by those who keep no cows: and the present appalling want of young cattle would have been avoided to a large extent. If the raising of calves is now recommended to those small farmers, they reply: "We know very well that it would pay to raise them on milk, but in the first place we should have to lay out money, and we cannot do that, and in the second place we should have to wait long for the return of our money, while in dairying we get returns immediately."

If the prolongation of the turn-over has such consequences for the smaller English farmers, it is easy to see what disadvantages it must produce for the small farmers of the continent.

To the extent that the working period lasts, and thus the period required for the completion of the commodity ready for circulation, the value successively yielded by the fixed capital accumulates and the reproduction of this value is retarded. But this retardation does not cause a renewed outlay of fixed capital. The machine continues its

function in the process of production, no matter whether the reproduction of its wear and tear in the form of money takes place slowly or rapidly. It is different with the circulating capital. Not only must capital be tied up for a longer time in proportion as the working period extends, but new capital must also be continually advanced in the form of wages, raw and auxiliary materials. A retardation of the reproduction has therefore a different effect on either capital. No matter whether reproduction proceeds rapidly or slowly, the fixed capital continues its functions. But the circulating capital becomes unable to perform its functions, if the reproduction is retarded, if it is tied up in the form of unsold, or unfinished and as yet unsaleable, products, and if no additional capital is at hand for its reproduction in natural form.

"While the farmer is starving, his cattle thrive. There had been considerable rain and the grass pasture was luxuriant. The Indian farmer will starve alongside of a fat ox. The precepts of superstition seem cruel for the individual, but they are preserving society ; the preservation of the cattle secures the continuation of agriculture and thereby the sources of future subsistence and wealth. It may sound hard and sad, but it is so: In India a man is easier replaced than an ox." (Return, East Indian. Madras and Orissa Famine. No. 4, page 4.) Compare with the preceding the statement of Manava-Dharma-Sastra, chapter X, page 862 ; "The sacrifice of life without any reward, for the purpose of preserving a priest or a cow . . . can secure the salvation of these low-born tribes."

Of course, it is impossible to deliver a quinquennial animal before the lapse of five years. But a thing that is possible is the getting ready of the animals for their destination by changed modes of treatment. This was accomplished particularly by Bakewell. Formerly, English sheep, like the French as late as 1855, were not ready for slaughtering until after four or five years. By the Bakewell system, even a one year-old sheep may be fattened, and in every case it is completely grown before the end of the second year. By means of careful sexual selection, Bakewell, a farmer of Dishley Grange, reduced the skeleton of sheep to the minimum required for their existence. His sheep are called the New Leicesters. "The breeder can now supply three sheep for the market in the same time that he formerly required for one, and at that with a broader, rounder, and larger development of the parts giving the most meat. Nearly their entire weight is pure meat." (Lavergne, The Rural Economy of England, etc., 1855, page 22.)

The methods which shorten the working periods are applicable to different branches of industry only to a very different degree and do not compensate for the differences in the length of time of the various working periods. To stick to our illustration, the working period required for the building of a locomotive may be absolutely shortened by the employment of new implement machines. But if at the same time the finished product turned out daily or weekly by a cotton spinnery is still more rapidly increased, then the length of the working period in machine building, compared with that in spinning, has nevertheless been relatively lengthened.

CHAPTER XIII

THE TIME OF PRODUCTION

The working time is always the time of production, that is to say, the time during which capital is held in the sphere of production. But *vice versa,* not all time during which capital is engaged in the process of production is necessarily a working time.

It is not in this case a question of interruptions of the labor-process conditioned on natural limitations of labor-power itself, although we have seen to what extent the mere circumstances that fixed capital, factory, buildings, machinery, etc., are unemployed during pauses of the labor-process, became one of the motives for an unnatural prolongation of the labor-process and for day and night work. It is rather a question of an interruption independent of the length of the labor-process and conditioned on the nature and the production of the goods themselves, during which the object of labor is for a longer or shorter time subjected to lasting natural processes, causing physical, chemical, or physiological changes and suspending the labor-process entirely or partially.

For instance, grape juice, after being pressed, must ferment for a while and then rest for some time, in order to reach a certain degree of perfection. In many branches of industry the product must pass through a drying process, for instance in pottery, or be exposed to certain conditions which change its chemical nature, for instance in bleaching. Winter grain needs about nine months to mature. Between the time of sowing and harvesting the labor-process is almost entirely suspended. In timber raising, after the sowing and the incidental preliminary work are completed, the seed may require 100 years in order to be transformed into a finished product, and during all this time it requires very insignificant contributions of labor.

In all these cases, additional labor is contributed only occasionally during a large portion of the time of production. The condition described in the previous chapter, where additional capital and labor must be contributed to the capital already tied up in the process of production, is found here only in longer or shorter intervals.

In all these cases, therefore, the time of production of the advanced capital consists of two periods: One period, during which the capital is engaged in the labor-process ; a second period, during which its form of existence—being that of an unfinished product—is surrendered to the influence of natural processes, without being in the labor-process. It does not alter the case that these two periods of time may cross and pervade one another here and there. The working period and the period of production do not coincide. The time of production is greater than the working period. But the product is not finished until the time of production is completed, only then it is mature and can be transformed from a productive into a commodity-capital. According to the length of the period of production not consisting of working time, the period of turn-over is likewise prolonged. In so far as the time of production in excess of the working time is not once and for

all determined by definite natural laws, such as regulate the maturing of grain, the growth of an oak, etc., the period of turnover may be more or less shortened by an artificial reduction of the time of production. Such instances are the introduction of chemical bleaching instead of lawn bleaching, the improvement of drying apparatus in drying processes. Or, in tanning, where the penetration of the tannic acid into the skins by the old method required from six to eighteen months, while the new method by means of the air-pump, does it in one and a half to two months. (J. G. Courcelle-Seneuil, *Traite theorique et pratique des Entreprises industrielles*, etc., Paris, 1857, second edition.) The most magnificent illustration of an artificial abbreviation of the time of production which is taken up with natural processes is furnished by the history of the production of iron, more especially the conversion of raw iron into steel during the last 100 years, from the puddling process discovered about 1780 to the modern Bessemer process and the latest methods introduced since then. The time of production has been enormously abbreviated, but the investment of fixed capital has increased accordingly.

A peculiar illustration of the divergence of the time of production from the working time is furnished by the American manufacture of shoe-lasts. In this case, a considerable part of the expense is due to the fact that the wood must be stored for drying for as much as 18 months, in order that the finished last may not change its form by warping. During this time, the wood does not pass through any other labor-process. The period of turn-over of the invested capital is, therefore, not determined solely by the time required for the manufacture of the lasts, but also by the time during which the wood lies unproductive in the drying process. It is for 18 months in the process of production before it can enter into the labor-process proper. This illustration shows at the same time how it is that the periods of turn-over of different parts of the total circulating capital may differ in consequence of conditions which do not owe their existence to the sphere of circulation, but to that of production.

The difference between the time of production and the working time becomes especially apparent in agriculture. In our moderate climates, the land bears grain once a year. The abbreviation or prolongation of the period of production (for winter grain an average of nine months) is itself dependent on the change of good or bad seasons, and for this reason it cannot be as accurately determined beforehand and controlled as in industry properly so called. Only such by-products as milk, cheese, etc., are successively producible and saleable in short periods. On the other hand, the working time meets with the following conditions: "The number of working days in the various regions of Germany, with regard to the climatic and other determining conditions, will permit the assumption of the three following main working periods: For the spring period, from the middle of March or beginning of April to the middle of May, about 50 to 60 working days; for the summer period, from the beginning of June to the end of August, 65 to 80; and for the fall period, from the beginning of September to the end of October, or the middle or end of November, 55 to

75 working days. For the winter, only the chores customary for that time, such as the hauling of manure, wood, market goods, and building materials, are to be noted." (F. Kirchhoff, *Handbuch der landwirthschaftlichen Betriebslehre*. Dresden, 1852, page 160.)

To the extent that the climate is unfavorable, the working period of agriculture, and thus the outlay for capital and labor, is crammed into a short space of time. Take, for instance, Russia. In some of the northern regions of that country agricultural labor is possible only during 130 to 150 days per year. It may be imagined what would be the losses of Russia, if 50 out of its 65 million of European inhabitants would remain unemployed during six or eight months of the winter, when all field work must stop. Apart from the 200,000 farmers, who work in the 10,500 factories of Russia, local house industries have everywhere developed in the villages. There are some villages in which all farmers have been for generations weavers, tanners, shoemakers, locksmiths, knifemakers, etc. This is particularly the case in the provinces of Moscow, Vladimir, Kaluga, Kostroma, and Petersburg. By the way, this house-industry is being more and more pressed into the service of capitalist production. The weavers, for instance, are supplied with woof and web directly by merchants or middlemen. (Abbreviated from the Reports by H. M. Secretaries of Embassy and Legation, on the Manufactures, Commerce, etc., No. 8, 1865, pages 86 and 87.) We see here that the divergence of the period of production from the working period, the latter being but a part of the former, forms the natural basis for the combination of agriculture with an agricultural side-industry, and that this side-industry, on the other hand, offers points of vantage to the capitalist, who intrudes first in the person of the merchant. When capitalist production later accomplishes the separation of manufacture and agriculture, the rural laborer becomes ever more dependent on accidental side-employment and his condition is correspondingly lowered. For the capital, all the differences are compensated in the turn-over. Not so for the laborer.

While in most branches of industry proper, of mining, transportation, etc., the work proceeds uniformly, the working time being the same from year to year, and the outlay for the capital passing daily into circulation being uniformly distributed, making exception of such abnormal interruptions as fluctuations of prices, business depressions, etc. ; while furthermore also the recovery of the circulating capital, or its reproduction, is uniformly distributed throughout the year, provided the conditions of the market remain the same—there is, on the other hand, the greatest inequality in the outlay of circulating capital in such investments of capital, in which the working time constitutes only a part of the time of production, while the recovery of the capital takes place in bulk at a time determined by natural conditions. If such a business is managed on the same scale as one with a continuous working period, that is to say, if the amount of the circulating capital to be advanced is the same, it must be advanced in larger doses at a time and for longer periods. The durability of the fixed capital differs here considerably from the time in which it actually performs a productive function. Together with the difference between working time

and time of production, the time of investment of the employed fixed capital is, of course, likewise continually interrupted for a longer or shorter time, for instance, in agriculture in the case of laboring cattle, implements and machines. In so far as this fixed capital consists of laboring cattle, it requires continually the same, or nearly the same, amount of expenditure for feed, etc., as it does during its working time. In the case of inanimate instruments of labor, disuse also implies a certain amount of depreciation. Hence there is an appreciation of the product in general, seeing that the transfer of value is not calculated by the time in which the fixed capital performs its function, but by the time in which it depreciates in value. In such branches of production as these, the disuse of the fixed capital, whether combined with current expenses or not, forms as much a condition of its normal employment as, for instance, the waste of a certain quantity of cotton in spinning ; and in the same way the labor-power unproductively consumed in any labor-process under normal conditions, and inevitably so, counts as much as its productive consumption. Every improvement which reduces the unproductive expenditure of instruments of labor, raw material, and labor-power, also reduces the value of the product.

In agriculture, both the longer duration of the working period and the great difference between working period and productive period are combined. Hodgskin truly says with regard to this circumstance that the difference in the time (although he does not here distinguish between working time and productive time) required to get the products of agriculture ready and that required for the products of other branches of production is the main cause for the great dependence of farmers. They cannot market their goods in less time than one year. During this entire period they must borrow from the shoemaker, the tailor, the smith, the wagonmaker, and various other producers, whose articles they need, and which articles are finished in a few days or weeks. In consequence of this natural circumstance, and as a result of the more rapid increase of wealth in other branches of production, the real estate owners who have monopolized the land of the entire country, although they have also appropriated the monopoly of legislation, are nevertheless unable to save themselves and their servants, the tenants, from the fate of becoming the most dependent people in the land. (Thomas Hodgskin, *Popular Political Economy*, London, 1827, page 147, note.)

All methods by which partly the expenditures for wages and instruments of labor in agriculture are distributed more equally over the entire year, partly the turn-over is shortened by the raising of various products making different harvests possible during the course of the year, require an increase of the circulating capital invested in wages, fertilizers, seeds, etc., and advanced for purposes of production. This is the case, for instance, in the transition from the three-plat system with fallow land to the system of crop rotation without fallow. It applies furthermore to the *cultures dérobées* of Flanders. "The root crops are planted in *culture dérobée ;* the same field yields in succession first grain, flax, rape, for the wants of man, and after their harvest root crops are sown for the subsistence of cattle. This system, which

permits the keeping of horned cattle in the stables without interruption, yields a considerable amount of manure and thus becomes the fulcrum of crop rotation. More than a third of the cultivated area in sandy districts is taken up with *cultures dérobées*; it is as though the cultivated area had been increased by one-third," Apart from root crops, clover and other leguminous crops are likewise used for this purpose. "Agriculture, being thus carried to a point where it merges into horticulture, naturally requires a relatively considerable investment of capital. In England, a first investment of 250 francs per hectare is assumed. In Flanders, our farmers will probably consider a first investment of 500 francs far too low." (Emile de Laveleye, *Essais sur L'Economie Rurale de la Belgique*, Paris, 1863, pages 59, 60, 63.)

Take finally timber growing. "The production of timber differs from most of the other branches of production essentially by the fact that in it the force of nature is acting independently and does not require the power of man and capital in its natural propagation. Even in places where forests are artificially propagated the expenditure of human and capital power is inconsiderable compared to the action of natural forces. Besides, a forest will still thrive in soils and locations where grain does no longer give any yield or where its production does not pay. Forestry furthermore requires for its regular economy a larger area than grain culture, because small plats do not permit a system of felling trees in plats, prevents the utilization of by-products, complicates the production of the trees, etc. Finally, the productive process extends over such long periods that it exceeds the aims of private management and even surpasses the age limit of human life in certain cases. The capital invested in the purchase of the real estate" (in the case of communal production there is no capital needed for this, the question being simply how much land the community can spare from its cultivated and pasturing area for forestry) "will not yield returns until after a long period and is turned over gradually, but completely, with forests of certain kinds of wood, only after as much as 150 years. Besides, a consistent production of timber demands itself a supply of living wood which exceeds the annual requirements from ten to forty times. Unless a man has, therefore, still other sources of income and owns vast tracts of forest, he cannot engage in regular forestry." (Kirchhof, page 58.)

The long time of production (which comprises a relatively small amount of working time), and thus the length of the periods of turnover, make forestry little adapted for private, and therefore, capitalist enterprise, which is essentially private even if associated capitalists take the place of the individual capitalist. The development of civilization and of industry in general has ever shown itself so active in the destruction of forests, that everything done by it for their preservation and production, compared to its destructive effect, appears infinitesimal.

The following statement in the above quotation from Kirchhof is particularly worthy of note: "Besides, a consistent production of timber demands itself a supply of living wood which exceeds the annual

requirements from ten to forty times." In other words, a turnover occurs once in ten, forty, or more years.

The same applies to stock raising. A part of the herd (supply of cattle) remains in the process of production, while another part of the same is sold annually as a product. In this case, only a part of the capital is turned over every year, just as it is in the case of fixed capital, machinery, laboring cattle, etc. Although this capital is a fixed capital in the process of production for a long time, and thus prolongs the turn-over of the total capital, it is not a fixed capital in the strict definition of the term.

That which is here called a supply—a certain amount of living timber or cattle—serves in a relative sense in the process of production (being simultaneously instruments of labor and raw materials); on account of the natural conditions of its reproduction under normal circumstances of economy, a considerable part of this supply must always be available in this form.

A similar influence on the turn-over is exerted by another kind of supply, which is productive capital only potentially, but which owing to the nature of its economy, must be accumulated in a more or less considerable quantity and advanced for purposes of production for a long term, although it is consumed in the actual process of production only gradually. To this class belongs, for instance, manure before it is hauled to the field, furthermore grain, hay, etc., and such supplies of means of subsistence as are employed in the production of cattle. "A considerable part of the productive capital is contained in the supplies of certain industries. But these may lose more or less of their value, if the precautions necessary for their preservation in good condition are not properly observed. Lack of supervision may even result in the total loss of a part of the supplies in the economy. For this reason, a careful inspection of the barns, feed and grain lofts, and cellars, becomes indispensable, the store rooms must always be well closed, kept clean, ventilated, etc. The grain, and other crops held in storage, must be thoroughly turned over from time to time, potatoes and beets must be protected against frost, rain, and "fire." (Kirchhof, page 292.) "In calculating one's own requirements, especially for the keeping of cattle, and trying to regulate the distribution according to the nature of the product and its intended use, one must not only take into consideration the covering of one's demand, but also see to it that there is a proportionate reserve for extraordinary cases. If it is then found that the demand cannot be fully covered by one's own production, it becomes necessary to reflect first whether the missing amount cannot be covered by other products (substitutes), or by the cheaper purchase of such in place of the missing ones. For instance, if there should happen to be a lack of hay, this might be covered by root crops and straw. As a general rule, the natural value and market-price of the various crops must be kept in mind in such cases, and dispositions for the consumption must be made accordingly. If, for instance, oats are high, while pease and rye are relatively low, it will pay to substitute pease or rye for a part of the oats fed to horses and to sell the oats thus saved." (*Ibidem*, page 300.)

It has been previously stated, when discussing the question of the formation of a supply, that a definite, more or less considerable, quantity of potential productive capital is required, that is to say, of means of production intended for use in production, which must be available in proportionate quantities for the purpose of being gradually consumed in the productive process. It has been incidentally remarked that, given a certain business or capitalist enterprise of definite proportions, the magnitude of this productive supply depends on the greater or lesser difficulties of its reproduction, the relative distance of supplying markets, the development of means of transportation and communication, etc. All these circumstances influence the minimum of capital, which must be available in the form of a productive supply, hence they influence also the length of time for which the investment of capital must be made and the amount of capital to be advanced at one time. This amount, which affects also the turn-over, is determined by the longer or shorter time, during which a circulating capital is tied up in the form of a productive supply, of mere potential capital. On the other hand, in so far as this stagnation depends on the greater or smaller possibility of rapid reproduction, on market conditions, etc., it arises itself out of the time of circulation, out of circumstances connected with the circulation. "Furthermore, all such parts of the equipment or auxiliary pieces, as hand tools, sieves, baskets, ropes, wagon grease, nails, etc., must be so much the more available for immediate use, the less the opportunity for their rapid purchase is at hand. Finally, the entire supply of implements must be carefully overhauled in winter, and new purchases or repairs found to be necessary must be made at once. Whether or not a man is to keep a great or small supply of articles of equipment is mainly determined by local conditions. Wherever there are no artisans and stores in the vicinity, it is necessary to keep larger supplies than in places where these are in the locality or near it. But if the necessary supplies are purchased in large quantities at a time, then, other circumstances being equal, one profits as a rule by cheap purchases, provided the right time has been chosen for them. True, the rotating productive capital is thus curtailed by a so much larger sum, which cannot always be well spared in the business." (Kirchhof, page 301.)

The difference between the time of production and working time admits of many variations, as we have seen. The circulating capital may be in the period of production, before it enters into the working period proper (production of lasts) ; or, it is still in the period of production, after it has passed through the working period (wine, seed grain) ; or, the period of production is occasionally interrupted by the working period (agriculture, timber raising). A large portion of the product, fit for circulation, remains incorporated in the active process of production, while a much smaller part enters into the annual circulation (timber and cattle raising) ; the longer or shorter time for which a circulating capital must be invested in the form of potential productive capital, hence also the larger or smaller amount of this capital to be advanced at one time, depends partly on the nature of the productive process (agriculture), and partly on the proximity of markets, etc., in

short, on circumstances connected with the sphere of circulation.

We shall see later (Volume III), what senseless theories were advanced by MacCulloch, James Mill, etc., in the attempt at identifying the diverging time of production with the working time, an attempt which is due to a misinterpretation of the theory of value.

The cycle of turn-over, which we considered in the foregoing, is determined by the durability of the fixed capital advanced in the process of production. Since this process extends over a series of years, we have a series of annual, or less than annual, successive turn-overs of fixed capital.

In agriculture, such a cycle of turn-over arises out of the system of crop rotation. "The duration of the lease must certainly not be figured less than the time of rotation of the adopted system of crop succession. For this reason, one always calculates with 3, 6, 9, in the three-plat system. In the three-plat system with complete fallow, a field is cultivated only four times in six years, being planted with both winter and summer grain in the years of cultivation, and, if the condition of the soil permits it, wheat and rye, barley and oats, are likewise introduced into the rotation. Every species of grain, however, differs in its yields from others on the same soil, every one of them has a different value and is sold at a different price. For this reason, the yield of the same field is different in every year in which it is cultivated, and different in the first half of the rotation (the first three years) from that of the second. Even the average yield of one period of rotation is not equal to that of another, for its fertility does not depend merely on the good condition of the soil, but also on the weather of the various seasons, just as prices depend on a multitude of circumstances. Now, if one calculates the income from one field on the average of the crops for the entire rotation of six years and the average prices of those years, one finds the total income of one year in either period of rotation. But this is not so, if the income is calculated only for half of the period of rotation, that is to say, for three years, for then the total yields would be unequal. It follows from the foregoing that the duration of a lease in a system of three fields must be chosen for at least six years. It would be still more desirable for tenants and owners that the duration of the lease should be a multiple of the duration of the lease (!), in other words, that it should be 12, 18, or more years instead of 6 years, in a system of three fields, and 14, 28 years instead of 7 in a system of seven fields." Kirchhof, pages 117, 118.)

(The manuscript at this place contains the note: "The English system of crop rotation. Make a note here.")

CHAPTER XIV

THE TIME OF CIRCULATION

All circumstances considered so far, which distinguish the periods of rotation of different capitals invested in different branches of industry and the periods for which capital must be advanced, have their source in the process of production itself, such as the difference between fixed and circulating capital, the difference in the working periods, etc. But the period of turn-over of capital is equal to the sum of its time of production plus its time of circulation. It is, therefore, a matter of course that a difference in the time of circulation changes the time of turn-over and to that extent the length of the period of turn-over. This becomes most plainly apparent, either in comparing the different investments of capital in which all circumstances modifying the turn-over are equal, except the time of circulation, or in selecting a given capital with a given composition of fixed and circulating parts, a given working time, etc., permitting only the time of circulation to vary hypothetically.

One of the sections of the time of circulation—relatively the most decisive—consists of the time of selling, the period during which capital has the form of commodity-capital. According to the relative length of this time, the time of circulation, and to that extent the period of turn-over, are lengthened or shortened. An additional outlay of capital may become necessary as a result of expenses of storage. It is evident from the outset that the time required for the sale of finished products may differ considerably for the individual capitalists in one and the same branch of industry ; and this does not refer merely to the grand totals of capital invested in the various departments of industry, but also to the different individual capitals, which are in fact individual parts of the aggregate capital invested in the same department of production. Other circumstances remaining equal, the period of selling for the same individual capital will vary with the general fluctuations of the market conditions, or with their fluctuations in that particular business department. We do not tarry over this point any longer. We merely state the simple fact that all circumstances which produce differences in the periods of turn-over of the capitals invested in different business departments, also carry in their train differences in the turn-over of the various individual capitals existing in the same departments, provided these circumstances have any individual effects (for instance, if one capitalist has an opportunity to sell more rapidly than his competitor, if one employs more methods shortening the working periods than the other, etc.).

One cause which acts continuously in differentiating the times of selling, and thus the periods of turn-over in general, is the distance of the market, in which a commodity is finally sold from its regular place of sale. During the entire time of its trip to the market, capital finds itself fettered in the form of commodity-capital. If goods are made to order, this condition lasts up to the time of delivery ; if they are not made to order, the time of the trip to the market is further increased

by the time during which the goods are on the market waiting to be sold. The improvement of the means of communication and transportation abbreviates the wandering period of the commodities absolutely, but does not abolish the relative difference in the time of circulation of different commodity-capitals arising from their wanderings, nor that of different portions of the same commodity-capital which wander to different markets. The improved sailing vessels and steamships, for instance, which shorten the wanderings of commodities, do so equally for near and for distant ports. But the relative differences may be altered by the development of the means of transportation and communication in a way that does not correspond to the natural distances. For instance, a railroad, which leads from a place of production to an inland center of population, may relatively or absolutely prolong the distance to a nearer point inland not connected with a railroad, compared to the one which is naturally more distant. In the same way, the same circumstances may alter the relative distance of places of production from the larger markets, which explains the running down of old and the rise of new places of production through changes in the means of communication and transportation. (In addition to these circumstances, there is the greater relative cheapness of transportation for long than for short distances.) Moreover, it is not alone the velocity of the movement through space, and the consequent reduction of distance in space, but also in time, which is brought about by the development of the means of transportation. It is not only the quantity of means of communication which is developed, so that, for instance, many vessels sail simultaneously for the same port, or several trains travel simultaneously on different railways between the same two points, but freight vessels may, for instance, clear on different successive days of the week from Liverpool for New York, or freight trains may start at different times of the day from Manchester to London. It is true that the absolute velocity, or this part of the time of circulation, is not modified by this latter circumstance, a certain definite capacity of the means of transportation being given. But successive quantities of commodities can start on their passage in shorter succession of time and thus reach the market one after another without accumulating as potential commodity-capital in large quantities before shipping. Hence the return movement likewise is distributed over shorter successions of time, so that a part is continually transformed into money-capital, while another circulates as commodity-capital. By means of this distribution of the return movement over several successive periods the total time of circulation is abbreviated and thereby also the turn-over. On one hand, the greater or lesser frequency of the function of means of transportation, for instance the number of railroad trains, develops first to the extent that a place of production produces more and becomes a greater centre of production, and this development tends in the direction of the existing market, that is to say, toward the great centers of production and population, export places, etc. But on the other hand this special facilitation of traffic and the consequent acceleration of the turn-over of capital (to the extent that it is conditioned

on the time of circulation) give rise to a hastened concentration of the center of production and of its market. Along with this hastened concentration of masses of men and capital, the concentration of these masses of capital in a few hands likewise progresses. Simultaneously there is a movement, which shifts and displaces the center of commercial gravity as a result of changes in the relative location of centers of production and markets caused by transformations in the means of communication. A place of production which once had a special advantage by its favored location on some highway or canal then finds itself set aside on a single side-track, which runs trains only at relatively long intervals, while another place, which formerly lay removed from the main roads of traffic, then finds itself located at the crossing-point of several rail-roads. This second point is built up, the former goes down. A transformation in the means of transportation thus causes a local difference in the time of circulation of commodities, the opportunity to buy, to sell, etc., or an already existing local differentiation is distributed differently. The significance of this circumstance for the turnover of capital is shown in the disputes of the commercial and industrial representatives of the various places with the railroad managers. (See, for instance, the above-quoted bluebook of the Railway Committee.)

All branches of production which are dependent on local consumption by the nature of their product, such as breweries, are therefore developed to greatest dimensions in the main centers of population. The more rapid turn-over of capital compensates in this case for the eventual increase in the price of some elements of production, such as building lots, etc.

While on one hand, the development of the means of transportation and communication by the progress of capitalist production reduces the time of circulation for a given quantity of commodities, the same progress, on the other hand, coupled to the growing possibility of reaching more distant markets to the extent that the means of transportation and communication are improved, leads to the necessity of producing for ever more remote markets, in one word, for the world market. The mass of commodities in transit for distant places grows enormously, and with it also grows absolutely and relatively that part of social capital which remains constantly for longer periods in the stage of commodity-capital, within the time of circulation. Simultaneously that portion of social wealth increases which, instead of serving as direct means of production, is invested in the fixed and circulating capital required for operating the means of transportation and communication.

The mere relative length of the transit of the commodities from their place of production to their market causes a difference, not only in the first part of the time of circulation, the selling time, but also in its second part, the reconversion of money into the elements of productive capital, the buying time. For instance, some commodities are shipped to India. This requires, say, four months. Let us assume that the selling time is equal to zero, that is to say, the commodities are

made to order and are paid for on delivery to the agent of the producer. The return of the money (no matter what may be its form) requires again four months. Thus it takes eight months before the same capital can again serve as productive capital and renew the same operations. The differences in the turn-over thus caused are one of the material bases of the various terms of credit. Trans-oceanic commerce in general, for instance in Venice and Genoa, is one of the sources of the credit system—strictly so called. The London *Economist* of July 16, 1866, wrote that the crisis of 1847 enabled the banking and trading business of that time to reduce the Indian and Chinese usage (for the running time of cheques between those countries and Europe) from ten months after sight to six months, and the lapse of twenty years with its acceleration of the trip and the institution of telegraphs renders necessary a further reduction from six months after sight to four months after date as a preliminary step toward four months after sight. The trip of a sailing vessel from Calcutta around the Cape to London lasts on an average less than 90 days. A usage of four months after sight would be equivalent to a running time of 150 days, approximately. The present usage of six months after sight is equivalent to a running time of 210 days. On the other hand, we read in the issue of June 30, 1866, of the same paper, that the Brazilian usage is still fixed at two and three months after sight, cheques of Antwerp on London are drawn for three months after date, and even Manchester and Bradford draw on London for three months and longer dates. By a tacit understanding, the merchant is thus given sufficient opportunity to realize on his goods by the time the cheques are due, if not before. For this reason, the usage of Indian cheques is not excessive. Indian products, which are sold in London generally on three months' time, cannot be realized upon in much less than five months, if some time for the sale is allowed, while another five months pass on an average between the purchase in India and the delivery to an English warehouse. Here we have a period of ten months, while the cheques drawn against the goods do not run above seven months. And again, on July 7, 1886, we read that, on July 2, 1866, five great London Banks, dealing especially with India and China, and the Paris Comptoir d'Escompte, gave notice that, beginning with January 1, 1867, their branch banks and agencies in the Orient would buy and sell only such cheques as were not drawn for more than four months after sight. However, this reduction miscarried and had to be revoked. (Since then the Suez Canal has revolutionized all this.).

It is a matter of course that with the longer time of circulation the risk of a change of prices in the selling market increases, since it increases the period in which changes of price may take place.

A difference in the time of circulation, partly individually between the various individual capitals of the same branch of business, partly between different branches of business according to different usages, when payment is not made in spot cash, arises from the different dates of payment in buying and selling. We do not linger for the present over this point, which is important for the credit business.

(2) Other differences in the period of turn-over arise from the size of contracts for the delivery of goods, and their size grows with the extent and scale of capitalist production. Such a contract, being a transaction between buyer and seller, is an operation belonging to the market, the sphere of circulation. The differences in the time of turn-over arising from it have their source for this reason in the sphere of circulation, but react immediately on the sphere of production, apart from all dates of payment. For instance, coal, cotton, yarn, etc., are discontinuous products. Every day supplies its quantity of finished product. But if the spinner or the mine-owner accepts contracts for the delivery of large quantities, which require, say, a period of four or six weeks of successive working days, then this is the same, so far as the time of investment of advanced capital is concerned, as though a continuous working period of four or six weeks had been introduced in this labor-process. It is of course assumed in this case that the entire quantity ordered is to be delivered in one bulk, or at least is only paid after all of it has been delivered. Individually considered, every day had furnished its definite quantity of finished product. But this finished product is only a part of the quantity contracted for. Although the portion finished so far is no longer in the process of production, it is still in the warehouse as a potential capital.

Now let us take up the second epoch of the time of circulation, the buying time, or that epoch in which capital is converted from money back into the elements of productive capital. During this epoch, it must remain for a shorter or longer time in its condition of money-capital, so that a certain portion of the total capital advanced is all the time in the form of money-capital, although this portion consists of continually changing elements. For instance, of the total capital advanced in a certain business, n times 100 pounds sterling must be available in the form of money-capital, so that, while all the constituent parts of these n times 100 pounds sterling are continually converted into productive capital, this sum is nevertheless just as continually supplemented by new additions from the circulation, out of the realized commodity-capital. A definite part of the value of the advanced capital is, therefore, continually in the condition of money-capital, a form not belonging to its sphere of production, but to its sphere of circulation.

We have already seen that the prolongation of time caused by the distance of the market, by which capital is fettered in the form of commodity-capital, directly retards the return movement of the money and, consequently, the transformation of capital from its money into its productive form.

We have furthermore seen (chapter VI) with reference to the purchase of commodities, that the time of buying, the greater or smaller distance from the main sources of the raw material, make it necessary to purchase raw material for a longer period and keep it on hand in the form of a productive supply, of latent or potential productive capital; in other words, that it increases the quantity of capital to be advanced at one time, and the time for which it must be advanced, the scale of production remaining otherwise the same.

A similar effect is produced in various businesses by the longer or shorter periods, in which large quantities of raw material are thrown on the market. In London, for instance, great auction sales of wool take place every three months; and the wool market is controlled by them. The cotton market, on the other hand, is on the whole restocked continuously, if not uniformly, from harvest to harvest. Such periods determine the principal dates of buying for these raw materials and affect especially the speculative purchases requiring longer or shorter advances of these elements of production, just as the nature of the produced commodities exerts an influence on the premeditated speculative retention of the product for a longer or shorter term in the form of potential commodity-capital. "The farmer must also be to a certain extent a speculator, and, therefore, hold back the sale of his products according to prevailing conditions. . . ." Here follow a few general rules. ". . . However, in the sale of the products, success depends mainly on the personality, the product itself, and the locality. A man with sufficient business capital, won by ability and good luck (!), will not be blamed, if he keeps his grain crop stored for a year when prices happen to be unusually low. On the other hand, a man who lacks business capital, or enterprise in general (!), will try to get the average prices and be compelled to sell as soon and as often as opportunity presents itself. It will almost always bring losses to keep wool stored longer than a year, while grain and rape seed may be stored for several years without injury to their condition and quality. Such products as are generally subject to a large rise and fall in short intervals, for instance, rape seed, hops, teasel, etc., may be to good advantage stored during the years in which the market price is far below the price of production. It is least permissible to postpone the sale of such articles as require daily expenses for their preservation, such as fatted cattle, or which spoil easily, such as fruit, potatoes, etc. In some localities, a certain product has its lowest average price at a certain season, its highest at another. For instance, the average price of grain in some localities is lower about August than in the time between Christmas and Easter. Furthermore, some products sell well in certain localities only at certain periods, as is the case, for instance, with wool in the wool markets of those localities, where the wool trade is dull at other times, etc." (Kirchhof, page 302.)

In the study of the second half of the time of circulation, in which money is reconverted into the elements of productive capital, it is not only this conversion itself which is important in itself, not only the time in which the money flows back according to the distance of the market on which the product is sold. It is also above all the volume of that part of the advanced capital to be held always available in the form of money, in the condition of money-capital, which must be considered.

Making exception of all speculation, the volume of the purchases of those commodities which must always be available as a productive supply depends on the time of the renewal of this supply, in other words, on circumstances which in their turn depend on market conditions and which are, therefore, different for different raw materials.

In these cases, money must be advanced from time to time in larger quantities in one sum. It flows back more or less rapidly, but always in instalments, according to the turnover of capital. One portion, namely, that invested in wages, is continually re-expended in short intervals. But another part, namely, that which is to be reconverted into raw material, etc., must be accumulated for long periods, as a reserve fund to be used either for buying or paying. Therefore it exists in the form of money-capital, although the volume which it has as such changes.

We shall see in the next chapter that other circumstances, whether they arise from the process of production or circulation, necessitate this existence of a certain portion of the advanced capital in the form of money. In general it must be noted that economists are very prone to forget that a part of the capital required for business not only passes alternately through the three stages of money-capital, productive capital, and commodity-capital, but that different portions of it have continuously and simultaneously these forms, although the relative size of these portions varies all the time. It is especially the portion always available as money-capital which is forgotten by economists, although this circumstance is very important for the understanding of capitalist economy and makes its importance felt in practice.

CHAPTER XV

INFLUENCE OF THE TIME OF CIRCULATION ON THE MAGNITUDE OF AN ADVANCE OF CAPITAL

In this chapter and in the next we shall treat of the influence of the time of circulation on the utilization of capital.

Take the commodity-capital which is the product of a certain working period, for instance, of nine weeks. Let us leave aside the question of that portion of value which is transferred to the product by the average wear and tear of the fixed capital, also that of the surplus-value added to it during the process of production. The value of this product is then equal to that of the circulating capital advanced for its production, that is to say, of the wages, raw and auxiliary materials consumed in its production. Let this value be 900 pounds sterling, so that the weekly outlay is 100 pounds sterling. The periodic time of production, which here coincides with the working time, is nine weeks. It is immaterial whether it is assumed that this working period produces a continuous product, or whether it is a continuous working period for a discontinuous product, so long as the quantity of discontinuous product which is brought to market at one time, costs nine weeks of labor. Let the time of circulation be three weeks. Then the entire time of turn-over is twelve weeks. At the end of nine weeks, the advanced productive capital is converted into a commodity-capital, but now it exists for three weeks in the period of circulation. The

new time of production, therefore, cannot commence until the beginning of the thirteenth week, and production would be at a standstill for three weeks, or for a quarter of the entire period of turnover. It is again immaterial whether it is assumed that it takes so long on an average to sell the product, or that this term is conditioned on the distance of the market or on the terms of payment for the sold goods. Production would be at a standstill for three weeks every three months, or four times three, or twelve weeks, in a year, which means three months or one quarter of the annual period of turnover. Hence, if production is to be continuous and to be carried along on the same scale week after week, there are only two possibilities.

Either the scale of production must be reduced, so that those 900 pounds sterling will suffice to keep the work going during the working period as well as during the time of circulation of the first turn-over. A second working period is then commenced with the tenth week, hence also a new period of turn-over, before the first period of turn-over is completed, for the period of turn-over is twelve weeks, the working period nine weeks. A sum of 900 pounds sterling distributed over twelve weeks makes 75 pounds per week. It is evident in the first place that such a reduced scale of business presupposes changed dimensions of the fixed capital, and therefore a general reduction of the entire business. In the second place, it is questionable whether such a reduction can take place at all, for the development of production in the various businesses establishes a normal minimum for the investment of capital, below which an individual business is unable to sustain competition. This normal minimum grows continually with the advance of capitalist production, hence it is not a fixed magnitude. There are numerous gradations between the existing normal minimum and the ever increasing normal maximum, and this intermediate gradation permits of many different degrees of capital investment. Within the limits of this intermediate scale, a reduction may take place, its lowest limit being the normal minimum.

In case of an obstruction of production, an overstocking of the markets, an increase in the price of raw materials, etc., there is a reduction of the normal outlay of circulating capital, compared to a given scale of fixed capital, by the reduction of the working time, work being carried on, say, for only half a day. On the other hand, in times of prosperity, the fixed capital remaining the same, there is an abnormal expansion of the circulating capital, partly by the prolongation of the working time, partly by its intensification. In businesses which are adjusted from the outset to such fluctuations, recourse is either taken to the above-named measures, or a greater number of laborers are simultaneously employed, combined with an investment of reserve capital, such as reserve locomotives of railroads, etc. However, such abnormal fluctuations are not considered here, where we assume normal conditions.

In order to make production continuous, it is necessary, in the present case, to distribute the expenditure of the same circulating capital over a longer period, over twelve weeks instead of nine. In any

section of time, a reduced productive capital is therefore employed. The circulating portion of the productive capital is reduced from 100 to 75, or one-quarter. The total amount by which the productive capital serving for a working period of nine weeks is reduced is 9 times 25, or 225 pounds sterling, or one-quarter of 900 pounds. But the proportion of the time of circulation to that of turn-over is likewise three-twelfth, or one-quarter. It follows, therefore: If production is not to be interrupted during the time of circulation of the productive capital transformed into commodity-capital, if it is rather to be continued parallel with circulation and continuously week after week, and if no special circulating capital is available, it can be done only by curtailing the productive operations, reducing the circulating portions of the productive capital in service. The portion of circulating capital thus set free for production during the time of circulation is proportioned to the total circulating capital invested as the time of circulation is to the time of turn-over. We repeat that this applies only to branches of production in which the labor-process is continued on the same scale week after week, in other words, where no different amounts of capital are invested at different working periods as is done, for instance, in agriculture.

If, on the other hand, we assume that the nature of the business excludes the idea of a reduction of the scale of production and thus of the circulating capital to be invested weekly, then the continuity of production can be secured only by additional circulating capital, in the above-named case of 300 pounds sterling. During the period of turnover of twelve weeks, 1,200 pounds sterling are successively invested in twelve weeks, and 300 is one-quarter of this sum as three weeks is of twelve. At the end of the working time of nine weeks, the capital-value of 900 pounds sterling has been converted from the form of productive into that of commodity-capital. Its working period is concluded, but it cannot be reopened with the same capital. During the three weeks in which it exists in the sphere of circulation, performing the functions of commodity-capital, it is in a condition, so far as the process of production is concerned, as though it did not exist at all. We make exception, at present, of all conditions of credit, and assume that the capitalist operates only with his own money. But while the capital advanced for the first working period, having completed its process of production, remains for three weeks in the process of circulation, an additional capital of 300 pounds sterling enters into service, so that the continuity of the production is not interrupted.

Now, the following must be noted in this connection:

First: The working period of the capital first invested, of 900 pounds sterling, is completed at the close of nine weeks, and it does not flow back until after three weeks, that is to say, in the beginning of the thirteenth week. But a new working period is immediately begun with the additional capital of 300 pounds. By this means the continuity of production is secured.

Secondly: The functions of the original capital of 900 pounds sterling, and those of the additional capital of 300 pounds sterling

added at the close of the first working period of nine weeks, inaugurating the second working period after the conclusion of the first, without any interruption, are clearly distinguished in the first period of turn-over, or at least they may be, while they cross one another in the course of the second period of turn-over.

Let us give this matter a tangible form.

First period of turn-over of 12 weeks: First working period of 9 weeks; the turn-over of the capital advanced for this is completed at the beginning of the 13th week. During the last 3 weeks, the additional capital of 300 pounds sterling performs its service, opening up the second working period of 9 weeks.

Second period of turn-over. At the beginning of the 13th week, 900 pounds sterling have flown back and are able to begin a new turn-over. But the second working period has already been opened by the additional 300 pounds in the 10th week. At the commencement of the 13th week, this capital has already completed one-third of its working period and 300 pounds sterling have been converted from a productive capital into a product. Seeing that only 6 weeks are required for the completion of the second working period, only two-thirds of the returned capital of 900 pounds sterling, or 600 pounds, can take part in the productive process of the second working period. Thus 300 pounds of the original 900 are set free and may play the same role, which the additional capital of 300 pounds played in the first working period. At the close of the 6th week of the second period of turn-over, the second working period is completed. The capital of 900 pounds sterling advanced in it flows back after 3 weeks, or at the end the 9th week of the second period of turn-over which comprises 12 weeks. During the 3 weeks of its period of circulation, the free capital of 300 pounds sterling comes into action. This begins the third working period of a capital of 900 pounds sterling in the 7th week of the second period of turn-over, which is the 19th running week.

Third period of turnover. At the close of the 9th week of the second period of turn-over, there is a new reflux of 900 pounds sterling. But the third working period has already commenced in the 7th week of the second period of turnover, and at the beginning of the third period of turn-over, 6 weeks of the third working period have already elapsed. The third working period, then, lasts only 3 weeks longer. Hence only 300 pounds of the returned 900 take part in the productive process of the second period of turn-over, while the next 300 close the last three weeks of the third working period and thus open the first three weeks of the third period of turn-over. The fourth working period fills out the remaining 9 weeks of this period of turn-over, and thus the 37th running week begins simultaneously the fourth period of turn-over and the fifth working period.

In order to simplify this case for the calculation, we shall assume a working period of 5 weeks and a period of circulation of 5 weeks, making a period of turn-over of 10 weeks. Let the year be one of fifty working weeks, and the capital invested per week 100 pounds sterling. A working period then requires a circulating capital of 500 pounds sterling and the period of turn-over an additional capital of

500 pounds sterling. The working periods and periods of turn-over then are as follows:

1. wrkg. prd. 1—5. week (500 p. stlg. of goods) returned end of 10.
2. wrkg. prd. 6—10. week (500 p. stlg. of goods) returned end of 15.
3. wrkg. prd. 11—15. week (500 p. stlg. of goods) returned end of 20.
4. wrkg. prd. 16—20. week (500 p. stlg. of goods) returned end of 25.
5. wrkg. prd. 21—25. week (500 p. stlg. of goods) returned end of 30.

etc.

If the time of circulation is zero, so that the period of turn-over is equal to the working time, then the number of turn-overs is equal to the working periods of the year. In the case of a working period of 5 weeks, this would make 10 periods of turn-over per year, and the value of the capital turned over would be 500 times 10, or 5,000. In our table, in which we have assumed a time of circulation of 5 weeks, the total value of the commodities produced per year would also be 5,000 pounds sterling, but one-tenth of this, or 500 pounds, would always be in the form of commodity-capital, which would not flow back until after 5 weeks. At the end of the year, the product of the tenth working period (the 46th to the 50th working week) would have completed its period of turn-over only by half, because its time of circulation would fall within the first five weeks of the year.

Now let us take a third illustration: Working period 6 weeks, time of circulation 3 weeks, weekly advance of capital 100 pounds sterling.

1. Working period: 1—6th week. At the end of the 6th week, a commodity-capital of 600 pounds sterling, returned at the end of the 9th week.

2. Working period: 7—12th week. During the 7—9th week 300 pounds sterling of additional capital is advanced. At the end of the 9th week, return of 600 pounds sterling. Of this, 300 pounds sterling are advanced during the 10—12th week. At the end of the 12th week, therefore, 300 pounds sterling are available, and 600 pounds sterling are in the form of commodity-capital, returnable at the end of the 15th week.

3. Working period: 13—18th week. During the 13—15th week, advance of above 300 pounds sterling, then reflux of 600 pounds, 300 of which are advanced for the 16—18th week. At the end of the 18th week, 300 pounds sterling available in cash, 600 on hand as commodity-capital, which flows back at the end of the 21st week. (See the detailed illustration of this case under II, farther along).

In other words, during 9 working periods (54 weeks) a total of 600 times 9, or 5,400 pounds sterling is produced. At the end of the ninth working period, the capitalist has 300 pounds in cash and 600 pounds worth of commodities, which have not yet completed their time of circulation.

A comparison of these three illustrations shows first, that a successive release of capital I of 500 pounds sterling and of additional capital II of likewise 500 pounds sterling takes place only in the second illustration, so that these two portions of capital move independently of one anoher. But this is so only because we have made the exceptional assumption that the working time and the time of circulation are two

equal halves of the period of turn-over. In all other cases, whatever may be the difference of the two terms of the period of turn-over, the movements of the two capitals cross one another, as they do in the first and third illustration, beginning with the second period of turn-over. The additional capital II, with a portion of capital I, then forms the capital serving in the second period of turn-over, while the remainder of capital I is set free for the original function of Capital II. The capital serving during the time of circulation of the commodity-capital is not identical, in this case, with the capital II originally advanced for this purpose, but it is of the same value and forms the same aliquot portion of the advanced total capital.

Secondly: The capital which served during the working period lies fallow during the time of circulation. In the second illustration, the capital performs its function during 5 weeks of the working period, and lies fallow during a circulation period of 5 weeks. The entire time during which capital I here lies fallow amounts to one-half of the year. During this time, the additional capital II takes the place of capital I, which in its turn lies fallow during the other half of the year. But the additional capital required for insuring the continuity of the production during the time of circulation is not determined by the aggregate volume, or the sum, of the times of circulation during the year, but only by the proportion of the time of circulation to the time of turn-over. (We assume, of course, that all the turn-overs take place under the same conditions.) For this reason, 500 pounds sterling are required in the second illustration, not 2,500 pounds. This is simply due to the fact that the additional capital enters just as well into the turn-over as the capital originally advanced, and that it, therefore, reproduces its volume the same as the other by the number of its turn-overs.

Thirdly: It does not alter the circumstances here described, whether or not the time of production is longer than the working time. True, the aggregate of the periods of turn-over is prolonged thereby, but this prolongation does not imply any additional capital for the labor-process. The additional capital serves merely the purpose of filling up the fallow places left by the time of circulation. Its mission is simply to protect production against interruption by the time of circulation. Interruptions arising from the conditions of production itself are compensated for in another way, which we do not discuss at this point. There are, however, some business, in which work is carried on only in intervals and to order, so that there may be interruptions in the working periods. In such cases, the necessity of additional capital is eliminated to that extent. On the other hand, in most cases of season work, there is a limit for the time of reflux. The same work cannot be renewed next year with the same capital, if the time of circulation of this capital is not completed. Still, the time of circulation may be shorter than the intervals between two periods of production. In such an eventuality, capital lies fallow, unless it is employed otherwise in the meantime.

Fourthly: The capital advanced for a certain working period, for instance, the 600 pounds sterling in the third illustration, is invested

partly in raw and auxiliary materials, in a productive supply for the working period, in constant circulating capital, partly in variable circulating capital, in the payment of labor itself. The portion invested in constant circulating capital may not exist for the same length of time in the form of a productive supply, the raw material, for instance, may not be on hand for the entire working period, coal may be purchased only every two weeks. However, credit being out of the question, according to our assumption, this portion of capital, to the extent that it is not available in the form of a productive supply, must be kept on hand in the form of money in order to be converted into a productive supply when needed. This does not alter the magnitude of the constant circulating capital-value advanced for 6 weeks. The wages, on the other hand, are generally paid weekly, making exception of the money supply for unforeseen expenses, the strict reserve fund for the compensation of disturbances. Unless the capitalist, therefore, compels the laborer to advance his labor for a longer time, the money required for the payment of wages must be on hand. During the reflux of the capital, a portion must, therefore, be reserved in the form of money for the payment of labor, while the remaining portion may be converted into a productive supply.

The additional capital is subdivided exactly like the original. But it is distinguished from capital I by the fact that (apart from conditions of credit), in order to be available for its own period of labor, it must be advanced during the entire duration of the first working period of capital I, in which it does not take part. During this time, it may be converted into constant circulating capital, at least in part, being advanced for the entire period of turn-over. To what extent it will assume this form, or persist in the form of additional money-capital, up to the time where this conversion becomes necessary will depend partly on the special conditions of production of definite lines of business, partly on the fluctuations in the prices of raw material, etc. Looking at it from the point of view of the aggregate social capital, there will always be a more or less considerable part of this additional capital for a rather long time in the form of money-capital. But as for that portion of capital II which is to be advanced for wages, it is always gradually converted into labor-power to the extent that small working periods are closed and paid for. This portion of capital II, then, is available in the form of money-capital for the entire working period, until it is converted into labor-power and thus takes part in the function of productive capital.

The advent of the additional capital required for the transformation of the time of circulation of capital I into a time of production increases not only the magnitude of the advanced capital and length of time for which the aggregate capital must be necessarily advanced, but it also increases specifically that portion of the advanced capital which exists in the form of money-supply, which persists in the condition of money-capital, and has the form of potential capital.

The same also takes place, as concerns both the advance in the form of a productive supply and in that of a money supply, when the separation of capital into two parts required by the time of circulation,

namely, capital for the first working period and reserve capital for the time of circulation, is not caused by the increase of the invested capital, but by a decrease of the scale of production. In proportion to the scale of production, the increase of the capital tied up in the form of money is apt to grow still more in this case.

It is the continuous succession of the working periods, the continuous function of an equal portion of the advanced capital as productive capital, which is insured by this separation of capital into an original productive and a reserve capital.

Let us look at the second illustration. The capital continuously employed in the process of production amounts to 500 pounds sterling. The working period being 5 weeks, it works ten times during a working year of 50 weeks. Hence its product, apart from surplus-value, is 10 times 500 or 5,000 pounds sterling. From the point of view of a directly and uninterruptedly working capital in the process of production, a capital-value of 500 pounds sterling, the time of circulation seems entirely eliminated. The period of turn-over coincides with the working period, the time of circulation being assumed as equal to zero.

But if the capital of 500 pounds sterling were interrupted in its productive activity by regular times of circulation covering 5 weeks, so that it could not become productively active until after the close of the entire period of turn-over of 10 weeks, we should have 5 turn-overs of ten weeks each in 50 running weeks. These would comprise 5 periods of production of 5 weeks each, or 25 productive weeks with a total product of 5 times 500, or 2,500 pounds sterling ; and 5 times of circulation of 5 weeks each, or a total period of circulation of 25 weeks. If we say in this case that the capital of 500 pounds sterling has been turned over 5 times in the year, it is evident and obvious that this capital of 500 pounds sterling did not serve at all as a productive capital during one-half of each period of turn-over, and that, taking all in all, it performed its function only during one-half of the year, while it did not serve at all during the other half.

In our illustration, the reserve capital of 500 pounds sterling comes to the rescue during those five periods of circulation, and the turn-over is thus expanded from 2,500 to 5,000 pounds. But now the advanced capital is 1,000 instead of 500 pounds sterling. Hence there are only five turn-overs instead of ten. This is indeed the way in which people count. But when it is said that the capital of 1,000 pounds has been turned over five times in the year, the recollecion of the time of circulation disappears in the hollow skulls of the capitalists, and a confused idea is formed that this capital has served continuously in the process of production during the successive five turn-overs. As a matter of fact, if we say that the capital of 1,000 pounds has been turned over five times in a year, we include both the time of circulation and the time of production. For, indeed, if 1,000 pounds sterling had actually been continuously active in the process of production, the product would have to be 10,000 pounds sterling instead of 5,000, according to our assumptions. But in order to have 1,000 pounds sterling continuously in the process of production, 2,000 pounds would have to be advanced. The economists, who as a general rule have nothing clear to say in

reference to the mechanism of the turn-over, always overlook this main point, to wit, that only a part of the industrial capital can actually be engaged in the process of production, if production is to proceed uninterruptedly. While one part is busy in the process of production, another must always be engaged in the process of circulation. Or in other words, one part can perform the functions of productive capital only on condition that another part is withdrawn from production in the form of commodity or money-capital. In overlooking this, the significance and role of money-capital is entirely ignored.

We have now to ascertain to what extent differences in the turn-over are caused according to whether the two sections of the period of turn-over, the working period and the circulating period, are equal to one another, or the working period greater or smaller than the circulating period, and furthermore, what effect this has on the retention of capital in the form of money-capital.

We assume that the capital advanced weekly is in all cases 100 pounds sterling, and the period of turn-over 9 weeks, so that the capital invested in each period of turn-over is 900 pounds sterling.

I. The Working Period Equal to the Period of Circulation.

Although this case occurs in reality only accidentally, as an exception, it must serve as our point of departure in this analysis, because conditions here shape themselves in the simplest and most intelligible way.

The two capitals (capital I advanced for the first working period, and reserve capital II advanced during the time of circulation of capital I) relieve one another in their movements without crossing. With the exception of the first period, either of the two capitals is therefore advanced only for its own period of turn-over. Let the period of turn-over be 9 weeks, as indicated in the two following illustrations, so that the working period and the time of circulation are each of them $4\frac{1}{2}$ weeks. Then we have the following annual diagram:

Table I.

CAPITAL I.

Periods of Turn-Over.	Working Periods.	Advance.	Periods of Circulation.
I. 1— 9. week	1— 4. 5. week	450 p. st.	4. 5— 9. week
II. 10—18. ,,	10—13. 5. ,,	450 ,, ,,	13. 5—18. ,,
III. 19—27. ,,	19—22. 5. ,,	450 ,, ,,	22. 5—27. ,,
IV. 28—36. ,,	28—31. 5. ,,	450 ,, ,,	31. 5—36. ,,
V. 37—45. ,,	37—40. 5. ,,	450 ,, ,,	40. 5—45. ,,
VI. 46—(54) ,,	46—49. 5. ,,	450 ,, ,,	49. 5—(54) ,, [26]

CAPITAL II.

Periods of Turn over.	Working Period.	Advance.	Periods of Circulation.
I. 4. 5—13. 5. week	4. 5— 9. week	450 p. st.	10—13. 5. week
II. 13. 5—22. 5 ,,	13. 5—18. ,,	450 ,, ,,	19—22. 5. ,,
III. 22. 5—31. 5 ,,	22. 5—27. ,,	450 ,, ,,	28—31. 5. ,,
IV. 31. 5—40. 5. ,,	31. 5—36. ,,	450 ,, ,,	37—40. 5. ,,
V. 40. 5—49. 5. ,,	40. 5—45. ,,	450 ,, ,,	46—49. 5. ,,
VI. 49. 5.-(58. 5) ,,	49. 5—(54.) ,,	450 ,, ,,	(54—58. 5.) ,,

[26] The weeks falling within the second year of turn-over are placed in parentheses.

Within the 50 weeks which we here assume to stand for one year, capital I has absolved six full working periods, making 6 times 450, or 2,700 pounds sterling, and capital II making in five full working period 5 times 450, or 2,250 pounds sterling's worth of commodities. In addition thereto, capital II has produced, within the last one and a half weeks of the year (middle of the 50th to the end of the 51st week) an extra 150 pounds sterling's worth, making the aggregate product 5,100 pounds sterling. So far as the direct production of surplus-value is concerned, which is produced only during the working period, the aggregate capital of 900 pounds sterling would have been turned-over 5-2/3 times (5-2/3 times 900 equal to 5,100 pounds sterling). But if we consider the actual turn-over, then capital I has been turned over 5-2/3 times, since at the close of the 51st week it still has to absolve 3 weeks of its sixth period of turn-over ; 5-2/3 times 450 make 2,550 pounds sterling ; and capital II turned over 5 1-6 times, since it has completed only 1-1/2 week of its sixth period of turn-over, so that 7-1/2 weeks of it fall within the next year ; 5-1/6 times 450 make 2,325 pounds sterling ; actual aggregate turn-over 4,875 pounds sterling.

Let us regard capital I and capital II as two capitals independent of one another. They are independent in their movements ; these movements supplement one another merely because their working and circulating periods directly relieve one another. They may be regarded as two entirely independent capitals belonging to different capitalists.

Capital I has completed five full turn-overs and two-thirds of its sixth period of turn-over. At the end of the year it has the form of commodity-capital, which lacks three weeks of its normal realization. During this time, it cannot take part in the process of production. It performs the function of commodity-capital, it circulates. It has completed only two-thirds of its last period of turn-over. This is expressed in the words: It has been turned over only two-thirds, only two-thirds of its total value have completed their turn-over. We say that 450 pounds sterling complete their turn-over in 9 weeks, hence 300 do in 6 weeks. But in this expression, the organic conditions of the two specifically different portions of the period of turn-over are neglected. The exact meaning of the expression, that the advanced capital of 450 pounds sterling has made 5-2/3 turn overs, is merely that it has completed five turn-overs fully and of the sixth only two-thirds. On the other hand, the expression that the turned-over capital is equal to 5-2/3 of the advanced capital, or, in the above case, 5-2/3 times 450 pounds sterling, making 2,550, is correct only in so far as it means that unless this capital of 450 pounds sterling were supplemented by another capital of 450 pounds sterling, one portion of it would have to be in the process of circulation while another is in the process of production. If the period of turn-over is to be expressed in the quantity of the turned-over capital, it can be expressed only in a quantity of existing values (embodied in the finished product). The fact that the advanced capital is not in a condition in which it may reopen the process of production is due to the circumstance that only a part of it is in a condition suitable for production, or that, in order to be in a condition suitable for continuous production, it would

have to be divided into a portion which would be continually in the period of production and into another which would be continually in the period of circulation, according to the mutual relation of these periods. It is the same law which determines the quantity of the continually serving productive capital by the proportion of the time of circulation to the period of turn-over.

As for capital II, 150 pounds sterling of it are advanced in the production of unfinished goods at the close of the 51st running week, which we regard here as the last of the year. Another part exists in the form of circulating constant capital—raw materials, etc.,—that is to say, in a form, in which it can serve as productive capital in the process of production. But a third part of it exists in the form of money, namely at least the amount of the wages for the remainder of the working period (3 weeks), which is not paid, however, until the end of each week. Now, although this portion of capital, in the beginning of a new year, and of a new cycle of turn-over, is not in the condition of productive capital, but in that of money-capital, in which it cannot take part in the process of production, there is, nevertheless, circulating variable capital, namely labor-power, active in the process of production at the opening of the new cycle of turn-over. This is due to the fact that labor-power is not paid until at the end of the week, although it was bought at the beginning of the working period, say, per week, and so consumed. Money serves here as a means of payment. For this reason, it is still in the hands of the capitalist, while on the other hand labor-power is already busy in the process of production, so that the same capital-value here appears twice.

If we look merely at the working periods, then there has been produced:

By capital I, 5-2/3 times 450, or 2,550 pounds sterling,
By capital II, 5-1/3 times 450 or 2,400 pounds sterling,
Total 5-2/3 times 900, or 5,100 pounds sterling.

Hence the advanced capital of 900 pounds sterling has performed the function of productive capital 5-2/3 times per year. It is immaterial for the production of surplus-value whether there are always 450 pounds sterling in the process of production and always 450 pounds sterling in the process of circulation, or whether 900 pounds sterling serve 4-1/2 weeks in the process of production and 4-1/2 weeks in the process of circulation.

On the other hand, if we consider the periods of turn-over there has been produced:

By capital I, 5-2/3 times 450, or 2,550 pounds sterling,
By capital II, 5-1/6 times 450, or 2,325 pounds sterling,

Or, by the aggregate capital, 5-5/12 times 900, or 4,875 pounds sterling, is the total turn-over. For the turn-over of the total capital is equal to the sum of the quantities turned over by capital I and II, divided by the sum of I and II.

It is to be noted that capital I and II, if they were independent of one another, would nevertheless be merely different independent portions of the social capital advanced for the same sphere of production. Hence, if the social capital within this sphere of production were solely composed of I and II, the same calculation would apply to the turn-over of the social capital, which here applies to the two constituent parts I and II, of the same private capital. In a wider generalization, every portion of the entire social capital invested in any special sphere of production may be so calculated. But in the last analysis, the amount of the turn-over of the entire social capital is equal to the sum of the capitals turned over in the various spheres of production, divided by the sum of the capitals advanced in those spheres.

It must be further noted that just as the capitals I and II in the same private business have, strictly speaking, different years of turn-over (the cycle of turn-over of capital II beginning 4-1/2 weeks later than that of capital I, so that the year of capital I closes 4-1/2 weeks earlier than that of capital II), just so the various private capitals in the same sphere of production begin their activities at totally different sections of time and, therefore, conclude their years of turn-over at different times of the year. The same calculation of averages, which we employed above for capitals I and II, suffices also for the reduction of the years of turn-over of the various independent portions of the social capital to one uniform year of turn-over.

II. The Working Period Greater Than the Period of Circulation.

The working and circulating periods of capitals I and II cross one another instead of relieving one another. Simultaneously some capital is set free. This was not so in the previously considered case.

But this does not alter the fact that, as before, (1) the number of working periods of the advanced total capital is equal to the sum of the values of the annual products of both advanced portions of capital divided by the advanced total capital, and (2) the amount turned over by the total capital is equal to the sum of the two amounts turned over, divided by the sum of the two advanced capitals. Here, again, we must regard both portions of capital as though they performed movements of turn-over entirely independent of one another.

We assume once more, then, that 100 pounds sterling are advanced weekly in the working process. Let the working period last 6 weeks, requiring every time an advance of 600 pounds sterling (capital I). Let the time of circulation be 3 weeks, so that the period of turn-over is 9 weeks, as before. Let a capital of 300 pounds sterling step in as a substitute during the three weeks of the time of circulation of capital I.

Considering both capitals as independent of one another, we find the diagram of the annual turn-over to be as follows:

Table II.

CAPITAL I, 600 POUNDS STERLING.

	Periods of Turn-Over.	Working Periods.	Advance.	Periods of Circulation.
I.	1— 9. week	1— 6. week	600 p. st.	7.— 9. week
II.	10—18. ,,	10—15. ,,	600 ,, ,,	16.—18. ,,
III.	19—27. ,,	19—24. ,,	600 ,, ,,	25.—27. ,,
IV.	28—36. ,,	28—33. ,,	600 ,, ,,	34.—36. ,,
V.	37—45. ,,	37—42. ,,	600 ,, ,,	43.—45. ,,
VI.	46—(54) ,,	46—51. ,,	600 ,, ,,	(52.-54). ,,

ADDITIONAL CAPITAL II, 300 POUNDS STERLING.

	Periods of Turn-Over.	Working Periods.	Advance.	Periods of Circulation.
I.	7—15. week	7— 9. week.	300 p. st.	10—15. week.
II.	16—24. ,,	16—18. ,,	300 ,, ,,	19—24. ,,
III.	25—33. ,,	25—27. ,,	300 ,, ,,	28—33. ,,
IV.	34—42. ,,	34—36. ,,	300 ,, ,,	37—42. ,,
V.	43—51. ,,	42—45. ,,	300 ,, ,,	46—51. ,,

The process of production continues uninterruptedly all year on the same scale. The two capitals I and II remain entirely separate. But in order to represent them thus as separate, we had to tear apart their actual interrelations and intersections, and thus also to change the amount of turn-over. For according to the above diagram, the amounts turned over would be:

Capital I, 5-2/3 times 600. . . . . .or 3,400 p. st.
Capital II, 5 times 300. . . . . .or 1,500 p. st.

Total capital. . . . .5-4/9 times 900, or 4,900 p. st.

But this is not correct, for we shall see that the actual periods of production and circulation do not absolutely coincide with the above diagrams, in which it was mainly a question of presenting capitals I and II as independent of one another.

Now, in reality, capital II has no working and circulating periods separate and distinct from capital I. The working period is 6 weeks, the circulation period 3 weeks. Since capital II amounts to only 300 pounds sterling, it can fill out only a part of the working period. This is indeed the case. At the close of the 6th week, a product valued at 600 pounds sterling passes into circulation and flows back in money at the close of the 9th week. Then capital II begins its activity at the opening of the 7th week and responds to the requirements of the next working period for the 7th to 9th week. But according to our assumption, the working period is only half completed at the end of the 9th week. Hence, in the beginning of the 10th week, capital I of 600 pounds sterling, having just returned, comes once more into activity and advances 300 pounds sterling for the requirements of the 10th to 12th week. This completes the second working period. Products valued at 600 pounds sterling are once again in circulation and will

return in money at the close of the 15th week. Furthermore, 300 pounds sterling are set free, equal to the original amount of capital II, and are enabled to serve in the first half of the following working period, that is to say, in the 13th to 15th week. After the lapse of these, the 600 pounds sterling flow back; 300 of them suffice for the remainder of the working period, 300 are set free for the following working period.

The course of events is, therefore, as follows:

I. Period of turn-over 1—9. week.
   1. Working period: 1—6. week. Capital I, of 600 p. st., performs its function.
   1. Period of circulation: 7—9. week. After the lapse of the 9th week, 600 p. st. flow back in money.

II. Period of turn-over: 7—15. week.
   2. Working period: 7—12. week.
   First half: 7—9. week. Capital II, of 300 p. st., performs its function. After the lapse of the 9th week, 600 p. st. (capital I) flow back in money. Second half: 10—12. week. 300 p. st. of capital I perform their function. The other 300 p. st. of capital I remain free.
   2. Period of circulation: 13—15. week.
   After the close of the 15. week, 600 p. st. (one-half belonging to capital I, the other to capital II) flow back in money.

III. Period of turn-over: 13—21. week.
   3. Working period: 13—18. week.
   First half: 13-15. week. The free 300 p. st. perform their function. After the close of the 15th week, 600 p. st. flow back in money.
   Second half: 16—18. week, 300 of the returned 600 perform their function, the other 300 again remain free.
   3. Period of circulation: 19—21. week. After the close of the 21st week, 600 p. st. flow back in money. In this amount of 600 p. st., capital I and II are amalgamated and indistinguishable.

In this way, there are eight full periods of turn-over of a capital of 600 p. st. (I: 1—9. week; II: 7—15. week; III: 13—21; IV: 19—27.; V: 25—33.; VI: 31—39.; VII: 37—45.; VIII: 43—51) to the end of the 51st week. But as the 49—51st weeks fall within the eighth period of circulation, the 300 p. st. of free capital must step in and keep production moving. Thus the turn-over at the end of the year is as follows: 600 p. st. have completed their cycle eight times, making 4,800 p. st. In addition thereto we have the product of the last 3 weeks (49—51.), which, however, has completed but one-third of its cycle of 9 weeks, so that it counts in the amount turned over only with one-third of its value, 100 p. st. If, then, the annual product of 51 weeks is 5,100 p. st., the capital actually turned over is only 4,800 plus 100, or 4,900 p. st. The advanced total capital of 900 p. st. has, therefore, been turned over 5-4/9 times, somewhat more than in the first case.

In the present example, we had assumed a case, in which the working time was 2/3, the circulation time 1/3, of the period of turn-over, so that the working time was a simple multiple of the circulation time. The question is now, whether capital is likewise set free, in the same way as shown before, when this assumption is not made.

Let us assume a working time of 5 weeks, a circulation time of 4 weeks, and a capital advance of 100 p. st. per week.

I. Period of turn-over: 1—9. week.
   1. Working period: 1—5. week. Capital I, of 500 p. st., performs its function.
   1. Circulation period: 6—9. week. After the close of the 9th week, 500 p. st. flow back in money.

II. Period of turn-over: 6—14. week.
   2. Working period: 6—10. week.
   First section: 6—9. week. Capital II, of 400 p. st., performs its function. After the close of the 9th week, capital I, of 500 p. st., flows back in money. Second section: 10. week. 100 of the returned 500 p. st. perform their function. The remaining 400 p. st. are set free for the following working period.
   2. Circulation period: 11—14. week.
   After the close of the 14. week, 500 p. st. flow back in money.

Up to the end of the 14th week (11—14.), the free 400 p. st. perform their function; 400 of the 500 p. st. then returned fill the requirements of the third working period (11—15. week), so that 400 p. st. are once more set free for the fourth working period. The same phenomenon is repeated in every working period; in its beginning, 400 p. st. are ready at hand, sufficing for the requirements of the first 4 weeks. After the close of the 4th week, 500 p. st. flow back in money, only 100 of which are needed for the last week, while the remaining 400 are set free for the next working period.

Let us furthermore assume a working period of 7 weeks, with a capital I of 700 p. st.; a circulation period of 2 weeks, with a capital II of 200 p. st.

In that case, the first period of turn-over lasts from the 1st to the 9th week; its first working period from the 1st to the 7th week, with an advance of 700 p. st., its first circulation period from the 8th to the 9th week. After the close of the 9th week, 700 p. st. flow back in money.

The second period of turn-over, from the 8th to the 16th week, contains the second working period of the 8th to 14th week. The requirements of the 8th and 9th week of this period are covered by capital II. After the close of the 9th week, the above 700 p. st. flow back. Up to the close of this working period (10—14.), 500 p. st. of this sum are used up. 200 p. st. remain free for the next working period. The second circulation period lasts from the 15th to the 16th week. After the close of the 16th week, 700 p. st. flow back once more. From now on, the same phenomenon is repeated in every working period. The demand in capital of the first two weeks is covered by the 200 p. st. set free at the close of the preceding working period;

after the close of the second week, 700 p. st. flow back in money ; but the working period lasts only 5 weeks longer, so that only 500 p. st. can be consumed ; therefore 200 p. st. always remain free for the next working period.

We find, then, that in this case, where the working period has been assumed greater than the circulation period, there is under all circumstances a money-capital set free at the close of each working period, and this money-capital is of the same magnitude as capital II, which is advanced for the circulation time. In our three illustrations, capital II was 300 p. st. in the first, 400 p. st. in the second, 200 p. st. in the third example. Corresponding thereto, the capital set free at the close of each working period was 300, 400, and 200 p. st.

III. The Working Period Smaller Than The Circulation Period.

We begin by assuming once more a period of turn-over of 9 weeks. Let the working period be 3 weeks, with an available capital I of 300 p. st. Let the circulation period be 6 weeks. For these 6 weeks, an additional capital of 600 p. st. is required. We may divide this in turn into two portions of 300 p. st. each, so that each portion meets the requirements of one working period. We have, then, three capitals of 300 p. st. each, 300 of which are always busy in production, while 600 are circulating.

Table III.

CAPITAL I.

Periods of Turn-Over.	Working Periods.	Periods of Circulation.
I. 1— 9. week.	1— 3. week.	4— 9. week.
II. 10—18. ,,	10—12. ,,	13—18. ,,
III. 19—27. ,,	19—21. ,,	22—27. ,,
IV. 28—36. ,,	28—30. ,,	31—36. ,,
V. 37—45. ,,	37—39. ,,	40—45. ,,
VI. 46-(54.) ,,	46—48. ,,	49-(54.) ,,

CAPITAL II.

I. 4—12. week.	4— 6. week.	7—12. week.
II. 13—21. ,,	13—15. ,,	12—21. ,,
III. 22—30. ,,	22—24. ,,	16—30. ,,
IV. 31—39. ,,	31—33. ,,	25—39. ,,
V. 40—48. ,,	40—42. ,,	24—48. ,,
VI. 49-(57.) ,,	49—51. ,,	(52-57.) ,,

CAPITAL III.

I. 7—15. week.	7— 9. week.	10—15. week.
II.—16—24. ,,	16—18. ,,	19—24. ,,
III. 25—33. ,,	25—27. ,,	28—33. ,,
IV. 34—42. ,,	34—36. ,,	37—42 ,,
V. 43—51. ,,	43—45. ,,	46—51. ,,

We have, here, the exact opposite of case I, only with the difference that now three capitals relieve one another instead of two. There is no intersection or intermingling of capitals. Each one of them can be traced separately to the end of the year. Capital is no more set free in this instance than in case I at the close of a working period.

Capital I is entirely consumed at the end of the 3rd week, flows back entirely at the end of 9th, and resumes its functions in the beginning of the 10th week. Similarly in the case of capitals II and III. The regular and complete relief excludes any release of capital.

The total turn-over is calculated as follows:

Capital I,	300 times 5-2/3,	or 1,700 p. st.
Capital II,	300 times 5-1/3,	or 1,600 p. st.
Capital III,	300 times 5	or 1,500 p. st.
Total capital	900 times 5-1/3,	or 4,800 p. st.

Let us now choose also an illustration, in which the circulation period is not an exact multiple of the working period. For instance, let the working period be 4 weeks, the circulation period 5 weeks. The corresponding amounts of capital would then be: Capital I, 400 p. st.; capital II, 400 p. st.; capital III, 100 p. st. We present only the first three turn-overs.

Table IV.

CAPITAL I.

Periods of Turn-Over.	Working Periods.	Periods of Circulation.
I. 1— 9. week.	1— 4. week.	5— 9. week.
II. 9—17. ,,	9.10—12. ,,	13—17. ,,
III. 17—25. ,,	17.18—20. ,,	21—25. ,,

CAPITAL II.

I. 5—13. week.	5— 8. week.	9—13. week
II. 13—21. ,,	13.14—16. ,,	17—21. ,,
III. 21—29. ,,	21.22—24. ,,	25—29. ,,

CAPITAL III.

I. 9—17. week.	9. week.	10—17. week.
II. 17—25. ,,	17. ,,	17—21. ,,
III. 25—33. ,,	25. ,,	26—33. ,,

There is in this case an intermingling of capitals to the extent that the working period of capital III, which has no independent working period, because it lasts only for one week, coincides with the first working period of capital I. On the other hand, an amount of 100 p. st., equal to capital III, is set free by capital I and II at the close of the working period. For when capital III fills out the first week of the second, and of all following working periods of capital I, and the entire capital I of 400 p. st. flows back at the close of this first week, then only 3 weeks and a corresponding capital of 300 p. st. remain for the rest of the working period of capital I. The 100 p. st. thus set free suffice for the first week of the immediately following working period of capital II; at the close of this week, the entire capital of 400 p. st. then flows back (capital II). But since the new working period can

absorb only 300 p. st. more, there are once more 100 p. st. disengaged at its close. And so forth. There is, then, a setting free of capital at the close of a working period, as soon as the circulation period is not a simple multiple of the working period. And this released capital is equal to that portion of capital which has to fill out the excess of the circulating period over the working period, or over a multiple of working periods.

In all cases investigated by us it was assumed that both the working period and the circulation period remain the same throughout the year in any of the businesses selected. This assumption was necessary, if we wished to ascertain the influence of the time of circulation on the turn-over and advance of capital. It does not alter the matter that this assumption is not borne out unconditionally in reality, and that it frequently does not apply, at all.

In this entire section, we have discussed only the turn-overs of the circulating capital, not those of the fixed. The reason is that this question has nothing to do with the fixed capital. The means of production employed in the process of production form fixed capital only to the extent that their time of employment exceeds the period of turn-over of circulating capital, so long as the time during which these instruments of labor continue to serve in continually repeated labor processes, is greater than the period of turn-over of circulating capital, in other words, comprises n periods of turn-over of circulating capital. Whether the total time represented by these in periods of turn-over of circulating capital is long or short, that portion of productive capital which was advanced for this time in fixed capital is not advanced anew during its course. It continues its functions in its old use-form. The difference is merely this: According to the different lengths of the individual working periods of each period of turn-over of circulating capital, the fixed capital yields a greater or smaller portion of its original value to the product of this working period, and according to the duration of the time of circulation of each period of turn-over, this value yielded by the fixed capital to the product flows back in money rapidly or slowly. The nature of the topic which we discuss in this section—the turn-over of the circulating portion of productive capital—is determined by the nature of this portion itself. The circulating capital employed in a working period cannot be invested in a new working period, until it has completed its turn-over, until it has been converted into commodity-capital , then into money-capital, and then back into productive capital. In order that the first working period may be immediately followed by a second, additional capital must be advanced and converted into the circulating elements of productive capital, and its quantity must be sufficient to fill out the void left by the circulation of the capital advanced for the first working period. This is the source of the influence exerted by the duration of the working period of the circulating capital over the scale of the process of production and the division of the advanced capital, or eventually the advance of new portions of capital. It is precisely this which we had to examine in this section.

IV. Conclusions.

From the preceding analyses, it follows that:

A. The different portions, into which capital must be divided in order that one part of it may be continually in the working period while others are in the period of circulation, relieve one another like different independent private capitals, in two cases: First, when the working period is equal to the period of circulation, so that the period of turn-over is divided into two equal sections; secondly, when the period of circulation is longer than the working period, but at the same time represents a simple multiple of the working period, so that one period of circulation is equal to n working periods, in which case n must be a whole number. In these cases, no portion of the successively advanced capital is set free.

B. On the other hand, in all cases in which (1) the period of circulation is longer than the working period without being a simple multiple of it, and (2) in which the working period is longer than the circulation period, a portion of the circulating total capital is continually set free periodically at the close of each working period, beginning with the second turn-over. This free capital is equal to that portion of the total capital which has been advanced to fill out the time of circulation, provided the working period is longer than the period of circulation, and equal to that portion of capital which has to fill out the excess of the time of circulation over one working period, or over a multiple of one working period, provided the time of circulation is longer than the working time.

C. It follows that for the aggregate social capital, so far as its circulating capital is concerned, the setting free of capital must be the rule, while the mere relieving of portions of capital following successively in the process of production must be the exception. For the equality of the period of work and circulation, or the equality of the period of circulation with a simple multiple of the working period, in other words, a similar proportion of the two portions of the period of turn-over has nothing to do with the nature of the case, and for this reason it cannot be found in general, but only in rare instances.

A very considerable portion of the social circulating capital, which is turned over several times per year, will therefore exist periodically in the form of released capital during the annual cycle of turn-over.

It is furthermore evident that, all other circumstances being equal, the magnitude of the released capital grows with the volume of the labor-process, or with the scale of production, or with the development of capitalist production in general. In the case cited under *B* (2), this will be so, because the advanced total capital increases in *B* (1), because the length of the period of circulation grows with the development of capitalist production, hence the period of turn-over is lengthened in cases where the working period is extended, without a regular proportion between the two periods.

In the first case, for instance, we had to invest 100 p. st. per week. This required 600 p. st. for a working period of 6 weeks, 300 p. st. for a circulation period of 3 weeks, together 900 p. st. In that case, 300

p. st. for the circulation period. Hence 900 instead of 300 p. st. are invested weekly, we have 1,800 p. st. for the working period and 900 p. st. for the circulation period. Hence 900 instead of 300 p. st. are periodically released.

D. The total capital, for instance 900 p. st., must be divided into two portions, for instance, 600 p. st. for the working period and 300 p. st. for the period of circulation. That portion, which is really invested in the labor-process, is thus reduced by one-third, or from 900 to 600 p. st. The scale of production is thus reduced by one-third. On the other hand, the 300 p.st. perform their function only to make the working period continuous, in order that 100 p. st. may be invested every week of the year in the labor-process.

Abstractly speaking, it is the same whether 600 p. st. work during 6 times 8, or 48 weeks (product 4,800 p. st.), or whether the total capital of 900 p. st. is expended during 6 weeks in the labor-process and then kept fallow during the priod of circulation of 3 weeks. In the latter case, it would be working, in the course of the 48 weeks, 5-1/3 times 6, or 32 weeks (product 5-1/3 times 900, or 4,800 p. st.), and be fallow for 16 weeks. But, apart from the greater decay of the fixed capital during the fallow of 16 weeks, and apart from the appreciation of labor, which must be rapid during the entire year, although it is employed only during a part of it, such a regular interruption of the process of production is irreconcilable with the operations of modern great industry. This continuity is itself a productive power of labor.

Now, if we take a closer look at the released, or rather suspended, capital, we find that a considerable part of it must always be in the form of money-capital. Let us adhere to our illustration: Working period 6 weeks, period of circulation 3 weeks, expenditure per week 100 p. st. In the middle of the second working period, after the close of the 9th week, 600 p. st. flow back, and 300 of them must be invested for the remainder of the working period. After the close of the second working period, 300 p. st. are then released. In what condition are these 300 p. st.? We will assume that 1/3 is invested for wages, 2/3 for raw material and auxiliary substances. Then 200 of the returned 600 p. st. exist in the form of money for wages, and 400 p. st. in the form of a productive supply, in the form of elements of the constant circulating productive capital. But since only one-half of this productive supply is required for the second half of the second working period, the other half is for 3 weeks in the form of a surplus, that is to say, of a productive supply exceeding the requirements of one working period. The capitalist, on the other hand, knows that he needs only one-half (200 p. st.) of this portion (400 p. st.) of the returned capital for the current working period. It will, therefore, depend on market conditions whether he will immediately reconvert these 200 p. st. entirely or partially into a surplus productive supply, or reserve them entirely or partially in the form of money in the expectation that the conditions of the market will improve. It goes without saying that the portion of capital to be used for the payment of wages (200 p. st.) is reserved in the form of money. The capitalist cannot store labor-power in ware-houses after he has bought it, as he may do with

the raw material. He must incorporate it in the process of production and he pays for it at the end of the week. At least these 100 p. st. of the released capital of 300 p. st. will, therefore, have the form of money not required for the working period. The capital released in the form of money-capital must therefore be at least equal to the variable portion of capital invested in wages. At a maximum, it may comprise the entire released capital. In reality it fluctuates continually between this minimum and maximum.

The money-capital released by the mere mechanism of the movement of turn-over (together with the successive reflux of fixed capital and the money-capital required in every labor-process for variable capital) must play an important role, as soon as the credit system develops, and must at the same time be one of its foundations.

Let us assume that the time of circulation in our illustration is contracted from 3 weeks to 2. This is not to be a normal change, but due, say, to prosperous times, shortened terms of payment, etc. The capital of 600 p. st., which is expended during the working period, flows back one week earlier than needed, it is therefore released for this week. Furthermore, in the middle of the working period, as before, 300 p. st. are released (a portion of those 600 p. st.), but in this case for 4 weeks instead of 3. There are then on the money market 600 p. st. for one week, and 300 p. st. for 4 weeks instead of 3. As this concerns not one capitalist alone, but many, and occurs at various periods in different businesses, it brings more available money-capital on the market. If this condition last for a long time, production will be expanded, wherever feasible. Capitalists working with borrowed money will bring less demand to bear on the money-market, whereby it is relieved as much as it is by an increased supply. Or, finally, the sums made superfluous by the mechanism are thrown definitely on the money-market.

In consequence of the contraction of the period of turn-over from 3 weeks to 2, and thus of the period of turn-over from 9 weeks to 8, one-ninth of the advanced total capital becomes superfluous. The working period of 6 weeks can now be kept going as continuously with 800 p. st. as formerly with 900. One portion of the value of the commodity-capital, equal to 100 p. st., therefore persists in the form of money-capital without performing any more functions as a part of the capital advanced for the process of production. While production is continued on the same scale and with other conditions, such as prices, etc., remaining equal, the value of the advanced capital is reduced from 900 to 800 p. st. The remainder of the originally advanced value, to the amount of 100 p. st., is released in the form of money-capital. As such it passes over into the money-market and forms an additiona portion of the capitals serving in that capacity.

This shows the way in which a plethora of money may arise—quite apart from the reason that the supply of money may be greate than the demand for it ; this eventuality causes always but a relativ plethora, which occurs, for instance, in the "melancholy period" open ing a new cycle after a commercial crisis. In our case we speak of a plethora in the sense that a definite portion of the capital advanced fo the promotion of the entire process of social reproduction, including th

process of circulation, becomes superfluous and is, therefore, released in the form of money-capital. This plethora comes about by the mere contraction of the period of turn-over, while the scale of production and prices remain the same. The amount of money in the circulation, whether great or small, did not exert the least influence on this.

Let us assume, on the other hand, that the period of circulation is prolonged from 3 weeks to 5. In that case, the reflux of the advanced capital takes place 2 weeks too late at the very next turn-over. The last part of the process of production of this working period cannot be carried on, the mechanism of the turn-over of the advanced capital itself interfering. In case of a longer duration of this condition, a contraction of the process of production, a reduction of its volume, might take place, just as an extension did in the previous case. But in order to continue the process on the same scale, the advanced capital would have to be increased by 2/9, or 200 p. st., for the entire duration of the prolongation of the circulation period. This additional capital can be obtained only from the money-market. If, then, the prolongation of the period of circulation applies to one or more great lines of business, it may cause a pressure on the money-market, unless this effect is compensated by some counter-effect from some other direction. In this case likewise it is evident and obvious that such a pressure is not in the least due to a change in the prices of the commodities nor to the quantity of the existing means of circulation.

(The preparation of this chapter for publication has given me no small amount of difficulties. Expert as Marx was in algebra, the handling of figures in arithmetic nevertheless gave him a great deal of trouble and he lacked especially the practice of commercial calculation, although he left behind a ponderous volume of computations in which he had practised by many examples the entire variety of commercial reckoning. But a knowledge of the various modes of calculation and a practice in the daily practical calculations of the merchant are by no means the same. Consequently Marx entangled himself to such an extent in his computation of turn-overs, that the result, so far as he completed his work, contained various errors and contradictions. In the diagrams given above, I have preserved only the simplest and arithmetically correct data, and my reason for so doing was mainly the following:

The indefinite results of this tedious calculation have led Marx to attribute an undeserved importance to a circumstance, which, in my opinion, has actually little significance. I refer to that which he calls the "release" of money-capital. The actual state of affairs, based on the above premises, is this:

No matter what may be the proportion in the magnitude of the working and circulation periods, or of capital I and II, there is returned to the capitalist, in the form of money, at the end of the first turn-over, in regular intervals of the duration of one working period, the capital required for each working period, a sum equal to capital I.

If the working period is 5 weeks, the circulation period 4 weeks, and capital I 500 p. st., then a sum of money equal to 500 p. st. flows

back periodically at the end of the 9th, 14th, 19th, 24th, 29th, etc., week.

If the working period is 6 weeks, the circulation period 3 weeks, and capital I 600 p. st., then 600 p. st. flow back periodically at the end of the 9th, 15th, 21st, 27th, 33rd, etc., week.

Finally, if the working period is 4 weeks, the circulation period 5 weeks, and capital I 400 p. st., then 400 p. st. are periodically returned at the end of the 9th, 13th, 17th, 21st, 25th, etc., week.

Whether any of this returned money is superfluous, and thus released, for the current working period, and how much of it, makes no difference. It is assumed that production continues uninterruptedly on the same scale, and in order that this may be possible, money must be available and must, therefore, flow back, whether "released" or not. If production is interrupted, release stops likewise.

In other words: There is indeed a release of money, a formation of latent, or merely potential, capital in the form of money. But it takes place under all circumstances, and not only under the conditions enumerated especially in the above analysis ; and it takes place on a larger scale than that assumed there. So far as circulating capital I is concerned, the industrial capitalist, at the end of each turn-over, is in the same situation as at the establishment of his business: he has all of it in his hands in one bulk, while he can convert it only gradually back into productive capital.

The essential point in the above analysis is the demonstration that, on one hand, a considerable portion of the industrial capital must always be available in the form of money, and, on the other hand, a still more considerable portion must temporarily assume the form of money. This proof is, if anything, still more emphasized by these additional remarks of mine.—F. E.)

V. The Effect of a Change of Prices.

We had assumed that prices remained the same and the scale of production remained unaltered, while, on the other hand, the time of circulation was either contracted or expanded. Now let us assume, on the contrary, that the period of turn-over remains the same, likewise the scale of production, while prices change, that is to say, either the prices of the raw materials, auxiliaries, and labor-power rise or fall, or those of the two first-named elements alone. Take it, that the price of raw materials, auxiliaries, and labor-power falls by one-half. In that case, the capital to be advanced in our above examples would be 50 instead of 100 p. st. per week, and that for the period of turn-over of 9 weeks, 450 p. st., instead of 900. A sum of 450 p. st. of the advanced capital is released in the form of money-capital, but the process of production continues on the same scale and with the same period of turn-over, and with the same sub-division as before. The quantity of the annual product likewise remains the same, but its value has fallen by one-half. This change, which is at the same time accompanied by a change in the demand and supply of money-capital, is due neither

to an acceleration of the turn-over, nor to a change in the quantity of money in circulation. On the contrary. A fall in the value, or price, of the elements of productive capital by one-half would first have the effect of reducing by one-half the capital-value to be advanced for the continuation of the business of X in the same scale, so that only one half of the money would have to be thrown on the market by the business of X, since the business of X advances this capital-value first in the form of money, of money-capital. The amount of money thrown into circulation would have decreased, because the prices of the elements of production had fallen. This would be the first effect.

In the second place, one-half of the originally advanced capital of 900 p. st. or 450 p. st., which (a) passed alternately through the forms of money-capital, productive capital, and commodity-capital, and (b) existed simultaneously and continuously side by side partly in the form of money-capital, partly in the form of productive capital, partly in the form of commodity-capital, would be eliminated from the rotation of the business of X, and thus come into the money market as an additional capital, affecting it as such. These released 450 p. st. serve as money-capital, not because they have become superfluous for the operation of the business of X, but because they were a constituent portion of the original capital-value, so that they are intended for further service as capital, not as mere means of circulation. The next form in which they may serve as capital is that of money on the money-market. Or, the scale of production (apart from fixed capital) might be doubled. In that case a productive process of double the previous volume would be carried on with a capital of 900 p. st.

If, on the other hand, the prices of the circulating elements of productive capital were to increase by one half, it would require 150 p. st. per week instead of 100 p. st., or 1,350 instead of 900 p. st. An additional capital of 450 p. st. would be needed to carry on production on the same scale, and this would exert a pressure to that extent, according to the condition of the money-market, on the quotations of money. If all the capital available on this market were then engaged, there would be an increased competition for available capital. If a portion of it were unemployed, it would to that extent be called into action.

But, in the third place, given a certain scale of production, the velocity of the turn-over and the prices for the circulating elements of productive capital remaining the same, the price of the product of the business of X may rise or fall. If the price of the commodities supplied by the business of X falls, the price of his commodity-capital of 600 p. st., which it threw continually into circulation, sinks, for instance, to 500 p. st. In that case, one-sixth of the value of the advanced capital does not flow back from the process of circulation (the surplus-value contained in the commodity-capital is not considered here), and it is lost in circulation. But since the value, or price, of the elements of production remains the same, this reflux of 500 p. st. suffices only to replace 5/6 of the capital of 600 p. st. engaged in the process of production. It requires therefore an addition of 100 p. st. of money-capital to continue production on the same scale.

Vice versa, if the price of the product of the business of X were to rise, then the price of the commodity-capital of 600 p. st. would be increased, say to 700 p. st. One-seventh of this price, or 100 p. st., does not come from the process of production, has not been advanced in it, but flows from the process of circulation. But only 600 p. st. are needed to replace the elements of production. Therefore 100 p. st. are set free.

It does not fall within the scope of the present analysis to ascertain why, in the first case, the period of turn-over is abbreviated or prolonged, why, in the second case, the prices of raw materials and auxiliaries, in the third case, those of the products supplied by the business, rise or fall.

But the following points fall under this analysis:

I. CASE.—A CHANGE IN THE PERIOD OF CIRCULATION, AND THUS OF TURN-OVER, WHILE THE SCALE OF PRODUCTION, AND THE PRICES OF THE ELEMENTS OF PRODUCTION AND OF PRODUCTS REMAIN THE SAME.

According to the assumptions of our example, one-ninth less of the advanced total capital is needed after the contraction of the period of circulation, so that the total capital is reduced from 900 to 800 p. st. and 100 p. st. of money-capital are released.

The business of X supplies the same as ever a six weeks' product of the same value of 600 p. st., and as work continues without interruption during the entire year, the same quantity of products, valued at 5,100 p. st., is supplied in 51 weeks. There is ,then, no change so far as the quantity and price of the product thrown into circulation by this business are concerned, nor in the terms of time in which it throws its product on the market. But 100 p. st. are released, because the requirements of the productive process are satisfied with 800 instead of 900 p. st., after the contraction of the period of circulation. The released 100 p. st. of capital exist in the form of money-capital. But they do not by any means represent that portion of the advanced capital, which would have to serve continually in the form of money-capital. Let us assume that 4/5, or 480 p. st. of the advanced circulating capital are continually invested in material elements of production, and 1/5, or 120 p. st., in labor-power. Then the weekly investment in materials of production would be 80 p. st., and in labor-power 20 p. st. Of course, capital II, of 300 p. st., must also be divided into 4/5, or 240 p. st., for materials of production, and 1/5, or 60 p. st., for wages. The capital invested in wages must always be advanced in the form of money. As soon as the commodity-product to the amount of 600 p. st. has been reconverted into money, 480 p. st. of it may be transformed into materials of production (productive supply), but 120 p. st. retain their money-form, in order to serve in the payment of wages for six weeks. These 120 p. st. are the minimum of the returning capital of 600 p. st., which must always be renewed in the form of money-capital and so replaced, and therefore this minimum must always be kept on hand as that portion of the advanced capital which serves in its money-form.

Now, if 100 p. st. of the capital of 300 p. st. periodically released for three weeks, and likewise divided into 240 p. st. of a productive supply and 60 p. st. of wages, are entirely eliminated in the form of money-capital by the contraction of the circulation time, if they are completely removed from the mechanism of the turn-over, where does the money for these 100 p. st. of money-capital come from? This amount consists of only one-fifth of money-capital periodically released within the turn-overs. But four-fifths, or 80 p. st., are already replaced by an additional productive supply of the same value. In what manner is this additional productive supply converted into money, and whence comes the money for this conversion?

If the contraction of the period of circulation has become a fact, then only 400 p. st. of the above 600, instead of 480, are reconverted into a productive supply. The other 80 p. st. are retained in their money-form and constitute, together with the above 20 p. st. for wages, the 100 p. st. eliminated from the process. Although these 100 p. st. come from the circulation by means of the purchase of the 600 p. st. of commodity-capital and are now withdrawn from it, because they are not re-invested in wages and materials of production, yet it must not be forgotten that, in their money-form, they are once more in that form in which they were originally thrown into circulation. In the beginning 900 p. st. were invested in a productive supply and wages. Now only 800 p. st. are required in order to carry along the same productive process. The 100 p. st. thus withdrawn in money now form a new money-capital seeking investment, a new constituent part of the money-market. True, they were previously periodically in the form of released money-capital and of additional productive capital, but these latent forms were the conditions for the promotion and continuity of the process of production. Now they are no longer needed for this purpose, and for this reason they form a new money-capital and a constituent part of the money-market, although they are neither an additional element of the existing social money-supply (for they existed at the beginning of the business and were thrown by it into the circulation), nor a newly accumulated hoard.

These 100 p. st. are now indeed withdrawn from circulation inasmuch as they are a portion of the advanced money-capital and are no longer employed in the same business. But this withdrawal is possible only because the conversion of the commodity-capital into money, and of this money into productive capital, in the metamorphosis C—M—C, is accelerated by one week, so that the circulation of the money engaged in this process is likewise hastened. This sum is withdrawn from circulation, because it is no longer needed for the turn-over of the capital of X.

It has been assumed here that the capital belongs to him who invests it. But if he had borrowed it, nothing would be altered in these conditions. With the contraction of the period of circulation, he would need only 800 p. st. of borrowed money instead of 900. This sum of 100 p. st., if returned to the lender, forms nevertheless 100 p. st. of new money-capital, only in the hands of Y instead of X. If the capitalist X receives his materials of production to the amount of 480

p. st. on credit, so that he has only to advance 120 p. st. for wages out of his own pocket, then he would now have to purchase 80 p. st.'s worth of goods less on credit, so that this sum would constitute an excess of commodity-capital for the capitalist giving it on credit, while the capitalist X would have released 20 p. st. of his money.

The additional supply for production is now reduced by one-third. It consisted of 240 p. st.'s worth of goods, constituting four-fifths of additional capital II of 300 p. st., but now it consists only of 160 p. st.'s worth of goods. It is an additional productive supply for 2 instead of 3 weeks. It is now renewed every 2 weeks, instead of every 3, but only for the next 2 instead of the next 3 weeks. The purchases, for instance, on the cotton market, are repeated more frequently and in smaller portions. The same portion of cotton is withdrawn from the market, for the quantity of the product remains the same. But the withdrawal is distributed differently in time, extending over a longer period. Take it that it is a question of 3 months or 2. If the annual consumption of cotton amounts to 1,200 bales, the sales in the first case will be:

January	1, 300 bales, remaining in storage	900 bales.
April	1, 300 bales, remaining in storage	600 bales.
July	1, 300 bales, remaining in storage	300 bales.
October	1, 300 bales, remaining in storage	0 bales.

But in the second case, the situation would be:

January	1, sold 200, remaining in storage	1,000 bales.
March	1, sold 200, remaining in storage	800 bales.
May	1, sold 200, remaining in storage	600 bales.
July	1, sold 200, remaining in storage	400 bales.
September	1, sold 200, remaining in storage	200 bales.
November	1, sold 200, remaining in storage	0 bales.

In other words, the money invested in cotton flows back completely one month later, in November instead of October. If, therefore, one-ninth of the advanced capital, or 100 p. st., is eliminated in the form of money by the contraction of the period of circulation, and if these 100 p. st. are composed of 20 p. st. of periodically released money-capital for the payment of wages, and of 80 p. st. existing periodically as a released productive supply for one week, then the reduction of the productive supply in the hands of the manufacturer, so far as these 80 p. st. are concerned, corresponds to an increase of the cotton supply in the hands of the cotton dealer. The same cotton retains as much longer in his warehouse the form of a commodity as it stays a shorter time in the hands of the manufacturer under the form of a productive supply.

Hitherto we assumed that the contraction of the time of circulation was due to the fact that X sold his articles more rapidly, received his money for them in a shorter time, or, in the case of credit, that his time of payment was reduced. In that case, the contraction was attributed to the sale of the commodities, to the conversion of commodity-capital into money-capital, C'—M, the first phase of the process of circulation. But it might also be due to the second phase, M—C, and

hence to a simultaneous change, either in the working period, or in the time of circulation of the capitals Y, Z, etc., which supply the capitalist X with the elements of production of his circulating capital.

For instance, if cotton, coal, etc., with the old methods of transportation, are three weeks in transit from their place of production or storage to the location of the factory of the capitalist X, then the minimum supply of X up to the arrival of new transports must last for three weeks. So long as cotton and coal are in transit, they cannot serve as means of production. They are then rather an object of labor in the transportation industry and of the capital invested in it, they represent for the producer of coal or the dealer in cotton a commodity-capital in process of circulation. Now let improvements in transportation reduce the transit to two weeks. Then the productive supply can be transformed from a three-weekly into a fortnightly supply. This releases the additional capital of 80 p. st. set aside for the purchase of the weekly supply, and likewise the 20 p. st. for wages, because the turned-over capital of 600 p. st. returns one week earlier.

On the other hand, if the working period of the capital invested in raw materials is contracted (examples of this case were given in the preceding chapter), so that the possibility of renewing the productive supply in a shorter time is given, then the productive supply may be reduced, the interval between the periods of renewal being shortened.

If, vice versa, the time of circulation and thus the period of turnover are prolonged, then advance of additional capital is necessary. This must come out of the pockets of the capitalist himself, provided he has any additional capital. If he has, it will be invested in some way, in some portion of the money-market. In order to make it available, it must be detached from its old form, for instance, stocks must be sold, deposits withdrawn, so that there is indirectly an effect on the money-market, also in this case. Or, he must borrow it. As for that portion of the additional capital which is to be invested in wages, it must under normal conditions always be advanced in the form of money, and the capitalist X exerts to that extent his share of a direct pressure on the money-market. But so far as that portion is concerned which must be invested in materials of production, money is indispensable only if he must pay for them in cash. If he can get them on credit, this does not exert any direct influence on the money-market, because the additional capital then is directly advanced in the form of a productive supply, not in the first instance in money. But if the lender throws the note received from X directly on the market and discounts it, this would to that extent influence the money-market indirectly.

II. CASE.—A Change in the Price of Materials of Production, All Other Circumstances Remaining the Same.

We just assumed that the total capital of 900 p. st. was four-fifths invested in materials of production (720 p. st.) and one-fifth in wages (180 p. st.).

If the price of the materials of production drops by one-half, then a working period of 6 weeks requires only 240 p. st. instead of 480

for their purchase, and an additional capital of only 120 p. st. instead of 240 p. st. Capital I is then reduced from 600 p. st. to 240 plus 120, or 360 p. st., and capital II from 300 to 120 plus 60 ; or 180 p. st. The total capital of 900 is therefore reduced to 360 plus 180, or 540 p. st. A sum of 360 p. st. is eliminated.

This eliminated and now unemployed capital, which seeks investment in the money-market, is nothing but a portion of the originally advanced capital of 900 p. st. This portion has become superfluous by the fall in the price of the materials of production, so long as the business is carried along on the same scale and not expanded. If this fall in prices is not due to accidental circumstances, such as a rich harvest, over-supply, etc., but to an increase of productive power in the line which supplies the raw materials, then this money-capital is an absolute addition to the money-market, or in general to the capital available in the form of money-capital, because it no longer constitutes an integral portion of the capital already invested.

III. CASE.—A Change in the Market Price of the Products Themselves.

In this case, a fall in prices means a loss of a portion of capital, which must be made good by a new advance of additional money-capital. This loss of the seller may be recovered by the buyer. It is recovered by the buyer directly, if the market price of the product has fallen merely through an accidental fluctuation of the market and rises once more to its normal level. It is recovered indirectly, if the change of prices is caused by a change of value reacting on the product, and if this product passes as an element of production into another sphere of production and there releases capital to that extent. In either case, the capital lost by X, for the replacement of which he touches the money-market, may be introduced by his business friends as a new additional capital. Then there is a simple transfer of capital.

If, on the other hand, the price of the product rises, then a portion of the capital which was not advanced is taken away from the circulation. This is not an organic portion of the capital advanced in this process of production and constitutes, therefore, eliminated money-capital, unless production is expanded. As we assumed that the prices of the elements of production were fixed before the product came upon the market, an actual change of value might have caused the rise of prices to the extent that it is retroactive, causing a subsequent rise in the price of raw material. In such an eventuality, the capitalist X would realize a gain on his product circulating as a commodity-capital and on his available productive supply. This gain would give him an additional capital, which would be needed for the continuation of his business with the new and higher prices of the elements of production.

Or, the rise of prices is but temporary. To the extent that additional capital is then needed on the side of the capitalist X, the same amount is released on another side, inasmuch as his product is an element of production for other lines of business. What the one has lost, the other wins.

CHAPTER XVI

THE TURN-OVER OF THE VARIABLE CAPITAL

I. THE ANNUAL RATE OF SURPLUS-VALUE.

We start out with a circulating capital of 2500 p. st., four-fifths of which, or 2000 p. st., are constant capital (materials of production), and one-fifth of which, or 500 p. st., is variable capital invested in wages.

Let the period of turn-over be 5 weeks ; the working period 4 weeks, the period of circulation 1 week. Then capital I is 2000 p. st., consisting of 1600 p. st. of constant capital and 400 p. st. of variable capital; capital II is 500 p. st., 400 of which are constant and 100 variable. In every working week, a capital of 500 p. st. is invested. In a year of 50 weeks an annual product of 50 times 500, or 25,000 p. st., is manufactured. The capital I, continuously invested in one working period and amounting to 2000 p. st., is turned over $12\frac{1}{2}$ times. $12\frac{1}{2}$ times 2000 make 25,000 p. st. Of this sum of 25,000 p. st., four-fifths, or 20,000 p. st., are constant capital invested in materials of production, and one-fifth, or 5000 p. st., is variable capital invested in wages. The total capital of 2500 p. st. is turned over 10 times, which is 25,000 divided by 2500.

The variable circulating capital expended in production can serve afresh in the process of circulation only to the extent that the product in which its value is reproduced is sold, converted from a commodity-capital into a money-capital, in order to be once more expended in the payment of labor-power. But the same is true of the constant circulating capital invested in production for materials, the value of which reappears as a portion of the value of the product. That which is common to these two portions of the circulating capital, the variable and constant capital, and which distinguishes them from the fixed capital, is not that the value transferred from them to the product is circulated by the commodity-capital, circulated as a commodity through the circulation of the product. For one portion of the value of the product, and thus of the product circulating as a commodity, the commodity-capital, always consists of the wear of the fixed capital, that is to say, of that portion of the value of the fixed capital which is transferred to the product during the process of production. The difference is rather this: The fixed capital continues to serve in the process of production in its old natural form for a longer or shorter cycle of periods of turn-over of the circulating capital (which consists of constant circulating plus variable circulating capital), while every single turn-over is conditioned on the reproduction of the entire circulating capital passing from the sphere of production in the form of commodity-capital into the sphere of circulation. The constant and variable circulating capital both have in common the first phase of the circulation, C'—M'. But in the second phase they separate. The money, into which the commodity is reconverted, is in part transformed into a productive supply (constant circulating capital). According to the different terms of pur-

chase of this material, a portion may be sooner, another later, converted from money into materials of production, but finally it is wholly consumed that way. Another portion of the money realized by the sale of the commodity is held in the form of a money-supply, in order to be gradually expended in the payment of labor-power incorporated in the process of production. This portion constitutes the variable circulating capital. Nevertheless the entire reproduction of either portion is due to the turn-over of the capital, to their conversion into a product, from a product into a commodity, from a commodity into money. This is the reason why, in the preceding chapter, the turn-over of the circulating constant and variable capital was discussed separately and simultaneously without any regard to the fixed capital.

For the purposes of the question which we have to discuss now, we must go a step farther and proceed with the variable portion of the circulating capital as though it constituted the circulating capital by itself. In other words, we leave out of consideration the constant circulating capital which is turned over together with it.

A sum of 2500 p. st. has been advanced; and the value of the annual product is 25,000 p. st. But the variable portion of the circulating capital is 500 p. st. The variable capital contained in 25,000 p. st. therefore amounts to 25,000 divided by 5, or 5000 p. st. If we divide these 5000 p. st. by 500, we find that 10 is the number of turn-overs, just as it is in the case of the total capital of 2500 p. st.

Here, where it is only a question of the production of surplus-value, it is quite correct to make this average calculation, according to which the value of the annual product is divided by the value of the advanced capital, not by the value of that portion of this capital which is employed continually in one working period (in the present case not by 400, but by 500, not by capital I, but by capital I plus II). We shall see later, that, from another point of view, this is not quite exact. In other words, this calculation serves well enough for the practical purposes of the capitalist, but it does not express exactly or appropriately all the real circumstances of the turn-over.

We have hitherto ignored one portion of the commodity-capital, namely, the surplus-value contained in it, which was produced during the process of production and incorporated in the product. We have now to direct our attention to this.

Take it, that the variable capital of 100 p. st. expended weekly produces a surplus-value of 100%, or 100 p. st., then the variable capital of 500 p. st., advanced for a period of turn-over of 5 weeks, produces 500 p. st. of surplus-value, in other words, one-half of the working day consists of surplus-labor.

If 500 p. st. of variable capital produce a surplus-value of 500 p. st., then 5000 p. st. produce ten times 500, or 5000 p. st. of surplus-value. The proportion of the total quantity of surplus-value produced during one year to the value of the advanced variable capital is what we call the annual rate of surplus-value. In the present case, this is as 5000 to 500, or 1000%. If we analyze this rate more closely, we find that it is equal to the rate of surplus-value produced by the advanced variable capital during one period of turn-over,

multiplied by the number of turn-overs of the variable capital (which coincides with the number of turn-overs of the entire circulating capital).

The variable capital advanced in the present case for one period of turn-over is 500 p. st. The surplus-value produced during this period is likewise 500 p. st. The rate of surplus-value for one period of turn-over is, therefore, as 500 s to 500 v, or 100%. This 100%, multiplied by 10, the number of turn-overs in one year, makes 1000%, a rate of 5000 to 500.

This applies to the annual rate of surplus-value. As for the quantity of surplus-value obtained during a certain period of turn-over, it is equal to the value of the variable capital advanced for this period, in the present case 500 p. st., multiplied by the rate of surplus-value, in the present case, therefore, 500 times 100-100, or 500 times 1, or 500 p. st. If the advanced variable capital were 1500 p. st., with the same rate of surplus-value, then the quantity of surplus-value would be 1500 times 100-100, or 1500 p. st.

The variable capital of 500 p. st., which is turned over ten times per year, producing a surplus-value of 5000 p. st., and thus having a rate of surplus-value amounting to 1000%, shall be called capital A.

Now let us assume that another variable capital, B, of 5000 p. st., is advanced for one whole year (that is to say for 50 working weeks), so that it is turned over only once a year. We assume furthermore that, at the end of the year, the product is paid for on the same day that it is finished, so that the money-capital, into which it is converted, flows back on the same day. The circulation time is then zero, the period of turn-over equal to the working period, that is to say, one year. As in the preceding case, so there is now in the labor-process of each week a variable capital of 100 p. st., or of 5000 p. st. in 50 weeks. Let the rate of surplus-value be likewise the same, or 100%, that is to say, one-half of the working day of the same length as before consists of surplus-labor. If we study a period of 5 weeks, then the advanced variable capital is 500 p. st., the rate of surplus-value 100%, the quantity of surplus-value produced in 5 weeks likewise 500 p. st. The quantity of labor-power, which is here exploited, and the intensity of its exploitation, are assumed to be the same as those of capital A.

In each week, the invested variable capital of 100 p. st. produces a surplus-value of 100 p. st., hence in 50 weeks the total invested capital produces a surplus-value of 50 times 100, or 5000 p. st. The quantity of the surplus-value produced per year is the same as in the previous case, 5000 p. st., but the annual rate of surplus-value is entirely different. It is equal to the surplus-value produced in one year, divided by the advanced variable capital ; that is to say, it is as 5000 s to 5000 v, or 100%, while in the case of capital A it was 1000%.

In the case of both capitals A and B, we have invested a variable capital of 100 p. st. per week. The rate of surplus-value per week, or the intensity of self-expansion, is likewise the same, 100%, so is the magnitude of the variable capital the same, 100 p. st. The same quantity of labor-power is exploited, the volume and intensity of exploitation are equal in both cases, the working days are the same and

subdivided in the same way in necessary labor and surplus-labor. The quantity of variable capital employed in the course of the year is 5000 p. st. in either case, sets the same amount of labor in motion, and extracts the same amount of surplus-value from the labor-power set in motion by these two equal capitals, namely 5000 p. st. Nevertheless, there is a difference of 900% in the annual rate of surplus-value of the two capitals A and B.

This phenomenon makes indeed the impression as though the rate of surplus-value were not only dependent on the quantity and intensity of exploitation of the labor-power set in motion by the variable capital, but also on inexplicable influences arising from the process of circulation. It has actually been so interpreted, and has completely routed the Ricardian school since the beginning of the twenties of the 19th century, at least in its more complicated and disguised form—that of the annual rate of profit, if not in the simple and natural form indicated above.

The strangeness of this phenomenon disappears at once, when we place capital A and B in exactly the same conditions, not seemingly, but actually. These equal circumstances are present only when the variable capital B is expended in the payment of labor-power in its entire volume and in the same period of time as capital A.

In that case, the 5000 p. st. of capital B are invested for 5 weeks. 1000 p. st. per week makes an investment of 50,000 p. st. per year. The surplus-value is then likewise 50,000 p. st., according to our assumption. The turned-over capital of 50,000 p. st., divided by the advanced capital of 5000 p. st., makes the number of turn-overs 10. The rate of surplus-value, 5000 to 5000, or 100%, multiplied by the number of turn-overs, 10, makes the annual rate of surplus-value as 50,000 to 5000, or 10 to 1, or 1000%. Now the annual rates of surplus-value for A and B are alike, namely 1000%, but the quantities of surplus-value are 50,000 p. st. in the case of B, and 5000 p. st. in the case of A. The quantities of the produced surplus-values now are proportioned to one another as the advanced capital-values of B and A, to wit: as 50,000 to 5000, or 10 to 1. But at the same time, capital B has set in motion ten times as much labor-power as capital A has in the same time.

It is only the capital actually invested in the working process which produces any surplus-value and for which all laws relating to surplus-value are in force, including, for instance, the law according to which the quantity of surplus-value is determined by the relative magnitude of the variable capital if the rate of surplus-value is given.

The labor-process itself is determined by the time. If the length of the working period is given (as it is here, where we assume all circumstances relating to A and B to be equal, in order to elucidate the difference in the annual rate of surplus-value), the working week consists of a certain number of working days. Or, we may consider any working period, for instance, this working period of 5 weeks, as one single working day of 300 hours, if the working day has 10 hours and the working week 6 days. We must further multiply this number with the number of laborers who are employed every day simultaneously in

the same labor-process. If there were 10 laborers, there would be 60 times 10, or 600 working hours in one week, and a working period of 5 weeks would have 600 times 5, or 3000 working hours. Variable capitals of equal magnitude are, therefore, employed, the rate of surplus-value and the working days being the same if equal quantities of labor-power are set in motion in the same time (a labor-power of the same price multiplied with the same number).

Let us now return to our original illustrations. In both cases, A and B, equal variable capitals, of 100 p. st. per week, are invested every week during the year. The invested variable capitals actually serving in the labor-process are, therefore, equal, but the advanced variable capitals are very unequal. For A, 500 p. st. are advanced for every 5 weeks, and 100 p. st. of this are consumed every week. In the case of B, 5000 p. st. must be advanced for first period of 5 weeks, but only 100 p. st. per week, or 500 in 5 weeks, or one-tenth of the advanced capital is employed. In the second period of 5 weeks, 4500 p. st. must be advanced, but only 500 of this is employed, etc. The variable capital advanced for a certain period of time is converted into employed, actually serving and active, variable capital only to the extent that it actually steps into the period of time taken up by the labor-process, to the extent that it actually takes part in it. In the intermediate time in which a certain portion of this capital is advanced, with a view to being employed at a later time, this portion is practically non-existing for the labor-process and has, therefore, no influence on the formation of either value or surplus-value. Take, for instance, capital A, of 500 p. st. It is advanced for 5 weeks, but only 100 p. st. enter successively week after week into the labor-process. In the first week, one-fifth of this capital is employed ; fourth-fifths are advanced without being employed, although they must be available, and therefore advanced, for the labor-processes of the following 4 weeks.

The circumstances which differentiate the relations of the advanced to the employed capital influence the production of surplus-value—the rate of surplus-value being given—only to the extent that they differentiate the quantity of variable capital which can be actually employed in a certain period of time, for instance, in one week, 5 weeks, etc. The advanced variable capital serves as variable capital only for the time that it is actually employed, not for the time in which it is held available without being employed. But all the circumstances which differentiate the relations between the advanced and the employed variable capital, are comprised in the difference of the periods of turn-over (determinated by the difference in the working period, the circulation period or both). The law of the production of surplus-value decrees that equal quantities of employed variable capital produce equal quantities of surplus-value, if the rate of surplus-value is the same. If, then, equal quantities of variable capitals are employed by the capitals A and B in equal periods of time with an equal rate of surplus-value, they must produce equal quantities of surplus-value in equal periods of time, no matter what may be the proportion of this variable capital, employed during definite periods of time to the variable capital advanced for the same time and no matter, therefore, what may be the proportion of the

quantities of surplus-value produced, not to the employed, but to the total advanced variable capital in general. The difference of this proportion, so far from contradicting the laws of the production of surplus-value demonstrated by us, rather corroborates them and is one of their inevitable consequences.

Let us consider the first productive section of 5 weeks of capital B. At the end of the fifth week, 500 p. st. have been employed and consumed. The value of the product is 100 p. st., hence the rate is 500 s to 500 v or 100%, the same as in the case of capital A. The fact that, in the case of capital A, the surplus-value is realized together with the advanced capital, while in the case of B it is not, does not concern us here, where it is merely a question of the production of surplus-value and of its proportion to the variable capital advanced during its production. But if we calculate the proportion of surplus-value in B, not as compared to the portion of the advanced capital of 5000 p. st. which has been employed and consumed in its production, but to this total advanced capital itself, we find that it is as 500 s to 5000 v, or as 1 to 10, or 10%. In other words, it is 10% for capital B and 100% for capital A, ten times more. If any one were to say that this difference in the rate of surplus-value for equal capitals, setting in motion equal quantities of labor which is equally divided into paid and unpaid labor, is contrary to the laws of the production of surplus-value, then the answer would be simple and prompted by the mere inspection of the actual conditions: In the case of A, the actual rate of surplus-value is expressed, that is to say, the proportion of a surplus-value of 500 p. st., to a variable capital of 500 p. st., which produced it in 5 weeks. In the case of B, on the other hand, we are dealing with a calculation which has nothing to do either with the production of surplus-value, or with the determination of its corresponding rate of surplus-value. For the 500 p. st. of surplus-value produced by a variable capital of 500 p. st. are not calculated with reference to the 500 p. st. of variable capital advanced in their production, but with reference to a capital of 5000 p. st., nine-tenths of which, or 4500 p. st., have nothing whatever to do with the production of this surplus-value of 500 p. st., but are rather intended for gradual service in the following 45 weeks, so that they do not exist at all so far as the production of the first 5 weeks is concerned, which is alone significant in this instance. Under these circumstances, the difference in the rate of surplus-value of A and B is no problem at all.

Let us now compare the annual rates of surplus-value for capitals A and B. For B it is as 5000 s to 5000 v, or 100% ; for A it is as 5000 s to 500 v, or 1000%. But the proportion of the rates of surplus-value toward one another is the same as before. There we had

$$\text{Rate of Surplus-Value of Capital B} = \frac{10\%}{100\%}.$$

Now we have

$$\text{Annual Rate of Surplus-Value of Capital B} = \frac{100\%}{1000\%}.$$

But 10% is to 100% as 100% is to 1000%, so that the ratio is the same.

But now the problem is reversed. The annual rate of capital B is as 5000 s to 5000 v, or 100%, offering not the slightest deviation, nor even the semblance of a deviation, from the laws of production known to us and the rate of surplus-value corresponding to this production. 5000 v have been advanced and consumed productively during the year, and they have produced 5000 s. The rate of surplus-value is, therefore the same as shown in the above proportion, 5000 s to 5000 v, or 100%. The annual rate agrees with the actual rate of surplus-value. In this case, it is not capital B, but capital A, which presents an anomaly that is to be explained.

In the case of A, we have the rate of surplus-value as 5000 s to 500 v, or 1000%. But while in the case of B, a surplus-value of 500 p. st., the product of 5 weeks, was calculated with reference to an advanced capital of 5000 p. st., nine-tenths of which were not employed in its production, we have now a surplus-value of 5000 s calculated on a variable capital of 500 v, that is to say, on only one-tenth of the variable capital of 5000 p. st. actually employed in the production of 5000 s. For the 5000 s are the product of a variable capital of 5000 v, productively consumed during 50 weeks, not that of a capital of 500 p. st. productively consumed in one working period of 5 weeks. In the former case, the surplus-value produced in 5 weeks had been calculated for a capital advanced for 50 weeks, a capital ten times larger than the one consumed during the 5 weeks. In the present case, the surplus-value produced in 50 weeks is calculated for a capital advanced for only 5 weeks, a capital ten times smaller than the one consumed in 50 weeks.

Capital A, of 500 p. st., is never advanced for more than 5 weeks. At the end of this time it has flown back and may repeat the same process in the course of the year ten times, by ten turn-overs. Two conclusions follow from this:

First. The Capital advanced in the case of A is only five times larger than that portion of capital which is continually employed in the productive process of one week. Capital B, on the other hand, which is turned over only once in 50 weeks, is fifty times larger than that one of its portions which can be used only in continuous successions of one week. The turn-over, therefore, modifies the relations of the capital advanced during the year for the process of production to the capital employed continuously for a certain period of production, say, for one week. And this is illustrated by the first case, in which the surplus-value of 5 weeks is not calculated for the capital employed during these 5 weeks, but for a capital ten times larger and employed for 50 weeks.

Second. The period of turn-over of 5 weeks of capital A comprises only one-tenth of the year, so that one year contains ten such periods of turn-over in which capital A of 550 p. st. is successively reinvested. The employed capital is here equal to the capital advanced for 5 weeks, multiplied by the number of periods of turn-over per year. The capital employed during the year is 500 times 10, or 5000 p. st. The capital advanced during the year is 5000 divided by 10, or 500

p. st. Indeed, although the 500 p. st. are always re-employed, the sum advanced for 5 weeks never exceeds these same 500 p. st. On the other hand, in the case of capital B, it is true that only 500 p. st. are employed for 5 weeks and advanced for these 5 weeks. But as the period of turn-over is in this case 50 weeks, the capital employed in one year is equal to the capital advanced for 50 weeks, not to that advanced for every 5 weeks. But the annual quantity of surplus-value depends, given the rate of surplus-value, on the capital employed during the year, not on the capital advanced for the year. Hence it is not larger for this capital of 5000 p. st., which is turned over once a year, than it is for the capital of 500 p. st., which is turned over ten times per year. And it has this size only because the capital turned over once a year is ten times larger than the capital turned over ten times per year.

The variable capital turned over during one year—and hence that portion of the annual product, or of the annual expenditure, which is equal to that portion—is the variable capital employed and productively consumed during the year. It follows that, assuming the variable capital A turned over annually and the variable capital B turned over annually to be equal, and to be employed under equal conditions of investment, so that the rate of surplus-value is the same for both of them, the quantity of surplus-value produced annually must likewise be the same for both of them. Hence the annual rate of surplus-value must also be the same for them so far as it is expressed by the formula

$$\frac{\text{Quantity of Surplus-Value Produced Annually}}{\text{Variable Capital Turned-over Annually.}}$$

Or, generally speaking: Whatever may be the relative magnitude of the turned-over variable capitals, the rate of the surplus-value produced by them in the course of the year is determined by the rate of surplus-value at which the respective capitals have been employed in average periods (for instance the average of a week or a day).

This is the only result following from the laws of the production of surplus-value and the determination of the rate of surplus-value.

Let us now consider what is expressed by the ratio of the

$$\frac{\text{Capital Turned-over Annually}}{\text{Capital Advanced}}$$

taking into account, as we have said before, only the variable capital. The division shows the number of turn-overs made by the capital advanced in one year.

In the case of capital A, we have:

$$\frac{\text{5000 p. st. of Capital Turned-over Annually}}{\text{500 p. st. of Capital Advanced}}$$

In the case of capital B, we have:

$$\frac{\text{5000 p. st. of Capital Turned-over Annually}}{\text{5000 p. st. of Capital Advanced}}$$

In both ratios, the numerator expresses the capital advanced multiplied by the number of turn-overs, in the case of A, 500 times 10, in the case of B 5000 times 1. Or, it may be multiplied by the inverted time of turn-over calculated for one year. The time of turn-over for A is 1-10 year ; the inverted time of turn-over is 10-1 year, hence we have 500 times 10-1, or 5000. In the case of B, 5000 times 1-1. The denominator expresses the turned over capital multiplied by the inverted number of turn-overs ; in the case of A, 5000 times 1-10, in the case of B, 5000 times 1-1.

The respective quantities of labor (the sum of the paid and unpaid labor), which is set in motion by the two variable capitals turned over annually, are equal in this case, because the turned-over capitals themselves are equal and their rate of self-expansion is likewise equal.

The ratio of the variable capital turned over annually to the variable capital advanced indicates (1) the ratio of the capital intended for investment to the variable capital employed during a definite working period. If the number of turn-overs is 10, as in the case of A, and the year is assumed to have 50 working weeks, then the period of turn-over is 5 weeks. For these 5 weeks, variable capital must be advanced, and the capital advanced for 5 weeks must be 5 times as large as the variable capital employed during one week. That is to say, only one-fifth of the advanced capital (in this case of 500 p. st.) can be employed in the course of one week. On the other hand, in the case of capital B, where the number of turn-overs is 1-1, the time of turn-over is 1 year of 50 weeks. The ratio of the advanced capital to the capital employed weekly is, therefore, as 50 to 1. If matters were the same for B as they are for A, then B would have to invest 1000 p. st. per week instead of 100. (2). It follows, that B has employed ten times as much capital (5000 p. st.) as A, in order to set in motion the same quantity of variable capital and, the rate of surplus-value being the same, of labor (paid and unpaid), and thus to produce the same quantity of surplus-value during one year. The current rate of surplus-value expresses nothing but the ratio of the variable capital employed during a certain period to the surplus-value produced in the same time ; or, the quantity of unpaid labor set in motion by the variable capital employed during this time. It has absolutely nothing to do with that portion of the variable capital which is advanced for a time in which it is not employed. Hence it has nothing to do, in the case of different capitals, with the ratio, determined and differentiated by the period of turn-over, of that portion of capital which is advanced for a definite time and that portion which is employed in the same time.

The essential result of the preceding analysis is that the annual rate of surplus-value coincides only in one single case with the current rate of surplus-value which expresses the intensity of exploitation, namely, in the case that the advanced capital is turned over only once a year, so that the capital advanced is equal to the capital turned over in the course of the year, so that the ratio of the quantity of surplus-value produced during the year to the capital employed during the year in this production coincides with and is identical with the ratio of the

quantity of surplus-value produced during the year to the capital advanced during year.

(A) The annual rate of surplus-value is equal to the Quantity of Surplus-Value Produced during the Year / Variable Capital Advanced

But the quantity of the surplus-value produced during the year is equal to the current rate of surplus-value multiplied by the variable capital employed in its production. The capital employed in the production of the annual quantity of surplus-value is equal to the advanced capital multiplied by the number of its turn-overs, which we shall call n in the present case. Substituting these terms in formula (A) we obtain:

(B) The annual rate of surplus-value is equal to the Cur. Rate of Surpl. Val. Mltpl. b. the Var. Cap. Adv. mltpl. b n / Var. Cap. Adv.

For instance, in the case of capital B, we should have

$$\frac{100 \text{ times } 5000 \text{ times } 1}{5000}, \text{ or } 100\%.$$

Only when n is equal to 1, that is to say, when the variable capital advanced is turned over once a year, so that it is equal to the capital employed or turned over, the annual rate of surplus-value is equal to the current rate of surplus-value.

Let us call the annual rate of surplus-value S', the current rate of surplus-value s', the advanced variable capital v, the number of turn-overs n. Then

$$S' \text{ is equal to } \frac{s'vn}{v}, \text{ or } s'n.$$

In other words, S' is equal to $s'n$, and it is equal to s' only when n is 1, so that then S' is s' times 1, or s'.

It follows furthermore that the annual rate of surplus-value is always equal to $s'n$, that is to say, always equal to the current rate of surplus-value produced in one period of turn-over by the variable capital consumed during that period multiplied by the number of turn-overs of this variable capital during one year, or, what amounts to the same, multiplied with its inverted time of turn-over calculated for one year. (If the variable capital is turned over ten times per year, then its time of turn-over is 1-10 year, its inverted time of turn-over therefore 10-1 year, or 10 years.)

We have seen that S' is equal to s', when n is 1. S' is greater that s', when n is greater than 1, that is to say, when the advanced capital is turned over more than once a year, or the turned over capital is greater than the capital advanced.

Finally, S' is smaller than s', when n is smaller than 1, that is to say, when the capital turned over during one year is only a part of the advanced capital, so that the period of turn-over is longer than one year.

Let us linger a moment over this last case.

We retain all the premises of our former illustration, only the period of turn-over is to be 55 weeks instead of 50 weeks. The labor-process requires a variable capital of 100 p. st. per week, so that 5500 p. st. are needed for the period of turn-over, and every week 100 s is produced, s' is, therefore, smaller than 100%. Indeed, the annual rate of turn-overs, n, is then $\frac{50}{55}$ or $\frac{10}{11}$, because the time of turn-over is 1 plus 1/10 year (of 50 weeks), or 11/10 year.

S' is equal to

$$\frac{100\% \text{ times } 5500 \text{ times } 10/11}{5500}$$

equal to 100 times 10/11, or 1000/11, or 90-10/11%. It is, therefore, smaller than 100%. Indeed, if the annual rate of surplus-value were 100%, then 5500 v would have to produce 5500 s, while 11/10 years are required for that. The 5500 v produce only 5000 s during one year, therefore the annual rate of surplus-value is $\frac{5000 \text{ s}}{5500 \text{ v}}$, or 10/11, or 90-10/11%.

The annual rate of surplus-value, or the comparison between the surplus-value produced during one year and the variable capital advanced (as distinguished from the variable capital turned over during one year), is therefore not merely a subjective matter, but the actual movement of capital causes this juxtaposition. So far as the owner of capital A is concerned, his advanced variable capital of 500 has returned to him at the end of the year, and it has produced 5000 p. st. of surplus-value in addition. It is not the quantity of capital employed by him during the year, but the quantity returning to him periodically, that expresses the magnitude of his advanced capital. It is immaterial for the present question whether the capital exists at the end of the year partly in the form of a productive supply, or partly in that of money or commodity-capital, and what may be the proportions of these different parts. On the other hand, so far as the owner of capital B is concerned, his advanced capital of 5000 p. st. has returned to him, with an additional surplus-value of 5000 p. st. And as for the owner of capital C (the last mentioned 5500 p. st.), surplus-value to the amount of 5000 p. st. has been produced for him (advanced 5000 p. st., rate of surplus-value 100%), but his advanced capital has not yet returned to him nor has he pocketed his surplus-value.

The formula S' equal to $s'n$ indicates that the rate of surplus-value in force for the employed variable capital, to wit,

$$\frac{\text{Quantity of S.-V. produced in one Period of T.-O.}}{\text{Var. Cap. employed in one Period of T.-O.}}$$

must be multiplied with the number of periods of turn-over, or of the periods of reproduction of the advanced variable capital, that number of periods in which it renews its cycle.

We have seen already in volume I, chapter IV (the Transformation of Money into Capital), and furthermore in volume I, chapter XXIII (Simple Reproduction), that the capital value is not all spent, but advanced, as this value, having passed through the various phases of its cycle, returns to its point of departure, enriched by surplus-value. This fast shows that it has been merely advanced. The time consumed from the moment of its departure to the moment of its return is the one for which it was advanced. The entire rotation of capital-value, measured by the time from its advance to its return, constitutes its turnover, and the duration of this turn-over is a period of turn-over. When this period has elapsed and the cycle is completed, the same capital-value can renew the same rotation, can expand itself some more, create some more surplus-value. If the variable capital is turned over ten times in one year, as in the case of capital A, then the same advance of capital creates in the course of one year, ten times the quantity of surplus-value created in one period of turn-over.

One must come to a clear conception of the nature of this advance from the standpoint of capitalist society.

Capital A, which is turned over ten times in one year, is advanced ten times during one year. It is advanced anew for every new period of turn-over. But at the same time, A never advances more than this same capital-value of 500 p. st., and never disposes of more than these 500 p. st. for the productive process considered by us. As soon as these 500 p. st. have completed one cycle, A starts them once more on the same cycle. In short, capital by its very nature preserves its character as capital only by means of continued service in successive processes of production. In the present case, it was never advanced for more than 5 weeks. If the turn-over lasts long, this capital is inadequate. If the turn-over is contracted, a portion of this capital is released. Not ten capitals of 500 p. st. are advanced, but one capital of 500 p. st. is advanced ten times in successive intervals. The annual rate of surplus-value is, therefore, not calculated on ten advances of a capital of 500 p. st., not on 5000 p. st., but on one advance of a capital of 500 p. st. It is the same in the case of one dollar which circulates ten times and yet represents never more than one single dollar in circulation, although it performs the function of 10 dollars. But in the hand, which holds it after each change of hands, it remains the same value of one dollar as before.

Just so the capital A indicates at each successive return, and likewise at its return at the end of the year, that its owner has operated always with the same capital-value of 500 p. st. Hence only 500 p. st flow back into his hand at each turn-over. His advanced capital is never more than 500 p. st. Hence the advanced capital represents the denominator of the fraction which expresses the annual rate of surplus-value We had for it the formula

$$S' \text{ equal to } \frac{s'vn}{v}, \text{ or } s'n.$$

As the current rate of surplus-value, s', is equal to $\frac{s}{v}$, equal to the quanti ty of surplus-value divided by the variable capital which produced it

we may substitute the value of s' in s'n, that is to say $\frac{s}{v}$, in our formula, thus making it

$$S \text{ equal to } \frac{sn}{v}.$$

But by its tenfold turn-over, and thus the tenfold renewal of its advance, the capital of 500 p. st. performs the function of a ten times larger capital, of a capital of 5000 p. st., just as 500 dollar coins, which circulate ten times per year, perform the same function as 1000 dollar coins which circulate once a year.

II. The Turn-Over of the Individual Variable Capital.

"Whatever the form of the process of production in a society, it must be a continuous process, must continue to go periodically through the same phases. . . When viewed, therefore, as a connected whole, and as flowing on with incessant renewal, every social process of production is, at the same time, a process of reproduction. . . As a periodic increment of the capital advanced, or periodic fruit of capital in process, surplus-value acquires the form of a revenue flowing out of capital." (Volume I, chapter XXIII.)

In the case of capital A, we have 10 periods of turn-over of 5 weeks each. In the first period of turn-over, 500 p. st. of variable capital are advanced, that is to say, 100 p. st. are converted into labor-power every week, so that 500 p. st., have been converted into labor-power at the end of the first period of turn-over. These 500 p. st., originally a part of the total capital advanced, have then ceased to be capital. They are paid out in wages. The laborers in their turn pay them out in the purchase of means of subsistence, consuming subsistence to the amount of 500 p. st. A quantity of commodities of that value is therefore annihilated (what the laborer may save up in money, etc., is not capital). This quantity of commodities has been consumed unproductively from the standpoint of the laborer, except in so far as it preserves his labor-power, an indispensable instrument of the capitalist. In the second place, these 500 p. st. have been converted, from the standpoint of the capitalist, into labor-power of the same value (or price). Labor-power is consumed by him productively in the labor-process. At the end of 5 weeks, a product valued at 1,000 p. st. has been created. Half of this, or 500 p. st., is the reproduced value of the variable capital paid out for wages. The other half, or 500 p. st., is newly produced surplus-value. But 5 weeks of labor-power, by the consumption of which a portion of a capital was transformed into variable capital, is likewise expended, consumed, although productively. The labor which was active yesterday is not the one which is active today. Its value, together with that of the surplus-value created by it, exists now as the value of a thing separate from labor-power, to wit, a product. But by converting the product into money, that portion of it, which is equal to the value of the variable capital advanced, may once more be transformed into labor-power and thus perform again the functions of variable capital. It is immaterial that the same laborers,

that is to say, the same bearers of the labor-power, may be employed not only with the reproduced, but also with the reconverted capital-value in the form of money. It might be possible that the capitalist might hire different laborers for the second period of turn-over.

It is, therefore, a fact that a capital of 5,000, and not of 500 p. st., is paid out for labor-power in the ten periods of turn-over of 5 weeks each. The capital of 5,000 p. st. so advanced is consumed. It does not exist any more. On the other hand, labor-power to the value of 5,000, not of 500, p. st. is incorporated successively in the productive process and reproduces not only its own value of 5,000 p. st., but also a surplus value of 5,000 p. st. over and above its value. The variable capital of 500 p. st., which is advanced for the second period of turn-over, is not the identical capital of 500 p. st., which had been advanced for the first period of turn-over. This has been consumed, expended in labor-power. But it is replaced by new variable capital of 500 p. st., which was produced in the first period of turn-over in the form of commodities and reconverted into money. This new money-capital is, therefore, the money-form of the quantity of commodities newly produced in the first period of turn-over. The fact that an identical sum of 500 p. st. is again in the hands of the capitalist, apart from the surplus-value, a sum equal to the one which he had originally advanced, disguises the circumstance that he now operates with a newly produced capital. (As for the other constituents of value of the commodity-capital, which replace the constant parts of capital, their value is not newly produced, but only the form is changed in which this value exists.) Let us take the third period of turn-over. Here it is evident that the capital of 500 p. st., advanced for a third time, is not an old, but a newly produced capital, for it is the money-form of the quantity of commodities produced in the second, not in the first, period of turn-over—that is to say, of that portion of this quantity of commodities, whose value is equal to that of the advanced variable capital. The quantity of commodities produced in the first period of turn-over is sold. Its value, to the extent that it was equal to the variable portion of the value of the advanced capital, was transformed into the new labor-power of the second period of turn-over and produced a new quantity of commodities, which were sold in their turn and a portion of whose value constitutes the capital of 500 p. st. advanced for the third period of turn-over.

And so forth during the ten periods of turn-over. In the course of these, newly produced quantities of commodities are thrown upon the market every 5 weeks, in order to incorporate ever new labor-power in the progress of production. (The value of these commodities, to the extent that it replaces variable capital, is likewise newly produced, and does not merely appear so, as in the case of the constant circulating capital.)

That which is accomplished by the tenfold turn-over of the advanced variable capital of 500 p. st., is not that this capital can be productively consumed ten times, nor that a capital lasting for 5 weeks can be employed for 50 weeks. Ten times 500 p. st. of variable capital are rather employed in those 50 weeks, and the capital of 500 p. st. lasts

only for 5 weeks at a time and must be replaced at the end of the 5 weeks by a newly produced capital of 500 p .st. This applies equally to capital A nd B. But at this point, the difference begins.

At the end of the first period of 5 weeks, a variable capital of 500 p. st. has been advanced and expended by both capitalists A and B. Both B and A have transformed its value into labor-power and replaced it by that portion of the value of the new product created by this labor-power which is equal to the value of the advanced variable capital of 500 p. st. And for both B and A, the labor-power has not only reproduced the value of the expended variable capital of 500 p. st. by a new value of the same amount, but also added a surplus-value, which, according to our assumption, is of the same magnitude.

But in the case of B, the product which replaces the advanced variable capital and adds a surplus-value to it, is not in the form in which it can serve once more as a productive, or a variable, capital. On the other hand, it is in such a form in the case of A. B, however, does not possess the variable capital consumed in the first 5 and every subsequent 5 weeks up to the end of the year, although it has been reproduced by newly created value with a superadded surplus-value, in the form in which it may once more perform the function of productive, or variable, capital. Its value is indeed replaced, or reproduced, by new value, but the form of its value (in this case the absolute form of value, its money-form) is not reproduced.

For the second period of 5 weeks (and so forth for every succeeding 5 weeks of the year), 500 p. st. must again be available, the same as for the first period. Making exception of the conditons of credit, 5,000 p. st. must, therefore, be available at the beginning of the year as a latent advanced capital, although they are expended only gradually for labor-power in the course of the year.

But in the case of A, the cycle, the turn-over of the advanced capital, being completed, the reproduced value is after the lapse of 5 weeks in the precise form in which it may set new labor-power in motion for another term of 5 weeks, in its original money-form.

Both A and B consume new labor-power in the second period of 5 weeks and expend a new capital of 500 p. st. for the payment of this labor-power. The means of subsistence of the laborer paid with the first 500 p. st. are gone, their value has in every case disappeared from the hands of the capitalist. With the second 500 p. st., new labor-power is bought, new means of subsistence withdrawn from the market. In short, it is a new capital of 500 p. st. which is expended, not the old. But in the case of A, this new capital of 500 p. st. is the money-form of the newly produced substitute for the value of the formerly expended 500 p. st. ; while in the case of B, this substitute is in a form in which it cannot serve as variable capital. It is there but not in the form of variable capital. For the continuation of the process of production for the next 5 weeks, an additional capital of 500 p. st. must, therefore, be available in the form of money, which is indispensable in this case, and must be advanced. Thus both A and B expend an equal quantity of labor-power during 50 weeks. Only, B must pay for it with an advanced capital equal to its total value of 5,000 p. st., while

A pays for it successively by the ever renewed money-form of the substitute produced in every 5 weeks for the capital of 500 p. st. advanced for every 5 weeks. In no case more capital is advanced by A than is required for 5 weeks, that is to say, 500 p. st. These 500 p. st. last for the entire year. It is, therefore, evident that the intensity of exploitation and the current rate of surplus-value being the same for the two capitals, the annual rates of A and B must hold an inverse ratio to one another than the magnitudes of the variable money-capitals, which had to be advanced in order to set in motion the same quantity of labor-power during the year. The rate of A is as 5,000 s to 500 v, or 1,000% ; that of B is as 5,000 s to 5,000 v, or 100%. But 500 v is to 5,000 v as 1 to 10, or as 100% to 1,000%.

The difference is due to the difference of the periods of turn-over, that is to say, to the period in which the substitute for the value of a certain variable capital employed for a certain time can renew its function of capital, can serve as a new capital. In the case of both B and A, the same reproduction of value of the variable capital employed during the same periods take place. There is also the same increment of surplus-value during the same periods. But in the case of B, while there is every 5 weeks a reproduction of the value of 500 p. st. and a surplus-value of 500 p. st., these values do not yet make a new capital, because they are not in the form of money. In the case of A, on the other hand, the value of the old capital is not only reproduced by a new value, but it is rehabilitated in its money-form, so that it may at once assume the functions of a new capital.

So far as the mere production of surplus-value is concerned, the rapid or slow transformation of the substitute for the value advanced into money, and thus into the form in which the variable capital is advanced, is an insignificant circumstance. This production depends on the magnitude of the employed variable capital and the intensity of exploitation. But the more or less rapid transformation referred to *does* modify the magnitude of the money-capital which must be advanced in order to set a definite quantity of labor-power in motion during the year, and therefore it determines the annual rate of surplus-value.

III. The Turn-Over of the Variable Capital, Considered From the Point of View of Society.

Let us look for a moment at this matter from the point of view of society. Let the wages of one laborer be 1 p. st. per week, the working day 10 hours. Both A and B employ 100 laborers per week (100 p. st. for 100 laborers per week, or 500 p. st. for 5 weeks, or 5,000 p. st. for 50 weeks), and each one of them works, 60 hours per week of 6 days. Then 100 laborers work 6,000 hours per week, and 300,000 hours in 50 weeks. This labor-power is engaged by A and B, and cannot be expended by society for anything else. To this extent, the matter is the same socially that it is in the case of A and B. Furthermore: Both A and B pay their respective 100 laborers 5,000 p. st. in wages per year (or together for 200 laborers 10,000 p. st.) and withdraw from society means of subsistence to that amount. So far, the matter

is socially likewise the same as in the case of A and B. Since the laborers in either case are paid by the week, they weekly withdraw their means of subsistence from society and throw in either case a weekly equivalent in money into the circulation. But here the difference begins.

First. The money, which the laborer of A throws into the circulation, is not only, as it is for the laborer of B, the money-form for the value of the labor-power (an actual payment for labor already performed) ; it is also, beginning with the second period of turn-over since the opening of the business, the money form of the value of his own product (price of labor-power plus surplus-value) created during the first period of turn-over, by which his labor during the second period of turn-over is paid. This is not the case with the laborer of B. The money is here indeed a medium of payment for labor already performed by the laborer, but this labor is not paid for with its own product turned into money (the money-form of the value produced by itself). This cannot be done until the beginning of the second year, when the laborer of B is paid with the money-form of the value of his product of the preceding year.

The shorter the period of turn-over of capital—the shorter, therefore, the intervals in which the periods of reproduction are renewed—the quicker is the variable portion of the capital, advanced by the capitalist in the form of money, transformed into the money-form of the product (including surplus-value) created by the laborer in place of the variable capital ; the shorter is the time for which the capitalist must advance money out of his own funds, the smaller is the capital advanced by him compared to the given scale of production ; and the greater is the proportionate quantity of surplus-value which he realizes with a given rate of surplus-value during the year, because he can buy the laborer so much more frequently with the money-form of the product created by the labor of that laborer and set his labor into motion.

Given the scale of production, the absolute magnitude of the advanced variable capital (and of the circulating capital in general) decreases in proportion as the period of turn-over is shortened, and so does the annual rate of surplus-value increase. Given the magnitude of the advanced capital, and the rate of surplus-value, the scale of production and the absolute quantity of surplus-value created in one period of turn-over increases simultaneously with the rise in the annual rate of surplus-value due to the contraction of the periods of reproduction. It follows in general from the preceding analysis that, according to the different length of the periods of turn-over, money-capital of considerably different quantity must be advanced, in order to set in motion the same quantity of productive circulating capital and the same quantity of labor-power with the same intensity of exploitation.

Second. It is due to the first difference, that the laborers of B and A pay for the means of subsistence which they buy with the variable capital that has been transformed into a medium of circulation in their hands. For instance, they do not only withdraw wheat from the market, but also leave in its place an equivalent in money. But since the money, with which the laborer of B pays for his means of subsistence

and draws them from the market is not the money-form of the value of a product which he has thrown on the market during the year, as it is in the case of the laborer of A, he supplies the seller of his means of subsistence only with money, but not with products—be they materials of production or means of subsistence—which this seller might buy with the money received from the laborer, as he may in the case of the laborer of A. The market is therefore stripped of labor-power, means of subsistence for this labor-power, fixed capital, in the form of instruments of production used by B, and materials of production, and an equivalent in money is thrown on the market in their place, but no product is thrown on the market during the year by which the material elements of productive capital withdrawn from it might be replaced. If we assumed that society were not capitalistic, but communistic, then the money-capital would be entirely eliminated, and with it the disguises which it carries into the transactions. The question is then simply reduced to the problem that society must calculate beforehand how much labor, means of production, and means of subsistence it can utilize without injury for such lines of activity as, for instance, the building of railroads, which do not furnish any means of production or subsistence, or any useful thing, for a long time, a year or more, while they require labor, and means of production and subsistence out of the annual social production. But in capitalist society, where social intelligence does not act until after the fact, great disturbances will and must occur under these circumstances. On one hand there is a pressure on the money-market, while on the other an easy money-market creates just such enterprises in mass, that bring about the very circumstances by which a pressure is later on exerted on the market. A pressure is exerted on the money-market, since an advance of money-capital for long terms is always required on a large scale. And this is so quite apart from the fact that industrials and merchants invest the money-capital needed for the carrying on of their business in railroad speculation, etc., and reimburse themselves by borrowing in the money-market. On the other hand, there is a pressure on the available productive capital of society. Since elements of productive capital are continually withdrawn from the market and only an equivalent in money is thrown on the market in their place, the demand of cash payers for products increases without supplying any elements for purchase. Hence a rise in prices, of means of production and of subsistence. To make matters worse, swindling operations are always carried on at this time, involving a transfer of great capitals. A band of speculators, contractors, engineers, lawyers, etc., enrich themselves. They create a strong demand for consumption on the market, wages rising at the same time. So far as means of subsistence are concerned, it is true that agriculture is thus stimulated. But as these means of subsistence cannot be suddenly increased within the year, their importation increases, as does the importation of exotic foodstuffs, such as coffee, sugar, wine, and articles of luxury. Hence we then have a surplus importation and speculation in this line of imports. Furthermore, in those lines of business in which production may be rapidly increased, such as manufacture proper, mining, etc., the rise in prices causes a sudden expansion, which is soon

followed by a collapse. The same effect is produced on the labor-market, where large numbers of the latent relative over-population, and even of the employed laborers, are attracted toward the new lines of business. In general, such enterprises on a large scale as railroad building withdraw a certain quantity of labor-powers from the labor-market, which can come only from such lines of business as agriculture, etc., where strong men are needed. This still continues even after the new enterprises have become established lines of business and the wandering class of laborers needed for them has already been formed. A case in point is the temporary increase in the scale of business of railroads beyond the normal. A portion of the reserve army of laborers who kept wages down is absorbed. Wages rise everywhere, even in the hitherto engaged parts of the labor-market. This lasts until the inevitable crash throws the reserve army of labor out of work, and wages are once more depressed to their minimum or below it.[27]

To the extent that the greater or smaller length of the period of turn-over depends on the working period, strictly so called, that is to say on the period which is required to get the product ready for the market, it rests on the existing material conditions of production of the various investments of capital. In agriculture, they partake more of the character of natural conditions of production, in manufacture and the greater part of the extractive industry they vary with the social development of the process of production itself.

Furthermore, to the extent that the length of the working period is conditioned on the size of the orders (the quantitative volume in which the product is generally thrown upon the market), this point depends on conventions. But convention itself depends for its material basis on the scale of production, and it is accidental only when considered individually.

Finally, so far as the length of the period of turn-over depends on that of the period of circulation, the latter is, indeed, conditioned on the incessant change of market combinations, the greater or smaller ease of selling, and the resulting necessity to throw a part of the product to more or less remote markets. Apart from the volume of the general demand, the movement of prices plays here one of the main roles, since sales are intentionally restricted when prices are falling, while production proceeds ; vice versa, production and sale keep step, when prices are rising, and sales may even be made in advance. But we must consider the actual distance of the place of production from the market as the real material basis.

[27] In the manuscript, the following note is here inserted for future elaboration: "Contradiction in the capitalist mode of production ; the laborers as buyers of commodities are important for the market. But as sellers of their own commodity—labor-power—capitalist society tends to depress them to the lowest price. Further contradiction: The epochs in which capitalist production exerts all its forces are always periods of overproduction, because the forces of production can never be utilized to such a degree that more value is not only produced but also realized ; but the sale of commodities, the realization on the commodity-capital, and thus on surplus-value, is limited, not by the consumptive demand of society in general, but by the consumptive demand of a society in which the majority are poor and must always remain poor. However, this belongs into the next part."

For instance, English cotton goods or yarn are sold to India. The export merchant may pay the English cotton manufacturer. (The export merchant does so willingly only when the money-market stands well. If the manufacturer replaces his money-capital by operating credit on his own part, matters are already in a bad state). The exporter sells his cotton goods later in the Indian market, whence his advanced capital is returned to him. Until the time of this return the case is identical with the one in which the length of the working period necessitates the advance of new money-capital, in order to maintain the process of production on a certain scale. The money-capital with which the manufacturer pays his laborers and renews the other elements of his circulating capital is not the money-form of the yarn produced by him. This cannot be the case until the value of this yarn has returned to England in the form of money or products. It is additional capital as before. The difference is only that it is advanced by the merchant instead of the manufacturer, and that it reaches the merchant by means of manipulations of credit. Furthermore, before this money is thrown on the market, or simultaneously with it, no additional product has been thrown on the English market, to be bought with this money and to be consumed productively or individually. If this condition occurs for a long period on a large scale, it must cause the same effects as a prolongation of the working period, previously mentioned.

Now it may be that the yarn is sold even in India on credit. With this credit, products are bought in India and sent back to England, or drafts are remitted to this amount. If this condition is prolonged, there is a pressure on the Indian money-market, and its reaction may cause a crisis in England. This crisis, even if combined with an export of precious metals to India, causes a new crisis in that country on account of the bankruptcy of English business houses and their Indian branch houses, who had received credit from the Indian banks. Thus a crisis occurs simultaneously on the market which is credited with the balance of trade and on the one which is charged with it. This phenomenon may be still more complicated. Take it, for instance, that England has sent silver ingots to India, but the English creditors of India now collect their debts in that country, and India will soon after have reshipped its silver ingots to England.

It is possible that the export trade to India and the import trade from India might approximately balance one another, although the imports (with the exception of peculiar circumstances, such as arise in the price of cotton), will be determined as to their volume and stimulated by the export trade. The balance of trade between England and India may seem to be squared, or may show but slight fluctuations on either side. But as soon as the crisis appears in England it is seen that unsold cotton goods are stored in India (and have not been transformed from commodity-capital into money-capital—an overproduction to this extent), and that, on the other hand, there are in England not only unsold supplies of Indian goods, but that a considerable portion of the sold and consumed goods is not yet paid for. Hence, that which appears as a crisis on the money-market is in reality an expression of abnormal conditions in the process of production and reproduction.

Third. So far as the employed circulating capital (constant and variable) is concerned, the length of the period of turn-over, to the extent that it is due to the working period, makes this difference: In the case of several turn-overs during one year, an element of the variable or constant circulating capital may be supplied by its own product, for instance, in the production of coal, the tailoring business, etc. Otherwise, this cannot take place, at least not within the same year.

CHAPTER XVII

THE CIRCULATION OF SURPLUS-VALUE

We have just seen that a difference in the period of turn-over causes a difference in the annual rate of surplus-value, even if the quantity of the annually produced surplus-value is the same.

But there is furthermore necessarily a difference in the capitalization of surplus-value, the accumulation, and to that extent also in the quantity of surplus-value produced during the year, while the rate of surplus-value remains the same.

To begin with, we remark that capital A (in the illustration of the preceding chapter) has a current periodical revenue, so that with the exception of the period of turn-over beginning the business, it pays for its own consumption within the year out of its production of surplus-value, and need not cover it by advances out of its own funds. But B has to do this. While he produces as much surplus-value in the same time as A, he does not realize on it and cannot consume it either productively or individually. So far as individual consumption is concerned, the surplus-value is discounted in advance. Funds for that purpose must be advanced.

One portion of the productive capital, which is difficult to classify, namely, the additional capital required for the repair and maintenance of the fixed capital, is now likewise seen in a new light.

In the case of A, this portion of capital—in full or for the greater part—is not advanced at the beginning of production. It need not be available or even in exisence. It comes out of the business itself by a direct transformation of surplus-value into capital by its direct employment as capital. One portion of the surplus-value which is not only periodically produced but also realized may cover the expenditures required for repairs, etc. A portion of the capital needed for carrying on the business on its original scale is thus produced in the course of business by the business itself by means of capitalization of a portion of surplus-value. This is impossible for the capitalist B. This portion of capital must in his case form a part of the capital originally advanced. In both cases this portion will figure in the books of the capitalists as an advanced capital, which it really is, since according to our assumption it is a part of the productive capital required for maintaining the business on a certain scale. But it makes a great difference out

of which funds it is advanced. In the case of B, it is actually a part of the capital to be originally advanced or held available. On the other hand, in the case of A, it is a part of the surplus-value, if used as capital. This last case shows that not only the accumulated capital, but also a portion of the originally advanced capital, may be capitalized surplus-value.

As soon as the development of credit interferes, the relation between originally advanced capital and capitalized surplus-value is still more complicated. For instance, A borrows a portion of the productive capital, with which he starts his business and continues it during the year, from banker C, not having sufficient capital of his own for this purpose. Banker C lends him the required sum, which consists only of surplus-value deposited with the banker by capitalists D, E, F, etc. From the standpoint of A, there is as yet no question of any accumulated surplus-value. But from the point of view of D, E, F, etc., A is merely their agent capitalizing surplus-value appropriated by them.

We have seen in Volume I, chapter XXIV, that accumulation, the conversion of surplus-value into capital, is substantially a process of reproduction on an enlarged scale, no matter whether this expansion is expressed extensively in the form of an addition of new factories to the old ones, or intensively by the expansion of the existing scale of production.

The expansion of the scale of production may proceed in small portions, a part of the surplus-value being used for improvements which either increase simply the productive power of the labor employed, or permit at the same time of its more intensive exploitation. Or, in places where the working day is not legally restricted, an additional expenditure of circulating capital (in materials of production and wages) suffices to expand production without an extension of the fixed capital, whose daily time of employment is thus merely lengthened, while its period of turn-over is correspondingly abbreviated. Or, capitalized surplus-value may, under favorable market combinations, permit of speculation in raw materials, an operation for which the capital originally advanced would not have been sufficient, etc.

However, it is evident that in cases, where the greater number of the periods of turn-over carries with it a more frequent realization of surplus-value within the year, there will be periods in which there can be neither a prolongation of the working day, nor an introduction of improvements in details, while, on the other hand, there is only a limited scope in which it is possible to expand the entire business on a proportional scale, partly, by a reorganization of the entire plan of business, buildings, etc., partly by an expansion of the funds for labor, as in agriculture, and a volume of additional capital is required, such as can be supplied only by several years of accumulation of surplus-value.

Along with the actual accumulation, or conversion of surplus-value into productive capital, (and a corresponding reproduction on an enlarged scale), there is, then, an accumulation of money, a hoarding of a portion of the surplus-value in the form of latent money-capital, which is not intended for service as additional productive capital until later.

This is the aspect of the matter from the point of view of the individual capitalist. But simultaneously with the development of capitalist production, the credit system also develops. The money-capital, which the capitalist cannot as yet employ in his own business, is employed by others, who pay him an interest for its use. It serves for him as money-capital in its specific meaning, that is to say, as a kind of capital distinguished from productive. But it serves as capital in another's hands. It is plain, that, with the more frequent realization of surplus-value and the rising scale on which it is produced, there must also be an increase in the proportion of new money-capital, or money in the form of capital, thrown upon the money-market and withdrawn from it for the purpose of expanding production.

The simplest form, in which the additional latent money-capital may be represented, is that of a hoard. It may be that this hoard is additional money or silver, secured directly or indirectly in exchange with countries producing precious metals. And only in this manner does the hoarded money in a country grow absolutely. On the other hand, it may be—and is so in the majority of cases—that this hoard is nothing but money withdrawn from inland circulation and has assumed the form of a hoard in the hands of individual capitalists. It is furthermore possible that this latent money-capital consists only of tokens of value—we ignore credit money at this point—or of mere claims (titles) on third persons conferred by legal documents. In all such cases, whatever may be the form of this additional money-capital, it represents, so far as it is prospective capital, nothing but additional and reserved legal titles of capitalists on future additional products of society.

"The mass of the actually accumulated wealth, considered as to magnitude, . . . is absolutely insignificant compared to the productive forces of society to which it belongs, whatever may be its stage of civilization ; or even compared to the actual consumption of this same society in the course of but a few years ; so insignificant, that the attention of the legislators and political economists should be mainly directed to the forces of production and their free development in the future, not, as heretofore, to the mere accumulated wealth which strikes the eye. By far the greater part of the so-called accumulated wealth is only nominal and does not consist of actual objects, such as ships, houses, cotton goods, real estate improvements, but of mere legal titles, claims on the future annual productive forces of society titles generated and perpetuated by the devices or institutions of insecurity . . . The use of such articles (accumulations of physical things, or actual wealth) as a mere means of appropriating for their owners a wealth which the future productive forces of society are as yet to create, this use would be gradually withdrawn from them without any force by the natural laws of distribution ; with the assistance of co-operative labor, it would be withdrawn from them within a few years." (William Thompson, Inquiry into the Principles of the Distribution of Wealth, London, 1850, page 453. This book appeared for the first time in 1827.)

"It is little understood, nor even suspected by most people, what an utterly insignificant portion, whether it be in quantity or effective-

ness, the actual accumulations of society constitute of the human productive forces, yea, even of the ordinary consumption of a single generation of men during a few years. The reason for this is obvious, but the effect is very injurious. The wealth which is consumed annually, disappears as it is being used; it stands before the eye only for a moment, and makes an impression only while it is enjoyed or consumed. But the slowly consumable portion of wealth, furniture, machines, buildings, from our childhood to our age they are standing before our eyes, lasting monuments of human exertion. By virtue of the ownership of this fixed, lasting, slowly consumed portion of public wealth—of the soil and the raw materials on which, the instruments with which, work is done, the houses which give shelter while the work is being done—by virtue of this ownership the owners of these objects control for their own advantage the annual productive forces of all really productive laborers of society, insignificant as those objects may be in proportion to the ever recurring products of this labor. The population of Great Britain and Ireland is 20 millions; the average consumption of every man, woman, and child is about 20 p. st., making a total wealth of 400 million p. st., the product of labor annually consumed. The total amount of the accumulated capital of those countries does not exceed, according to estimates, 1,200 million p. st., or thrice the annual product of labor; if equally divided, 60 p. st. of capital per capita. We have here to deal more with the proportion than with the more or less inaccurate absolute amounts of these estimated sums. The interest on this total capital would suffice to maintain the total population in its present style of living for about two months of one year, and the entire accumulated capital (if buyers could be found for it) would maintain them without labor for a whole three years: At the end of which time, without houses, clothing, and food, they would have to starve, or become the slaves of those who have maintained them during these three years. As three years are to the life-time of one healthy generation, say to 40 years, so the magnitude and importance of the actual wealth, the accumulated capital of even the richest country, is to its productive forces, to the productive forces of a single human generation; not to what they might really produce under intelligent institutions of equal security, and especially with co-operative labor, but to what they are actually producing under the imperfect and discouraging makeshifts of insecurity .... And in order to maintain this apparently tremendous mass of existing capital, or rather the control and monopoly of the annual product of labor in its present condition of compulsory division this entire machinery the vices, the crimes, the sufferings of insecurity, are to be perpetuated. Nothing can be accumulated, unless the necessary wants are first satisfied, and the great current of human desires flows after enjoyment; hence the comparatively insignificant amount of actual wealth of society at any given moment. It is an eternal circulation of production and consumption. In this immense mass of annual production and consumption, the handful of actual accumulation would hardly be missed, and yet attention has been mainly directed, not to that mass of productive forces, but to this handful of accumulation. But this handful has been appropriated

by a few, and transformed into an instrument for the appropriation of the ever recurring annual products of the labor of the great masses. Hence the vital importance of such an instrument for these few . . . . About one-third of the annual national product is now taken from the producers under the name of public taxes, and unproductively consumed by people that do not give any equivalent for it, that is to say, none that is accepted as such by the producer . . . . The eye of the crowd looks with astonishment upon the accumulated masses, especially when they are concentrated in the hands of a few. But the annually produced masses, like the eternal and innumerable waves of a mighty stream, roll by and are lost in the forgotten ocean of consumption. And yet this eternal consumption determines not alone all enjoyments, but the very existence of the human race. The quantity and distribution of this annual product should above all be made the object of study. The actual accumulation is of secondary importance, and receives even this importance almost exclusively by its influence on the distribution of the annual product . . . The actual accumulation and distribution is here (in Thompson's work) always considered in reference and subordination to the productive forces. In almost all other systems, the productive forces have been considered with reference and in subordination to accumulation and to the perpetuation of existing mode of distribution. Compared with the conservation of this existing mode of distribution, the ever recurring suffering or welfare of the entire human race is not considered worthy of a glance. To perpetuate the results of force, of fraud, and of accident, this has been called security, and for conservation of this lying security, all the forces of production of the human race have been mercilessly sacrificed." (Ibidem, pages, 440-443.)

For the reproduction, only two normal cases are possible, apart from disturbances, which interfere with reproduction even on a given scale.

There is either reproduction on a simple scale.

Or, there is a capitalization of a surplus-value, accumulation.

I. Simple Reproduction.

In the case of simple reproduction, the surplus-value produced or realized annually, or by several turn-overs during the year, is consumed individually, that is to say, unproductively, by its owner, the capitalist.

The fact that the value of the product consists in part of surplus-value, in part of that portion of value which is formed by the variable capital reproduced through it plus the constant capital consumed by it, does not alter anything, either in the quantity, or in the value of the total product, which continually passes into circulation and is just as continually withdrawn from it, in order to pass into productive or individual consumption, that is to say, to serve as means of production or consumption. Making exception of the constant capital, only the distribution of the annual product between the laborers and the capitalists is thereby affected.

Even if simple reproduction is assumed, a portion of the surplus-value must, therefore, always exist in the form of money, not of products, because it could otherwise not be converted for purposes of consumption from money into products. This conversion of the surplus-value from its original commodity-form into money must be further analyzed at this place. In order to simplify the matter, we assume the most elementary form of the problem, namely the exclusive circulation of metal coin, of money which is a real equivalent.

According to the laws of the simple circulation of commodities (developed in volume I, chapter III), the mass of the metal coin existing in a country must not only be sufficient for the circulation of the commodities, but must also suffice for the fluctuations of the circulation of money, which arise partly from fluctuations in the velocity of the circulation, partly from a change in the prices of commodities, partly from the various and varying proportions in which the money serves as a medium of payment or as the typical medium of circulation. The proportion in which the existing quantity of money is divided into a hoard and money in circulation varies continually, but the quantity of money is always equal to the sum of the money hoarded and the money circulating. This quantity of money (quantity of precious metal) is a gradually accumulated hoard of society. To the extent that a portion of this hoard is consumed by wear, it must be replaced annually, the same as any other product. This takes place in reality by a direct or indirect exchange of a part of the annual product of a country for the product of countries producing gold and silver. However, this international character of the transaction disguises its simple course. In order to reduce the problem to its simplest and most transparent expression, it must be assumed that the production of gold and silver takes place in the same country in which the other products are created, so that the production of gold and silver constitutes a part of the total social production within every country.

Apart from the gold and silver produced for articles of luxury, the medium of their annual production must be equal to the wear of metal coin annually occasioned by the circulation of money. Furthermore, if the value of the annually produced and circulating quantity of commodities increases, the annual production of gold and silver must likewise increase, unless the growth of the value of the circulating commodities and the quantity of money required for their circulation (and the corresponding formation of a hoard) is accompanied by a greater velocity in the circulation of money and a more extensive function of money as a medium of payment, that is to say, by a greater mutual balancing of purchases and sales without the intervention of actual money.

A portion of the social labor-power and a portion of the social means of production must, therefore, be expended annually in the production of gold and silver.

The capitalists, who are engaged in the production of gold and silver, and who, according to our assumption of simple reproduction, carry on their production only within the limits of the annual average wear and the resulting average consumption of gold and silver, throw

their surplus-value, which they consume annually, according to our assumption, without capitalizing any of it, directly into circulation in the form of money, which is the natural form for them, not, as in the case of the other capitalists, the converted form of their product.

Furthermore, as concerns wages, the money form in which the variable capital is advanced, it is not replaced in this case by the sale of the product, by a conversion into money, but by a product whose natural form is from the outset that of money.

Finally, the same applies also to that portion of the product in precious metals which is equal to the value of the periodically consumed constant capital, both the constant circulating and the constant fixed capital consumed during the year.

Let us study the rotation, or the turn-over, of the capital invested in the production of precious metals first in the form of M—C—P—M'. So far as the C in M—C does not only consist of labor-power and materials of production, but also of fixed capital, only a part of whose value is consumed by P, it is evident that the product, M', is a sum of money equal to the variable capital invested in wages plus the circulating constant capital invested in materials of production plus a portion of the value of the fixed constant capital plus a surplus-value. If the sum were smaller, the general value of gold remaining the same, then the mine would be unproductive, or, if this is generally the case, the value of gold, compared with the value of commodities that remains unchanged, would rise ; that is to say, the prices of commodities would fall, so that henceforth the amount of money invested in M—C would be smaller.

If we consider at first only the circulating portion of capital advanced in M, the starting point of M—C. . .P. . .M', we find that it is a certain sum of money advanced and thrown into circulation for the payment of labor-power and the purchase of materials of production. But this sum is not withdrawn from circulation, by the rotation of *this* capital, in order to be thrown into it anew. The product is money even in its natural form, there is no need of transforming it into money by means of exchange, by a process of circulation. It passes from the process of production into the process of circulation, not in the form of commodity-capital which has to be converted into money-capital, but as a money-capital which is to be reconverted into productive capital, which is to be fresh labor-power and materials of production. The money-form of the circulating capital consumed in labor-power and materials of production is replaced, not by the sale of the product, but by the natural form of the product itself ; not by once more withdrawing its value from circulation in the form of money, but by additional, newly produced money.

Let us assume that this circulating capital is 500 p. st., the period of turn-over is 5 weeks, the working period 4 weeks, the period of circulation only 1 week. From the outset, money must be partly advanced for a productive supply, partly available, for 5 weeks, in order to be paid out gradually for wages. At the beginning of the 6th week, 400 p. st. have flown back and 100 p. st. have been released. This is continually repeated. Here, as in previous cases, 100 p. st. will always

find themselves released during a certain time of the turn-over. But they consist of additional, newly produced, money, the same as the other 400 p. st. We have in this case 10 turn-overs per year and the annual product is 5,000 p. st. in gold. (The period of circulation does not arise, in this case, from the time required for the conversion of commodities into money, but for the conversion of money into the elements of production.)

In the case of every other capital of 500 p. st., turned over under the same conditions, it is the ever renewed money-form which is exchanged for the produced commodity capital and thrown into the circulation every 4 weeks and which resumes this form in every new interval by sale, that is to say, by a periodical withdrawal of the quantity of money which entered originally into the process. But here a new additional quantity of money to the amount of 500 p. st. is thrown into circulation by the process of production itself, in order to withdraw from it continually materials of production and labor-power. This money thrown into circulation is not withdrawn from it by the rotation of this capital, but rather continually increased by newly produced quantities of gold.

Let us look at the variable portion of this circulating capital, and assume that it is, as before, 100 p. st. Then these 100 p. st. would be sufficient in the ordinary production of commodities, with 10 turn-overs, to pay continually for the required labor-power. Here, in the production of money, the same amount is likewise sufficient. But the 100 p. st. of the reflux, with which the labor-power is paid every 5 weeks, are not a converted form of its product, but a portion of this ever renewed product itself. The producer of gold pays his laborers directly with a portion of the gold produced by them. Thus the 1,000 p. st. invested annually in labor-power and thrown by the laborers into the circulation do not return by the way of this circulation to their starting point.

Furthermore, so far as the fixed capital is concerned, it requires the investment of a large money-capital at the opening of the business, and this capital is thus thrown into the circulation. Like all fixed capital it flows back only piece by piece in the course of years. But it flows back as an immediate portion of the product, of the gold, not by the sale of the product and its consequent monetization. In other words, it receives gradually its money-form, not by a withdrawal of money from circulation, but by an accumulation of a corresponding portion of the product. The money-capital so replaced is not a quantity of money gradually withdrawn from circulation for a compensation of the sum originally thrown into it for fixed capital. It is an additional sum of new money.

Finally, as concerns the surplus-value, it is likewise equal to a certain portion of the new product of gold, which is thrown into circulation in every period of turn-over in order to be unproductively consumed according to our assumption, in means of subsistence and articles of luxury.

But according to our assumption, the entire annual production of gold—which continually withdraws labor-power and materials of production, but no money, from the market, while adding fresh quantities

of money to it—replaces only the money worn out during the year, keeps only the quantity of social money complete which exists continually, although it consists in varying portions of the two forms, hoarded money and money in circulation.

According to the law of the circulation of commodities, the quantity of money must be equal to the amount of money required for circulation plus a certain amount held in the form of a hoard, which increases or decreases according to the contraction or expansion of circulation and serves especially for the formation of the reserve funds required as means of payment. That which must be paid in gold—to the extent that there is no balancing of accounts—is the value of the commodities. The fact that a portion of these commodities represents a surplus-value, that is to say, did not cost the seller anything, does not alter the matter in any way. Take it that the producers are all independent owners of their means of production, so that circulation takes place between the immediate producers themselves. Apart from the constant portion of their capital, their annual surplus-product might then be divided into two parts, analogous with capitalist conditions: Part *a*, replacing the necessary means of subsistence, and part *b*, consumed partly for articles of luxury, partly for an expansion of production. Part *a* then plays the role of the variable capital, part *b* that of the surplus-value. But this division would remain without influence on the magnitude of the sum of money required for the circulation of the total product. Other circumstances remaining equal, the value of the circulating mass of commodities would be the same, and thus also the amount of money required for its circulation. The capitalists would also have to keep on hand the same money reserve, the division of the periods of turn-over remaining the same ; that is to say, the same portion of their capital would have to be held in the form of money, because their production, according to our assumption, would be a production of commodities, the same as before. Hence the fact that a portion of the value of the commodities consists of surplus-value, would change absolutely nothing in the quantity of the money required for the running of the business.

An opponent of Tooke, who clings to the formula M—C—M', asks him how the capitalist manages to always withdraw more money from circulation than he threw into it. Mark well! It is not here a question of the *formation* of surplus-value. This, the only secret, is a matter of course from the capitalist standpoint. The quantity of value employed would not be capital, if it did not secure an increment of surplus-value. But as it is capital, according to our assumption, there must be surplus-value as a matter of course.

The question, then, is not—where does the surplus-value come from? It is rather: Whence comes the money for which it is exchanged?

But in bourgeois political economy, the existence of surplus-value is self-understood. It is not only assumed, but also connected with the assumption that a portion of the commodities thrown into circulation is a surplus-product, which was not thrown into circulation together with the capital of the capitalist. In other words, it is assumed

by bourgeois political economists, that the capitalist throws a surplus-over and above his capital into the circulation with his product, and that he recovers this surplus from it.

The commodity-capital, which the capitalist throws into the circulation, has a greater value than the productive capital which he withdrew from the circulation in the form of labor-power and means of production (it is neither explained nor understood by the bourgeois economists where this greater value comes from, but it is considered by them as an accomplished fact). On the basis of this assumption it is evident by what means not only the capitalist A, but also B, C, D, etc., manage to always withdraw more value from the circulation by means of the exchange of their commodities than the value of the capital originally and repeatedly advanced by them. A, B, C, D, continually throw a greater value into the circulation in the form of commodity-capital that they withdraw from it in the form of productive capital—this operation is as many-sided as the various independent capitals in action. Hence they have continually to divide among themselves a sum of values (that is to say, every one withdraws from circulation a productive capital) equal to the sum of values of their respective productive capitals; and they furthermore divide among themselves just as continually a sum of values which they all throw into circulation in the form of commodities, representing the excess of the commodity-capital over its elements of production.

But the commodity-capital must be monetized before its conversion into productive capital, or before the surplus-value contained in it can be spent. Where does the money for this purpose come from? This question seems difficult at the first glance, and neither Tooke nor any one else has answered it so far.

The circulating capital of 500 p. st. advanced in the form of money-capital, whatever may be its period of turn-over, may now stand for the total capital of society, that is to say, of the capitalist class. Let the surplus-value be 100 p. st. How can the entire capitalist class manage to draw continually 600 p. st. out of the circulation, when they continually throw only 500 p. st. into it?

After the money-capital of 500 p. st. has been converted into productive capital, it transforms itself within the process of production, into commodities worth 600 p. st. and throws into circulation, not only commodities valued at 500 p. st., equal to the money-capital originally advanced, but also a newly produced surplus-value of 100 p. st.

This additional surplus-value of 100 p. st. is thrown into circulation in the form of commodities. There is no doubt about that. But this same operation does not by any means supply the additional money for the circulation of this new additional value.

It should not be attempted to evade this difficulty by plausible subterfuges.

For instance: So far as the constant circulating capital is concerned, it is obvious that not all invest it simultaneously. While the capitalist A sells his commodities, so that his advanced capital assumes the form of money, there is on the other hand, the available money-

capital of the buyer B which assumes the form of his means of production which A is just producing. The same transaction, which restores that of B to its productive form, transforms it from money into materials of production and labor-power ; the same amount of money serves in the twosided process as in every simple purchase C—M. On the other hand, when A reconverts his money into means of production, he buys from C, and this man pays B with it, etc., and thus the transaction would be explained.

But none of the laws referring to the quantity of the circulating money, which have been analyzed in the circulation of commodities (volume I, chapter III), are in any way changed by the capitalist character of the process of production.

Hence, when we have said that the circulating capital of society, to be advanced in the form of money, amounts to 500 p. st., we have already accounted for the fact that this is on the one hand the sum simultaneously advanced, and that, on the other hand, it sets in motion more productive capital than 500 p. st., because it serves alternately as the money fund of different productive capitals. This mode of explanation, then, assumes that money as existing whose existence it is called upon to explain.

It might be furthermore said: Capitalist A produces articles which capitalist B consumes unproductively, individually. The money of B therefore monetizes the commodity-capital of A, and thus the same amount serves for the monetization of the surplus-value of B and the circulating constant capital of A. But in that case, the solution of the question to be solved is still more directly assumed, the question: Whence does B get the money for the payment of his revenue? How did he himself monetize this surplus portion of his product?

It might also be answered that that portion of the circulating variable capital, which A continually advances to his laborers, flows back to him continually from the circulation, and only an alternating part stays continually tied up for the payment of wages. But a certain time elapses between the expenditure and the reflux, and meanwhile the money paid out for wages might, among other uses, serve for the monetization of surplus-value. But we know, in the first place, that the greater the time, the greater must be the supply of money which the capitalist A must keep continually in reserve. In the second place, the laborer spends the money, buys commodities for it, and thus monetizes to that extent the surplus-value contained in them. Without penetrating any further into the question at this point, it is sufficient to say that the consumption of the entire capitalist class, and of the unproductive persons dependent upon it, keeps step with that of the laboring class ; so that, simultaneously with the money thrown into circulation by the laboring class, the capitalists must throw money into it, in order to spend their surplus-value as revenue. Hence money must be withdrawn from circulation for it. This explanation would merely reduce the quantity of money required, but not do away with it.

Finally, it might be said: A large amount of money is continually thrown into circulation when fixed capital is first invested, and it is not recovered from the circulation until after the lapse of years, by him

who threw it into circulation. May not this sum suffice to monetize the surplus-value? The answer to this is that the employment as fixed capital, if not by him who threw it into circulation, then by some one else, is probably implied in the sum of 500 p. st. (which includes the formation of a hoard for needed reserve funds). Besides, it is already assumed in the amount expended for the purchase of products serving as fixed capital, that the surplus-value contained in them is also paid, and the question is, precisely where the money for this purpose came from.

The general reply has already been given: When a mass of commodities valued at x times 1,000 p. st. has to circulate, it changes absolutely nothing in the quantity of the money required for this circulation, whether this mass of commodities contains any surplus-value or not, and whether this mass of commodities has been produced capitalistically or not. In other words, *the problem itself does not exist.* All other conditions being given, such as velocity of circulation of money, etc., a definite sum of money is required in order to circulate the value of commodities worth x times 1,000 p. st., quite independently of the fact how much or how little of this value falls to the share of the direct producers of these commodities. So far as any problem exists here, it coincides with the general problem: Where does all the money required for the circulation of the commodities of a certain country come from?

However, from the point of view of capitalist production, the *semblance* of a special problem does indeed exist. It is in the present case the capitalist who appears as the point of departure, who throws money into circulation. The money, which the laborer expends for the payment of his means of subsistence, exists previously as the money form of the variable capital and is, therefore, thrown originally into circulation by the capitalist as a medium of buying labor-power and paying for it. The capitalist furthermore throws into circulation the money which constitutes originally the money-form of his constant, fixed and circulating, capital ; he expends it as a medium of purchase, or payment, for materials of production and instruments of labor. But beyond this, the capitalist no longer appears as the starting point of the quantity of money in circulation. Now, there are only two points of departure: The capitalist and the laborer. All third classes of persons must either receive money for their services from these two classes, or, to the extent that they receive it without any equivalent services, they are joint owners of the surplus-value in the form of rent, interest, etc. The fact that the surplus-value does not all stay in the pocket of the industrial capitalist, but must be shared by him with other persons, has nothing to do with the present question. The question is: How does he monetize his surplus-value, not, how does he divide the money later after he has secured it? For the present case, the capitalist may as well be regarded as the sole owner of his surplus-value. As for the laborer, it has already been said that he is but the secondary point of departure, while the capitalist is the primary starting point of the money thrown by the laborer into circulation. The money first advanced as variable capital is going through its second circulation, when the laborer spends it for the payment of means of subsistence.

The capitalist class, then, remains the sole point of departure of the circulation of money. If they need 400 p. st. for the payment of means of production, and 100 p. st. for the payment of labor-power, they throw 500 p. st. into circulation. But the surplus-value incorporated in the product, with a rate of surplus-value of 100%, is equal to the value of 100 p. st. How can they continually draw 600 p. st. out of circulation, when they continually throw only 500 p. st. into it? From nothing comes nothing. The capitalist class as a whole cannot draw out of circulation what was not previously in it.

Exception is here made of the fact that the sum of 400 p. st. may, perhaps, suffice, when turned over ten times, to circulate means of production valued at 4,000 p. st. and labor-power valued at 1,000 p. st., and that the other 100 p. st. may likewise suffice for the circulation of 1,000 p. st. of surplus-value. The proportion of the sum of money to the value of the commodities circulated by it does not matter here. The problem remains the same. Unless the same pieces of money circulate several times, a capital of 5,000 p. st. must be thrown into circulation, and 1,000 p. st. would be required to monetize the surplus-value. The question is, where this money comes from, whether it be 1,000 or 100 p. st. There is no doubt that it is in excess of the money-capital thrown into the circulation.

Indeed, paradoxical as it may appear at first sight, it is the capitalist class itself that throws the money into circulation which serves for the realization of the surplus-value incorporated in the commodities. But, mark well, it is not thrown into circulation as advanced money, not as capital. The capitalist class spends it for their individual consumption. The money is not advanced by them, although they are the point of departure of its circulation.

Take some individual capitalist, who opens his business, for instance, a capitalist farmer. During the first year, he advances a money-capital of, say, 5,000 p. st., paying 4,000 p. st. for means of production, and 1,000 p. st. for labor-power. Let the rate of surplus-value be 100%, the amount of surplus-value appropriated by him 1,000 p. st. The above 5,000 p. st. comprise all the money advanced by him. But the man must also live, and he does not get any receipts until the end of the year. Take it that his consumption amounts to 1,000 p. st. These he must have in his possession. He may say to himself that he has to advance these 1,000 p. st. during the first year. But this advance has only a subjective meaning, for it signifies that he must pay for his individual consumption during the first year out of his own pocket, instead of getting the money for it out of the unpaid labor of his employees. He does not advance this money as capital. He spends it, pays it out as an equivalent for means of subsistence which he consumes. This value is spent by him as money, thrown as such into circulation and withdrawn from it as commodities. He has consumed commodities of that amount. He has thus ceased to be in any way related to their value. The money with which he paid for this value is now an element of the circulating money. But he has withdrawn the value of this money from circulation in the form of products, and this value is destroyed with the commodities in which it was incorporated.

It has disappeared. But at the end of the year he throws commodities worth 6,000 p. st., into circulation and sells them. By this means he recovers: (1) His advanced money-capital of 5,000 p. st.; (2) the monetized surplus-value of 1,000 p. st. He had thrown 5,000 p. st. into circulation when he advanced capital, and he withdraws from it 6,000 p. st., 5,000 p. st. of which cover his capital, and 1,000 p. st., his surplus-value. The last 1,000 p. st. are monetized with the money which he had himself thrown into circulation, not as a capitalist, but as a consumer, not advanced, but spent. They now flow back to him as the money-form of the surplus-value produced by him. And henceforth this operation is repeated every year. But beginning with the second year, the 1,000 p. st. which he spends are continually the converted form, the money-form of surplus-value produced by him. He spends it annually and it flows back annually.

If his capital were turned over more frequently in one year, it would not alter this condition of things, except so far as the time is concerned, and thus the size of the amount which he would have to throw into circulation, over and above his advanced money-capital, for his individual consumption.

This money is not thrown into circulation by the capitalist as money. It is rather inherent in the character of a capitalist to be able to live on means in his possession until some surplus-value flows back to him.

In the present case we had assumed that the sum of money, which the capitalist throws into circulation until the first surplus-value flows back to him, is exactly equal to the surplus-value which he is going to produce and monetize. This is obviously an arbitrary assumption, so far as the individual capitalist is concerned. But it must be correct when applied to the entire capitalist class, when simple reproduction is assumed. It expresses the same thing that this assumption does, namely, that the entire surplus-value is consumed unproductively—but it only not any portion of the original capital stock.

It had been previously assumed that the entire production of precious metals (500 p. st.) sufficed only for the wear and tear of the money.

The capitalists producing gold possess their entire product in gold, that portion which replaces constant capital as well as that which replaces variable capital and that consisting of surplus-value. A portion of the social surplus-value, therefore, consists of gold, not of a product which is monetized by means of circulation. It consists from the outset of gold and is thrown into circulation in order to draw products out of it. The same applies in this case to wages, to variable capital, and to the part replacing the advanced constant capital. Hence, while a part of the capitalist class throws into circulation commodities greater in value, (by the amount of the surplus-value) than the money-capital advanced by them, another part of the capitalist class throws into circulation money of greater value (by the amount of the surplus-value) than the commodities which they continually withdraw from circulation for the production of gold. While one part of the capitalist class pumps continually more gold out of the circulation than they throw into it, an-

other part of them who produce gold pump continually more gold into it than they take out in means of production.

Although a part of this product of 500 p. st. in gold is surplus-value of the gold-producers, still the entire sum is intended only to replace the money worn out in the circulation of commodities. It is immaterial for this purpose, how much of this gold monetizes the surplus-value incorporated in the commodities, and how much of their other constituents.

By transferring the production of gold from one country to another, nothing is changed in the fundamental condition of the matter. One part of the social labor-power and the social means of production of the country A is converted into a product, for instance, linen, valued at 500 p. st., which is exported to the country B in order to be there traded for gold. The productive capital employed for this purpose by the country A throws no more commodities, as distinguished from money, upon the market of this country than it would if it were directly engaged in the production of gold. This product of A is represented by 500 p. st. in gold, and enters into the circulation of this country only in money. That portion of the social surplus-value which is contained in this product exists directly in the form of money, and never in any other form for the country A. Although, from the point of view of the capitalist, only a part of the product represents surplus-value, and another part replaces capital, still the question as to how much of this gold replaces constant, and how much variable capital, and how much of it represents surplus-value, depends exclusively on the respective proportions which wages and surplus-value constitute of the value of the circulating commodities. That portion which represents surplus-value is distributed among the various members of the capitalist class. Although this surplus-value is continually spent by them for individual consumption and recovered by the sale of new products—it is precisely this purchase and sale which circulates the money required for the monetization of the surplus-value among them—there is nevertheless a portion of the social surplus-value, in the form of money, in varying proportions, in the pockets of the capitalists, just as a portion of the wages stays during a certain part of the week in the pockets of the laborers in the form of money. And this portion is not limited by that portion of the money-product which forms originally the surplus-value of the capitalists producing gold, but, as we have said, by the proportion in which the above product of 500 p. st. is generally distributed between capitalists and laborers, and in which the commodity-supply to be circulated consists of surplus-value and other constituents of value.

However, that portion of surplus-value, which does not exist in other commodities, but outside of them in the form of money, consists of a portion of the annually produced gold only to the extent that a portion of the annual production of gold circulates for the realization of surplus-value. The other portion of money, which is continually in the hands of the capitalists, in varying portions, being the money-form of their surplus-value, is not an element of the annually produced gold, but of the masses of money previously accumulated in the country.

According to our assumption, the annual production of gold just covers the annual wear of money, to the amount of 500 p. st. If we keep in mind these 500 p. st., and make abstraction of that portion of the annually produced mass of commodities which is circulated by means of previously accumulated money, then the surplus value incorporated in the commodities will find money for its monetization in circulation for the simple reason that surplus-value is annually produced in the form of gold on the other side. The same applies to the other parts of the gold product which replace the advanced money-capital.

Now, two things are to be noted here.

In the first place, it follows that the suplus-value spent by the capitalists as money, as well as the variable and other productive capital advanced by them in money is actually a product of the laborers, namely, of those engaged in the production of gold. They produce anew not only that portion of gold which is "advanced" to them as wages, but also that portion of gold in which the surplus-value of the capitalist gold producers is directly embodied. As for that portion of the gold product which replaces only the constant capital-value advanced for its production, it re-appears in the form of money (or a product in general) only through the annual labor of the working men. In the beginning of the business, it was originally expended in money by the capitalists, and this money was not newly produced, but formed a part of the circulating mass of social money. But to the extent that it is replaced by a new product, by additional money, it is the annual product of the laborer. The advance on the part of the capitalist appears here likewise merely as a form, which owes its existence to the fact that the laborer is neither the owner of his own means of production, nor able to command, during his production, the means of subsistence produced by other laborers.

In the second place, as concerns that mass of money which exists independently of this annual reproduction of 500 p. st., either in the form of a hoard, or of circulating money, things must be, or rather must have been originally just as they still are with reference to these 500 p. st. annually. We shall return to this point at the close of this section. For the present, we wish to make a few other remarks.

We have seen during our study of the turn-over that, other circumstances remaining equal, a change in the length of the periods of turn-over requires different amounts of money-capital, in order to carry on production on the same scale. The elasticity of the money-circulation must, therefore be sufficient to adapt itself to this fluctuation of expansion and contraction.

If we furthermore assume other circumstances as equal—the length, intensity, and productivity of the working day also remaining unchanged —*but a different division of the value of the product* between wages and surplus-value, so that either the former rise and the latter fall, or *vice versa*, the mass of the circulating money is not touched thereby. This change can take place without any expansion or contraction of the mass of money in circulation. Let us consider particularly the case in

which there would be a general rise in wages, so that, under the given assumptions, there would be a general fall in the rate of surplus-value, while there would not be any change, also according to our assumption, in the mass of circulating commodities. In this case, there should be indeed an increase of the money-capital which must be advanced as variable capital in the quantity of money which serves for his purpose. But to the exact extent that the amount of money required for the function of variable capital grows, does the surplus-value decrease, and thus the amount of money required for its realization. The amount of money required for the realization of the values of the commodities is not affected thereby, any more than this value itself. The cost price of the commodity rises for the individual capitalist, but its social price of production remains unchanged. That which is changed is the proportion in which, apart from the constant portion of its value, the price of production stands to wages and profits.

But, it is argued, a greater outlay of variable capital (the value of the money is, of course, considered the same) means a larger amount of money in the hands of the laborer. This causes a greater demand for commodities on the part of the laborer. This, in turn, leads to a rise in the price of commodities. Or, it is said: If wages rise, the capitalists raise the prices of their commodities. In either case, the general rise in wages causes a rise in the prices of commodities. Hence a greater amount of money is needed for the circulation of commodities, no matter whether the rise in prices is explained in this or that way.

Reply to the first argument: In consequence of a rise in wages, especially the demand of the laborers for the necessities of life will rise. In a lesser degree their demand for articles of luxury will increase, or the demand will be developed for things which did not generally belong to the scope of their consumption. The sudden and increased demand for the necessities of life will doubtless raise their prices momentarily. As a result, a greater portion of the social capital will be invested in the production of the necessities of life, and a smaller portion in the production of articles of luxury, since these falls in price on account of the decrease in surplus-value and the consequent decrease in the demand of the capitalists for these articles. And to the extent that the laborers themselves buy articles of luxury, the rise in their wages—to this degree—does not promote an increase in the prices of necessities of life, but simply fills the place of the buyers of luxuries. More luxuries than before are consumed by laborers, and relatively fewer by capitalists. That is all. After some fluctuations, the value of the circulating commodities is the same as before. As for the momentary fluctuations, they will not have any other effect than to throw unemployed money-capital into the inland circulation, capital which so far had sought employment in speculative enterprises at the stock exchange or in foreign countries.

Reply to the second argument: If it were in the power of the capitalist producers to raise the prices of their commodities at will, they could and would do so without waiting for a rise in wages. Wages would never rise while the prices of commodities were going down.

The capitalist class would never resist the trades unions, since the capitalists could always and under all circumstances do what they are now doing exceptionally under definite peculiar, one might say local, circumstances, to wit, to avail themselves of every rise in wages to raise prices much higher and thus pocket greater profits.

The claim that the capitalists can raise the prices of articles of luxury, because the demand for them decreases (in consequence of the reduced demand of the capitalists whose spending money has decreased) would be a very unique application of the law of supply and demand. The prices of articles of luxury fall in consequence of reduced demand to the extent that capitalist buyers are not replaced by laboring buyers, and so far as this replacement takes effect, the demand of the laborers does not result in a rise of the prices of necessities, for the laborers cannot spend that portion of their increased wages for necessities which they spend for luxuries. Consequently capital is withdrawn from the production of luxuries, until their supply in the market is reduced to the measure which corresponds to their altered role in the process of social production. With their production thus reduced, they rise in price, provided their value is otherwise unchanged, to their normal level. So long as this contraction, or this process of compensation, takes place, there is just as constantly, with rising prices of necessities, a migration of capital into the production of these to the degree that it is withdrawn from the other line of business, until the demand is satisfied. Then the balance is restored, and the end of the whole process is that the social capital, including the money-capital, is divided in a different proportion between the production of necessary means of subsistence and that of luxuries.

The entire objection is a scarecrow set up by the capitalists and their apologists in economics.

The facts, which furnish the material for this scarecrow, are of three kinds:

(1) It is the general law of the circulation of money that the quantity of circulating money increases if the total price of the circulating money increases if the total price of the circulating commodities increases, other circumstances remaining the same, regardless of whether this increase of the totality of prices applies to the same quantity of commodities, or to a greater quantity. The effect is then taken for the cause. Wages rise (although rarely and only exceptionally in proportion) with the increasing price of the necessities of life. This rise in wages is a result, not a cause, of the rise in the prices of commodities.

(2) In the case of a partial, or local, rise of wages—that is to say, a rise only in some lines of production—a local rise in the prices of the products of this line may follow. But even this depends on many circumstances, for instance, that wages had not been abnormally depressed previously, so that the rate of profits was abnormally high, that the market is not narrowed by a rise in prices (so that a contraction of its supply previous to the raising of its prices will not be necessary), etc.

(3) In the case of a general rise of wages, the price of the produced commodities rises in lines of business where the variable capital

preponderates, but falls, on the other hand, in lines where the constant, or eventually the fixed, capital preponderates.

We found in our study of the simple circulation of commodities (volume I, chapter III, 2), that, even though the money-form of any definite quantity of commodities is infinitesimal within its circulation, still the money in the hand of one man disappears during the transformation of a certain commodity and takes its place in the hands of another, so that commodities are not only exchanged, or replaced by one another, but this mutual exchange of places is also promoted and accompanied by a universal precipitation of money. "When one commodity replaces another, the money commodity sticks to the hands of some third person. Circulation sweats money from every pore." (Vol. I.) The same fact is expressed, on the basis of capitalist production of commodities, by the continual existence of a portion of capital in the form of money-capital, and by the retention of a portion of surplus-value in the hands of its owners, likewise in the form of money.

Aside from this, the *rotation* of money—that is to say, the return of money to its point of departure—so far as it is an element in the turnover of capital, is a phenomenon entirely different from, or even the reverse of, the *circulation* of money,[28] which expresses its removal from the point of departure through a number of hands. (Vol. I.) Nevertheless an accelerated turn-over implies naturally an acceleration of the circulation.

As for the variable capital, if a certain money-capital, say 500 p. st., is turned over ten times in a year, in the form of a variable capital, it is evident that this aliquot part of the quantity of money in circulation circulates ten times its value, or 5,000 p. st. It circulates ten times per year between the capitalist and the laborer. The laborer is paid, and pays, ten times per year with the same aliquot amount of money. If the same variable capital were turned over only once a year, the scale of production remaining the same, there would be only one turn-over of capital per year.

Furthermore: The constant portion of the circulating capital may be, say, 1,000 p. st. If the capital is turned over ten times, the capi-

[28] Although the physiocrats still intermingle these two phenomena indiscriminately, they are nevertheless the first who emphasize the reflux of money to its starting point as the essential form of circulation of capital, as that form of circulation which promotes reproduction. "Throw a glance at the Tableau Economique, and you will see that the productive class gives the money with which the other classes buy products from it, and that they return this money to it when they come back next year to make the same purchases. . . . You see, then, that there is in this instance no other cycle but that of expenditure followed by reproduction, and of reproduction followed by expenditure. And this cycle is described by the circulation of money, which is the measure of expenditure and reproduction."—Quesnay, Problemes Economiques, Daire edition, Physiocrats, I, pages 208, 209.) "It is this continual advance and return of capitals which must be called the circulation of money, this useful and fertile circulation, whih gives life to all the labors of society, which maintains the activity and life of the social body, and which is with good justification compared to the circulation of blood in the animal body." (Turgot, Reflexions, etc., Daire edition, I, page 45.)

talist sells his commodity, and therefore also the constant circulating portion of its value, ten times per year. The same aliquot part of the circulating quantity of money (1,000 p. st.) passes ten times from the hands of its owners into those of the capitalist. This means ten changes of place on the part of this money from one hand into another. In the second place, the capitalist buys means of production ten times per year. This again implies ten turn-overs of the money from one hand into another. With regard to the amount of 1,000 p. st., commodities valued at 10,000 p. st. have been sold by the industrial capitalist, and then commodities valued at 10,000 p. st. purchased. By means of 20 circulations of 1,000 p. st. in money a commodity supply of 20,000 p. st. has been circulated.

Finally, with an acceleration of the turn-over, also that portion of money circulates faster, which realizes the surplus-value.

But, on the other hand, an acceleration in the circulation of money does not necessarily imply a more rapid turn-over of capital, and thus of money, that is to say, it does not necessarily imply a contraction and more rapid renewal of the process of reproduction.

A more rapid circulation of money takes place whenever a larger number of transactions are carried on with the same amount of money. This may take place also with the same periods of reproduction of capital, as a result of changes in the technical appliances of the circulation of money. Furthermore, there may be an increase in the number of transactions in which money circulates without expressing actual exchanges of commodities (marginal business at the stock exchange, etc.). On the other hand, some circulations of money may be entirely dispensed with. For instance, where the farmer is himself a real estate owner, there is no circulation of money between the capitalist farmer and the real estate owner; where the industrial capitalist is himself the owner of the capital, there is no circulation of money between him and the creditor.

As for the primitive formation of a hoard of money in a certain country, and its appropriation by a few, it is unnecessary to discuss it at this point.

The capitalist mode of production—its basis being wage-labor as well as the payment of the laborer in money and in general the transformation of services for natural products into services for money—cannot develop a larger extension and a greater systematization unless there is available in this country a quantity of money sufficient for the circulation and the corresponding formation of a hoard (reserve fund, etc.). This is the historical premise. However, this must not be interpreted in the sense that a sufficient hoard must first be formed, before capitalist production can begin. It rather develops simultaneously with the evolution of its foundations and one of these foundations is a sufficient supply of precious metals. Hence the increased supply of precious metals since the 16th century is an essential factor in the history of the development of capitalist production. But so far as the necessary further supply of money material on the basis of capitalist production is concerned, surplus-value incorporated in products is on

the one hand thrown into circulation without the money required for its monetization, and on the other hand surplus-value in the form of gold without the previous transformation of products into gold.

The additional commodities which are to be converted into money find the necessary amount of money at hand, because on the other side additional gold (and silver) intended for conversion into commodities is thrown into circulation, not by means of exchange, but by production itself.

II. Accumulation and Reproduction on an Enlarged Scale.

To the extent that accumulation takes place in the form of reproduction on an enlarged scale, it is evident that it does not offer any new problem in matters of the circulation of money.

In the first place, the additional money-capital required for the function of the increasing productive capital is supplied by that portion of the realized surplus-value which is thrown into circulation by the capitalists as money-capital, not as the money-form of their revenue. The money is already present in the hands of the capitalists. Only its employment is different.

Now, by means of the additional productive capital, its product, an additional quantity of commodities, is thrown into circulation. Together with this additional quantity of commodities, a portion of the additional money required for its circulation is thrown into circulation, so far as the value of this mass of commodities is equal to that of the productive capital consumed in their production. This additional quantity of money has precisely been advanced as an additional money-capital, and therefore it flows back to the capitalist through the turnover of his capital. Here the same question reappears, which we met previously. Where does the additional money come from, by which the additional surplus-value now contained in the form of commodities is to be realized?

The general reply is again the same. The sum-total of the prices of the commodities has been increased, not because the prices of a given quantity of commodities have risen, but because the mass of the commodities now circulating is greater than that of the previously circulating commodities, and because this increase has not been offset by a fall in prices. The additional money required for the circulation of this greater quantity of commodities of greater value must be secured, either by greater economy in the circulating quantity of money—whether by means of balancing payments, etc., or by some measure which accelerates the circulation of the same coins—or, by the transformation of money from the form of a hoard into that of a circulating medium. This does not merely imply that barren money-capital becomes active as a means of purchase or payment or that money-capital which is already actually circulating for the benefit of the society while representing a reserve fund for its owner is thus performing a double service (such as deposits in banks which are continually balanced). It also implies that the stagnating reserve funds of money are economized.

"In order that money should flow continuously as coin, coin must constantly coagulate as money. The continuous flow of coin depends

on its constant accumulation in the form of reserve funds of coin which spring up throughout the sphere of circulation and form sources of supply; the formation, distribution, disappearance, and reformation of these reserve funds is constantly changing, their existence constantly disappears, their disappearance constantly exists. Adam Smith expressed this never-ceasing transformation of coin into money and of money into coin by saying that every owner of commodities must always keep in supply, aside from the particular commodity which he sells, a certain quantity of the universal commodity with which he buys. We saw, that in the process C—M—C the second member M—C splits up into a series of purchases which do not take place at once, but at intervals of time, so that one part of M circulates as coin while the other rests as money. Money is in that case only *suspended coin* and the separate parts of the circulating mass of coins appear now in one form, now in another, constantly changing. This first transformation of the medium of circulation into money represents, therefore, but a technical aspect of money-circulation." (Karl Marx, "A Contribution to the Critique of Political Economy," 1859, page 167-168.)—("Coin" as distinguished from money is here employed to indicate the function of money as a mere medium of circulation as compared to its other functions.)

When all these measures do not suffice, an additional production of gold must take place, or, what amounts to the same, one portion of the additional product is directly or indirectly exchanged for gold—the product of countries in which precious metals are mined.

The entire amount of labor-power and social means of production expended in the annual production of gold and silver, so far as they serve as instruments of circulation, constitutes a bulky item of the dead expense of the capitalist mode of production, or of the production of commodities in general. It deprives social economy of a corresponding amount of potential additional means of production and consumption, that is to say, of actual wealth. To the extent that the cost of this expensive machinery of circulation is decreased at a given scale of circulation or a given scale of its extension, the productive power of society is increased. Hence, so far as the auxiliary means developed with the credit system have any influence in that direction, they increase the social wealth directly, either by running a large portion of the social labor-process without intervention of actual money, or by raising the capacities of the money already in circulation.

This disposes also of the absurd question, whether capitalist production in its present volume would be possible without the credit system (even if analyzed only from this point of view), that is to say, if it were possible with the circulation of metallic coin alone. Evidently this is not the case. It would have found the barriers of the limited production of precious metals in its way. On the other hand, one must not entertain any myths as to the productive power of the credit system, so far as it supplies or releases money-capital. The further analysis of this question is out of place here.

We have now to study the case in which no actual accumulation, that is to say, no immediate expansion of the scale of production, takes place, but a portion of the realized surplus-value is accumulated for a longer or shorter time as a money reserve, in order to be employed later on as productive capital.

To the extent that money so accumulating is additional money, the matter needs no explanation. It can only be a portion of the surplus-gold imported from gold-producing countries. In this connection it must be remembered that the national product, in exchange for which this gold is imported, is no longer in this country. It has been exported to foreign countries in exchange for gold.

But if we assume that the same amount of money is still in the country the same as before, then the accumulated and accumulating money has accrued from the circulation. Only its function is changed. It is converted from circulating money into a gradually accruing latent money-capital.

The money which is accumulated in this case is the money-form of sold commodities, and represents that portion of its value which constitutes surplus-value for its owner. (The credit system is not supposed to exist in this case.) The capitalist who accumulates this money has sold to that extent wihout buying.

If we look upon this transaction merely as a limited phenomenon, there is nothing to explain. A part of the capitalists keep the money realized by the sale of their products without drawing products out of the market in return for it. Another part of them, on the other hand, transform all their money into products, with the exception of the constantly recurring money-capital required for the promotion of production. One portion of the products thrown upon the market as bearers of surplus-value consists of means of production, or of the actual elements of variable capital, the necessary means of subsistence. It can serve immediately for the expansion of production. For it has not been assumed that one part of the capitalists accumulates capital, while the other consumes its surplus-value entirely, but only that one part is engaged in the accumulation of money, in the formation of latent money-capital, while the other part accumulates actually, that is to say, expands the scale of producion, really adds to its productive capital. The available quantity of money remains sufficient for the requirements of circulation, even if one part of the capitalist accumulates money, while another expands production, and *vice versa*. Moreover, the accumulation of money on one side may proceed without cash money by the mere accumulation of outstanding claims.

But the difficulty arises when we assume, not a partial, but a general accumulation of money-capital on the part of the capitalist class. Apart from this class, there is, according to our assumption—the general and exclusive domination of capitalist production—no other class but the working class. All that the working class buys is equal to the sum total of its wages, equal to the sum total of the variable capital advanced by the entire capitalist class. This money flows back to the capitalist class by the sale of their product to the working class.

The variable capital thus resumes its money-form. Let the sum total of the variable capital be x times 100 p. st., that is to say, the sum total of the variable capital actually employed, not merely advanced for the current year. It does not alter the question fundamentally whether we know how much or how little money is actually advanced in this variable capital-value during the year, according to the velocity of the turn-over. The capitalist buys with these x times 100 p. st. a certain amount of labor power, or pays wages to a certain number of laborers—first transaction. The laborers buy with this same amount a certain quantity of commodities from the capitalists, whereby the same x times 100 p. st. flow back into the hands of the capitalist class—second transaction. And this is continually repeated. This amount of x times 100 p. st., then, can never enable the working class to buy that portion of its product in which the constant capital is embodied, much less that in which the surplus-value of the capitalist class is incorporated. The laborers can never buy more with these x times 100 p. st. than a portion of the social product, and the value of this portion is equal to that value of the social product in which the advanced variable capital is embodied.

Apart from the case, in which this universal accumulation of money expresses nothing but the distribution of the additional incoming precious metal, in whatever proportion, among the various individual capitalists, how can the entire capitalist class accumulate money under such circumstances?

They would all have to sell a portion of their product without buying anything in return. It is not at all mysterious that they should all have a certain fund of money which they throw into circulation for their consumption, and a certain portion of which flows back to each one of them. But this fund of money, as a fund for circulation, arises precisely through the monetization of surplus-value and is not by any means latent money-capital.

If we view the matter as it takes place in reality, we find that the latent money-capital, which is accumulated for future use, consists:

(1) Of deposits in banks; and it is a comparatively insignificant sum which is really at the disposal of the bank. Money-capital is but nominally accumulated there. What is actually accumulated are outstanding claims on money which can be monetized (so far as they are really monetized) only because there is a certain balance between the money drawn and the money deposited. It is a relatively small sum that is in the hands of the banker as money.

(2) Of public bonds. These are not capital at all, but mere claims on the annual product of the nation.

(3) Of stocks. So far as they are not bogus, they are titles of ownership of some actual capital belonging to some corporation and drafts on the surplus-value flowing from it.

There is no accumulation of money in any of these cases. What appears on the one side as an accumulation of money-capital appears on the other as a continual and actual expenditure of money. It does not alter the case whether the money is expended by its owner, or by others who are his debtors.

On the basis of capitalist production, the formation of a hoard is never an end in itself, but the result, either of a clogging of the circulation—larger amounts of money than is generally the case assuming the form of a hoard—or of accumulations conditioned on the turn-over; or, finally, the hoard is merely a formation of latent money-capital held temporarily and intended for future employment as productive capital.

Hence, while a portion of the money realized in surplus-value is on the one hand always withdrawn from circulation and accumulated as a hoard, another part of the surplus-value is at the same time continually converted into productive capital. With the exception of the distribution of additional precious metals among the members of the capitalist class, accumulation in the form of money never takes place simultaneously at all points.

That which is true of the other portion of the annual product is also true of that portion of it which represents surplus-value in the form of commodities. A certain sum of money is required for its circulation. This sum of money belongs to the capitalist class quite as much as the annually produced quantity of commodities which represent surplus-vale. It is originally thrown into circulation by the capitalist class itself. It is constantly redistributed among them by means of circulation itself. Just as in the case of the circulation of coin in general, so is there a clogging of a portion of this mass at ever varying points, while another portion is continually circulating. Whether a part of this accumulation is made intentionally for the purpose of forming money-capital, or not, does not alter the matter.

Exception has been made here of those adventures of circulation by which one capitalist grasps a portion of the surplus-value, or even of the capital, of another, thereby causing a onesided accumulation and centralization of money-capital as well as of productive capital. For instance, a portion of the appropriated surplus-value accumulated by A as money-capital may be a portion of the surplus-value of B which does not flow back to him.

PART III.

THE REPRODUCTION AND CIRCULATION OF THE AGGREGATE SOCIAL CAPITAL.

CHAPTER XVIII[29]

INTRODUCTION

I. The Object of the Analysis.

The immediate process of production of capital is its labor process and self-expansion, the process whose result is the commodity-product, and whose compelling motive is the production of surplus-value.

The process of reproduction of capital comprises this immediate process of production as well as the two phases of the process of circulation, strictly so called; in other words, it comprises the entire cycle which, as a periodic process, constantly repeated at definite intervals, constitutes the turn-over of capital.

No matter whether we study the rotation in the form of M—M′ or that of P—P, the immediate process of P itself always forms but one link in the chain of this rotation. In the one form it appears as a promoter of the process of circulation, in the other the process of circulation appears as its promoter. Its continual renewal, the continual rehabilitation of capital as productive capital, is in either case conditioned on its metamorphoses in the process of circulation. On the other hand, the continually renewed process of production is the condition of the metamorphoses which the capital traverses ever anew in the sphere of circulation, its alternate incarnation as money-capital and commodity-capital.

However, every individual capital forms but an individual fraction, endowed with individual life, as it were, of the aggregate social capital, just as every individual capitalist is but an individual element of the capitalist class. The movement of the social capital consists of the totality of the movements of its individualized fractional parts, the turn-overs of the individual capitals. Just as the metamorphosis of the individual commodity is a link in the series of metamorphoses of the commodity-world—the circulation of commodities—so the metamorphosis of the individual capital, its turn-over, is a link in the rotation of the social capital.

This total process comprises both the productive consumption (the immediate process of production) together with the metamorphoses (materially considered, exchanges) which promote it, and the individual consumption together with its corresponding metamorphoses, or exchanges. It includes on the one hand the conversion of variable capital into labor-power, and thus the incorporation of labor-power in the process of capitalist production. Here the laborer appears as the seller of his commodity, labor-power, and the capitalist as its buyer.

[29]From manuscript II.

But on the other hand the sale of the commodities implies their purchase by the working class, in other words, their individual consumption. Here the working class appear as buyers and the capitalists as sellers of commodities to the laborers.

The circulation of the commodity-capital implies the circulation of surplus-value, hence also the purchases and sales, by which the capitalists promote their individual consumption, the consumption of surplus-value.

The rotation of individual capitals, then, in their aggregation as social capital, but in their totality, comprises not only the circulation of capital, but also the general circulation of commodities. The last named can originally consist of only two parts: (1) The rotation of the capital itself, and (2) the rotation of the commodities which pass into individual consumption, the commodities for which the laborer expends his wages and the capitalist his surplus-value (or a part of it). True, the rotation of capital comprises also the circulation of surplus-value, so far as it is a part of the commodities, and likewise the conversion of the variable capital into labor-power, the payment of wages. But the expenditure of this surplus-value and wage for commodities does not form a link in the circulation of capital, although at least the expenditure of wages is a requirement for this circulation.

In volume I the process of capitalist production was analyzed as an individual transaction as well as a process of reproduction, the production of surplus-value as well as the production of capital. The changes of form and substance experienced by capital in the sphere of circulation were assumed without lingering over them. It was assumed that, on one hand, the capitalist sells the product at its value, and on the other, that he finds within the sphere of circulation the material means of production required for the renewal or continuation of the process. The only transaction within the sphere of circulation over which we had lingered in the first volume was the sale and purchase of labor-power as the fundamental condition of the capitalist mode of production.

In the first part of volume II, the various forms were considered which capital assumes in its rotation, and the various forms of this rotation itself.

In the second part of this volume, the rotation of capital was studied as a periodical process, as a turn-over. It was shown on one side, in what manner the various constituent parts of capital (fixed and circulating) accomplish the rotation of forms in different periods of time and different ways ; and, on the other side, the circumstances were analyzed on which the different duration of the working period and the period of circulation is conditioned. We observed the influence of the period of turn-over and of the different proportions of its component parts upon the volume of the process of production and upon the annual rate of surplus-value. Indeed, while it was the successive forms continually assumed and discarded by capital in its rotation which were studied in part I of volume II, it was shown in part II of this volume, how a capital of a given magnitude is simultaneously divided, within this flow

and succession, into the different forms of productive capital, money-capital, and commodity-capital, in varying proportions, so that they do not only relieve one another, but that different portions of the total capital-value are continually side by side and serve in these different forms. Especially money-capital was revealed in its peculiarities, which had not been shown in volume I. Certain laws were found, according to which certain portions of different size of a given capital must be continually advanced and renewed in the form of money-capital, according to the conditions of the turn-over, in order to maintain in service a productive capital of a certain volume.

But in both the first and second parts of this volume, it was only a question of some individual capital, of the movement of some individualized part of social capital.

However, the turn-overs of individual capitals intermingle, are mutually conditioned on one another, are their mutual premises, and form precisely in this interrelation the movement of social capital. Just as in the simple circulation of commodities the total metamorphosis of a certain commodity appeared as a link in the series of metamorphoses of the world of commodities, so now the metamorphosis of individual capital appears as a link in the series of metamorphoses of the aggregate social capital. But while the simple circulation of commodities did not necessarily imply the rotation of capital—since it may take place on the basis of non-capitalist production—the rotation of the aggregate social capital, as we have seen, implies also the circulation of commodities not belonging to the rotation of some individual capital, in other words, the circulation of commodities which do not represent any capital.

We have now to study the process of circulation of individual capitals in their capacity as component parts of the aggregate social capital (which circulation constitutes in its entirety the process of reproduction), that is to say, the process of rotation of this aggregate social capital.

II. The Role of Money-Capital.

(Although the following belongs in a later part of this section, we shall analyze it immediately, namely, the money-capital considered as a constituent part of the aggregate social capital.)

In the study of the turn-over of the individual capital, the money-capital revealed two sides.

In the first place, it is the form in which every individual capital appears upon the scene and opens its process as capital. It therefore appears as the prime promoter, giving the first impetus to the entire process.

In the second place, according to the different durations of the peirods of turn-over and the different proportion of its two parts—the working period and the period of circulation—that portion of the advanced capital-value which must be continually advanced and renewed in the form of money maintains a different proportion to the productive capital which it sets in motion, or in other words, to the continuous

scale of production. But whatever may be this proportion, that portion of the active capital-value which can continually serve as productive capital is limited under any circumstances by that portion of the advanced capital-value which must exist continually beside the productive capital in the form of money. It is here merely a question of a normal turn-over, an abstract average. Exception is made of the additional money-capital required for the compensation of the interruptions of the circulation.

In regard to the first point, we have seen that the production of commodities implies the circulation of commodities, and the circulation of commodities implies the materialization of commodities in money, the circulation of money ; the duplication of commodities in commodities and money is a law of the transformation of products into commodities. The capitalist production of commodities likewise implies—whether considered socially or individually—that capital in the form of money, or money-capital, is the prime motor of every new buisness and its continual motor. Especially the circulating capital implies the continuous reappearance of money-capital in short intervals as a motor. The entire advanced capital-value, that is to say, all the elements of capial composed of commodities, labor-power, instruments and materials of production, must be continually bought with money and again bought with money. What is true of the individual capital is also true of the social capital which functions only in the form of many individual capitals. But, as we showed in volume I, this does not imply that the field of activity of capital, the scale of producion, even on a capitalist basis, depends absolutely for its extension on the amount of the money-capital in service.

Elements of production are incorporated in the capital whose expansion within certain limits is independent of the magnitude of the advanced money-capital. The payment of labor-power remaining the same, it can yet be exploited more or less extensively or intensively. If the money-capital is increased with this greater exploitation, that is to say, if wages are raised, they are not proportionately—or, in other words, they are not actually—raised.

The productively exploited materials of nature—the soil, the seas, ore, forests, etc.—which do not constitute an element in the value of capital, are intensively or extensively better exploited with an increasing exertion of the same labor-power, without requiring an additional advance of money-capital. The actual elements of productive capital are thus multiplied without requiring a greater advance of money-capital. But so far as such an advance is required for additional auxiliary materials, the money-capital, in which the capital-value is advanced, is not increased proportionately to the augmented effectiveness of the productive capital, so that in reality it is not increased.

The same instruments of labor, and thus the same fixed capital, may be more effectively used by a prolongation of their daily use and by greater intensity of employment, without an additional investment of money for fixed capital. There is, in that case, only a more rapid turn-over of the fixed capital, but the elements of its reproduction are also supplied more rapidly.

Apart from materials of nature, it is possible to incorporate natural forces which do not cost anything as agents of the productive progress with more or less heightened effect. The degree of their effectiveness depends on the methods and scientific progress which do not cost the capitalist anything.

The same is true of the social combination of labor-power in the process of production and of the accumulated skill of the individual laborers. Carey calculates that the real estate owner never receives enough, because he is not paid for all the capital or labor which have been put into the soil since time immemorial in order to give it its present productivity. (Of course, no mention is made of the productivity of which the soil is robbed.) According to this argument, the laborer would have to be paid according to the work which had to be done by the entire human race in order to develop a savage into a modern mechanic. One should rather think: If all the unpaid labor embodied in the soil and appropriated by the real estate owner is counted, then all the capital ever invested in this soil has been paid over and over with usury, so that society has long ago bought the real estate over and over.

The increase in the productive powers of labor, so far as it does not imply an additional investment of capital-value, augments in the first analysis indeed only the quantity of the product, not its value, except the extent to which it is enabled to produce more constant capital with the same labor and thus to preserve its value. But it forms at the same time new material for capital, hence the basis for an increased accumulation of capital.

So far as the organization of social labor itself, and thus the increase in the social productivity of labor, require a production on a large scale and thus the advance of large quantities of money-capital on the part of individual capitalists, we have shown in volume I that this is accomplished in part by the centralization of capitals in a few hands, without necessarily implying an increase in the volume of the actively engaged capital-values, and consequently in the volume of the money-capital, in which they are advanced.

Finally, we have shown in the preceding part that a contraction of the period of turn-over permits of setting in motion the same productive capital with less money-capital, or to set in motion more productive capital with the same money-capital.

But evidently all this has nothing to do with the real question of money-capital. It shows only that the advanced capital, a given sum of values consisting in its free form, in its value-form, of a certain sum of money after its conversion into productive capital, includes productive potentialities whose limits are confined within those of its values, but which may exert themselves extensively or intensively within a certain playroom. If the prices of the elements of production—the materials of production and labor-power—are given, the magnitude of the money-capital required for the purchase of a definite quantity of these elements of production in the form of commodities is determined. Or, the magnitude of the value of the capital to be advanced is deter-

mined. But the extent to which this capital acts as a creator of values and products is elastic and variable.

Now we come to the second point. It is a matter of course that that portion of the social labor and means of production which must be annually expended for the production or purchase of money, in order to make up for the wear and tear of coin, is to that extent a reduction of the volume of social production. But as for the money-value which functions partly as a medium of circulation, partly as a hoard, it exists, having once been acquired ; it is present apart from the labor-power, the finished means of production, and the natural sources of wealth. It cannot be regarded as a barrier of production. By its transformation into elements of production, by its exchange with other nations, the scale of production might be extended. This implies, however, that the money plays its role as international money the same as ever.

According to the duration of the period of turn-over, a greater or smaller amount of money-capital is required in order to set the productive capital in motion. We have also seen that the division of the period of turn-over into a working period and a period of circulation requires an increase of the capital latent or suspended in the form of money.

So far as the period of turn-over is determined by the duration of the working period, it is determined, other conditions remaining equal, by the material nature of the process of production, not by the specific social character of this process of production. However, on the basis of capitalist production, extensive operations of a long duration require large advances of money-capital for a long time. Production in such spheres is, therefore, dependent on the limits within which the individual capitalist has money-capital at his disposal. This barrier is broken down by the credit system and associations, connected with it, for instance, stock companies. Disturbances in the money-market, therefore, set such business out of action, while they, on the other hand, cause disturbances in the money-market themselves.

On the basis of capitalist production, it must be ascertained on what scale those operations which withdraw labor and means of production from it for a long time without furnishing in return any useful product, can be carried on without injuring those lines of production which do not only withdraw continually, or at several intervals, labor-power and means of production from it, but also supply it with means of subsistence and of production. Under social or capitalist production, the laborers in lines with short working periods will always withdraw products only for a short time without giving any products in return ; while lines of business with long working periods withdraw products for a long time without any returns. This circumstance, then, is due to the material conditions of the respective labor process, not to its social form. In the case of socialized production, the money-capital is eliminated. Society distributes labor-power and means of production to the different lines of occupation. The producers may eventually receive paper checks, by means of which they withdraw from the social

supply of means of consumption a share corresponding to their labor-time. These checks are not money. They do not circulate.

We see, then, that, so far as the need of money-capital is due to the length of the working period, it is determined by two things: First, that money is the general form in which every individual capital (apart from credit) must make its entry in order to transform itself into productive capital; this follows from the nature of capitalist production, or of commodity-production in general. Second: The magnitude of the required money advance is due to the fact that labor-power and means of production must continually be withdrawn from society for a long time without any return of products convertible into money. The first requirement, namely, that capital must be advanced in the form of money, is not suspended by the form of this money itself, regardless of whether it is metal-money, credit money, token-money, etc. The second circumstance is in no way affected by the money-medium or the form of production by means of which labor, means of subsistence, and means of production are withdrawn, without the return of some equivalent into the circulation.

CHAPTER XIX[30]

FORMER DISCUSSIONS OF THE SUBJECT

I. The Physiocrats.

Quesnay's *Tableau Economique* shows in a few broad outlines, how the result of national production in a certain year, amounting to some definite value, is distributed by means of the circulation in such a way that, other circumstances remaining the same, simple reproduction can take place, that is to say, reproduction on the same scale. The starting point of this period of production is fittingly last year's crop. The innumerable individual acts of circulation are at once viewed in their characteristic social mass movement—the circulation between great social classes distinguished by their economic functions. We are especially interested in the fact that a portion of the total product—which, like every other portion of it, is a new result of last year's labor and intended for use—is at the same time the bearer of old capital-values re-appearing in their natural form. It does not circulate, but remains in the hands of its producers, the class of capitalist farmers, in order to begin its service as capital once more for them. In this constant portion of the capital of one year's product, Quesnay includes also some elements that do not belong to it, but he sees the main thing, thanks to the limits of his horizon, in which agriculture is the only productive sphere of investment where human labor produces surplus-value, hence the only productive one from the capitalist point of view.

[30]Beginning of manuscript VIII.

The economic process of reproduction, whatever may be its specific social character, intermingles in this sphere of agriculture always with a natural process of reproduction. The obvious conditions of the latter throw light on those of the former, and keep off a confusion of thought, which is due only to the witchery of circulation.

The label of a system differs from that of other articles, among other things, by the fact that it cheats not only the buyer, but often also the seller. Quesnay himself and his immediate disciples believed in their feudal shop sign. So did our school scientists to this day. But as a matter of fact, the system of the physiocrats is the first systematic conception of capitalist production. The representative of capitalist production, the class of capitalist farmers, directs the entire economic movement. Agriculture is carried on capitalistically, that is to say, it is the enterprise of a capitalist farmer on a large scale ; the immediate cultivator of the soil is the wage laborer. Production creates not only articles of use, but also their value ; its compelling motive is the production of surplus-value, whose birth-place is the sphere of production, not that of circulation. Among the three classes which figure as the bearers of the process of reproduction promoted by the circulation the immediate exploiter of "productive" labor, the producer of surplus-value, the capitalist farmer, is distinguished from those who merely appropriate surplus-value.

The capitalist character of the system of the physiocrats excited opposition even during its flourishing period, on one side on the part of Linguet and Mably, on the other that of the champions of the freeholders of small farms.

The retrogression of Adam Smith[31] in the analysis of the process of reproduction is so much more remarkable, as he manipulates other correct analyses of Quesnay, for instance, by generalizing the "avances primitives" and "avances annuelles" into "fixed" and "circulating" capital,[32] and even relapses entirely into physiocratic errors in some places. For instance, in order to demonstrate that the capitalist farmer produces more value than any other class of capitalists, he says: "No other capital sets a greater quantity of productive labor in motion than that of the capitalist farmer. Not only his laboring servants, but also his laboring cattle, consist of productive laborers." (Fine compliment for the laboring servants!) "In agriculture, nature works as well as human beings ; and although its labor does not require any expense, its product nevertheless has a value, the same as that of the most expensive laborer. The most important operations of agriculture seem

[31]Cf. "Capital," volume I.

[32]Some physiocrats had paved the way for him even here, especially Turgot. This author uses more frequently than Quesnay and the other physiocrats the term *capital* instead of *avances* and identifies still more the avances or capital of the manufacturers with those of the capitalist farmers. For instance: "Like these (the manufacturing *entrepreneurs*, the capitalist farmers must secure, over and above the return of their capitals, etc." (Turgot, Oeuvres, Daire edition, Paris, 1844, vol. I, page 40.)

to aim, not so much to increase the fertility of nature—although they do that, too—as to direct it toward the production of the plants most useful to mankind. A field grown up in thorns and weeds often enough furnishes as large a quantity of plant growth as the best tilled vineyard or cornfield. Planting and cultivation serve frequently more to regulate than to stimulate the active fertility of nature ; and after those have exhausted all their labors, there still remains a great deal of work to do for the latter. The laborer and the laboring cattle (!) employed in agriculture, therefore, do not only effect, like the laborers in the manufactures, the reproduction of a value which is equal to their own consumption and the capital employing them together with the profit of the capitalist, but that of a far greater value. Over and above the capital of the farmer and all his profits they effect regularly the reproduction of the rent of the landowner. The rent may be regarded as the product of the forces of nature, the use of which the landowner lends to the farmer. It is larger or smaller according to the estimated degree of these forces, in other words, according to the estimated natural or artificially insured fertility of the soil. It is the work of nature which remains after deducting or replacing all that which may be regarded as the work of man. It is rarely less than one-quarter and frequently more than one-third of the total product. No other equal quantity of labor, employed in manufacture, can ever effect so large a reproduction. In manufacture nature does nothing, man everything ; and reproduction must always be proportional to the strength of the agencies that carry it on. Therefore the capital invested in agriculture does not only set in motion a greater quantity of productive labor than any equal capital employed in manufacture ; but it also adds, in proportion to the quantity of productive labor employed by it, a far greater value to the annual product of the soil and to the labor of a certain country, to the actual wealth and income of its inhabitants." (Book II, chapter 5, page 242.)

Adam Smith says in Book I, Chapter 6, page 42: "In value of the sowings is likewise a fixed capital in the proper meaning of the word." Here, then, capital is the same as capital-value ; it exists in a "fixed" form. "Although the seed passes back and forth between the soil and the barn, yet it never changes owners and therefore does not circulate in reality. The farmer does not make his profit by its sale, but by its increase." (Page 186.) The absurdity lies here in the fact that Smith does not, like Quesnay before him, notice the reappearance of the value of constant capital in a new form, an important element of the process of reproduction, but merely another illustration, and a wrong one at that, of his distinction between circulating and fixed capital. In Smith's translation of "avances primitives" and "avances annuelles" into "fixed capital" and "circulating capital," the progress consists in the term "capital," whose meaning is generalized and made independent of the special consideration for the "agricultural" application of the physiocrats ; the retrogression consists in the fact that the terms "fixed" and circulating" are regarded as the fundamental distinction and so maintained.

II. Adam Smith.

(1.) THE GENERAL POINT OF VIEW OF ADAM SMITH.

Adam Smith says in Book I, Chapter 6, page 42: "In every society the price of every commodity finally dissolves into one or the other of these three parts (wages, profit, ground rent), or into all three of them ; and in every advanced society all three of them pass more or less as component parts into the price of by far the greater part of the commodities."[33] Or, as he continues, page 63: "Wages, profit, and ground rent are the three final sources of all income as well as of all exchange value." We shall discuss further along this doctrine of Smith concerning the "component parts of the prices of commodities," or of "all exchange value."

He says furthermore: "As this is true of every single commodity individually, it must also be true of all commodities as a whole, constituting the entire annual product of the soil and the labor of every country. The total price or exchange-value of this annual product must dissolve into the same three parts, and be distributed among the different inhabitants of the land, either as wages of their labor, or as profit of their capital, or as rent of their real estate." (Book II, chapter 2, page 190.)

After Adam Smith has thus dissolved the price of all commodities individually as well as "the total price or exchange-value . . . of the annual product of the soil and the labor of every country" into three sources of revenue for wage-workers, capitalists, and real estate owners, he must needs smuggle a fourth element into the problem by a circuitous route, namely, the element of capital. This is accomplished by the distinction between a gross and a net income. "The gross income of all inhabitants of a large country comprises the entire annual product of their soil and their labor ; the net income that portion which remains at their disposal after deducting the cost of maintenance, first of fixed, and second, of their circulating capital ; or that portion which they can place in their supply for consumption, or expend for their maintenance, comfort, and pleasure, without touching their capital. Their actual wealth likewise is proportional, not to their gross, but to their net income." (Ibidem, page 190.)

We make the following comment:

(1). Adam Smith expressly deals here only with simple reproduction, not reproduction on an enlarged scale, or accumulation. He speaks only of expenses for maintaining the capital in process. The "net" income is equal to that portion of the annual product, whether of society, or of the individual capitalist, which can pass into the "fund

[33]In order that the reader may not be in doubt as to the meaning of the phrase "the price of by far the greater part of the commodities," the following lines may show how Adam Smith himself explains it. For instance, no rent passes into the price of sea fish, only wages and profit ; only wages pass into the price of Scotch pebbles. He says: "In some parts of Scotland poor people make it their business to gather on the sea shore the varicolored pebbles, known as Scotch pebbles. The price which the stone cutters pay for them consists only of their wages, as neither ground rent nor profit constitute any part of it."

for consumption," but the size of this fund must not encroach upon capital in process. One portion of the value of both the individual and social product, then, is dissolved neither in wages, nor in profit, nor in ground rent, but in capital.

(2). Adam Smith flees from his own theory by means of a word play, the distinction between a gross and net revenue. The individual capitalist as well as the entire capitalist class, or the so-called nation receive in place of the consumed capital a quantity of commodities, whose value—represented by the proportional parts of this product—replaces on one hand the invested capital-value and thus forms an income, or revenue, but, mark well, a capital revenue; on the other hand, portions of value which are "distributed among the different inhabitants of the land, either as wages of their labor, or as profits of their capital, or as rent of their real estate," a thing commonly called income. Hence the value of the entire product, whether of the individual capitalist, or of the whole country, yields an income for somebody; but it is on one hand an income of capital, on the other a "revenue" different from it. In other words, the thing which is eliminated by the analysis of the commodity in its component parts is brought back through a side door, the ambiguity of the term, "revenue." But only such portions of the value of a product can be taken in as previously existed in it. If the capital is to come in as revenue, capital must first have been expended.

Adam Smith says furthermore: "The lowest ordinary rate of profits must always amount to a little more than is sufficient to make good the losses incidental to every investment of capital. It is this surplus alone which represents the clear, or net, profit." (Which capitalist understands by profit necessary investment of capital?) "That which people call gross profit comprises frequently not only this surplus, but also the portion retained for such extraordinary losses." (Book I, chapter 9, page 72.) This means nothing else but that a portion of the surplus-value, considered as a part of the gross profit, must form an insurance fund for the production. This insurance fund is created by a portion of the surplus-labor, which to that extent produces capital directly, that is to say, the fund intended for reproduction. As regards the expense for the "maintenance" of the fixed capital (see the above quotations), the replacement of the consumed fixed capital by a new one is not a new investment of capital, but only a renewal of the value of the old capital. And as far as the repair of the fixed capital is concerned, which Adam Smith counts likewise among the cost of maintenance, this expense belongs to the price of the capital advanced. The fact that the capitalist, instead of investing this all at one time, invests it gradually according to the requirements during the process of capital in service, and that he may invest it out of profits already pocketed, does not change the source of this profit. The portion of value of which it consists proves only that the laborer produces surplus-value, for the insurance fund as well as for the repairing fund.

Adam Smith then tells us that he excludes from the net revenue, that is to say, from the revenue in its specific meaning, the entire fixed capital, furthermore that entire portion of the circulating capital which

is required for the maintenance and repair of the fixed capital, and for its renewal ; as a matter of fact, all capital not in the natural form intended for the fund for consumption.

"The entire expenditure for the maintenance of the fixed capital must evidently be excluded from the net revenue of society. Neither the raw materials by means of which the machines and tools of industry must be kept in condition nor the product of the labor required for the transformation of these raw materials into their intended form can ever constitute a portion of this revenue. The price of this labor may indeed form a portion of that revenue, as the laborers so employed may invest the entire value of their wages in their immediate fund for consumption. But in other kinds of labor the price" (that is to say, the wages paid for this labor) "as well as the product" (in which this labor is incorporated) "enter into the fund for consumption ; the price into that of the laborers, the product into that of other people, whose subsistence, comfort, and pleasure are increased by the labor of these workmen." (Book II, chapter 2, page 190, 191.)

Adam Smith here comes upon a very important distinction between the laborers employed in the immediate production of means of production and those employed in the immediate production of articles of consumption. The value of the commodities produced by the first-named contains a part which is equal to the sum of the wages, that is to say, equal to the value of the amount of capital invested in the purchase of labor-power. This value exists bodily as a certain share of the means of production produced by these laborers. The money received by them as wages is their revenue, but their labor has not produced any goods which are consumable, either for them or for others. Hence these products are not an element of that portion of the annual product which is intended for a social fund for consumption, in which a "net revenue" can alone be realized. Adam Smith forgets to add here that the same thing which applies to wages is also true for that portion of the value of the means of production, which forms the revenue (in the first hand) of the industrial capitalist under the categories of profit and rent. These portions of value likewise exist in means of production, articles which cannot be consumed. They cannot secure out of the articles of consumption produced by the second kind of laborers a quantity corresponding to their price until they have been sold ; only then can they transfer those articles to the individual fund for consumption of their owner. But so much more Adam Smith should have seen that this excludes the value of the means of production serving within the sphere of production—the means of production which produce means of production—a portion of value equal to the value of the constant capital employed in this sphere and excluded from the portions of value forming a revenue, not only by the natural form in which it exists, but also by its function as capital.

The statements of Adam Smith regarding the second kind of laborers—who produce immediately articles of consumption—are not quite exact. He says that in this kind of labor, both the price of labor and the product go to the fund for immediate consumption, "the price"

(that is to say, the money received in wages) "to the stock for the consumption of the laborers, and the product to that of other people, whose subsistence, comfort, and pleasure are increased by the labor of these workmen." But the laborer cannot consume the "price" of his labor directly, the money in which his wages are paid; he makes use of it by buying articles of consumption with it. These may in part consist of classes of commodities produced by himself. On the other hand, his own produce may be such as goes only into the consumption of the exploiters of labor.

After Adam Smith has thus entirely excluded the fixed capital from the "net revenue" of a certain country, he continues:

"While the entire expense for maintaining the fixed capital is thus necessarily excluded from the net revenue of society, the same is not the case with the expense of maintaining the circulating capital. Of the four parts which go to make up this last named capital, money, means of subsistence, raw materials, and finished products, the last three, as we have said, are regularly taken out of it and transferred either to the fixed capital of society, or to the fund intended for immediate consumption. That portion of the consumable articles which is not employed for the maintenance of the former" (the fixed capital) "passes wholly into the latter" (the fund for immediate consumption) "and forms a part of the net revenue of society. Hence the maintenance of these three parts of the circulating capital does not diminish the net revenue of society by any other portion of the annual product than that required for maintaining the fixed capital." (Book II chapter 2, page 192.)

This is but a tautology, to the effect that that portion of the circulating capital, which does not serve for the production of means of production, passes into that of means of consumption, in other words, passes into that part of the annual product, which is to serve as a fund for the social consumption. However, the immediately following passage is important:

"The circulating capital of society is different in this respect from that of an individual. That of an individual is wholly excluded from his net revenue, and can never form a part of it; it can consist only of his profit. But although the circulating capital of each individual goes to make up a portion of the circulating capital of the society to which he belongs, it is nevertheless not absolutely excluded for this reason from the net revenue of society, and may form a part of it. While all the commodities in the store of some small dealer must not by any means be placed in the supply for his own immediate consumption, still they may belong in the fund for consumption of other people, who, by means of a revenue secured by other funds, may regularly make good for him their value together with his profit, without thereby causing a reduction of either his or their capital." (Ibidem.)

We learn, then, the following facts from him:

(1). Just as the fixed capital, and the circulating capital required for its reproduction (he forgets the function) and maintenance, are absolutely excluded from the net revenue of the individual capitalist which

can consist only of his profit, so is also the circulating capital employed in the production of means of consumption. Hence that portion of his commodity-product which reproduces his capital cannot be dissolved into portions of value which yield any revenue for him.

(2). The circulating capital of each individual capitalist constitutes a part of the circulating capital of society, the same as every individual fixed capital.

(3). The circulating capital of society, while representing only the sum of the individual circulating capitals, has a different character than the circulating capital of every individual capitalist. The circulating capital of the individual capitalist can never be a part of his own revenue ; but a portion of the circulating capital of society (namely, that consisting of means of consumption) may at the same time be a portion of the revenue of society, or, as he expressed it in the preceding quotation, it must not necessarily reduce the net revenue of society by a portion of the annual product. Indeed, that which Adam Smith here calls circulating capital, consists in the annually produced commodity-capital, which is thrown into circulation annually by the capitalists producing it. This entire annual commodity-product of theirs consists of consumable articles and, therefore, forms the fund in which the net revenue of society (including wages) is realized or expended. Instead of choosing for his illustration the commodities in the store of the small dealer, Adam Smith should have selected the masses of commodities stored away in the warehouses of the industrial capitalists.

Now if Adam Smith had summed up the snatches of thought which forced themselves upon him, first in the study of the reproduction of that which he calls fixed, then of that which he calls circulating, capital, he would have arrived at the following result:

I. The annual product of society consists of two divisions ; one of them comprises the means of production, the other the means of consumption. Both must be treated separately.

II. The aggregate value of the annual product consisting of means of production is divided as follows: One portion of the value represents but the value of the means of production consumed in the creation of these means of production ; it is but capital-value reappearing in a renewed form ; another portion is equal to the value of the capital invested in labor-power, or equal to the sum of the wages paid by the capitalists of this sphere of production. A third portion of value, finally, is the source of profits, including ground rent, of the industrial capitalists in this sphere.

The first portion of value, according to Adam Smith the reproduced portion of the fixed capital of all the individual capitals employed in this first section, is "evidently excluded and can never form a part of the net revenue," either of the individual capitalist or of society. It always serves as capital, never as a revenue. To that extent the "fixed capital" of each individual capitalist is in no way different from the fixed capital of society. But the other portions of the annual product of society consisting of means of production—portions of value

which also exist in the aliquot parts of this mass of means of production—form indeed revenues for all agents engaged in this production, yielding wages for the laborers, profits and ground rent for the capitalists. But so far as society is concerned, they are capital, not revenue, although the annual product of society consists only of the sums of the products of the individual capitalists belonging to it. These things are generally fit only for service as means of production by their very nature, and even those which may eventually serve as means of consumption are intended for service as raw or auxiliary materials of new production. But they serve as such—as capital—not in the hands of their producers, but in those of their purchasers, namely,

III. The capitalists of the second category, the direct producers of means of consumption. These things reproduce for these capitalists the capital consumed in the production of means of consumption (so far as this capital is not converted into labor-power, so that it consists in the sum of the wages of the laborers of this second class), while this consumed capital, which now exists in the form of means of consumption in the hands of the capitalists producing them, constitutes in its turn—from the point of view of society—the fund intended for consumption, in which the capitalists and laborers of the first category realize their revenue.

If Adam Smith had continued his analysis to this point, then he would have lacked but little for the complete solution of the problem. He was almost on the point of solving it, for he had already observed that certain values of one kind (means of production) of the commodity-capitals constituting the total product of society yield indeed a revenue for the laborers and capitalists engaged in production, but do not contribute anything toward the revenue of society ; while another part of value of another kind (means of consumption), although it is capital for its individual owners, that is to say, for the capitalists engaged in this sphere, is only a part of the social revenue.

So much is evident from the foregoing:

First : Although the social capital is but made up of the sum of the individual capitals, and for this reason the annual product in commodities (or the commodity-capital) equal to the sum of commodities produced by these individual capitals ; and although the analysis of the value of commodities into its component parts, applicable to every individual commodity-capital, must also apply to the entire social commodity-capital, and actually does so result in the end, nevertheless the forms which these different component parts assume, when incorporated in the aggregate process of social production, differ.

Second : Even on the basis of simple reproduction, there is not merely a production of wages (variable capital) and surplus-value, but a direct production of new constant capital, although the working day consists only of two parts, one in which the laborer reproduces the variable capital, an equivalent for the purchase price of his labor-power, and another in which he produces surplus-value (profit, rent, etc.). For the daily labor, which is expended in the reproduction of means of production—and whose value is composed of wages and surplus-value—realizes itself in new means of production that take the

places of the constant parts of capital consumed in the production of means of consumption.

The main difficulties, the greater part of which has been solved in the preceding analyses, are not offered by a study of accumulaion, but by that of simple reproduction. For this reason, Adam Smith (Book II) as well as Quesnay (Tableau Economique) take their departure from simple reproduction, whenever it is a question of the movements of the annual product of society and of its reproduction by means of circulation.

(II.) SMITH RESOLVES EXCHANGE-VALUE INTO V PLUS S.

The dogma of Adam Smith, to the effect that exchangeable value, or the price of any commodity—and therefore of all commodities constituting the annual product of society (since he justly assumes everywhere the existence of capitalist production)—is made up of three component parts, or resolves itself into wages, profit, and rent, may be reduced to the fact that the value of a commodity is equal to v plus s, that is to say, equal to the value of the advanced variable capital plus the surplus-value. And we may undertake this reduction of profit and rent to a common unit called s with the expressed permission of Adam Smith, as shown by the following quotations, in which we leave aside all minor points, especially any actual or apparent deviation from his dogma that the value of the commodities resolves itself exclusively into those elements which we call v plus s.

In manufacture: "The value which the laborers add to the material resolves itself . . . into two parts, one of which pays their wages, and the other the profit of their employer on the entire capital advanced by him in materials and wages." (Book I, chapter 6, page 41.) "Although the manufacturist gets his wages advanced by his master, he does not cost the latter anything in reality, since as a rule the value of these wages is preserved together with a profit, in the increased value of the object to which the labor was applied." (Book II, chapter 3, pages 221). That portion of the stock which is invested "in the maintenance of productive labor . . . after it has served him (the employer) in the function of a capital . . . forms a revenue for them" (the laborers). (Book II, chapter 3, page 223.)

Adam Smith says explicitly in the chapter just quoted: "The entire annual product of the soil and the labor of each country . . . naturally resolves itself into two parts. One of them, and frequently the greater, is intended primarily to replace capital and to reproduce the means of subsistence, raw materials and finished products obtained from some capital ; the other is intended to form a revenue either for the owner of this capital, as a profit on his capital, or for some one else, as a rent of his real estate." (Page 222.) Only a portion of the capital, so Adam Smith informed us just a while ago, also forms a revenue for some one, namely, that which is invested in the purchase of productive labor. This portion—the variable capital—performs first "the function of capital" for its employer and in his hands, and then

it "forms a revenue" for the productive laborer himself. The capitalist transforms a portion of the value of his capital into labor-power and thereby into variable capital; it is only due to this transformation that not alone this portion of capital, but his entire capital, serve as industrial capital. The laborer—the seller of his own labor-power—receives its value in the form of wages. In his hands, labor-power is but a saleable commodity, a commodity whose sale keeps him alive, which is the sole source of his revenue; labor-power serves as a variable capital only in the hands of its buyer, the capitalist, and the capitalist advances its purchase price only apparently, since its value has been previously supplied to him by the laborer.

After Adam Smith has thus shown that the value of a product in manufacture is equal to v plus s (s standing for the profit of the capitalist), he tells us that, in agriculture, the laborers effect, aside from "the reproduction of a value which is equal to their own consumption and the (variable) capital employing them plus the profit of the capitalist," furthermore, "over and above the capital of the farmer and all his profit regularly the reproduction of the rent of the owner of the real estate." (Book II, chapter 5, page 243.) The fact that the rent passes into the hands of the real estate owner, is immaterial for the question under consideration. Before it can pass into his hands, it must be in those of the farmer, that is to say, of the industrial capitalist. It must form a part of the value of the product, before it can become a revenue for any one. Rent as well as profit are but component parts of surplus-value, even in the opinion of Adam Smith himself, and the productive laborer reproduces them continually together with his own wages, that is to say, with the value of the variable capital. Hence rent and profit are parts of the surplus-value s, and thus, with Adam Smith, the price of all commodities resolves itself into v plus s.

The dogma that the price of all commodities (also of the annual product in commodities) resolves itself into wages plus profit, plus ground rent, assumes in the interspersed esoteric portion of Smith's work quite naturally the form that the value of every commodity, hence also that of the annual social product in commodities, is equal to v plus s, or equal to the value of the capital invested in labor-power and continually reproduced by the capitalist plus the surplus-value added by the labor of the laborers.

This outcome of the analysis of Adam Smith reveals at the same time—see farther along—the source of this one-sided analysis of the component parts into which the value of a commodity resolves itself. But the determination of the magnitude of these component parts and of the limit of their value has no bearing on the circumstance that they are at the same time different sources of revenue for different classes engaged in production.

Various inconsistencies are jumbled together when Adam Smith says: "Wages, profit, and ground rent are the three primary sources of all revenue as well as all exchange-value. Every other revenue is derived, in the last instance, from one of these." (Book I, chapter 6, page 48.)

(1). All members of society not directly engaged in reproduction, with or without labor, can obtain their share of the annual product of commodities—in other words, their articles of consumption—primarily only out of the hands of those classes who are the first to handle the product, that is to say, productive laborers, industrial capitalists, and real estate owners. To that extent their revenues are substantially derived from wages (of the productive laborers), profit, and ground rent, and appear as indirect derivations when compared to these primary sources of revenue. But, on the other hand, the recipients of these revenues, thus indirectly derived, draw them by grace of their social functions, for instance that of a king, priest, professor, prostitute, soldier, etc., and they may regard these functions as the primary sources of their revenue.

(2). Here the ridiculous mistake of Adam Smith reaches its climax. After having taken his departure from a correct determination of the component parts of the value of commodities and the sum of values of the product incorporated in them, and having demonstrated that these component parts form so many different sources of revenue ;[34] after having in this way deducted the revenues from the value, he proceeds in the opposite way—and this remains the ruling conception with him—and makes of the revenues "primary sources of all exchange-value" instead of "component parts," thereby throwing the doors wide open to vulgar economy. (See, for instance, our Roscher.)

(III.) THE CONSTANT PORTION OF CAPITAL.

Let us now see how Adam Smith tries to spirit away the constant portion of the value of commodities.

"In the price of corn, for instance, one portion pays the rent of the landowner." The origin of this portion of value has no more to do with the circumstance that it is paid to the landowner and forms for him a revenue in the shape of rent than the origin of the other portions of value has to do with the fact that they constitute sources of revenue as profit and wages.

"Another portion pays the wages and subsistence of the laborers" (and of the laboring cattle, as he adds) "employed in its production, and the third portion pays the profit of the capitalist farmer. These three portions seem" (they seem indeed) "to constitute either directly, or in the last instance, the entire price of corn."[35] This entire price, that is to say, the determination of its magnitude, is absolutely inde-

[34] I reproduce this sentence verbatim from the manuscript, although it seems to contradict, in its present connection, both the preceding and the following statements. This apparent contradiction is solved farther along in (IV). Capital and Revenue in Adam Smith.—F. E.

[35] We do not make anything of the fact that Adam Smith was here particularly unlucky in the choice of his example. The value of the corn resolves itself into wages, profit, and rent only, because the food consumed by the laboring cattle is regarded as wages, and the laboring cattle as laborers, so that, on the other hand, the wage laborer also appears in the role of the laboring cattle. (Note added from manuscript II.)

pendent of its distribution among three kinds of people. "A fourth portion may seem necessary in order to reproduce the capital of the farmer, or the wear of his laboring cattle and of his other implements. But it must be considered that the price of any agriculutral implement, for instance, of a laboring horse, is in its turn composed of the above three parts: the rent of the land on which it is bred, the labor of breeding, and the profit of the farmer who advances both the rent of this land and the wages of this labor. Hence, although the price of the corn may reproduce the price as well as the cost of maintenance of the horse, the entire price still resolves itself, directly or in the last instance, into the same three parts: ground rent, labor," (he means wages) "and profit." (Book I, chapter 6, page 42.)

This is verbatim all that Adam Smith has to say in support of his surprising doctrine. His proof consists simply in the repetition of the same contention. He admits, for instance, that the price of corn does not only consist of v plus s, but contains also the price of the means of production consumed in the production of corn, in other words, the value of a capital not invested in labor-power by the farmer. But, says he, the prices of all these means of production likewise resolve themselves into v plus s, the same as the price of corn. He forgets, however, to add in this case that they also contain the prices of the means of production consumed in their production. He refers us from one line of production to another, and from that to a third. The contention that the entire price of commodities resolves itself "immediately" or "ultimately" into v plus s would not be a specious subterfuge in the sole case that he could demonstrate that the product in commodities, the price of which resolves itself immediately into c (price of consumed means of production) plus v plus s, is ultimately compensated by products which reproduce those "consumed means of production" completely and which are themselves produced by the investment of mere variable capital, by a mere investment of capital in labor-power. The price of these last products would then be v plus s. And in that case the price of the first products, represented by c plus v plus s, where c stands for the constant portion of capital, could be ultimately resolved into v plus s. Adam Smith himself did not believe that he had furnished such a proof by his example of the collectors of Scotch pebbles, who, according to him, do not prduce any surplus-value, but produce only their own wages, and who, in the second place, do not employ any means of production (they do, however, employ them, such as baskets, sacks, and other means of carrying the stones).

We have already seen that Adam Smith later on throws his own theory over, without, however, being conscious of his contradictions. But the source of these is found precisely in his scientific premises. The capital converted into labor produces a greater value than its own. How does it do that? It is due, says Adam Smith, to the laborers, who impregnate, during the process of production, the things on which they work with a value which forms not only an equivalent for their own purchase price, but also a surplus-value, appropriated, not by them, but by their employers (profit and rent). That is all they accomplish, and all that they can accomplish. And what is true of the

industrial labor of one day is true of the labor set in motion by the entire capitalist class during one year. Hence the aggregate mass of the annual social product in values can resolve itself only into v plus s, into an equivalent by which the laborers reproduce the value of the capital expended for the purchase of their labor-power, and into an additional value which they must deliver over and above their own value to their employers. These two elements of value form at the same time sources of revenue for the various classes engaged in reproduction: The first is the source of wages, the revenue of the laborers; the second that of surplus-value, a portion of which is retained by the industrial capitalist in the form of profit, while another is given up by him as rent, the revenue of the real estate owners. Whence, then, should come another element of value, since the value of the annual product contains no other elements but v plus s? We are working on the basis of simple reproduction. Since the entire quantity of annual labor resolves itself into labor required for the reproduction of the value of the capital invested in labor-power, and labor required for the creation of surplus-value, where would the labor required for the production of the value of a capital not invested in labor-power come from?

The situation is as follows:

(1). Adam Smith determines the value of a commodity by the quantity of labor which the wage worker adds to the object of labor. He calls it materials of labor, since he is dealing with manufacture, which is working up products of other labor. But this does not alter the matter. The value which the laborer adds to a thing (and this "adds" is an expression of Adam Smith) is entirely independent of the fact whether or not this thing, to which value is added, had itself any value before this addition took place. The laborer creates a product of value in the form of a commodity; this, according to Adam Smith, is partly an equivalent for his wages, and this part, then, is determined by the value of his wages; according to whether his wages are high or low, he has to add more or less value in order to produce or reproduce an equivalent for his wages. On the other hand, the laborer adds more labor over and above the limit so drawn, and this constitutes the surplus value for the capitalist who employs him. Whether this surplus-value remains entirely in the hands of the capitalist or is yielded by him in portions to third persons, does not alter the qualitative fact that the additional labor of the laborer is surplus-value, not the quantity of this additional value. It is value the same as any other portion of the value of the product, but it differs from other portions by the fact that the laborer has not received any equivalent for it, nor will receive any later on, because it is appropriated by the capitalist without any equivalent. The total value of a commodity is determined by the quantity of labor expended by the laborer in its production; one portion of this total value is determined by the fact that it is equal to the value of the wages, an equivalent for them. The second portion, the surplus-value, is, therefore, likewise determined, for it is equal to the total value of the product minus that portion which is equivalent to the wages; it is equal to the excess of the value created in the manu-

facture of the product over that portion which is an equivalent for the wages.

(2). That which is true of a commodity produced in some individual industrial establishment by any individual laborer is true of the annual product of all lines of business together. That which is true of the day's work of some individual productive laborer is true of the entire year's work realized by the entire class of productive laborers. It "fixes" (expression of Adam Smith) in the annual product a total value determined by the quantity of the annual labor expended, and this total value resolves itself into one portion determined by that part of the annual labor which reproduces the equivalent of its annual wages, or these wages themselves ; and into another portion determined by the additional labor by which the laboring class creates surplus-value for the capitalist class. The value contained in the annual product then consists of but two elements, namely the equivalent of the wages received by the laboring class, and the surplus-value annually created for the capitalist class. Now, the annual wages are the revenue of the working class, and the annual quantity of surplus-value the revenue of the capitalist class ; both of them represent the relative shares in the annual fund for consumption (this view is correct when simple reproduction is the premise) and are realized in it. There is, then, no room left anywhere for the value of the constant capital, for the reproduction of the capital serving in the form of means of production. And Adam Smith states explicitly in the introduction of his work that all portions of the value of commodities which serve as revenue coincide with the annual product of labor intended for a social fund for consumption: "In what the revenue of the people consisted generally, or what was the nature of the fund, which . . . supplied their annual consumption, to explain this is the purpose of these first four books." (Page 12.) And in the very first sentence of the introduction we read: "The annual labor of every nation is the fund, which supplies them originally with all the subsistence which they consume in the course of the year, and which always consist either of the immediate product of this labor, or in articles bought with this product from other nations." (Page 11.)

The first mistake of Adam Smith consists in identifying the value of the annual product with the annual product in values. The latter is only the product of labor of the current year, the former includes furthermore all elements of value consumed in the making of the annual product, but which have been produced in the preceding or even in earlier years, means of production whose value merely re-appears, but which have been neither produced nor reproduced by the labor expended in the current year. By this mistake, Adam Smith spirits away the constant portion of the value of the annual product. His mistake rests on another error in his fundamental conception: He does not distinguish the two-fold nature of labor itself, of labor which creates exchange-value by the expenditure of labor-power, and labor which creates articles of use (use-values) as a concrete, useful, activity. The total quantity of the commodities made annually, in other words, the total annal product, is the product of the useful labor active during

the past year ; all these commodities exist only because socially employed labor has been spent in a systematized net-work of many kinds of useful labor ; it is due to this fact alone that the value of the means of production consumed in their production, re-appearing in a new natural form, is contained in their total value. The total annual product, then, is the result of the useful labor expended during the year ; but only a portion of the value of the annual product has been created during the year ; this portion is the annual product in values, in which the quantity of labor set in motion during the year itself is represented.

Hence, if Adam Smith says in the just cited passage: "The annual labor of every nation is the fund, which supplies them originally with all the subsistence which they consume in the course of the year, etc.," he places himself one-sidedly upon the standpoint of mere useful labor, which has indeed given all these means of subsistence their consumable form. But he forgets that this was impossible without the assistance of instruments and materials of labor supplied by former years, and that, therefore, the "annual labor," so far as it has created any values, did not create all the value of the products finished by it ; that the product in values is smaller than the value of the products.

While we cannot reproach Adam Smith for going in this analysis no farther than all his successors (although a step toward a correct solution is already found among the physiocrats), he loses himself, on the other hand, in a chaos further along, mainly because his "esoteric" conception of the value of commodities in general is constantly vitiated by exoteric ideas, which on the whole prevail with him, while his scientific instinct permits his esoteric conception to reappear from time to time.

(IV). CAPITAL AND REVENUE IN ADAM SMITH

That portion of the value of every commodity (and therefore also of the annual product) which is but an equivalent of the wages is equal to the capital advanced by the capitalist for labor-power, in other words, equal to the variable portion of the total capital advanced. The capitalist recovers this portion of the value of his advanced capital through a portion of the value of a commodity newly supplied by the wage laborer. Whether the variable capital is advanced in such a way that the capitalist pays the laborer his share in a product which is not yet ready for sale, or which, though ready, has not yet been sold by the capitalist, or whether he pays him with money obtained by the sale of commodities previously supplied by the laborer, or whether he has drawn this money in advance by means of credit—in all these cases the capitalist expends variable capital, which passes into the hands of the laborer in the form of money, and at the same time he possesses the equivalent of this value of his capital in that portion of the value of his commodities by which the laborer reproduces his share of its total value, in other words, by which he reproduces his own wages. Instead of giving him this portion of the value in its natural form, that of his own product, the capitalist pays him in money. The capitalist then

holds the variable portion of his advanced capital in the form of commodities, while the laborer has received the equivalent for his sold labor-power in the form of money.

Now while that portion of the capital advanced by the capitalists which has been converted by the purchase of labour power into variable capital serves in the process of production itself as laboring power and is produced as a new value, or reproduced, by the expenditure of this force, in the form of commodities,—hence a reproduction, or new production of capital—the laborer spends the value or price of his sold labor-power in means of subsistence, in means for the reproduction of his labor-power. A quantity of money equal to the variable capital forms his revenue, which lasts only so long as he can sell his labor-power to the capitalist.

The commodity of the wage laborer—his labor-power—serves as a commodity only to the extent that it is incorporated in the capital of the capitalist and acts as capital; on the other hand, the capital expended by the capitalis as money-capital in the purchase of labor-power serves as a revenue in the hands of the seller of labor-power, the wage laborer.

Various processes of circulation and production intermingle here, which Adam Smith does not clearly distinguish.

First: Processes belonging to circulation. The laborer sells his commodity—labor-power—to the capitalist; the money with which the capitalist buys it is from his point of view money invested for gain, in other words, money-capital; it is not spent, but advanced. (This is the real meaning of "advance"—*avance* in the language of the physiocrats—no matter where the capitalist gets the money. Every value which the capitalist pays out for the purposes of the productive process is advanced from his point of view, regardless of whether this takes place before or after the fact; it is advanced for the process of production.) The same takes place here as in every other sale of commodities: The seller gives away a use-value (in this case his labor-power) and receives its value (realizes its price) in money; the buyer gives away his money and receives in turn the commodity itself—in this case labor-power.

Secondly: In the process of production, the purchased labor-power now forms a part of the acting capital, and the laborer himself serves here merely as one particular natural form of this capital, distinguished from the elements existing in the natural form of means of production. During the process, the laborer adds value to the means of production which he converts into products, by expending labor-power to the amount of his wages (without surplus-value); he reproduces for the capitalist that portion of his capial in the form of commodities which has been, or has to be, advanced for wages; hence he produces for the capitalist that capital which he can "advance" once more for the purchase of labor-power.

Thirdly: In the sale of the commodities, one portion of their selling price reproduces the variable capital advanced by the capitalist, whereby he, on the one hand, is enabled to buy more labor-power, and the laborer, on the other hand, to sell more.

In all purchases and sales of commodities—so far as these transactions are merely regarded by themselves—it is quite immaterial what becomes of the money in the hands of the seller received for his commodities, and what becomes of the article of use in the hands of the buyer received in exchange for this money. Hence, so far as the mere process of circulation is concerned, it is quite immaterial that the labor-power bought by the capitalist reproduces the value of capital for him, and that, on the other hand, the money received by the laborer as a purchase-price of his labor-power serves as his revenue. The magnitude of the value of the commodity of the laborer, his labor-power, is not affected either by serving as a revenue for him or by reproducing, through its use, on the part of the buyer, the value of the capital of the buyer.

Since the value of the labor-power—that is to say, the adequate selling price of this commodity—is determined by the quantity of labor required for its reproduction, and this quantity of labor itself is here determined by that required for the necessary subsistence of the laborer, the wages become a revenue on which the laborer has to live.

It is entirely wrong, when Adam Smith says (page 223): "That portion of capital which is invested in the maintenance of productive labor . . . . after it has served him" (the capitalist) "in the function of a capital . . . . forms a revenue for them" (the laborers). The money with which the capitalist pays for the labor-power purchased by him, "serves him in the function of a capital," to the extent that he thereby incorporates labor-power in the material elements of his capital and thus enables his capital to serve as productive capital. We make this distinction: The labor-power is a commodity, not a capital, in the hands of the laborer, and it constitutes for him a revenue, so long as he can repeat its sale ; it serves as capital, after its sale, in the hands of the capitalist, during the process of production itself. That which here serves twice is labor-power ; as a commodity which is sold at its value, in the hands of the laborer ; as a power creating exchange-values and use-values, in the hands of the capitalist who has bought it. But the money which the laborer receives from the capitalist is not given to him until after he has given the capitalist the use of his labor-power, after it has already been realized in the value of the product of labor. The capitalist holds this value in his hands before he pays for it. Hence it is not the money which serves twice here ; first, as the money-form of the variable capital, and then as wages. It is labor-power which has served twice ; first, as a commodity in the sale of labor-power (in stipulating the amount of wages to be paid, the money serves merely as an ideal measure of value and need not even be in the hands of the capitalist) ; secondly, in the process of production, in which it serves as capital, in other words, as an element in the hands of the capitalist creating exchange-value and use-values. Labor-power first supplies, in the form of commodities, the equivalent which is to be paid to the laborer, and then only is it paid by the capitalist to the laborer in money. In other words, the laborer himself creates the fund out of which the capitalist pays him. But this is not all.

The money, which the laborer receives, is spent by him for the maintenance of his labor-power, or—looking upon the capitalist class and working class as an aggregate mass—is spent to preserve for the capitalist an instrument by means of which alone he can remain a capitalist.

The continuous purchase and sale of labor-power, then, perpetuates on one hand labor-power as an element of capital, by the grace of which it appears as the creator of commodities, use-values having an exchange-value, by means of which, furthermore, that portion of capital which buys labor-power is continually reproduced by its own product, so that the laborer himself creates the fund of capital out of which he is paid. On the other hand, the sale of labor-power becomes the ever renewed source for the maintenance of the laborer and makes of his labor-power that faculty through which he secures his revenue, by which he lives. Revenue in this case signifies nothing else but an appropriation of values by means of ever repeated sales of a commodity (labor-power), these values serving merely for the continual reproduction of the commodity to be sold. And to this extent Smith is right when he says that that portion of the value of the laborer's product, for which the capitalist pays him an equivalent in the form of wages, becomes a source of revenue for the laborer. But this does not alter the nature or magnitude of this portion of value of the commodity any more than the value of the means of production is changed by the fact that they serve as capital-values, or the nature and magnitude of a straight line are changed by the fact that it serves as a basis for some triangle or as a diameter of some ellipse. The value of labor-power remains quite as independent as that of those means of production. This portion of the value of a commodity neither consists of a revenue as one of its independent constituent factors, nor does it resolve itself into revenue. Because this value, ever renewed by the laborer, constitutes a source of revenue for him, that is no reason why his revenue, on the other hand, should be an element of the new values produced by him. The magnitude of his share in the new value created by him determines the volume of the value of his revenue, not *vice versa*. The fact that this portion of the new value forms a revenue for him indicates merely what becomes of it, shows the character of its employment, and has no more to do with its formation than with that of any other value. The fact that my receipts are ten dollars a week changes nothing in the nature of the value of the ten dollars nor in the magnitude of their value. As in the case of every other commodity so in that of labor-power its value is determined by the labor necessary for its reproduction ; that the quantity of this labor is determined by the value of the necessary subsistence of the laborer, in other words, that it is equal to the labor required for the reproduction of his own life's conditions, is peculiar for this commodity (labor-power), but no more peculiar than the fact that the value of laboring cattle is determined by the subsistence necessary to produce this subsistence.

But it is this category of "revenue" which is to blame for all the confusion in Adam Smith over this question. The various kinds of

revenue constitute with him the "component parts" of the annually produced new values of commodities, while, *vice versa*, the two portions into which these values resolve themselves for the capitalist form sources of revenue—namely, the equivalent of his variable capital advanced for the purchase of labor-power and the other portion of value, the surplus-value, which likewise belongs to him but did not cost him anything. The equivalent of the variable capital is once more advanced for labor-power and to that extent forms a revenue for the laborer in the shape of wages ; the other portion, the surplus-value, which does not reproduce any advance of capital for the capitalist, may be spent by him in articles of consumption (whether necessary or luxuries), it may be consumed by him as a revenue, instead of forming capital-value of some kind. The first condition of this revenue is the value of the commodities itself, and its component parts differ from the point of view of the capitalist only to the extent that they are an equivalent for, or an excess over, the variable portion of the value of the capital advanced by him. Both of them consist of nothing but labor expended and materialized during the production of commodities. They consist of an expenditure, not of an income or revenue—an expenditure of labor.

After this reversion of facts, by which a revenue becomes the source of the value of commodities instead of the value of commodities being the source of revenue, the value of commodities has the appearance of being "composed" of various kinds of revenue ; these revenues are determined independently of one another, and the total value of commodities is determined by the addition of the values of these revenues. But now the question is: How is the value of each of these revenues determined, which are supposed to be the sources of the values of commodities? In the case of wages it is done, for wages are the value of the commodity labor-power, and this is determined (the same as that of all other commodities) by the labor required for its reproduction. But surplus-value, or as Adam Smith has it, profit and ground rent, how are they determined? Here Adam Smith has but empty phrases to offer. He either represents wages and surplus-value (or wages and profit) as component parts of the value, or price, of commodities, or, sometimes in the same breath, as component parts into which the price of commodities resolves itself ; but this means precisely the reverse of his contention and makes of the value of commodities the primary thing, different parts of which fall as different revenues to the share of different persons engaged in the productive process. This is by no means identical with the composition of value of these three "component parts." If I determine the magnitude of three different straight lines independently and then form a fourth straight line out of these three lines as "component parts" equal to their sum, it is by no means the same process as if I have some given straight line before me and "resolve" it, so to say, into three different parts for some purpose. In the first case, the magnitude of the line changes throughout with the magnitude of the three lines whose sum it is ; in the second case, the magnitude of three parts of the line is from the outset limited by the fact that they are parts of a line of given magnitude.

However, if we keep in mind that part of the analysis of Smith which is correct, namely, that the value newly created by the annual labor and contained in the annual social product in commodities (the same as in every individual commodity, or every daily, weekly, etc., product) is equal to the value of the variable capital advanced (in other words, equal to the value intended for the purchase of new labor-power) plus the surplus-value which the capitalist can realize in means of his individual consumption—simple reproduction being assumed, and other circumstances remaining the same, if we keep furthermore in mind that Adam Smith confounds labor which creates values and is an expenditure of labor-power with labor which creates articles of use and is expended in a useful, appropriate, manner, then the entire conception amounts to this: The value of every commodity is the product of labor; hence this is also true of the value of the product of annual labor, or of the value of the annual product of society in commodities. But since all labor resolves itself, (1), into necessary labor-time, in which the laborer reproduces merely an equivalent for the capital advanced in the purchase of his labor-power, and, (2), into surplus-labor, by which he supplies the capitalist with a value for which the latter does not give any equivalent, in other words, a surplus-value, it follows that all value of commodities can resolve itself only into these two component parts, so that ultimately it forms a revenue for the laboring class in the form of wages, and for the capitalist class in the form of surplus-value. As for the constant value of the capital, in other words, the value of the means of production consumed in the production of the annual product, it cannot be explained how this value gets into that of the new product (unless we accept the phrase that the capitalist charges the buyer with it in the sale of his goods), but ultimately, seeing that the means of production are themselves products of labor, this portion of value can consist only of an equivalent for variable capital and surplus-value, of a product of necessary labor and surplus-labor. The fact that the values of these means of production serve in the hands of their employers as capital-values does not prevent them from resolving themselves "originally," even though in some other hands, if we go to the bottom of the matter, and at some previous time, into the same two portions of value, hence into two different sources of revenue.

One point is correct in this conception, namely, that the matter has a different aspect from the point of view of the movement of social capital, in other words, of the totality of individual capitals, that it has from the standpoint of the individual capital, considered by itself, or from the standpoint of each individual capitalist. For these, the value of commodities resolves itself, (1), into a constant element (a fourth one, as Adam Smith says), and (2), into the sum of wages and surplus-value, or wages, profit, and ground rent. But from the point of view of society, the fourth element of Adam Smith, the constant value of capital, disappears.

(V). RECAPITULATION.

The absurd formula that the three revenues, wages, profit, and ground rent, form the three "component parts" of the value of commodities, is due in the case of Adam Smith to the more plausible idea that the value of commodities resolves itself into these three parts. However, this is likewise incorrect, even granted that the value of commodities is only divisible into an equivalent of the consumed labor-power and surplus-value created by it. But the mistake rests here again on a deeper and truer basis. The capitalist mode of production is conditioned on the fact that the productive laborer sells his own labor-power, as a commodity, to the capitalist, in whose hands it then serves merely as an element of his productive capital. This transaction, taking place in the circulation—the sale and purchase of labor-power—does not only inaugurate the process of production, but also determines implicitly its specific character. The production of a use-value, and even that of a commodity (for this can be done eventually by independent productive laborers), is here only a means of producing absolute or relative surplus-value for a capitalist. For this reason we have seen in the analysis of the process of production that the production of absolute and relative surplus-value determines, (1), the duration of the daily labor-process, (2), the entire social and technical formation of the capitalist process of production. Within this process, there is realized the distinction between the mere conservation of value (the value of the constant capital), the actual reproduction of advanced value (an equivalent of labor-power), and the production of surplus-value, that is to say, of value for which the capitalist has neither advanced an equivalent nor will advance one subsequently.

The appropriation of surplus-value—a value in excess of the equivalent advanced by the capitalist—although it is inaugurated by the purchase and sale of labor-power, is a transaction taking place within the process of production itself, and forms an essential part of it.

The introductory transaction taking place in the circulation, the purchase and sale of labor-power, is itself conditioned on a distribution of the elements of production, which is the premise and prelude of the distribution of the social products, and implies the separation of labor-power, as a commodity of the laborer, from the means of production, as the property of non-laborers.

However, this appropriation of surplus-value, or this separation of the production of values into a reproduction of advanced values and a production of new values (surplus-values) which do not offset any equivalent, does not alter in any way the substance of value itself nor the nature of the production of values. The substance of value is and remains nothing but expended labor-power—labor independent of the specific, useful, character of this labor—and the production of values is nothing but the process of this expenditure. A serf, for instance, expends his labor-power for six days, labors for six days, and the fact of this expenditure is not altered by the circumstances, that he may be working three days for himself, on his own field, and three days for his lord on the field of the latter. Both his voluntary labor for himself

and his compulsory labor for his lord are equally labor ; so far as this labor is considered with reference to the values, or even the useful articles created by it, there is no difference in his six days of labor. The difference refers merely to the distinct conditions by which the expenditure of his labor-power during each half of his labor-time of six days is affected. The same applies to the necessary and surplus-labor of the wage worker.

The process of production ends in a commodity. The fact that labor-power has been expended in its creation now is manifest in its attribute of value ; the magnitude of this value is measured by the quantity of labor expended in it ; the value of a commodity resolves itself into nothing else and is not composed of anything else. If I have drawn a straight line of definite length, I have "produced" a straight line (true, only symbolically, as I know beforehand) by means of a certain mode of drawing which is determined by certain laws independent of myself. If I divide this line into three sections (which may correspond to a certain problem), every one of these sections remains a straight line, and the entire line, whose sections they are, does not resolve itself, by this division, into anything different from a straight line, for instance, a curve of some kind. Neither can I divide a line of a given magnitude in such a way that the sum of its divisions is greater than the undivided line itself ; hence the magnitude of the undivided line is not determined by any arbitrary division of its parts. *Vice-versa,* the relative magnitudes of these divisions are limited from the outset by the size of the line whose parts they are.

A commodity produced by a capitalist does not differ in itself from that produced by an independent laborer, or by a laboring commune, or by slaves. But in the present case, the entire product of labor as well as its value belong to the capitalist. Like every other producer, he has to convert his commodity by sale into money, before he can manipulate it further ; he must convert it into the form of the universal equivalent.

Let us look at the product in commodities before it is converted into money. It belongs wholly to the capitalist. On the other hand, as a useful product of labor, a use-value, it is entirely the product of a past labor-process. Not so its value. One portion of this value is but the value of means of production consumed in the production of the commodities and re-appearing in a new form ; this value has not been produced during the process of production of this commodity ; for the means of production possessed this value before this process of production, independently of it ; they entered into this process as the bearers of their value ; it is only the external form of this value which has been renewed and changed. This portion of the value of the commodity serves the capitalist as an equivalent of the constant value of the capital advanced by him and consumed in the production of the commodity. It existed previously in the form of means of production ; it exists now as a component part of the value of the newly-produced commodity. As soon as this commodity has been turned into money, the value then existing in the form of money must be reconverted into means of production, into its original form determined by the process

of production and its function in it. Nothing is altered in the character of the value of a commodity by the function of this value as capital.

A second portion of the value of a commodity is the value of the labor-power which the wage-worker sells to the capitalist. It is determined, the same as that of the means of production, independently of the process of production into which labor-power is to enter, and it is fixed in a transaction of the circulation, the purchase and sale of labor-power, before it goes to the process of production. By means of his function—the expenditure of labor-power—the wage-laborer produces a value of the commodity equal to the value which the capitalist has to pay him for the use of his labor-power. He gives this value to the capitalist in commodities, and is paid for it in money. The fact that this portion of the value of commodities is for the capitalist but an equivalent for the capital which he has to advance in wages does not alter in any way the truth that it is a value of commodities newly created during the process of production and consisting of nothing but past expenditure of labor, the same as the surplus-value. Neither is this truth affected by the fact that the value paid by the capitalist to the laborer assumes the form of a revenue for the laborer, and that not only labor-power is continually reproduced thereby, but also the class of wage-laborers itself, and thus the basis of the entire capitalist production.

However, the sum of these two portions of value does not constitute all there is to the value of commodities. There remains an excess over both of them, the surplus-value. This, like that portion of value which reproduces the variable capital advanced in wages, is a value newly created by the laborer during the process of production —materialized labor. But it does not cost the owner of the entire product, the capitalist, anything. This circumstance permits the capitalist to consume the surplus-value entirely as his revenue, unless he has to give up some portions of it to other claimants—such as ground rent to land owners, in which case such portions constitute a revenue of third persons. This same circumstance was also the compelling motive which induced the capitalist to engage in the first place in the manufacture of commodities. But neither his original benevolent intention of securing some surplus-value, nor its subsequent expenditure as revenue, by him or others, affects the surplus-value as such. They do not impair the fact that it is coagulated, unpaid, labor, nor the magnitude of this surplus-value, things which are determined by entirely different conditions.

However, if Adam Smith wanted to occupy himself, as he did, with an analysis of the role of different constituent parts of value in the total process of reproduction, even while he was investigating the question of the value of commodities, then it was evident that, while some particular portions of value served as a revenue, others served just as continually as capital—and, according to his logic, these would likewise have to be regarded as constituent parts of the value of commodities, or parts into which this value resolves itself.

Adam Smith identifies the production of commodities in general with capitalist production ; the means of production are to him from

the outset "capital," labor is wage-labor, and therefore "the number of the useful and productive laborers is always . . . . . proportional to the quantity of capital stock which is employed in setting them to work." (Introduction, page 12.) In short, the various elements of the productive process—both objective and subjective ones—appear from the first with the masks characteristic of the process of capitalist production. The analysis of the value of commodities, therefore, coincides with the reflection, to what extent this value is, on the one hand, a mere equivalent for invested capital, and, on the other, to what extent it forms "free" value, that is to say, value not reproducing any advance of capital, or surplus-value. The proportions of value compared from this point of view transform themselves clandestinely into its independent "component parts," and finally into the "sources of all value." A further consequence of this method is the alternate composition or dissolution of the value of commodities into revenues of various kinds, so that the revenues do not consist of values of commodities, but rather the value of commodities consists of revenues. But the fact that the value of a commodity may serve as a revenue for this or that man does not change the nature of value as such any more than the fact that the value of a commodity as such, or of money as such, may serve as capital changes their nature. The commodity with which Adam Smith is dealing represents from the outset a commodity-capital (which consists of the value of the capital consumed in production plus a surplus-value), it is a commodity produced by capitalist methods, a result of the capitalist process of production. It would have been necessary, then, to analyze first this process, and this would have implied an analysis of the process of self-expansion and of the formation of value, which it includes. Since this process is in its turn conditioned on the circulation of commodities, its description requires also a previous and independent analysis of a commodity. However, even where Adam Smith hits "esoterically" upon the correct thing in a haphazard way, he refers to the formation of values only in the analysis of commodities, that is to say, in the analysis of commodity-capital.

III. The Economists After Smith.[36]

Ricardo reproduces the theory of Smith almost verbatim: "It is agreed that all products of a certain country are consumed, but it makes the greatest imaginable difference whether they are consumed by those who reproduce another value, or by those who do not. When we say that revenue is saved up and added to the capital, we mean that the portion of revenue added to the capital is consumed by productive laborers, instead of unproductive ones." (Principles, Page 163.)

In fact, Ricardo fully accepted the theory of Adam Smith concerning the separation of the price of commodities into wages and surplus value (or variable capital and surplus-value). The points in which he differs from him are (1) the composition of the surplus-value ; Ricardo

[36] From here to the end of the chapter, an extract from manuscript II presented.

eliminates ground rent as one of its necessary elements; (2) Ricardo starts out from the price of commodities and dissects it into these component parts. In other words, the magnitude of value is his point of departure. The sum of its parts is assumed as given, it is the starting point, while Adam Smith frequently subverts this order and proceeds contrary to his deeper insight, by producing the quantity of value subsequently by an addition of its component parts.

Ramsay makes the following remark against Ricardo: "Ricardo forgets that the total product is not only divided into wages and profits, but that a portion is also required for the reproduction of the fixed capital." (An Essay on the Distribution of Wealth. Edinburgh, 1836, page 174.) Ramsay means by fixed capital the same thing which I call constant capital, for he says on page 53: "Fixed capital exists in a form in which it contributes toward the production of the commodity in process of formation, but not toward the maintenance of laborers."

Adam Smith refuses to accept the logical outcome of his dissolution of the value of commodities, and therefore of the value of the annual product of social labor, into wages and surplus-value, or into mere revenue. This logical outcome would be that the entire annual product might be consumed in that case. It is never the original thinkers that draw the absurd conclusions. They leave that to the Says and MacCullochs.

Say takes the matter indeed easy enough. That which is an advance of capital for one, is, or was, a revenue and net product for another. The difference between the gross and the net product is purely subjective, "and thus the total value of all products in a society is divided as revenue." (Say, *Traite d'Economie Politique*, 1817, II, page 69.) "The total value of every product is composed of the profits of the land owners, the capitalists, and the industrious people (wages figure here as *profits des industrieux!*) who have contributed toward its production. This makes the revenue of society equal to the gross value produced, not equal to the net products of the soil, as was claimed by a sect of economists" (the physiocrats). (Page 63.)

Among others, Proudhon has appropriated this discovery of Say.

Storch, however, who likewise accepts the doctrine of Smith in principle, finds that Say's application of it does not hold water. "If it is admitted, that the revenue of a nation is equal to its gross product, so that no capital" (that is to say, no constant capital) "is to be deducted, then it must also be admitted that this nation may consume unproductively the entire value of its annual product, without in the least reducing its future revenue. . . . The products which represent the" (constant) "capital of a nation are not consumable." (Storch, *Considérations sur la nature du revenu national*. Paris, 1824, Page 150.)

However, Storch forgot to tell us how the existence of this constant portion of capital agrees with the analysis of prices by Smith, which he has accepted, and according to which the value of commodities consists only of wages and surplus-value, but not of any constant capital. He realizes only through Say that this analysis of prices

leads to absurd results, and his own opinion of it is "that it is impossible to dissolve the necessary price into its simplest elements." (*Cours d'Economie Politique*, Petersburg, 1815, II, page 140.)

Sismondi, who occupies himself especially with the relation of capital and revenue, and makes the peculiar formulation of this relation the specific difference of his *Nouveaux Principes*, did not say one scientific word, did not contribute one atom toward a clarification of this problem.

Barton, Ramsay and Cherbuliez attempted to surpass the formulation of Smith. They failed, because they conceive the problem in a onesided way, by not making clear the distinction of constant and variable capital-value from fixed and circulating capital.

John Stuart Mill likewise reproduces, with his usual pomposity, the doctrine handed down by Adam Smith to his followers.

As a result, the Smithian confusion of thought persists to this hour, and his dogma is one of the orthodox articles of faith of political economy.

CHAPTER XX

SIMPLE REPRODUCTION

I. THE FORMULATION OF THE QUESTION.

If we study the annual function of social capital[37]=of the total capital whose fractional parts are the individual capitals, the movements of which are simultaneously their individual movements and links in the movements of the total capital—and its results, that is to say, if we sudy the product in commodities put forth by society during the year, then it must become apparent how the process of reproduction of the social capital proceeds, what characteristics distinguish this process of reproduction from that of an individual capital, and what characteristics are common to both. The annual product includes those portions of the social product which reproduce capital, the social reproduction, as well as those which go to the fund for consumption, which are consumed by capitalists and laborers, in other words, productive and individual consumption. It comprises the reproduction (maintenance) of the capitalist and working classes, and thus the reproduction of the capitalist character of the entire process of production.

It is evidently the circulation formula

$$C' - \begin{cases} M - C \ldots P \ldots C' \\ m - c \end{cases}$$

which we have to analyze, and the consumption necessarily plays a role in it. For the point of departure, C' equal to C plus c, the commodity-capital, comprises the constant nad variable capital as well as the surplus-value. Its movements, therefore, include both the individual and productive consumption. In the cycles M—C...P...C'—M', and P...C'—

[37] From manuscript II.

M'—C...P, the movement of the capital is the starting and finishing point. And this implies consumption, for the commodity, the product, must be sold. When these premises are accepted, it is immaterial for the movement of the individual capitals what becomes of these commodities subsequently. On the other hand, in the movement of C'...C' the conditions of social reproduction are precisely different in this point, since it must be shown what becomes of every portion of value of this total product of C'. In this case, the total process of reproduction includes the process of consumption by way of the circulation quite as much as the process of reproduction of the capital itself.

This process of reproduction, now, must be considered for the purposes of our study both from the point of view of the reproduction of the value and of the substance of the individual component parts of C'. We cannot rest satisfied any longer, as we did in the analysis of the value of the product of the individual capital, with the assumption that the individual capitalist must first convert the component parts of his capital into money by the sale of his commodities, before he is able to reconvert it into productive capital by renewed purchase of the elements of production in the commodity market. Those elements of production, so far as they consist of things, constitute as much a portion of the social capital as the individual finished product, which is exchanged for them and reproduced by them. On the other hand, the movement of that portion of the social product in commodities, which is consumed by the laborer in the expenditure of his labor-power, and by the capitalist in spending his surplus-value, does not only form an integral part of the movement of the total product, but also intermingles with the movements of the individual capitals, and this process cannot be explained by merely assuming it.

The question which we have to face immediately, is this: How is the value of the capital consumed in production reproduced out of the annual product, and how does the movement of this reproduction intermingle with the consumption of surplus-value by the capitalists and of wages by the laborers? We are dealing, then, first with reproduction on a simple scale. It is furthermore assumed that products are exchanged at their value, and that no revolution in the value of the elements of productive capital takes place. Should there be any divergence of prices from values, this would not exert any influence on the movements of *social capital.* On the whole, there is the same exchange of the same quantity of products, although the individual capitalists would be taking shares in it which would no longer be proportional to their respective advances and to the quantities of value produced by each one. As for revolutions of value, they do not alter anything in the proportions of the elements of value of the various component parts of the total annual product, provided they are universally and uniformly distributed. To the extent that they are limited and unevenly distributed, they are disturbances which, in the first place, can be understood only as divergences from equal proportions of value ; and, in the second place, given the law according to which one portion of the annual product reproduces constant, and another variable capital, a revolution either in the value of the constant or variable capital would not

alter this law. It would change merely the relative magnitude of the portions of value which serve in the one or the other capacity, seeing that other values would have taken the places of the original ones.

So long as we looked upon the production of value and the value of products from the point of view of individual capital, it was immaterial for the analysis which was the natural form of the product in commodities, whether it was, for instance, that of a machine, of corn, or of looking glasses. It was always but a matter of illustration, and any line of production could serve that purpose. What we had to consider was the immediate process of production itself, which presented itself at every point as the process of some individual capital. So far as reproduction was concerned, it was sufficient to assume that that portion of the product in commodities, which represented capital in the sphere of circulation, found an opportunity to reconvert itself into its elements of production and thus into its form of productive capital. It likewise sufficed to assume that both the laborer and the capialist found in the market those commodities for which they spend their wages and surplus-value. This merely formal manner of presentation does not suffice in the study of the total social capital and of the value of its products. The reconversion of one portion of the value of the product into capital, the passing of another portion into the individual consumption of the capitalist and working classes, form a movement within the value of the product itself which is created by the total capital ; and this movement is not only a reproduction of value, but also of material, and is, therefore, as much conditioned on the relative proportions of the elements of value of the total social product as on its use-value, its material substance.[38]

Simple reproduction on the same scale appears as an abstraction, inasmuch as the absence of all accumulation or reproduction on an enlarged scale is an irrelevant assumption in capitalist society, and, on the other hand, conditions of production do not remain exactly the same in different years (as was assumed). The assumption is that a social capital of a given magnitude produces the same quantity of value in commodities this year as last, and supplies the same quantity of wants, although the forms of the commodities may be changed in the process of reproduction. However, while accumulation does take place, simple reproduction is always a part of it and may, therefore, be studied in itself, being an actual factor in accumulation. The value of the annual product may decrease, although the quantity of use-values may remain the same ; or, the value may remain the same, although the quantity of the use-values may decrease ; or, the quantity of value and of use-values may decrease simultaneously. All this amounts to saying that reproduction takes place either under more favorable conditions than before, or under more difficult ones, which may result in an imperfect reproduction. But all this can refer only to the quantitative side of the various elements of reproduction, not to the role which they are playing as a reproducing capital, or as a reproduced revenue, in the entire process.

[38] From manuscript VIII.

II. THE TWO DEPARTMENTS OF SOCIAL PRODUCTION.[39]

The total product, and therefore the total production, of society, is divided into two great sections:

I. *Means of Production,* commodities having a form in which they must, or at least may, pass over into productive consumption.

II. *Means of Consumption,* commodities having a form in which they pass into the individual consumption of the capitalist and working classes.

In each of these two departments, all the various lines of production belonging to them form one single great line of production, the one that of the means of production, the other that of articles of consumption. The aggregate capital invested in each of these two departments of production constitutes a separate section of the entire social capital.

In each department, the capital consists of two parts:

(1) *Variable Capital.* This capital, so far as its value is concerned, is equal to the value of the social labor-power employed in this line of production, in other words, equal to the sum of the wages paid for this labor-power. So far as its substance is concerned, it consists of the active labor-power itself, that is to say, of the living labor set in motion by this value of capital.

(2) *Constant Capital.* This is the value of all the means of production employed in this line. These, again, are divided into *fixed* capital, such as machines, instruments of labor, buildings, laboring animals, etc., and *circulating* capital, such as materials of production, raw and auxiliary materials, half-wrought articles, etc.

The value of the total annual product created with the capital of each of the two great departments of producion consists of one portion representing the constant capital c consumed in the process of production and transferred to the product, and of another portion added by the entire labor of the year. This latter portion, again, consists of one part reproducing the advanced variable capital v, and of another representing an excess over the variable capital, the surplus-value s. And just as the value of every individual commodity, so that of the entire annual product of each department, consists of c plus v plus s.

The portion c of the value, representing the constant capital *consumed* in production, is not identical with the value of the constant capital *invested* in production. It is true that the materials of production are entirely consumed and their values completely transferred to the product. But of the invested *fixed* capital, only a portion is consumed and its value transferred to the product. Another portion of the fixed capital, such as machines, buildings, etc., continues to exist and serve the same as before, merely depreciating to the extent of the annual wear and tear. This persistent portion of the fixed capital does not exist for us when we consider the value of the product. It is a portion of the value of capital existing independently beside the new value in commodities produced by this capital. This was shown previously in the analysis of the value of the product of some individual capital (volume I,

[39] Mainly taken from manuscript II; the diagrams from manuscript VIII.

chapter VI). However, for the present we must leave aside the method of analysis employed there. We saw in the study of the value of the product of individual capital that the value withdrawn from the fixed capital by wear and tear was transferred to the product in commodities created during the time of wear, no matter whether any portion of this fixed capital is reproduced in its natural form out of the value thus transferred or not. At this point, however, in the sudy of the social product as a whole and of its value, we must for the present leave out of consideration that portion of value which is transferred from the fixed capital to the annual product by wear and tear, unless this fixed capital is reproduced *in natura* during the year. In one of the following sections of this chapter we shall return to this point.

We shall base our analysis of simple reproduction on the following diagram, in which c stands for constant capital, v for variable capital, and s for surplus-value, the rate of surplus-value between v and s being assumed at 100 per cent. The figures may indicate millions of francs, marks, ponds sterling, or dollars.

I. Production of Means of Production.

Capital.....4000 c + 1000 v = 5000.

Product in Commodities.....4000 c + 1000 v + 1000 s = 6000.

These exist in the form of means of production.

II. Production of Means of Consumption.

Capital.....2000 c + 500 v = 2500.

Product in Commodities.....2000 c + 500 v + 500 s = 3000.

These exist in articles of consumption.

Recapitulation: Total annual product in commodities:

I. 4000 c + 1000 v + 1000 s = 6000 means of production.

II. 2000 c + 500 v + 500 s = 3000 articles of consumption.

Total value 9000, exclusive of the fixed capital persisting in its natural form, according to our assumption.

Now, if we examine the transactions required on the basis of simple reproduction, where the entire surplus-value is unproductively consumed, leaving aside for the present the mediation of the money circulation, we obtain at the outset three great points of vantage.

(1) The 500 v, representing wages of the laborers, and 500 s, representing surplus-value of the capitalists, in department II, must be spent for article of consumption. But their value exists in the articles of consumption to the amount of 1000, held by the capitalists of department II, which reproduce the 500 v and represent the 500 s. The wages and surplus-value of department II, then, are exchanged within this department for products of this same department. By this means, a quantity of articles of consumption equal to 1000 (500 v plus 500 s) disappear out of the total product of department II.

(2) The 1000 v and 1000 s of department I must likewise be spent for articles of consumption, in other words, for some of the products of department II. Hence they must be exchanged for the remaining 2000 c of constant value, which is equal in amount to them. Department II receives in return an equal quantity of means of production, the product of I, in which the value of 1000 v and 1000 s of I is incorporated.

By this means, 2000 c of II and (1000 v + 1000 s) of I disappear out of the calculation.

(3) Nothing remains now but 4000 c of I. These consist of means of production which can be used up only in department I. They serve for the reproduction of its consumed constant capital, and are disposed of by the mutual exchange between the individual capitalists of I, just as are the (500 v + 500 s) in II by an exchange between the capitalists and laborers, or between the individual capitalists, of II.

This may serve for the present to render easier the understanding of the following statements.

III. THE TRANSACTIONS BETWEEN THE TWO DEPARTMENTS.[40]

I(v + s) versus II c

We begin with the great exchange between the two departments. The values of (1000 v + 1000 s), consisting of the natural form of means of production in the hands of their producers, are exchanged for 2000 c of II, for values consisting of articles of consumption in their natural form. The capitalist class of II thereby reconverts its constant capital of 2000 from the form of articles of consumption into that of means of production of articles of consumption. In this form it may serve once more as a factor in the labor-process as the value of constant capital in the process of self-expansion. On the other hand, the equivalent of the labor-power of I (1000 v) and of the surplus-value of the capitalists of I (1000 s) is realized in articles of consumption ; both of them are converted from their natural form of means of production into a natural form in which they may be consumed as revenue.

Now, this mutual transaction is accomplished by means of a circulation of money, which facilitates it as much as it renders its understanding difficult, but which is of fundamental importance, because the variable portion of capital must ever resume the form of money, of money-capital converting itself from the form of money into labor-power. The variable capital must be advanced in the form of money in all lines of production carried on simultaneously, regardless of whether they belong to department I or II. The capitalist buys the labor-power before it enters into the process of production, but does not pay for it except at stipulated terms, after it has been expended in the production of use-values. He owns, with the remander of the value of the product, also that portion of it which is an equivalent for the money expended in the payment of labor-power, in other words, that portion of the value of the product which represents variable capital. By this portion of value the laborer has supplied the capitalist with the equivalent for his own wages. But it is the reconversion of commodities into money by their sale which restores to the capitalist his variable capital in the form of money-capital, which he may advance once more for the purchase of labor-power.

[40]Here manuscript VIII is resumed.

In department I, then, the aggregate capitalist has paid 1000 pounds sterling (I use the term pounds sterling merely to indicate that it is value in the form of money), equal to 1000 v, for the v-portion of the already existing value of product I, that is to say, of the means of production created by him. The laborers buy with these 1000 pounds sterling articles of consumption of the same value from the capitalists II, thereby converting one-half of the constant capital II into money; the capitalists II, in their turn, buy with these 1000 pounds sterling means of production, valued at 1000, from the capitalists I; the variable capital-value of 1000 v, which consisted, in the natural form of the product of capitalists I, of means of production, is thus reconverted for them into money and may serve anew in their hands as money-capital, which is transformed into labor-power, the most essential element of productive capital. In this way, their variable capital returns to them in the form of money, as a result of the realization on some of their commodity-capital.

As for the money which is required for the exchange of the s portion of commodity-capital I for the second half of constant capital II, it may be advanced in various ways. In reality, this circulation implies innumerable small purchases and sales of the individual capitals of both departments, the money coming under all circumstances from these capitalists, since we have already disposed of the money thrown into circulation by the laborers. It may be that one of the capitalists of department II buys, with the money-capital he has aside from his productive capital, means of production from capitalists of department I, or that, *vice versa*, one of the capitalists of department I buys, with funds reserved for individual expenses, not for capital investment, articles of consumption from capitalists of department II. A certain supply of money, to be used either for investment as capital or for expenditure as revenue, must be assumed to exist beside the productive capital in the hands of the capitalists, under all circumstances, as we have shown in section I and II. Let us assume—it is immaterial what proportion we select for our purpose—that one-half of the money is advanced by the capitalists of department II in the purchase of means of production intended for the reproduction of their constant capital, while the other half is spent by the capitalists of department I for articles of consumption. For instance, let department II advance 500 pounds sterling for the purchase of means of production from department I, thereby reproducing (inclusive of the 1000 pounds sterling coming from the laborers of department I) three-quarters of its constant capital in its natural form; department I buys with the 500 pounds sterling so obtained articles of consumption from II, thus completing for one-half of the s-portion of its commodity-capital the circulation c—m—c and realizing on its product in a supply of articles of consumption. By means of this second transaction, the 500 pounds sterling return to the hands of the capitalists of department II, in the form of money-capital existing beside its productive capital. On the other hand, department I expends money to the amount of 500 pounds sterling, in anticipation of the realization on the other half of the s-portion of its still unsold commodity-capital, for the purchase of articles of consumption from

department II. With the same 500 pounds sterling, department II buys from I means of production thereby reproducing in natural form its entire constant capital (1000 + 500 + 500 = 2000), while I realizes its entire surplus-value in articles of consumption. The entire transaction would represent a transfer of commodities valued at 4000 pounds sterling with a circulation of 2000 pounds sterling in money. This last amount is sufficient only because we have assumed that the entire annual product is sold in bulk in a few large transactions. The important point here is that department II has not only reconverted its constant capital, which had been reproduced in the form of articles of consumption, into the form of means of production, but has also recovered the 500 pounds sterling which it had thrown into circulation for the purchase of means of production ; and that in the same way department I possesses once more not only its variable capital, which it had produced in the form of means of production, in the form of money-capital, readily convertible into labor-power, but also the 500 pounds sterling expended in the purchase of articles of consumption previously to the sale of the s-portion of its capital in anticipation of its realization. It recovers these 500 pounds sterling not by this expenditure, but by the subsequent sale of one-half of the s-portion of its commodity-capital.

In both cases, it is not merely the constant capital of department II which is reconverted from the form of a product into the natural form of means of production, in which it can alone serve as capital ; nor is it merely the variable portion of the capital of I which is reconverted into its money-form, nor the surplus-portion of the means of production of I which is transformed into its consumable form of revenue. It is also the 500 pounds sterling of money-capital, advanced by department II in the purchase of means of production previously to the sale of the corresponding portion of the value of its constant capital, which return to II ; and the 500 pounds sterling expended by I for means of consumption previously to the realization of its surplus-value. The fact that the money advanced by II at the expense of the constant portion of its commodities, and by I at the expense of the surplus-portion of its commodities, returns to them is due to the circumstance that one class of capitalists throws 500 pounds sterling into circulation over and above the constant capital existing in the form of commodities in department II, and another class a like amount over and above the surplus-value existing in the form of commodities in department I. In the last analysis, the two departments have mutually paid one another in full by the exchange of equivalents in the form of their respective commodities. The money thrown into circulation by each department in excess of the value of their commodities, as a means of transacting the exchange of these commodities, returns to each one of them out of the circulation at the same rate in which they had contributed to it. Neither has grown any richer thereby. Department II possessed a constant capital of 2000 in the form of articles of consumption plus 500 pounds sterling in money ; now it possesses 2000 in means of production plus 500 pounds sterling in money, the same as before ; in the same way, department I possesses, as before, a surplus-value of 1000 (consisting of commodities in the form of means of production, now con-

verted into a supply of articles of consumption) plus 500 pounds sterling. The general conclusion is this: The money which the industrial capitalists throw into circulation for the purpose of accomplishing the mutual exchange of their commodities, either in account with the constant value of the commodities, or in account with the surplus-value existing in the commodities, to the extent that it is spent as revenue, returns into the hands of the respective capitalists in proportion to the amount advanced by them for the circulation of money.

As for the reconversion of the variable capital of department I into the form of money, this capital exists, after the capitalists of I have invested it in wages, first in the form of the commodities produced by the laborers. The capitalists have paid this capital in the form of money to these laborers as the price of their labor-power. The capitalists have to this extent paid for that portion of the value of their commodities, which is equal to the variable capital expended in the form of money. They are, for this reason, the owners of this portion of the commodity-product. But that portion of the working class which is employed by them does not buy the means of production created by it ; these laborers buy articles of consumption produced by department II. Hence the variable capital advanced by the capitalists of I in the payment of labor-power does not return to these capitalists directly. It passes by means of the purchases of the laborers of I into the hands of the capitalist producers of the requirements of life of the laborer, or of other commodities accessible to them ; in other words, it passes into the hands of capitalists of II. And not until these expend this money in the purchase of means of production does it return by this circuitous route into the hands of the capitalists of department I.

It follows that, on the basis of simple reproduction, the sum of the values of v plus s of the commodity-capital of I (and therefore a corresponding proportional part of the total product in commodities of I) must be equal to the constant capital c of department II, which is likewise disposed of as a proportional part of the entire product in commodities of department II ; or $I\ (v+s)=II\ c$.

IV. TRANSACTIONS WITHIN DEPARTMENT II. NECESSITIES OF LIFE AND ARTICLES OF LUXURY.

It remains for us to analyze the portion v plus s of the value of the commodities of department II. This analysis has nothing to do with the most important question which occupies our attention in this chapter, namely the question, to what extent the separation of the value of every individual capitalist product in commodities into c plus v plus s applies also to the value of the entire annual product in commodities, even though this separation may be based on diffrent forms. This question is solved by the transaction between I (v+s) and II c, and, on the other hand, by the analysis of the reproduction of I c in the annual product in commodities of I, to be analyzed later on.

Since II (v+s) exists in the natural form of articles of consumption ; since, furthermore, the variable capital advanced in the pay-

ment of the labor-power of the laborers is mostly spent by them for articles of consumption ; and since, finally, the s-portion of the value of commodities, on the basis of simple reproduction, is practically spent as revenue for articles of consumption, it is evident at the first glance that the laborers of II buy back, with the money received as wages from the capitalists of II, a portion of their own product, corresponding in value to the money-value represented by these wages. The capitalist class of II thereby reconvert the money-capital advanced by them in the payment of labor-power into the form of money. It is as though they had paid the laborers in mere cheques on commodities. As soon as the laborers realize on these cheques by the purchase of a portion of the commodities produced by them, but belonging to the capitalists, these cheques return into the hands of the capitalists. Only, these cheques do not merely represent value, but they are actually embodied in gold or silver. We shall analyze later on this sort of reflux of variable capital by means of a process in which the laborer appears as a purchaser and the capitalist as a seller. Here, however, it is a question of a different point, which must be discussed on the occasion of the return of this variable capital to its point of departure.

Department II of the annual production of commodities consists of a great variety of lines of production, which may, however, be divided into two great subdivisions according to their products.

(a) Articles of consumption required for the maintenance of the laboring class, and to the extent that they are material requirements of life, also forming a portion of the consumption of the capitalist class, although they are frequently different in quality and value. We may, for our purposes, comprise this entire subdivision under the name of *necessary articles of consumption,* regardless of whether a product of this class, such as tobacco, is really a necessary article of consumption from the physiological standpoint or not. It is sufficient that it may be habitually in demand.

(b) Articles of luxury, which are consumed only by the capitalist class, being purchased only with the surplus-value, which never falls to the share of the laborer.

It is obvious that the variable capital advanced in the production of the commodities of the class (a) must flow back directly to that portion of the capitalist class of II (in other words the capitalists of IIa) who have produced these material requirements of life. They sell them to their own laborers to the amount of the variable capital paid to them in wages. This reflux takes place in a direct way, so far as this entire subdivision (a) of the capitalist class of department II is concerned, no matter how numerous may be the transactions between the capitalists of the various lines of industry interested in this department, by means of which the returning variable capital is distributed *pro rata*. These transactions are processes of circulation, whose means of circulation are supplied directly by the money expended by the laborers. It is different with subdivision IIb. The entire portion of the values produced in this subdivision, IIb (v+s), exists in the natural form of articles of luxury ; that is to say, articles which the laborer can buy no more than the value of the commodities Iv existing in the form of

means of production, notwithstanding the fact that both articles of luxury and means of production are the products of the working class. Hence the reflux by which the variable capital advanced in this subdivision restores to the capitalist producers its value in the form of money cannot take place diretcly, but must be promoted indirectly, similarly as in the case of Iv.

Let us assume, for instance, that v stands for 500 and s also for 500, as they did in the case of the entire class II ; but let the division of the variable capital and of the corresponding surplus-value be as follows:

(Subdivision a) Necessities of Life: v equal to 400 and s equal to 400 ; hence a total quantity of necessities of life valued at 400 v plus 400 s, equal to 800, in other words, IIa (400 v + 400 s).

(Subdivision b) Articles of Luxury: Valued at 100 v plus 100 s, equal to 200, or IIb (100 v + 100 s).

The laborers of IIb have received 100 in money as payment of their labor-power, or say 100 pounds sterling. They buy with this money articles of consumption from the capitalists of IIa to the same amount. This class of capitalists buys with the same money 100 p. st. worth of the commodities of IIb, thereby returning to the capitalists of IIb their variable capital in the form of money.

In IIa there are available once more 400 v in money, in the hands of the capitalists, obtained by exchange with their laborers. Furthermore, the fourth part of the product representing surplus-value has been transferred to the laborers of IIb, and IIb (100 v) have been purchased in the form of articles of luxury.

Now, assuming that the capitalists of IIa and IIb divide the expenditure of their revenue in the same proportion between necessities of life and luxuries—for instance, three-fifths for necessities and two-fifths for luxuries—the capitalists of IIa will spend their revenue from surplus-value, amounting to 400 s, three-fifths, or 240, for their own product of necessities of life, and two-fifths, or 160, for articles of luxury. The capitalists of subdivision IIb will divide their surplus-value of 100 s in the same way: three-fifths, or 60, for necessities, and two-fifths, or 40, for articles of luxury, these being produced and exchanged in their own subdivision.

The 160 in articles of luxury received by IIa for its surplus-value pass into the hands of the capitalists of IIa in the following manner: Of the 400 s of IIa, we have seen that 100 were exchanged in the form of necessities of life for an equal amount of articles of luxury of IIb, and furthermore 60, consisting of necessities of life, for 60 s of IIb, consisting of luxuries. The total calculation then stands as follows:

IIa: 400 v plus 400 s ; IIb: 100 v plus 100 s.

(1) 400 v of (a) are consumed by the laborers of IIa, a part of whose product is represented by that amount in necessities of life ; the laborers buy these necessities from the capitalist producers of their own subdivision. These capitalists thereby recover 400 p. st., in money, which is the value of the variable capital paid by them to these same laborers. They can now buy more labor-power with it.

(2) One portion of the 400 s of (a), equal to the 100 v of (b); in other words, one-quarter of the surplus-value of (a) is exchanged for luxuries in the following way: The laborers of (b) received from the capitalists of their subdivision 100 p. st. in wages. With this amount these laborers bought one-quarter of the surplus-value of (a), in other words, commodities consisting of necessities of life. The capitalists of (a) buy with this same money articles of luxury to the same amount, which equals 100 v of (b), or one-half of the entire product in luxuries of (b). In this way the capitalists of (b) recover their variable capital in the form of money and are enabled to resume reproduction after having invested this amount once more in labor-power, since the entire constant capital of the whole department II has been reproduced by the exchange between I (v+s) and IIc. The labor-power of the laborers of IIb, the producers of articles of luxury, is under these circumstances, only saleable because the product created by them as an equivalent for their own wages is consumed by the capitalists of IIa. [The same applies to the sale of the labor-power of I, since the IIc for which I (v+s) is exchanged, consists of both articles of luxury and necessities of life, and that which is reproduced by means of I (v+s) consists of the means of production of both luxuries and necessities.]

(3) We now come to the exchange between a and b, to the extent that it is merely a transaction between the capitalists of these two subdivisions. So far we have disposed of the variable capital (400) v and of one portion of the surplus-value (100) s in (a), and of the variable capital (100) v in (b). We had furthermore assumed that the average proportion of the expenditure of the capitalist revenue was in both classes two-fifths for luxuries and three-fifths for necessities. Apart from 100 thus expended for luxuries, the entire department therefore still has to spend 60 for luxuries in (a) and the same proportion, or 40, in (b).

(iia) is then divided into 240 for necessities and 160 for luxuries, or 240+160=400 s (IIa).

(IIb) s is divided into 60 for necessities and 40 for luxuries; 60+40=100 s (IIb). The last 40 are consumed by this class out of its own product (two-fifths of its surplus-value); the 60 for necessaries are obtained by this class through the exchange of 60 of its surplus-value for 60 s of a.

We have, then for the entire capitalist class of II, the following situation (v plus s in subdivision (a) consisting of necessities, in subdivision (b) of luxuries):

IIa (400 v+400 s)+IIb (100 v+100 s)=1000; by this transaction there is realized 500 v (a+b)+500 s (a+b)=1000; the first member in this equation being realized in 400 v of (a) and 100 s of (b), the second in 300 s of (a) plus 100 v of (b) plus 100 s of (b).

Considering a and b, each by itself, we have the transaction:

a) $\frac{v}{400\ v\ (a)} + \frac{s}{240\ s\ (a) + 100\ v\ (b) + 60\ s\ (b)} = 800$

b) $\frac{v}{100\ s\ (a)} + \frac{s}{60\ s\ (a) + 40\ s\ (b)} \cdots\cdots\cdots\cdots = \frac{200}{1000}$

If we retain, for the sake of simplicity, the same proportion between the variable and constant capital of each subdivision (which, by the way, is not at all necessary), we obtain for 400 v (a) a constant capital of 1600, and for 100 v (b) a constant capital of 400, and we have the following two subdivisions a and b in department II:

(IIa) 1600 c + 400 v + 400 s = 2400
(IIb) 400 c + 100 v + 100 s = 600

making together

2000c + 500v + 500s = 3000.

Accordingly, 1600 of the 2000 IIc in articles of consumption, which are exchanged for 2000 I (v+s), are disposed of for means of production of necessities of life, and 400 for means of production of luxuries.

The 2000 I (v+s), then, would be divided into (800 v + 800 s) I, for the 1600 means of production of necessities of life in section a, and (200 v + 200 s) I, for the 400 means of production of luxuries in b.

A considerable part of the instruments of labor, strictly so called, as well as of the raw and auxiliary materials, etc., is homogeneous for both departments. But so far as the transaction of the exchanges of the various portions of value of the total product I (v+s) are concerned, such a division would be immaterial. Both the abovenamed 800 v of I and 200 v of I are realized by the spending of wages for articles of consumption 1000 c of II, and the money-capital advanced for this purpose is uniformly distributed, on its return, among the capitalist producers of I, reproducing their variable capital in money at the rate advanced by them. On the other hand, so far as the realization of the 1000 s or I is concerned, the capitalists will likewise draw uniformly, in proportion to the magnitude of their surplus-value, 600 IIa and 400 IIb out of the entire second half of IIc, equal to 1000 ; in other words, those who make up for the constant capital of IIa will draw 480, or three-fifths, out of 600 c or IIa, and 320, or two-fifths, out of 400 c of IIb, a total of 800 ; while those who make up for the constant capital of IIb will draw 120, or three-fifths out of 600 c of IIa and 80, or two-fifths out of 400 c of IIb, a total of 200. Grand total, 1000.

That which is arbitrary in this case is the proportion of the variable to the constant capital of both I and II and so is the uniformity of this proportion for I and II and their subdivisions. As for this uniformity, it has been assumed merely for the sake of simplifying the matter, and it would not alter in any way the fundamental conditions of the problem and its solution, if we had assumed different proportions. However, the necessary result of all this, on the basis of simple reproduction, is the following:

(1) That the new product in values created by the labor of one year in the natural form of means of production, divisible into v plus s, must be equal to the value of the constant capital c of the product in values created by the other part of annual labor, reproduced in the form of articles of consumption. If it were smaller than IIc, it would be impossible for II to reproduce its entire constant capital ; if it were greater, a surplus would remain unusued. In either case, the assumption of simple reproduction would be violated.

(2) That in the case of annual product which is reproduced in the form of articles of consumption, the variable capital v advanced in the form of money can be realized by its recipients, to the extent that they are laborers producing luxuries, only in that portion of the necessities of life which embodies for its capitalist producers primarily their surplus-value ; so that v, invested in the production of luxuries, is equal in value to a corresponding portion of s produced in the form of necessities, and must be smaller than the whole of this s, which is s of IIa; and that, finally, the variable capital of the capitalist producers of luxuries returns to them in the form of money only by means of the realization of that v in this portion of s. This phenomenon is quite analogous to the realization of I (v+s) in IIc; only that in the second case, it is the v of IIb which is realized in a portion of s of IIa of the same value. These conditions determine the proportions of the various quantities in every distribution of the total annual product, to the extent that it actually enters into the process of the annual reproduction promoted by circulation. I (v+s) can be realized only in IIc, and IIc can renew its function as a component part of productive capital only by means of this realization ; in the same way, the v of IIb can be realized only in a portion of s of IIa, and v of IIb can only thus be reconverted into the form of money-capital. Of course, all this applies only to the extent that it is a result of the process of reproduction itself, so that the capitalists of IIb do not, for instance, take up money-capital for v by credit from others. So far as mere quantity is concerned, the transactions for the exchange of the various portions of the annual product can take place only in the way indicated above, so long as the scale and the conditions determining value remain stationary, and so long as these strict conditions are not altered by the commerce with foreign countries.

Now, if we were to say after the manner of Adam Smith that I (v+s) resolves itself into IIc, and IIc resolves itself into I (v+s), or, as he says more frequently and more absurdly, I (v+s) constitutes the component parts of the price (or value in exchange, as he has it) of IIc, and IIc constitutes the entire component part of the value of I(v+s), then we could and should say that the v of IIb resolves itself into s of IIa, or the s of IIa into the v of IIb, or the v of IIb forms a component part of the s of IIa, or, *vice versa,* the surplus-value thus resolves itself into wages, or into variable capital, and the variable capital forms a *component part* of the surplus-value. This absurdity is indeed found in Adam Smith, since according to him wages are "determined by the value of the necessities of life, and the values of these commodities in their turn by the value of the wages (variable capital) and surplus-value contained in them. He is absorbed in the fractional parts, into which the product in values of one working day is divided on the basis of capitalist production—namely into v plus s—that he quite forgets that it is immaterial in the simple exchange of commodities whether the equivalent existing in various natural forms consist of paid or unpaid labor, since their production costs in either case the same amount of labor ; and that it is also immaterial whether the commodity of A is

a means of production and that of B an article of consumption, and whether one commodity has to serve as a component part of capital after its sale, while another passes into the fund for consumption and is consumed, according to Adam, as revenue. The use to which the buyer puts his commodity does not fall within the scope of the exchange of commodities, does not concern the circulation, and does not affect the value of the commodity. This fact is not in the least affected by the truth that, in the analysis of the circulation of the annual social product as a whole, the definite use for which it is intended, the mode of consumption of the various component parts of that product, must be taken into consideration.

In mentioning the fact that the conversion of the v of IIb into a portion of the s of IIa of the same value, and the further transactions between the s of IIa and the s of IIb, it is by no means assumed that either the individual capitalists of IIa and IIb or their respective totalities divide their surplus-value in the same proportion between necessities of life and articles of luxury. The one may spend more in this consumption, the other more in that. On the basis of simple reproduction we have merely assumed that a sum of values equal to the entire surplus-value is realized in a fund for consumption. The limits are thus given. Within each department, the one may do more in a, the other in b. But this may compensate itself mutually, so that the capitalist classes of a and b, each taken as a whole, each participate in the same portion in both of them. The proportions of value—the proportional share of the two classes of producers, a and b, in the total value of the product of II—and with them a definite quantitative proportion between the departments of production supplying those products, are necessarily given in any concrete case; only a proportion chosen as an illustration is a hypothetical one. It does not alter the qualitative elements of the proposition if we select another illustration; only the quantitative determinations would be altered. But if any circumstances cause an actual change in the proportional magnitude of a and b, then the conditions of simple reproduction would likewise be changed correspondingly.

Since the v of IIb is realized in an equivalent portion of the s of IIa, it follows that to the extent that the portion of the annual product consisting of luxuries grows, absorbing an increasing share of the labor-power in the production of luxuries, to the same extent is the reconversion of variable capital advanced by IIb into money conditioned on the prodigality of the capitalist class, who spend a considerable portion of their surplus-value in articles of luxury. It is by this means that the reconversion of this variable capital into money is promoted, and thereby the existence and reproduction of the laborers employed in IIb, by supplying them with the articles of consumption necessary for their life.

Every crisis momentarily lessens the consumption of luxuries. It retards and checks the reconversion of the v of IIb into money-

capital, permitting it only partially and thus throwing a certain number of the laborers employed in the production of luxuries out of employment, while it on the other hand clogs by this means the sale of the necessary articles of consumption and reduces it. And there are, besides, the unproductive laborers who are dismissed at the same time, laborers who receive for their services a portion of the funds spent by the capitalists for luxuries (these laborers are themselves luxuries), and who take part to a very considerable extent in the consumption of necessities of life, etc. The reverse takes place in periods of prosperity, particularly during the times of bogus prosperity, in which the relative value of money, expressed in commodities, decreases primarily for other reasons (without any other actual revolution in values), so that the price of commodities rises independently of their own value. It is not alone the consumption of necessities of life which increases at such times. The working class, actively reinforced by its entire reserve army, also enjoys momentarily articles of luxury ordinarily out of its reach, articles which at other times constitute for the greater part "necessities" only for the capitalist class. This contributes to a rise in prices from this quarter.

It is purely a tautology to say that crises are caused by the scarcity of solvent consumers, or of a paying consumption. The capitalist system does not know any other modes of consumption but a paying one, except that of the pauper or of the "thief". If any commodities are unsaleable, it means that no solvent purchasers have been found for them, in other words, consumers (whether commodities are bought in the last instance for productive or individual consumption). But if one were to attempt to clothe this tautology with a semblance of a profounder justification by saying that the working class receive too small a portion of their own product, and the evil would be remedied by giving them a larger share of it, or by raising their wages, we should reply that crises are precisely always preceded by a period in which wages rise generally and the working class actually get a larger share of the annual product intended for consumption. From the point of view of the advocates of "simple" (!) common sense, such a period should rather remove a crisis. It seems, then, that capitalist production comprises certain conditions which are independent of good or bad will and permit the working class to enjoy that relative prosperity only momentarily, and at that always as a harbinger of a coming crisis.[41]

We saw a while ago that the proportion between the production of necessities of life and that of luxuries requires the division of II (v + s) into IIa and IIb, and thus of IIc into (IIa) c and (IIb) c. Hence this division touches the character and the quantitative conditions of production to their very roots, and is an essential factor in its general conformation.

Simple reproduction is essentially directed toward consumption as an end, although the securing of surplus-value appears as the compelling motive of the individual capitalists ; but surplus-value in this

[41] Advocates of the theory of crises of Rodbertus are requested to make a note of this.

case, whatever may be its proportional magnitude, is supposed to serve merely for the individual consumption of the capitalist.

So far as simple reproduction is a part, and the most important one at that, of annual reproduction on an enlarged scale, consumption remains as a motive accompanying the accumulation of wealth as an end and distinguished from it. In reality, the matter appears more complicated, because some partners in the loot, the surplus-value of the capitalist, figure as consumers independently of him.

V. THE PROMOTION OF THE TRANSACTIONS BY THE CIRCULATION OF MONEY.

So far as we have analyzed circulation up to the present, it proceeded between the various classes of producers as indicated in the following diagrams:

(1) Between class I and class II:

I. 4000 c + 1000 v + 1000 s.

II. . . . 2000 c. . . . + 500 v + 500 s.

This disposes of the circulation of IIc (2000), which is exchanged for I (1000 v + 1000 s).

Leaving aside for the present the 400 c of I, there still remains the circulation of v + s within class II. Now II (v + s) is subdivided between the subclasses IIa and IIb in the following manner:

(2) II. 500 v + 500 s = a (400 v + 400 s) + b (100 v + 100 s).

The 400 v of a circulate within their own subclass; the laborers paid with these wages buy with them articles of consumption, produced by themselves, from their employers, the capitalists of IIa.

Since the capitalists of both subclasses spend three-fifths of their surplus-value in products of IIa (necessities) and two-fifths in products of IIb (luxuries), the three-fifths of the surplus-value of a, or 240, are consumed within the subclass IIa itself; likewise two-fifths of the surplus-value of b (produced in the form of articles of luxury and existing as such) within the subclass IIb.

There remains to be exchanged between IIa and IIb: On the side of IIa: 160 s; on the side of IIb: 100 v + 60 s. These compensate one another. The laborers of IIb buy with their 100 in the form of money necessities of life to that amount from IIa. The capitalists of IIb likewise buy necessities from IIa to the amount of three-fifths, or 60, of their surplus-value. The capitalists of IIa thus obtain the money required for investing, as above assumed, two-fifths of their surplus-value, or 160 s, in luxuries produced by IIb (100 v held by the capitalists of IIb as a product reimbursing them for the wages paid by them, and 60 s). The diagram for this transaction is

3) IIa. [400 v] + [240 s] + 160 s

b. . . . . 100 v + 60 s + [40 s],

the brackets indicating the amounts circulated and consumed within their own subclass.

The direct reflux of the money-capital advanced in variable capital, which takes place only in the case of the capitalist class of IIa who produce necessities of life, is but an expression, modified by special conditions, of the previously mentioned general law that money advanced to the circulation by producers of commodities returns to them in the normal circulation of commodities. Consequently, if a money capitalist stands behind the producer of commodities and advances to the industrial capitalist money-capital (using this term in its strictest meaning, that is to say, capital-value in the form of money), the final point of reflux for this money is the pocket of this money-capitalist. In this way the mass of the circulating money belongs to that department of money-capital which is concentrated and organized in the form of banks, etc., although the money circulates more or less throughout all hands. The way in which this department advances its capital necessitates continually the final reflux to it in the form of money, although this takes place by way of the reconversion of the industrial capital into money-capital.

The circulation of commodities always requires two things: Commodities which are thrown into circulation, and money which is likewise thrown into it. "The process of circulation . . . . . does not, like direct barter of products, become extinguished upon the use-values changing places and hands. The money does not vanish on dropping out of the circuit of the metamorphosis of a given commodity. It is constantly being precipitated into new places in the arena of circulation vacated by other commodities," etc. (Volume I, chapter III, page 126).

For instance, in the circulation between IIc and I (v+s) we assumed that 500 pounds sterling in gold had been advanced for it. In the innumerable processes of circulation, into which the circulation between great social groups resolves itself, now this, now that producer will first appear in one or the other group as a buyer, throwing money into circulation. Quite aside from individual circumstances, this is conditioned on the difference of the periods of production and thus of the turn-overs of the various commodity-capitals. Now II buys with these 500 pounds sterling means of production of the same value from I, and I buys from II articles of consumption valued at 500 pounds sterling. Hence the money flows back to II, but this department does not in any way increase its wealth by this reflux. It had thrown 500 pounds sterling in money into circulation and drew the same amount out of it in commodities ; then it sells 500 pounds sterling worth of commodities and draws out of circulation the same amount in money; thus the 500 pounds sterling flow back to it. As a matter of fact, II has thrown into circulation 500 pounds sterling in money and 500 pounds sterling in commodities, a total of 1000 pounds sterling. It draws out of the circulation 500 pounds sterling in commodities and 500 pounds sterling in money. The circulation requires for the handling of 500 pounds sterling in commodities of I and 500 pounds sterling in commodities of II only 500 pounds sterling in money ; and whoever has first advanced money in the purchase of commodities from other producers, recovers it when selling his own. Hence, if department I

had been the first to buy commodities from II for 500 pounds sterling, and to sell later on to II commodities valued at 500 pounds sterling, these 500 pounds sterling would have returned to I instead of II.

In class I, the money invested in wages, in other words, the variable capital advanced in the form of money, does not return directly in this form, but indirectly by a detour. But in II, the 500 pounds sterling return directly from the laborers to the capitalists, and this return is always direct in the case where purchase and sale take place repeatedly between the same persons in such a way that they are acting alternately as buyers and sellers of commodities. The capitalist of II pays for the labor-power in money ; he thereby incorporates his labor-power in his capital and assumes the role of an industrial capitalist over his laborers as wage-earners only by means of this transaction in circulation, which is for him merely a conversion of money-capital into productive capital. Thereupon the laborer, who is in the first instance a seller of his own labor-power, assumes in the second instance the role of a buyer, a possessor of money, while the capitalist acts now as a seller of commodities. In this way the capitalist recovers the money invested by him in wages. Unless this sale of his commodities implies cheating, etc., and remains but an exchange of equivalents in money and commodities, it is not a process by which the capitalist enriches himself. He does not pay the laborer twice, first in money, and then in commodities. His money returns to him as soon as the laborer exchanges it for his commodities.

Now, the money-capital converted into variable capital, the money advanced for wages, plays a prominent role in the circulation of money itself. For the laborer must live from hand to mouth and cannot give the industrial capitalists any credit for long periods. Hence variable capital in the form of money must be advanced simultaneously at innumerable localities in the social production in certain short intervals, such as weeks, etc., whatever may be the various periods of turn-over of the capitals in the different lines of industry. These intervals succeed one another with relative rapidity, and the shorter they are, the smaller relatively is the total amount of money thrown into circulation through this channel. In every country with a capitalist production the money-capital so advanced constitutes a proportionately influential share of the total circulation, so much more so as the same money, before its return to its point of departure, roams through many channels and serves as a medium of circulation for innumerable other businesses.

Now let us consider the circulation between I (v+s) and IIc from a different point of view.

The capitalists of I advance 1000 pounds sterling in the payment of wages. The laborers buy with this money 1000 pounds sterling's worth of commodities from the capitalists of II. These in turn buy with the same money means of production from the capitalists of I. These capitalists of I thereby recover their variable capital in the form of money, while the capitalists of II have reconverted one-half of their constant capital from the form of commodities into that of

productive capital. The capitalists of II advanced 500 pounds sterling more for the purchase of means of production from the capitalists of I. The capitalists of I spend this money in articles of consumption of II. These 500 pounds sterling thus return to the capitalists of II. They advance this amount again, in order to reconvert the last quarter of their constant capital, existing in the form of commodities, into means of production of I, its natural productive form. This money flows back to I, and once more withdraws from II articles of consumption to the same amount, returning 500 pounds sterling to II. The capitalists of II are then once more in possession of 500 pounds sterling in money and 2000 pounds sterling of constant capital, the latter having been reconverted from the form of commodity-capital into that of productive capital. By means of 1500 pounds sterling, a quantity of commodities valued at 5000 pounds sterling has been circulated. (1) I paid 1000 pounds sterling to his laborers for their labor-power of the same value ; (2) the laborers bought with these same 1000 pounds sterling articles of consumption from II ; (3) II bought with the same money means of production from I, thereby restoring to I its variable capital of 1000 pounds sterling in the form of money ; (4) II buys 500 pounds sterling's worth of means of production from I ; (5) I buys with the same 500 pounds sterling articles of consumption from II ; (6) II buys with the same 500 pounds sterling means of production from I ; (7) I buys with the same 500 pounds sterling articles of consumption from II. Thus 500 pounds sterling have returned to II, which it had thrown into circulation aside from its 2000 pounds sterling in commodities and for which it did not withdraw any equivalent from circulation.[42]

The exchange, therefore, follows this course:

(1) I pays 1000 pounds sterling in money for labor-power, or, in short, commodities at 1000 pounds sterling.

(2) The laborers buy with their wages amounting to 1000 pounds sterling articles of consumption from II ; therefore we have again commodities at 1000 pounds sterling.

(3) II buys with the 1000 pounds sterling received from the laborers means of production to the same amount ; hence, once more, commodities at 1000 pounds sterling.

By this transaction the 1000 pounds sterling have returned to I in the money-form of its variable capital.

(4) II buys 500 pounds worth of means of production from I, or, commodities at 500 pounds sterling.

(5) I buys with the same 500 pounds sterling articles of consumption from II ; or, commodities at 500 pounds sterling.

(6) II buys with the same 500 pounds sterling means of production from I ; or, commodities at 500 pounds sterling.

(7) I buys with the same 500 pounds sterling articles of consumption from II ; or, commodities at 500 pounds sterling.

[42]This presentation differs somewhat from that given in another place of this section farther along. There I throws likewise an additional amount of 500 p. st. into circulation. Here II alone supplies the additional money for the circulation. But this does does not alter the final result.—F. E.

Total amount of value of commodities converted: 550 pounds sterling.

The 500 pounds sterling advanced by II in its first additional purchase have returned to it.

This, then, is the result:

(1) I possesses variable capital in the form of money to the amount of 1000 pounds sterling, which it had originally advanced to the circulation. It has furthermore expended 1000 pounds sterling for its individual consumption, in the shape of its product in commodities; that is to say, has spent money which it had originally received for the sale of means of production to the amount of 1000 pounds sterling.

On the other hand, the natural form in which variable capital existing in the form of money must be incorporated in order to be preserved, in other words, labor-power, has been maintained by consumption, and having been reproduced, exists once more as the sole commodity which its owners have for sale in order to make a living. The relation of wage workers and capitalists, then, has likewise been reproduced.

(2) The constant capital of II is reproduced in its natural form, and the 500 p. st. advanced by the same department to the circulation have likewise returned to its hands.

So far as the laborers of I are concerned, the circulation takes place according to the simple schedule C—M—C. Labor-power[1] C—1000 p. st. as the money-form of the variable capital of I; M^2—necessities of life to the amount of 1000 p. st.; C^3—these 1000 p. st. monetize to the same amount the constant capital of II existing in the form of commodities, of necessities of life.

From the point of view of the capitalists of II, the process is C—M, the transformation of a portion of their product into money, from which it is reconverted into the elements of productive capital, namely, into a portion of the means of production required by them.

In the case of the advance of money of 500 p. st., made by the capitalists of II in the purchase of an additional portion of means of production, the money-form of that portion of IIc which exists as yet in the form of commodities, of articles of consumption, is anticipated, in the transaction M—C, in which II buys with M, and C is sold by I, the money (II) is converted into a portion of productive capital, while C (I) passes through the transaction C—M, changes itself into money, which, however, does not represent any component part of productive capital for I, but merely monetized surplus-value expended solely for articles of consumption.

In the circulation M—C . . P . . C^1—M^1, the first act, M—C, is that of one capitalist, the last C^1—M^1, of another (or at least in part); whether this C, by which M is converted into productive capital, represents an element of constant capital, variable capital, or surplus-value for the seller of C (who exchanges this C for money), is immaterial for the circulation of commodities itself.

Class I, so far as concerns the portion v plus s of its product in commodities, draws more money out of circulation than it threw in.

In the first place, its 1000 p. st. of variable capital are restored to it; in the second place, it sells means of production valued at 500 p. st. (see above transaction No. 4); one-half of its surplus-value is thus monetized; then it sells once more 500 p. st.'s worth of means of production (transaction No. 6), the second half of its surplus-value, and thus its entire surplus-value is withdrawn from circulation in the shape of money. The successive transactions, then, have been (1) a reconversion of variable capital into money, to the amount of 1000 p. st.; (2) a monetization of one-half of the surplus-value, to the amount of 500 p. st.; (3) a monetization of the other half of the surplus-value, to the amount of 500 p. st., altogether 1000 v plus 1000 s that have been monetized, or 2000 p. st. Although department I threw only 1000 p. st. into circulation (aside from those transactions which promote the reproduction of Ic, and which we shall analyze later), it has withdrawn double that amount from it. Of course, the surplus-value passes into another hand, that of II, as soon as it has been converted into money, by being spent for articles of consumption. The capitalists of I withdrew only as much value *in money* as they threw into circulation in the form of *commodities;* the fact that this value is surplus-value, that is to say, that it does not cost the capitalists anything, does not alter the value of these commodities in any way; so far as the exchange of values in circulation is concerned, that fact is entirely irrelevant. The monetization of surplus-value is, of course, a transient act, the same as all other phases through which the advanced capital passes in its metamorphoses. It lasts no longer than the interval between the conversion of the commodities of I into money and the subsequent conversion of the money of I into commodities of II.

If the turn-overs had been assumed to be shorter—or, from the point of view of the simple circulation of commodities, the number of turn-overs of the circulating money more rapid—even less money would be required for the circulation of the exchanged values of commodities; the amount is always determined—if the number of successive transactions is given—by the sum of the prices, or the sum of values, of the circulating commodities. It is immaterial for this question what proportion of this sum of values consists of surplus-value or of capital-value.

If the wages of I, in our illustration, were paid four times per year, we should have 4 times 250, or 1000. In other words, 250 p. st. would suffice for the circulation between Iv and $\frac{1}{2}$ of IIc, and for that between the variable capital of I and the labor-power of the same department. Furthermore, if the circulation between Is and IIc were to take place in four turn-overs, it would require only 250 p. st. in money, or in the aggregate a sum of money, or a money-capital, or 500 p. st. for the circulation of commodities worth 5000 p. st. In that case, the surplus-value would be converted into money by four successive transactions, monetizing one-fourth each time, instead of two transactions of one-half each time.

If the department I instead of II should assume the role of buyer in transaction No. 4 by expending 500 p. st. for articles of consumption of the same value, II would buy means of production with the

same 500 p. st. in transaction No. 5, I would then buy articles of consumption with the same 500 p. st. in transaction No. 6; II would then buy means of production with the same 500 p. st. in transaction No. 7; so that the 500 p. st. would finally return to I, the same as they did in our previous illustration to II. The surplus-value is converted into money, in this second case, by means of an expenditure of money for articles of individual consumption on the part of its capitalist producer, and this expenditure of money discounts beforehand the revenue to be derived from the monetization of the surplus-value still contained in the unsold commodities. The surplus-value is not monetized by the reflux of the 500 p. st.; for aside from 1000 p. st. in the form of commodities of Iv, department I threw 500 p. st. in money into circulation at the close of transaction No. 4, and this was additional money, so far as we know, not money obtained by the sale of commodities. In recovering this money, department I merely pockets once more the additional money advanced by it. It has not monetized its surplus-value by this means. The monetization of the surplus-value of I takes place only by the sale of the commodities of Is, in which it is incorporated, and lasts only so long as the money obtained by the sale of the commodities is not expended in the purchase of new articles of consumption.

Department I buys with an additional amount of 500 p. st. in money articles of consumption from II; after spending this money, I holds its equivalent in commodities of II; the money returns for the first time by the purchase, on the part of II, of commodities to the amount of 500 p. st. from I; in other words, it returns as the equivalent of the commodities sold by I; but these commodities do not cost I anything, they constitute surplus-value for I, and *thus the money thrown into circulation by this very department monetizes its own surplus-value*. On buying for the second time, in transaction No. 6, I has likewise obtained its equivalent in commodities of II. Take it, now, that II would not buy means of production from I. In that case, I would have actually paid 1000 p. st. for articles of consumption, it would have consumed its entire surplus-value as revenue, namely 500 in its own commodities (means of production) and 500 in money; on the other hand, it would still have 500 p. st. in commodities (means of production) in stock, and would have gotten rid of 500 p. st. in money.

Department II, again, would have reconverted three-fourths of its constant capital from the form of commodity-capital into that of productive capital; but one-fourth, or 500 p. st., would be held by it in money, which, having interrupted its function and waiting for conversion, would be unproductive for the time being. If this condition of things should last for any length of time, II would have to cut down its scale of reproduction by one-fourth.

However, the 500 in means of production, which I has on its hands, are not surplus-value existing in the form of commodities; they occupy the place of the 500 p. st. advanced in money, which I possessed aside from its 1000 p. st. in commodities. In the form of money, they would be always convertible, as commodities they are momentarily unsaleable. So much is evident, that simple reproduction—in which every

element of productive capital must be reproduced in both II and I—remains possible in this case only, if the 500 golden birds, which I first sent flying, return to it.

If a capitalist (we have only industrial capitalists to deal with here, who are the representatives of all others) spends money for articles of consumption, it passes out of his life, it goes the way of the flesh. If it returns to him, it can do so only to the extent that he draws it out of circulation by means of his commodity-capital. The value of his entire annual product in commodities (which represents his commodity-capital), the same as that of every one of its elements, that is to say, of every individual commodity, resolves itself, from his point of view, into constant capital, variable capital, and surplus-value. The monetization of every individual commodity (each constituting an element of the product in commodities) is at the same time a monetization of a certain portion of the surplus-value contained in the entire product. In the cited case, then, it is literally true that the capitalist himself threw the very money into circulation by which his surplus-value is monetized, and he did so in the purchase of articles of consumption. Of course, it is not a question of the identical pieces of money, but rather of a certain amount of genuine money equal to the one (or an equal portion of the one) which he had previously thrown into circulation to satisfy his own individual wants.

In practice this is done in two ways: If the business has been opened in the current year, it will take quite a while before the capitalist will be enabled to use any portion of the receipts of his business for the satisfaction of his individual consumption. But he does not suspend his consumption for all that for a single moment. He advances to himself (immaterial whether out of his own pocket or by means of credit from others) money in anticipation of surplus-value to be realized by him. If the business has been running regularly for a period longer than the current year, payments and receipts are distributed over different terms of the year. But one thing continues uninterruptedly, namely, the consumption of the capitalist, which anticipates a definite portion of the customary or estimated revenue and is calculated on a certain proportion of it. With every portion of commodities sold, a portion of the annually produced surplus-value is also realized. But if only as much of the produced commodities were sold during the entire year as is required to reproduce the values contained in the constant and variable capitals, or if prices were to fall to such an extent that only the value of the capital contained in it should be realized by the sale of the entire annual product in commodities, then the anticipatory character of the expenditure of money in expectation of future surplus-value would be clearly revealed. If our capitalist fails, then his creditors and the court investigate whether his anticipated private expenditures were reasonably proportionate to the volume of his business and to the receipts of surplus-value usually or normally corresponding to it.

So far as the entire capitalist class are concerned, the statement that they must themselves throw into circulation the money required for the realization of their surplus-value (eventually for the circulation of their constant and variable capital) is not only no paradox, but is

the necessary premise of the entire mechanism. For there are only two classes in this case, the working class disposing of their labor-power, and the capitalist class owning the social means of production and the money. It would rather be a paradox if the working class were to advance in the first instance out of its own pockets the money required for the realization of the surplus-value contained in the commodities. But the individual capitalist makes this advance only by acting as a buyer, *expending* money in the purchase of articles of consumption, or *advancing* money in the purchase of elements of his productive capital. He never parts with his money unless he gets an equivalent for it. He advances money to the circulation only in the same way that he advances commodities to it. He acts in both instances as the point of departure of their circulation.

The actual transaction is obscured by two circumstances:

(1) The fact that merchant's capital (the first form of which is always money, since the merchant as such does not create any "product" or "commodity") and money-capital are manipulated by a special class of capitalists in the process of circulation of industrial capital.

(2) The division of surplus-value—which must always be first in the hands of the industrial capitalist—into various categories, represented, aside from industrial capitalists, by the landowner (for ground rent), the usurer (for interest), etc., furthermore by the government and its officials, by people living on their income, etc. This gentry appear as buyers as compared to the industrial capitalist, and to that extent as monetizers of his commodities; they likewise throw "money" into circulation on their part and the industrialist gets it from them. But in that case, it is always forgotten from what source they derived it originally, and continue deriving it ever anew.

VI. THE CONSTANT CAPITAL OF DEPARTMENT I.[43]

It remains for us to analyze the constant capital of department I, amounting to 4000 c. This value is equal to that of the means of production consumed in the creation of the commodity-product of I and incorporated in it. This re-appearing value, which was not produced in the process of production of I, but entered into it during the preceding year in the form of constant capital, representing the definite value of his means of production, exists now in the entire quantity of commodities not absorbed by department II. And the value of this quantity of commodities thus left in the hands of the capitalists of I equals two-thirds of the value of their entire annual commodity-product. In the case of the individual capitalist producing some particular means of production, we were enabled to say: He sells his commodity-product he converts it into money. By converting it into money, he has also reconverted into money the constant portion of the value of his product. With this portion of value, thus converted into money, he then

[43] Manuscript II resumed here.

buys his means of production once more from other sellers of commodities, or transforms the constant portion of the value of his product into its natural form, in which it can resume its function of productive constant capital. But now this supposition becomes impossible. The capitalist class of I comprises all the capitalists producing means of production. Besides, the commodity-product of 4000, which is left on their hands, is a portion of the social product which cannot be exchanged for any other portion, because no other portion of the annual product remains. With the exception of these 4000, all the remainder of the product has been disposed of. One portion has been absorbed by the social fund for consumption, and another portion has to reproduce the constant capital of department II, which has already bargained for everything which it can exchange with I.

The difficulty is solved very easily when we remember that the entire product of I in its natural form consists of means of production, that is to say, of material elements of the constant capital itself. We meet here the same phenomenon which we witnessed under II, only under a different aspect. In the case of II, the entire product consisted of articles of consumption. Hence one portion of it, measured by the wages plus surplus-value contained in this product, could be consumed by its own producers. Here, in the case of I, the entire product consists of means of production, such as buildings, machinery, tanks, raw and auxiliary materials, etc. One portion of them, namely that reproducing the constant capital employed in this sphere, can, therefore, be immediately set to work in its natural form to serve once more as an element of productive capital. So far as it goes into circulation, it circulates within department I. While a portion of the commodity-product of II is individually consumed in its natural form by its own producers, a portion of the commodity-product of I is productively consumed in its natural form by its capitalist producers.

In these 4000 c of the commodity-product of I, the constant capital-value consumed in this category re-appears in its natural form in which it can immediately resume its services as a productive constant capital. In department II, that portion of the commodity-product of 3000 whose value is equal to the wages plus the surplus-value of 1000, passes directly into the individual consumption of the capitalists and laborers of II, while, on the other hand, the constant value of this commodity-product, equal to 2000, cannot re-enter into the productive consumption of the capitalists of II, but must be reproduced by exchange with I.

But in department I, that portion of its commodity-product of 6000, whose value is equal to the wages plus the surplus-value, or 2000, does not pass into the individual consumption of its producers, and could not on account of its natural form. It must first be exchanged with department II. On the other hand, the constant portion of the value of this product, or 4000, exists in a natural form, in which it can immediately resume its services as the constant capital of the capitalist class of I, taking this class as an aggregate. In other words, the entire product of department I consists of use-values which, on account of their natural form, can serve only as elements of constant capital, in a capitalist system of production. One-third of this product

of 6000, then, reproduces the constant capital of department II, or 2000, and the other two-thirds the constant capital of department I.

The constant capital of I consists of a number of different groups of capital invested in the various lines of production of means of production, so much in iron works, so much in coal mines, etc. Every one of these groups of capital, or every one of these social capital groups, is in its turn composed of a larger or smaller number of independently functioning individual capitals. In the first place, the capital of society, for instance 7500 (millions, or any other denomination) is composed of various groups of capital; the social capital of 7500 is divided into separate parts, every one of which is invested in a special line of production; each portion invested in some particular line of production consists, so far as its natural composition is concerned, partly of means of production required in that special sphere of production, partly of the labor-power employed in that business and adapted to its requirements. This labor-power is modified by division of labor, according to the specific labor to be performed in each individual sphere of production. Each portion of social capital invested in any particular line of production in its turn consists of the sum of all individual capitals invested in it. This, of course, applies equally to departments I and II.

As for the value of the constant capital re-appearing in the form of the commodity-product of I, it re-enters in part as means of production into the particular sphere whose product it is (or even into the individual business), for instance, corn into the production of corn, coal into the production of coal, iron in the form of machines into the production of iron, etc.

However, the partial products constituting the value of the constant capital of I, so far as they do not return directly to their particular or individual sphere of production, merely change their place. They pass in their natural form to some other sphere of production of department I, while the product of other spheres of production of department I replaces them in their natural state. It is merely a change of place of the products. All of them become once more the elements in the reproduction of constant capital of I, only in another group of I instead of the same one. To the extent that an exchange takes place between the individual capitalists of I, it is an exchange of one natural form of constant capital for another, one kind of means of production for another. It is an exchange of the different individual constant parts of capital of I among themselves. Unless the products serve directly as means of production in their own line, they are transferred to another line and thus naturally replace one another. In other words (similarly to what we saw in the case of the surplus-value II), every capitalist of I draws on this constant capital of 4000, of which he is part owner, to the extent of his share, in means of production required by him. If production were socialized, instead of capitalistic, it is evident that these products of department I would just as regularly be redistributed as means of production to the various lines of production of this department for purposes of reproduction, one portion remaining directly in that sphere of production which created it, another passing over to

other lines of production of the same department, thereby entertaining a constant mutual exchange between the various lines of production of this department.

VII. VARIABLE CAPITAL AND SURPLUS-VALUE IN BOTH DEPARTMENTS.

The total value of the articles of consumption annually produced is equal to the value of the variable capital of II produced during the year plus the newly created surplus-value of II (in other words, equal to the value newly produced by II during the year) plus the value of the variable capital of I reproduced during the year and the newly produced surplus-value of I (in other words, plus the value created by I during the year).

On the assumption of simple reproduction, then, the total value of the annually produced articles of consumption is equal to the annual product in values, in other words, equal to the total value produced during that year by social labor. And it must be so, for the reason that this entire value is consumed, on the basis of simple reproduction.

The total social working day is divided into two parts: (1) Necessary labor, which creates in the course of the year a value of 1500 v; (2), surplus labor, which creates an additional value, or surplus-value, of 1500 s. The sum of these values, 3000, is equal to the value of the annually produced articles of consumption of 3000. The total value of articles of consumption produced during the year is therefore equal to the total value produced by the social working day during the year, equal to the value of the variable social capital plus the social surplus-value, equal to the total new product of the year.

But we know that the total value of the commodities of II, the articles of consumption, is not produced in this department of social production, although these two classes of value are identical. They are identical, because the value of the constant capital re-appearing in department II is equal to the value newly produced by I (value of variable capital plus surplus value); so that I (v+s) can buy that portion of the product of II which represents the value of the constant capital of the producers in department II. This shows why the value of the product of the capitalists of II, from the point of view of society, may be resolved into v+s, although from their standpoint it is divided into c+v+s. It is because IIc is equal to I (v+s), and because these two elements of the social product are mutually exchanged in their natural forms, so that after this exchange IIc exists once more in means of production, and I (v+s) in articles of consumption.

And it is this circumstance which induced Adam Smith to claim that the value of the annual product resolves itself into v+s. But this is not true, in the first place, except for that part of the annual product which consists of articles of consumption; and in the second place, it does not apply in the sense that this total value is entirely produced by department II, so that its value in products would be equal to the variable capital advanced by II plus the surplus-value produced by II. It is true only in the sense that II (c+v+s) is equal to II (v+s) plus I (v+s), or because IIc is equal to I (v+s).

It follows, furthermore:

Although the social working day (that is to say, the labor expended by the entire working class during the whole year), like every individual working day, is divided only in two parts, namely, into necessary labor and surplus-labor, and although the value produced by this working day likewise resolves itself into but two parts, namely, into the value of variable capital, or that portion with which the laborer buys his own means of reproduction, and the surplus-value which the capitalist may spend for his own individual consumption, nevertheless, from the point of view of society, one portion of the social working day is exclusively devoted to the production of *new constant capital*, namely, of products exclusively intended for service as means of production in the labor-process and thus as constant capital in the accompanying process of self-expansion. According to our assumption, the total social working day is represented by a money-value of 3000, only one-third of which, or 1000, is produced in department II, which manufactures articles of consumption, that is to say, commodities in which the entire value of the variable capital and the entire surplus-value of society is finally realized. According to this assumption, two-thirds of the social working day are employed in the production of new constant capital. Although, from the standpoint of the individual capitalists and laborers of department I, these two-thirds of the social working day serve merely for the production of variable capital plus surplus-value, the same as the last third of the social working day in department II, nevertheless, from the point of view of society, and of the use-value of the product, these two-thirds of the social working day serve only for the reproduction of constant capital in process of productive consumption or already so consumed. From the individual point of view, these two-thirds of the working day, while producing a total value equal only to the value of the variable capital plus surplus-value, so far as its producer is concerned, nevertheless do not produce any use-values of the kind on which wages or surplus-value could be expended; for their products are means of production.

It must be noted, in the first place, that no portion of the social working day, whether in I or in II, serves for the production of the value of the constant capital employed and serving in these two great spheres of production. They produce only additional value, namely 2000 I (v+s) + constant capital, represented by 4000 Ic plus 2000 IIc. The 1000 II (v+s), an addition to the existing value of the new value produced in the form of means of production, is not yet constant capital. It is merely intended to be used as such in the future.

The entire product of II, the articles of consumption, viewed concretely as a use-value, in its natural form, is a creation of the one-third of the social working day contributed by II. It is the product of labor in its concrete form, such as the labor of weaving, baking, etc., performed in this department as the subjective element of the labor process. But the constant portion of the value of this product of II re-appears only in a new use-value, in a new natural form, namely, that of articles of consumption, while it existed previously in the form of means of production. Its value has been transferred by the labor-process from

its old natural form to its new natural form. But this value of these two-thirds of the product, or 2000, has not been produced in this year's productive process of II.

Just as, from the point of view of the labor-process, the product of II is the result of the function of new living labor and means of production previously given to it, which are the material objects in which it incorporates itself, so, from the point of view of the process of reproduction, the value of the product of II, or 3000, is composed of the new value (500 v + 500 s = 1000) produced by the newly added one-third of the social working day and of a constant value, in which two-thirds of a previous social working day are embodied, which passed away before the present process of production of II. This portion of the value of the product of II is materialized in a portion of the product itself. It exists in a quantity of articles of consumption valued at 2000, or two-thirds of a social working day. This is the new use-form in which it re-appears. The exchange of a portion of the articles of consumption of 2000 IIc for means of production of I equal to I (1000 v + 1000 s) represents, therefore, indeed an exchange of two-thirds of a social working day which do not constitute any portion of this year's labor, but passed away previously to this year, for two-thirds of the social working day newly added this year. Two-thirds of this year's social working day could not serve in the production of constant capital and yet at the same time constitute variable capital plus surplus-value for their own producers, unless they were compelled to exchange with a portion of the value of the annually consumed articles of consumption, in which two-thirds of a working day spent and realized, not this year, but previously, are incorporated. It is an exchange of two-thirds of this year's working day with two-thirds of a preceding working day, an exchange of this year's labor with that of a previous year. This, then, explains the riddle, how it is that the product in values of an entire social working day may resolve itself into variable capital plus surplus-value, although two-thirds of this working day were not expended in the production of articles, in which variable capital or surplus-value can be realized, but rather in the production of means of production for the replacement of capital consumed during this year. The explanation is simply that two-thirds of the value of the product of II, in which the capitalists and laborers of I realize the value of the variable capital and surplus-value produced by them (and which constitute two-thirds of the value of the entire annual product), are, so far as their value is concerned, the product of two-thirds of a social working day passed previously to this year.

The sum of the social product of I and II, comprising means of production and articles of consumption, so far as its concrete use-value in its natural form is concerned, is indeed the result of this year's labor, but only to the extent that this labor is regarded as useful and concrete, not as an expenditure of labor-power and creator of values. And even so, it is concrete labor only in the sense that the means of production have transformed themselves into this year's new product by dint of the living labor operating on them. On the other hand, it is also true that this year's labor could not have transformed itself into products without

the help of means of production, of instruments of production and materials, which existed independently of it.

VIII. THE CONSTANT CAPITAL IN BOTH DEPARTMENTS.

The analysis of the total value of the product of 9000, and of the categories into which it is divided, does not present any greater difficulties than that of the value produced by some individual capital. It is rather identical with it.

In the present instance, the entire social product of this year contains three social working days, each of one year. The value represented by each one of these working days is 3000, so that the value of the total product is 3×3000, or 9000.

Furthermore, the following portions of this working time belong to a period previous to that of the process of production which we now analyze: In department I, four-thirds of a working day (with a product valued at 4000), and in department II, two-thirds of a working day (with a product valued at 2000), making a total of two social working days with a product valued at 6000. For this reason, 4000 Ic + 2000 IIc = 6000 c figure as the value of the means of production, or value of the constant capital, re-appearing in the total product of society.

Furthermore, one-third of the social working day of one year newly added by department I is necessary labor, or labor reproducing the value of the variable capital of 1000 Iv and paying the price of the labor employed by I. In the same way, one-sixth of the social working day of II is necessary labor valued at 500. Hence we have 1000 Iv + 500 IIv = 1500v, expressing the value of one-half of the social working day, the value of the first half of the working day added this year and consisting of the necessary labor.

Finally, in department I, one-third of the social working day of this year, with a product valued at 1000, is surplus-labor, and one-sixth of one working day in department II, with a product valued at 500, is likewise surplus-labor. Together they constitute the other half of the newly added social working day, with a total value of surplus-labor amounting to 1000 I s + 500 II s = 1500 s.

This, then, is the situation:

Constant portion of capital in terms of the value of the social product (c): Two working days expended previously to the present process of production, worth 6000 in value.

Necessary labor (v) expended during the present year: One-half of one working day expended during the present year, worth 1500 in value.

Surplus-labor (s) expended during the present year: One half of one working day expended during the present year, worth 1500 in value.

Product in values of annual labor (v + s), 3000.

Total value of product (c + v + s), 9000.

The difficulty, then, does not consist in the analysis of the social product in values. It arises in the comparison of the component parts of the *value* of the social product with its *material* elements.

The constant, merely re-appearing, portion of value is equal to the value of that part of this product which consists of means of production, and it is incorporated in that part.

The product in values of the current year, equal to v+s, is equal to the value of that part of this product, which consists of articles of consumption, and is incorporated in it.

But with the exception of cases immaterial for this analysis, means of production and articles of consumption are vastly different kinds of commodities, products of widely different natural forms and use-value, and, therefore, products of radically different classes of concrete labor. The labor which employs machinery in the production of necessities of life is vastly different from the labor which makes machinery. The entire working day of the current year, which is 3000 in terms of value, figures as an expenditure in the production of articles of consumption valued at 3000, in which no portion of any constant value re-appears, since these 3000, equal to 1500 v + 1500 s, resolve themselves only into variable capital-value and surplus-value. On the other hand, the constant capital-value of 6000 re-appears in a class of products quite different from articles of consumption, namely, in means of production, while as a matter of fact no portion of the present annual working day figures as an expenditure in the production of these new products. It appears rather that this entire working day consists only of classes of labor which do not result in means of production, but in articles of consumption. We have already solved this mystery. The product in values of the labor of the present year is equal to the value of the products of department II, the total value of the newly produced articles of consumption. But the value of these products is greater by two-thirds than that portion of the annual labor which has been expended in the production of articles of consumption (department II). Only one-third of the annual labor has been expended in their production. Two-thirds of this annual labor have been expended in the production of means of production, that is to say, in department I. The value of the product created during this time in I, equal to the variable capital-value plus surplus-value produced in I, is equal to the constant capital-value of II re-appearing in articles of consumption of II. Hence they may be mutually exchanged and take one another's place in their natural form. The total value of the articles of consumption of II is, therefore, equal to the sum of the new product in values of I and II, or II (c+v+s) is equal to I (v+s)+II (v+s), in other words, equal to the sum of the new values produced by the labor of the current year in the form of v+s.

On the other hand, the total value of the means of production of I is equal to the sum of the constant capital-values re-appearing in the form of means of production of I and in that of articles of consumption of II, in other words, equal to the sum of the constant capital values re-appearing in the total product of society. This total value is equal in terms of value of four-thirds of a working day preceding the process of production of II, in all equal to two annual working days.

The difficulty in the analysis of the annual social product arises,

therefore, from the fact that the constant portion of value is represented by a different class of products (means of production) than the new portion of value (v+s) added to this constant portion and represented by articles of consumption. Thus the appearance is created, so far as the question of values is concerned, as though two-thirds of the consumed mass of products were reproduced in a new form, without any labor having been expended by society in their production. This is not so in the case of an individual capital. Every individual capitalist employs some particular concrete class of labor, which transforms the means of production peculiar to it into products. For instance, the capitalist may be a manufacturer of machines, the constant capital expended by him during the current year may be 6000 c, the variable capital 1500 v, the surplus value of 1500 s, the product 9000, represented, say, by 18 machines of 500 each. The entire product in this instance consists of the same form, of machines. If he produces various kinds, each one is calculated separately. The entire product in commodities is the result of the labor expended during the current year in machine manufacture by a combination of the same concrete labor with the same kind of means of production. The various portions of the value of the product therefore present themselves in the same natural form: 12 machines represent 6000 c, 3 machines 1500 v, and 3 machines 1500 s. It is evident that the value of the 12 machines is equal to 6000 c, not merely because there is incorporated in these machines labor performed previously to the manufacture of these machines and not expended in their making. The value of the means of production for 18 machines did not transform itself into machines of its own doing, but the value of these 12 machines (consisting itself 4000 c + 1000 v + 1000 s) is equal to the total value of the constant capital-value contained in the 18 machines. The machine manufacturer must, therefore, sell 12 of the 18 machines, in order to recover his expended constant capital which he requires for the reproduction of 18 new machines. On the other hand, the thing would be inexplicable, if the result of the labor expended solely in the manufacture of machines, were to be: On the one hand, 6 machines of 1500 v+1500 s, on the other, iron, copper, screws, belts, etc., to the amount of 6000 s, in other words, the natural means of production of the machines which the individual machine-building capitalist does not produce himself, but must secure by way of the process of circulation. And yet it seemed at the first glance as though the reproduction of the annual product of society took place in this absurd way.

The product of an individual capital, that is to say, of every aliquot part of the social capital endowed with a life of its own and acting independently, has some natural form. The only condition is that this product must have a certain use-value, which endows it with the character of a member of the world of commodities fit for circulation. It is immaterial and a matter of hazard, whether or not it can go back as a means of production into the same process of production from which it came as a product, in other words, whether that portion of its value as a product, in which the constant capital is incorporated, has a natural form, in which it can actually serve again as constant

capital. If it has not, then this portion of the value of the product is reconverted into the form of its material elements by means of sale and purchase, and thus the constant capital is reproduced in the natural form adapted to its function.

It is different with the product of the total social capital. All the material elements of reproduction in their natural form must be a part of this product. The consumed constant portion of capital can be reproduced by the production as a whole only to the extent that the entire reappearing constant capital is represented in the product by the natural form of new means of production, which can actually serve as constant capital. Simple reproduction being assumed, the value of that portion of the product which consists of means of production must be equal to the constant portion of the value of social capital.

Furthermore: Individually considered, the capitalist produces in the value of his product by means of the newly added labor only his variable capital plus surplus-value, while the constant value is transferred by the concrete form of the newly added labor to the product.

Socially considered, the portion of the social working day which produces means of production, adding new value to them and transferring to them at the same time the value of the means of production consumed in their manufacture, creates nothing but new *constant capital*, which is intended to replace that consumed in the shape of the old means of production, that is to say, of the constant capital consumed in departments I and II. It creates only products intended for productive consumption. The entire value of this product, then, is a value which can serve only as a new constant capital, which can buy back only constant capital in its natural form, and which, for this reason, resolves itself neither into variable capital nor surplus-value, looking at it from the social point of view. On the other hand, if that portion of the social working day which produces articles of consumption does not create any portion of the social capital intended for reproduction, it creates only products intended, in their natural form, to realize the value of the variable capital and surplus-value of departments I and II.

Speaking of looking at things from the point of view of society as a whole, in this instance at the aggregate product of society, which comprises both the reproduction of social capital and individual consumption, we must not follow the manner copied by Proudhon from bourgeois economy, which looks upon this matter as though a society with a capitalist mode of production would lose its specific historical and economic characteristics by being taken as a unit. Not at all. We have, in that case, to deal with the aggregate capitalist. The aggregate capital appears as the capital stock of all individual capitalists combined. This stock company shares with many other stock companies the peculiarity that every one knows what he puts in, but not what he will get out of it.

IX. A RETROSPECT ON ADAM SMITH, STORCH, AND RAMSAY.

The total value of the social product amounts to 9000 equal to 6000 c + 1500 v + 1500 c, in other words, 6000 represent the value of the means of production, and 3000 that of the articles of consumption. The

value of the social revenue (v + s), then, amounts to only one-third of the value of the total product, and the totality of the consumers, laborers as well as capitalists, can draw on the total social product for commodities only to the amount of this third, for the purpose of individual consumption. On the other hand, 6000, or two-thirds, of the value of the product, are the value of the constant capital which must be reproduced in its natural form. Means of production to this amount must again be incorporated in the productive fund. Storch recognizes this without being able to prove it: "It is clear that the value of the annual product is distributed partly to capital and partly to profits, and that each one of these portions of the value of the annual product is regularly employed in buying the products which the nation needs both for the maintenance of its capital and for stocking its fund for consumption. * * * * The products which constitute the capital of a nation are not consumable." (Storch, *Considérations sur la nature du revenu national*. Paris, 1824, page 150.)

Adam Smith, however, has promulgated this strange dogma, which is believed to this day, not only in the previously mentioned form, according to which the entire value of the social product resolves itself into revenue, that is to say, into wages plus surplus-value, or, as he expresses it, into wages plus profit (interest) plus ground rent, but also in the still more popular form according to which the consumers must ultimately pay to the producers the entire value of the product. This is to this day one of the best established commonplaces, or rather of the eternal truths of the so-called science of political economy. This is illustrated in the following plausible manner: Take any article, for instance, linen shirts. First, the spinner of linen yarn has to pay the flax grower the entire value of the flax, in other words, the value of flax seed, fertilizers, cattle feed, etc., plus the value transferred to the product from the fixed capital of the flax grower, such as buildings, agricultural implements, etc.; furthermore the wages paid in the production of the flax; the surplus-value incorporated in the flax (profit, ground rent); finally, the cost of transportation of the flax from its place of production to the spinnery. Next, the weaver has not only to reimburse the spinner for linen yarn, for the price of the flax, but also for that portion of the value of machinery, buildings, etc., in short, of the fixed capital, which is transferred to the yarn, furthermore all the auxiliary materials consumed in the spinning process, the wages of the spinners, the surplus-value, etc., and so forth in the case of the bleaching process, the transportation of the finished linen, and finally the shirtmaker, who has to pay the entire price of all preceding producers, who supplied him only with his raw material. There is now a further addition of value by his hands, either by means of constant capital which is consumed in the shape of materials of labor, auxiliary materials, etc., used in the making of shirts, or by means of labor expended in it, which adds the value of the wages of the shirtmakers plus the surplus-value of the shirt manufacturer. Now let this entire product in shirts cost ultimately 100 p. st., and let this be the aliquot part of the total annual value in products expended by society in shirts. The consumers of the shirts pay these 100 p. st., that is to say, the value of all the means of production, and of the

wages plus surplus-value of the flax grower, spinner, weaver, bleacher, shirt-maker, and all carriers. This is quite true. Indeed, every child can see that. But now they continue: The same is true of the value of all other commodities. It should rather be said that this is true of the value of all *articles of consumption*, of the value of that portion of the social product which passes into consumption, in other words, that portion of the value of the social product which may be expended as revenue. It is true that the sum of the value of all these commodities is equal to the value of all means of production (constant portions of capital) consumed in their creation, plus the value added by the last labor expended on them (wages plus surplus-value). Hence the totality of the consumers can pay for this entire sum of values, because, although the value of each individual commodity is made up by c + v + s, nevertheless the sum of the values of all commodities passing into consumption, taken at its maximum, can be equal only to that portion of the value of the social product, which resolves itself into v + s, in other words, equal to that value which the labour expended during the current year has added to the existing means of production representing the value of the constant capital. As for the value of the constant capital, we have seen that it is reproduced out of the mass of social products in a twofold way. First, by an exchange of the capitalists of II, who produce articles of consumption, with the capitalists of I, who produce the means of production. And here is the source of the phrase that what is capital for one is revenue for the other. But this is not the actual state of affairs. The 2000 II c, existing in the shape of articles of consumption valued at 2000, constitute a constant capital-value for the capitalists of class II. They cannot consume it themselves, although the product must be consumed on account of its natural form. On the other hand, the 2000 I (v + s) are wages plus surplus-value produced by the capitalist and working classes of I. They exist in the natural form of means of production, of things in a shape in which their own value cannot be consumed. We have here, then, values to the amount of 4000, only one-half of which, either before or after the change, reproduce constant capital, while the other half form revenue. In the second place, the constant capital of I is reproduced in its natural form, partly by exchanging among the capitalists of I, partly by reproduction in a natural form in each individual business.

The phrase that the entire annual value in products must be ultimately paid by the consumer would be correct only in the case that we were to include in the term consumer two vastly different classes, namely individual consumers and productive consumers. But to say that one portion of the product must be consumed productively is precisely to say that it must serve as capital and cannot be consumed as revenue.

On the other hand, if we divide the total value of the entire product, equal to 9000, into 6000 c + 1500 v + 1500 s, and look upon the 3000 (v + s) in the light of a revenue, then the variable capital seems to disappear and capital, socially speaking, seems to consist only of constant capital. For that which appeared originally as 1500 v has resolved itself into a portion of the social revenue, into wages, the revenue of the working class, and has thus lost its character of capital. This conclu-

sion is actually drawn by Ramsay. According to him, capital, socially considered, consists only of fixed capital, but he means by fixed capital the constant capital, that quantity of values which consists of means of production, whether these are instruments or materials of labor, such as raw materials, partly finished products, auxiliary materials, etc. He calls the variable capital a circulating capital: "Circulating capital consists only of subsistence and other necessaries advanced to the workmen previously to the completion of the produce of their labor * * * * Fixed capital alone, not circulating, is properly speaking a source of national wealth. * * * * Circulating capital is not an immediate agent in production, nor essential to it at all, but merely a convenience rendered necessary by the deplorable poverty of the mass of the people. * * * * Fixed capital alone constitutes an element of cost of production in a national point of view." (Ramsay, I, c., pages 23 to 26, selected.) Ramsay defines fixed capital, by which he means constant capital, more closely in the following words: "The length of time during which any portion of the product of that labor" (namely labor bestowed on any commodity) "has existed as fixed capital i.e., in a form in which, though assisting to raise the future commodity, it does not maintain laborers." (Page 59.)

Here we see once more the confusion created by Adam Smith by drowning the distinction between constant and variable capital in that of fixed capital and circulating capital. The constant capital of Ramsay consists of means of production, his circulating capital of articles of consumption. Both of them are commodities of a given value. The one can no more create any surplus-value than the other.

X. CAPITAL AND REVENUE: VARIABLE CAPITAL AND WAGES.[44]

The entire annual production, the entire product of a year, is the product of the useful labor of that year. But the value of this total product is greater than that portion of it in which the labor-power expended on production during the last year is incorporated. The *product in values* of this year, the new value created in its course in the form of commodities, is smaller than the *value of the product,* that is to say, THE TOTAL VALUE OF THE COMMODITIES FINISHED DURING THE ENTIRE YEAR. The difference obtained by deducting from the total value of the annual product that portion of value which was added by the labor of the last year, is not an actually reproduced value, but merely one re-appearing in a different form of existence. It is value transferred to the annual product from previously existing value, which may be of an earlier or later date, according to the wear of the constant portions of capital which have participated in that year's annual labor-process, a value which may be derived from some means of production which were first created during the year before last or in years even previous to that. It is under all circumstances a value transferred from means of production of former years to the product of the year under discussion.

[44] The following is from manuscript VIII.

Take our formula. We then have after the exchange of the elements, hitherto considered, between I and II, and within II:

(I) 4000 c + 1000 v + 1000 s (these last realized in articles of consumption of IIc) = 6000.

(II) 2000 c (reproduced by exchange with I [v + s]) + 500 v + 500 s = 3000.

Sum of values 9000.

Value newly produced during the year is incorporated only in v and s. The sum of the product in values of this year is therefore equal to the sum of v + s, that is to say, 2000 I(v + s) + 1000 II (v + s) = 3000. All other portions of value in the products of this year are merely transferred values, derived from the value of means of production, previously produced and consumed in the annual production. Aside from the value of 3000, the current annual labor has not produced anything in the way of values. That 3000 represents its entire annual product in values.

Now, we have seen that the 2000 I (v + s) of department II replace its 2000 II c in the natural form of means of production. Two-thirds of the annual labor, then, expended in department I, have newly produced the constant capital of II, both as regards its value and its natural form. Socially speaking, two-thirds of the labor expended during the entire year have created a new constant capital-value, which is realized in a natural form meeting the requirements of department II. The greater portion of the annual labor of society, then, has been spent in the production of new constant capital (means of production representing capital-value) in order to replace the value of the constant capital expended in the production of articles of consumption. That which distinguishes in this case capitalist society from a society of savages is not, as Senior thinks,[45] that it is a privilege and peculiarity of a savage to expend his labor during a certain time which does not secure for him any revenue convertible into articles of consumption, but the distinction is the following:

(a) Capitalist society employs more of its available annual labor in the production of means of production (and thus of constant capital) which are not convertible into revenue in the form of wages or surplus-value, but can serve only as capital.

(b) When a savage makes bows, arrows, stone hammers, axes, baskets, etc., he knows very well that he did not spend the time so employed in the production of articles of consumption, but that he has simply stocked his supply of means of production, and nothing else. Furthermore, a savage commits a grave economic sin by his utter indifference so far as waste of time is concerned, for Tyler[46] tells us of him that he takes sometimes a whole month to make one arrow.

[45] "When a savage manufactures bows, he carries on as industry, but he does not practise any abstinence." (Senior, Principes foundamentaux de l'Economic Politique, traduction Arrivabene, Paris, 1836, page 308.) "The more society advances, the more abstinence it requires." (Ibidem, page 342.) Compare "Capital," volume I. chapter XXIV, 3.

[46] E. B. Tyler, Forschungen ueber die Urgeschichte der Menschheit, translated by H. Mueller. Leipsic, no date, page 240.

The current conception, by which some political economists seek to get rid of the theoretical difficulty, in other words, of the understanding of the real state of affairs, the conception that a thing may be capital for one and revenue for another, and *vice versa*, is only partially true, and it becomes wholly wrong, when it is made general, since it then implies a complete misunderstanding of the entire process of transactions taking place in annual reproduction and at the same time a misunderstanding of the actual basis of the partial truth.

We now review the actual conditions, on which the partial correctness of this conception rests, and we shall at the same time expose the wrong conception of these conditions.

(1) The variable capital serves as capital in the hands of the capitalist and as revenue in the hands of the wage-worker.

The variable capital exists first in the hands of the capitalist as money-capital; and it performs the function of money-capital, when he buys labor-power with it. So long as it persists in the form of money in his hands, it is nothing but a given value existing in the form of money, in other words, a constant and not a variable magnitude. It is only a potential variable capital, owing to its convertibility into labor power. It becomes actually a variable capital only after divesting itself of its money-form and assuming the form of labor-power serving as an element of productive capital in the capitalist process.

The money which first served in the function of the money-form of the variable capital for the capitalist, now serves in the hands of the laborer as the money-form of his revenue, which he derives from the ever repeated sale of his labor-power.

We have here but the simple fact that the money in the hands of the buyer, in this case the capitalist, passes from these hands into those of the seller, in this case a seller of labor-power, the wage-worker. It is not the variable capital which serves twice, first as capital for the capitalist and then as revenue for the laborer. It is merely the same money, which exists first in the hands of the capitalist as the money-form of his variable capital representing a potential variable capital, and which serves in the hands of the laborer as an equivalent for sold labor-power, as soon as the capitalist has converted it into labor-power. But the fact that the same money serves another useful purpose in the hands of the buyer than in those of the seller is a peculiarity of the sale and purchase of all commodities.

Apologists in political economy present the matter in a wrong light, as we can see best when we keep our eye exclusively, without taking any notice of the following transactions, on the transaction in circulation indicated by M—L (a variation of M—C), the conversion of money into labor-power on the part of the capitalist buyer, which is L—M (C—M), a conversion of the commodity labor-power into money, on the part of the seller, the laborer. They say: "The same money realizes in this instance two capitals; the buyer—the capitalist—converts his money-capital into living labor-power, which he incorporates in his productive capital; on the other hand, the seller, the laborer, converts his commodity, his labor-power, into money, which he spends as his revenue, and this enables him to resell his labor-power in ever repeated turns and

thereby to maintain it. His labor-power, then, represents his capital in the form of a commodity, which yields him a continuous revenue." Labor-power is indeed his wealth (ever self-renewing and reproductive), not his capital. It is the only commodity which he must and can sell continually, in order to live, and which does not serve as capital until it reaches the hands of the capitalist. The fact that a man is continually compelled to sell his labor-power (himself) to another man proves to those apologetic economists that he is a capitalist, for lo! he is continually selling his "commodity," himself. In that case, a slave is also a capitalist, although he is sold by another for once and all as a commodity, for the nature of this commodity, a laboring slave, has the peculiarity that its buyer does not only make it work every new day, but also provides it with the food which enables it to do ever new work —(compare on this point the remarks of Sismondi and Say in their letters to Malthus).

(2) In the exchange of 1000 I v+1000 I s for 2000 II c, we see that what is constant capital for one (2000 II c) is variable capital and surplus-value, or in short, revenue for others; and what is variable capital and surplus-value [2000 I (v+s)], or in short, revenue for one, becomes constant capital for another.

Let us first look at the exchange of I v for II c, beginning with the point of view of the laborer.

The aggregate laborer of I has sold his labor-power to the aggregate capitalist of I for 1000; he receives this value in money as his wages. With this money, he buys from II articles of consumption of the same value. The capitalist of II meets him only in the role of a seller of commodities, nothing else, even if the laborer buys from his own capitalist, as he does in the exchange of 500 II v, as we have seen above. The form of circulation through which his commodity, labor-power, passes, is that of the simple circulation of commodities for the mere purpose of consumption in the satisfaction of needs, the form C (labor-power) —M—C (articles of consumption). The result of this transaction in circulation is that the laborer maintains himself as a labor-power for a capitalist, and in order to continue maintaining himself as such, he must continually renew the transaction L(C)—M—C. His wages are realized in articles of consumption, they are spent as revenue, and, taking the working class as a whole, are again and again spent as a revenue.

Now let us look at the same transaction, the exchange of I v for II c, from the point of view of the capitalist. The entire commodity-product of II consists of articles of consumption, of things intended for annual consumption, serving in the realization of revenue for some one, in the present case for the aggregate laborer of I. But so far as the aggregate capitalist of II is concerned, one portion of his commodity-product, equal to 2000, is now the form of the constant portion of the value of his productive capital converted into commodities. It must be reconverted from the form of commodities into its natural form, in which it may serve again as the constant portion of a productive capital. What the capitalist of II has accomplished so far is that he has reconverted one-half (1000) of the constant portion of his capital, which had been reproduced in the shape of commodities, into the form of money by

means of sale to the laborers of I. Hence it is not the variable capital I v, which has been exchanged for this first half of the value of the constant capital of II, but simply the money which served I as money-capital in the exchange for labor-power has thus been transferred to the possession of the seller of labor-power, and for him it did not represent any capital, but merely revenue in the form of money, which is to be expended in the purchase of articles of consumption. The money to the amount of 1000, on the other hand, which has come into the hands of the capitalists of II by means of the transaction with the laborers of I, cannot as yet serve as the constant element of the productive capital of II. For the present it is but the money-form of the commodity-capital of II, to be commuted into fixed or circulating portions of constant capital. Department II now buys with the money received from the laborers of I, the buyers of its commodities, means of production from I to the amount of 1000. By this means the constant value of the capital of II is renewed to the extent of one-half of its total amount in its natural form, in which it can serve once more as an element of the productive capital of II. The circulation in this instance took the course C—M—C, that is to say, articles of consumption to the amount of 1000 —money to the amount of 1000—means of production to the amount of 1000.

But C—M—C represents here the movement of capital. C, when sold to the laborers, is converted into M, and this M is converted into means of production. It is the reconversion of commodities into the material elements of which this commodity is made. On the other hand, just as the capitalist of II plays only the role of a buyer of commodities with regard to I, so the capitalist of I acts only as a seller of commodities with regard to II. Department I bought originally labor-power valued at 1000 with that amount of money intended for service as variable capital. It has therefore received an equivalent for the 1000 v which it expended in money. This money now belongs to the laborers, who spend it in purchases from II. Department I cannot recover this money from II unless it secures the amount by the sale of commodities of the same value to II.

Department I first had a certain sum of money amounting to 1000 and destined to serve as variable capital. The money performs this service by its exchange for labor-power to the same amount. The laborer in his turn supplied as a result of the process of production a quantity of commodities (means of production) to the amount of 6000, of which one-sixth, or 1000, are equivalent in value to the variable portion of capital advanced in money. This variable portion of value no more serves as variable capital so long as it retains the form of commodities than it did while in the form of money. It serves as variable capital only after its conversion into living labor-power, and only so long as this labor-power serves in the process of production. So long as this value was incorporated in money, it represented only potential variable capital. But it had at least a form, in which it was immediately convertible into labor-power. But in the form of commodities, the same variable value is but potential money, it must first assume the form of money by means of the sale of commodities, in the present instance

by the sale of 1000 in value of commodities of I to department II. The movement of the circulation passes here through the form 1000 v (money)—1000 c (labor-power)—1000 c (commodities equivalent in value to the variable capital)—1000 v (money) ; in other words, M—C. . . C—M (identical with M—L. . .C—M). The process of production intervening between C. . .C does not belong to the sphere of circulation. It does not figure in the mutual exchange of the various elements of annual reproduction, although this exchange includes the reproduction of all the elements of productive capital, the constant as well as the variable element (labor-power). All the participants in this exchange appear either as buyers, or as sellers, or as both. The laborers appear only as buyers of commodities. The capitalists act alternately as buyers and sellers, and within certain limits only on one side, either as buyers of commodities or as sellers of commodities.

The result is that department I possesses once more the variable part of the value of its capital in the form of money, from which alone it is immediately convertible into labor-power, in other words, department I once more holds its variable capital value in the only form in which it can again be advanced as an actual variable element of its productive capital. On the other hand, the laborer must again act as a seller of commodities, of his labor-power, before he can act as a buyer of commodities.

So far as the variable capital of department II (500 II v) is concerned, the circulation between the capitalists and laborers of the same department takes place without any intermediate transactions, since we look upon it as taking place between the aggregate capitalist and the aggregate laborer of II.

The aggregate capitalist of II advances 500 v for the purchase of labor-power to the same amount. In this case, the aggregate capitalist is a buyer, the aggregate laborer a seller. Thereupon the laborer acts as a buyer of a portion of the commodities produced by himself, using the money received for his labor-power. In this case, the capitalist is the seller. The laborer has reproduced for the capitalist the money paid in the purchase of labor-power by means of a portion of the newly produced commodity-capital of II, amounting to 500 v in commodities. The capitalist then holds in the form of commodities the same v, which he had in the form of money before the exchange for labor-power ; while the laborer has realized the value of his labor-power in money, and uses this money by spending it as his revenue in the purchase of articles of consumption produced by himself. It is an exchange of the revenue of the laborer in money for a portion of the commodities in which he has himself reproduced 500 of the value of the variable capital of the capitalist employing him. In this way this money returns to the capitalist of II as the money-form of his variable capital. An equivalent value of revenue in the form of money thus reproduces variable value of capital in the form of commodities.

The capitalist does not increase his wealth by recovering the money paid by him to the laborer in the purchase of labor-power through the sale of an equivalent quantity of commodities to the laborer. He would really pay the laborer twice, if he were to pay him first 500 in

the purchase of labor-power, and then give him in addition thereto a quantity of commodities valued at 500, after the laborer had produced them. On the other hand, if the laborer were to produce nothing but an equivalent in commodities valued at 500 for the price of his labor-power of 500, the capitalist would be no better off after the transaction than before it. But the laborer has actually reproduced a product of 3000. He has preserved the constant portion of the value of the product, that is to say, the value of the means of production incorporated in the product, to the amount of 2000, by converting it into a new product. He has furthermore added to this existing value a value of 1000 (v+s). (The idea that the capitalist grows richer by the return of 500 in money is advanced by Destutt de Tracy, as shown in detail in section XIII of this chapter.)

By the purchase of articles of consumption to the value of 500 on the part of the laborer of II, the capitalist of II recovers the value of 500 II v, which he had just held in the shape of commodities, but which he now holds in the form of money, in which he advances it originally. The immediate result of this transaction, as of any other sale of commodities, is the conversion of a given value from the form of commodities into that of money. Nor is the resulting reflux of the money to its point of departure anything specific. If capitalist of II had bought, with 500 of money, commodities from the capitalist of I, and then sold to the capitalist of I commodities valued at 500, he would likewise have recovered 500 in money. This sum of 500 in money would merely have served for the circulation of commodities valued at 1000, and according to a law previously mentioned, the money would have returned to the one starting it into circulation.

But the 500 in money, which have returned to the capitalist of II, represent at the same time a renewed potential variable capital. Why is this so? Money, and money-capital, is a potential variable capital only to the extent that it is convertible into labor-power. The return of 500 p. st. in money to the capitalist of II is accompanied by the return of the labor-power of II to the market. The return of both these at opposite poles—and to this extent the reappearance of 500 in money not merely in the capacity of money, but of variable capital in the form of money—is conditioned on one and the same process. The money of 500 returns to the capitalist of II, because he sold to the laborers of II articles of consumption valued at 500, for which the laborer spent his wages, in order to maintain himself and his family and thus his labor-power. In order to be able to live on and act again as a buyer of commodities he must again sell his labor-power. The return of 500 in money to the capitalist of II is therefore at the same time a return, or a staying, of labor-power in the capacity of a commodity purchasable with 500 in money, and thereby a return of 500 in money to its capacity of potential variable capital.

As for the v of department II b, which produces articles of luxury, this (II b) v is treated the same as I v. The money which renews the variable capital of the capitalists of II b in the form of money returns to them in a round-about way through the hands of the capitalists of II a. But it makes nevertheless a difference, whether the laborers buy

their articles of consumption by direct purchase from the same capitalist producers to whom they sell their labor-power, or whether they buy from capitalists of another department, through whose hands the money returns indirectly to the capitalists of their own department. Since the working class live from hand to mouth, they buy just as long as they have the means. It is different with the capitalists, for instance, in the transaction between 1000 II c and 1000 I v. The capitalist does not live from hand to mouth. His compelling motive is the utmost self-expansion of his capital. Now, if circumstances seem to promise greater advantages to the capitalist of II by holding on to his money for a while, instead of immediately renewing his constant capital, then the return of 1000 II c in money to I is retarded. This implies a retardation in the return of 1000 I v to the form of money, and in that case the capitalist of I cannot continue his business on the same scale, unless he can draw on some reserve capital. Generally speaking, reserve capital in the form of money is always necessary, in order to be able to work without interruption, regardless of the rapid or slow reflux of the variable portion of capital-value in money.

If the transactions of the various elements of the current annual reproduction are to be investigated, the results of the labor of the preceding year, which has come to a close, must also be taken into consideration. The process of production, which resulted in the product of the present year, is past and incorporated in its products, and so much more is this the case with the process of circulation preceding the process of production or running parallel with it, by which potential variable capital is transformed into actual variable capital, in other words, the sale and purchase of labor-power. The labor-market is not a part of the commodity-market which concerns us here. For the laborer has not only disposed of his labor-power before this, but also supplied an equivalent of the price of his labor-power in the shape of commodities, aside from the surplus-value created by him. He has furthermore his wages in his pocket and figures during the present transactions only as a buyer of commodities (articles of consumption). On the other hand, the annual product must contain all the elements of reproduction, must renew all the elements of productive capital, above all its most important element, the variable capital. And we have seen, indeed, that the result of the present transactions, so far as the variable capital is concerned, is this: The laborer as a buyer of commodities, by means of the expenditure of his wages, and the consumption of the purchased commodities, reproduces his labor-power, this being the only commodity which he has to sell. Just as the money advanced in the purchase of this labor-power by the capitalists returns to them, so labor-power returns to the market to be once more exchanged for this money. The result in the special case of 1000 I v is that the capitalists of I hold 1000 v in money and the laborers of I offer them 1000 in labor-power, so that the entire process of reproduction of I can be renewed. This is one result of the process of circulation.

On the other hand, the expenditure of the wages of the laborers of I drew on II for articles of consumption to the amount of 1000 II c,

transforming them from commodities into money. Department II reconverted them into the natural form of its constant capital by purchasing from I commodities valued at 1000 v and thus restoring to I the value of its variable capital in money.

The variable capital of I passes through three metamorphoses, which are only indicated in the circulation of the annual product or do not appear at all in it.

(1) The first form is 1000 I v in money, which is converted into labor-power of the same value. This transaction does not itself appear in the exchange of commodities between I and II, but its result is seen in the fact that the working class of I approach the capitalist seller of commodities of II with 1000 in money, just as the working class of II approach the capitalist of II with 500 in money in order to buy his 500 II v of commodities.

(2) The second form is the only one in which variable capital actually varies and serves as variable capital. In this form, a power which creates values takes the place of given values offered in exchange for it. It belongs exclusively to the process of production which is past.

(3) The third form, in which the variable capital as such performs its function in the process of production, is the annual product in values, which in the case of I amounts to 1000 v plus 1000 s, or 2000 I (v+s). In the place of its original value of 1000 in money we have a value of double this amount, or 2000, in commodities. The variable capital-value of 1000 is therefore only one-half of the product in values created by it as an element of productive capital. The 1000 I v in commodities are an exact equivalent of the variable part of capital originally advanced in money. But in the form of commodities they are but potential money (they do not become money until they are sold), so that they are still less directly money-capital. They finally become money-capital by the sale of the commodities of 1000 I v to II c, and by the hurried reappearance of labor-power as a purchasable commodity, as a material for which 1000 v in money may be exchanged.

During all these transactions the capitalist of I continually holds the variable capital in his hands (1) originally as money-capital; (2) then as an element of his productive capital; (3) still later as a portion of the value of his commodity-capital, in the form of the value of commodities; (4) finally once more in money which seeks the company of labor-power for the purpose of exchange. During the process of production, the capitalist has the variable capital in his control as a labor-power creating values, but not as a value of a given magnitude. But since he never pays the laborer until the laborer's power has been applied for a certain length of time, he always holds in his hands the value created by labor for its own reproduction and the surplus-value in excess of this, before he pays him.

Seeing that the variable capital always stays in the hands of the capitalist, it cannot be claimed in any way that it converts itself into revenue for any one. On the contrary, 1000 I v converts itself into money by its sale to II, whose constant capital it reproduces to the extent of one-half in its natural form.

That which resolves itself into revenue is not the variable capital of I, represented by 1000 v in money. This money has ceased to serve as the money-form of the variable capital of I as soon as it has converted itself into labor-power, just as the money of any other seller of commodities ceases to represent any of his property as soon as he has exchanged it for commodities of some other seller. The transactions which the money paid as wages makes in the hands of the working class are not transactions of variable capital, but of the value of their labor-power converted into money. So are the transactions of the product in values [2000 I (v+s)], created by the working class, only transactions of commodities belonging to the capitalists, which do not concern the laborers. However, the capitalist, and still more his theoretical interpreter, the political economist, can rid himself only with the greatest difficulty of the idea that the money paid to the laborer is still the capitalist's money. If the capitalist is a producer of money, then the variable portion of value—in other words, the equivalent in commodities which reproduces for him the price of the labor-power bought by him—appears immediately in the form of money, so that it can serve again as variable money-capital without the circuitous route of a reflux. But so far as the laborer of II is concerned—aside from the laborer who produces articles of luxury—500 v exists in the form of commodities intended for the consumption of the laborer, which he, the aggregate laborer, buys by direct purchase from the same aggregate capitalist to whom he had sold his labor-power. The variable portion of the capital of II, so far as its natural form is concerned, consists of articles of consumption, the greater portion of which are intended for the consumption of the laboring class. But it is not the variable capital which is spent in this form by the laborer. It is the wages, the money of the laborer, which by its realization in these articles of consumption restores to the capitalist the variable capital 500 II v in its money-form. The variable capital II v is reproduced in articles of consumption, the same as the constant capital 2000 II c. The one resolves itself no more into revenue than the other does. In either case it is the wages which resolve themselves into revenue.

It is a weighty fact in the circulation of the annual production that the expenditure of wages restores both the constant and variable capital to the form of money-capital, in the one case 1000 II c, in the other 1000 I v and 500 II v. (In the case of the variable capital either by means of a direct or indirect reflux).

XI. REPRODUCTION OF THE FIXED CAPITAL.

A great difficulty in the analysis of the transactions in annual reproduction is the following. Take the simplest form in which the matter may be presented, as follows:

(I.) 4000 c + 1000 v + 1000 s +

(II.) 2000 c + 500 v + 500 s = 9000.

This resolves itself finally into

4000 I c + 2000 II c + 1000 I v + 500 II v + 1000 I s + 500 II s = 6000 c + 1500 v + 1500 s = 9000.

One portion of the value of the constant capital, to the extent that it consists of instruments of production in the strict meaning of the term (as a distinct section of the means of production) is transferred from the instruments of labor to the product of labor (commodities); these instruments of labor continue to serve as elements of productive capital in their old natural form. It is their wear and tear, the loss in value experienced by them after a certain period of service, which reappears as an element of value in the commodities produced by means of them, which is transferred from the instruments of labor to the product of labor. In a question of annual reproduction, therefore, only those elements of fixed capital demand consideration, which last longer than one year. If they are completely worn out within one year, then they must be completely reproduced by the annual reproduction, and the point of issue does not concern them at all. It may happen in the case of machines and other lasting forms of fixed capital—and it frequently *does* happen—that certain parts of them must be completely reproduced within one year, although the organism of the building or machine as a whole lasts a much longer time. These partial organs belong in the same category with the elements of fixed capital which must be reproduced within one year.

This element of the value of commodities must not be confounded with the cost of repairs. If a commodity is sold, this element is turned into money, the same as all others. But after it has been turned into money, its difference from all other elements becomes apparent. The raw and auxiliary materials consumed in the production of commodities must be replaced in their natural form, in order that the reproduction of commodities may begin anew (or that the production of commodities in general may be continuous). The labor-power embodied in them must also be renewed by fresh labor-power. For this reason, the money realized on the commodities must be continually reconverted into these elements of productive capital, a conversion of money into commodities. It does not alter the matter that raw and auxiliary materials, for instance, are bought in large quantities in certain intervals, so that they constitute a productive supply, and need not be secured by new purchases during those intervals. Nor does it matter that the money coming in through the sale of commodities, to the extent that it is intended for the purchase of those means of production, may accumulate while they last, so that this portion of constant capital appears temporarily in the role of money-capital suspended from its active function. It is not a revenue-capital. It is productive capital suspended in the form of money. The renewal of the means of production must continue all the time, but the form of their renewal—with reference to the circulation—may vary. The new purchases, the transactions in the circulation by which they are renewed, may take place in more or less prolonged intervals, and a large amount may be invested at one stroke in a correspondingly large supply of means of production. Or, the intervals between purchases may be small, and in that case small amounts of money are invested in correspondingly small supplies of means of production. But this does not alter the matter itself. The same applies to labor-power. Wherever production is carried on continuously

throughout the year on the same scale, there the consumed labor-power must be continuously replaced by new labor-power. Where work depends on seasons, or different portions of the work are done at different periods, as in agriculture, there the purchases of labor-power are relatively smaller. But the money received through the sale of commodities, so far as it represents the value of the wear and tear of fixed capital, is not reconverted into that component part of productive capital whose loss in value it makes good. It settles down beside the productive capital and retains the form of money. This precipitation of money is repeated until the period of reproduction, consisting of a small or great length of time, has elapsed, during which the fixed element of constant capital continues to perform its function in the process of production in its old natural form. As soon as the fixed element, such as buildings, machinery, etc., has been worn out and can no longer serve in the process of production, its value exists fully in money, in the sum of money precipitated by the values which had been gradually transferred by the fixed capital to the commodities in whose production it assisted, and which had been converted into money by the sale of these commodities. This money then serves to replace the fixed capital (or its elements, since its various elements have a different durability) in its natural form and thus to renew this part of the productive capital in reality. This money is, therefore, the money-form of a part of the value of the productive capital, namely, of its fixed part. The formation of this hoard is thus a factor in the capitalist process of reproduction, it is the reproduction and storage, in the form of money, of the value of the fixed capital, or its individual elements, until such time as the fixed capital shall be worn out, until it shall have transferred its entire value to the commodities produced and must be reproduced in its natural form. And this money does not lose the form of a hoard and resume its activity in the process of reproduction of capital promoted by the circulation, until it is reconverted into new elements of fixed capital which will replace the worn-out elements.

The transactions disposing of the annual product in commodities can no more be dissolved into a mere direct exchange of its individual elements than the simple circulation of commodities can be regarded as identical with a simple exchange of commodities. Money plays a specific role in this circulation, which is particularly marked by the manner in which the value of the fixed capital is reproduced. (It is left to a later analysis to ascertain how the matter would present itself, if production were collective and no longer a production of commodities.)

Let us now return to our fundamental diagram, which showed in department II the formula 2000 c + 500 v + 500 s. All the articles of consumption produced in the course of the year are in that case valued at 3000. And every one of the different elements of the commodities composing the total quantity of the product consists, so far as its value is concerned, of 2/3 c + 1/6 v + 1/6 s, or in percentages, 66-2/3 c + 16-2/3 v + 16-2/3 s. The various kinds of commodities of department II may contain different proportions of constant capital. The fixed portion of their constant capitals may be different. The duration of this fixed portion, its wear and tear and therefore that portion of value

which it transfers by degrees to the commodities, produced by its assistance, may also differ. But that is immaterial. So far as the process of social reproduction is concerned, it is only a question of transactions between departments II and I. These two departments are here confronted by each other only as social masses. Hence the proportional magnitude of the portion c of the value of the commodity-product of II (which is the only essential one in the settlement of the present question) gives the average proportion, if all the branches of production classed under II are taken as a whole.

Every kind of commodities (and they are largely the same kinds) classed under 2000 c + 500 v + 500 s thus shares uniformly in the value to the extent of 66-2/3% c + 16-2/3% v+ 16-2/3% s. This applies equally to every 100 of the commodities classed under c, or v, or s.

The commodities in which the 2000 are incorporated may be further divided into

(1) 1333-1/3 c + 333-1/3 v + 333-1/3 s=2000 c.

Those under 500 v may be divided into

(2) 333-1/3 c + 83-1/3 v + 83-1/3 s=500 v.

Those under 500 s may be divided into

(3) 333-1/3 c + 83-1/3 v + 83-1/3 s=500 s.

Now, if we add these three formulae, we have 1333-1/3 c + 333-1/3 c + 333-1/3 c = 2000 c. Furthermore 333-1/3 v + 83-1/3 v + 83-1/3 v = 500 v. And the same in the case of s. The addition gives the same total value of 3000 as above.

The entire constant capital-value contained in the quantity of commodities of II represented by 3000 is therefore incorporated in 200 c, and neither 500 v nor 500 s contain an atom of it. The same is true of v and s in the case of 500 v and 500 s.

In other words, the entire quantity of constant capital-value, embodied in the commodities of II and reconvertible either into its natural or its money-form, exists in 2000 c. Everything referring to the conversion of the constant value of the commodities of II is therefore dealing only with the movements of 2000 c of II. And these transactions can be made only with 1000 v + 1000 s of I.

In the same way, all remarks made with reference to the transactions of the constant capital-value of department I are confined to a consideration of 4000 I c.

(1) The Reproduction of the Value of the Worn-out Part in the Form of Money.

Let us first consider the diagram

I. 4000 c + 1000 v + 1000 s

II. .....2000 c + 500 v + 500 s

The exchange of the commodities represented by 2000 II c for commodities of I of the same value (1000 v + 1000 s) is conditioned on the assumption that the entire 2000 II c are reconverted from their natural form into that of the elements of the constant capital of II, produced by I. But the value of the commodities of 2000 c, of which the constant capital of II consists, contains an element making good

the loss in the value of fixed capital, which is not to be immediately reproduced in its natural form, but converted into money and accumulated until such time as shall require the natural reproduction of the fixed capital on account of its having been completely worn out. Every year registers the finish of some fixed capital which must be renewed in this or that individual business, or this or that line of industry. In the case of one and the same individual capital, this or that portion of its fixed capital must be renewed, since its elements have a different durability. In examining annual reproduction, even on a simple scale, that is to say, disregarding all accumulation, we do not begin at the very beginning of things. The year which we study is one in the flow of many, it is not the year of the first birth of capitalist production. The various capitals invested in the numerous lines of production of department II are, therefore, of different age. Just as a great many persons die annually in the service of these lines of production, so scores of fixed capitals expire annually in the same service and must be restored in their natural form by means of the accumulated fund of money. To that extent the exchange of 2000 II c for 2000 I (v+s) implies a conversion of 2000 II c from the form of commodities (articles of consumption) into that of natural elements of constant capital, which consist not only of raw and auxiliary materials, but also of natural elements of fixed capital, such as machinery, tools, buildings, etc. The wear and tear, which must be reproduced in money in the value of 2000 II c, by no means corresponds to the volume of the actively engaged fixed capital, since a portion of this must be reproduced every year in its natural form. The necessary preparation for this reproduction is an accumulation of money in preceding years on the part of the capitalists of II. And the same condition holds good for the current year as well as for the preceding ones.

In the transaction of I (1000 v + 1000 s) it must be noted that the magnitude I (v+s) does not contain any elements of constant capital, so that none of it implies a reproduction of wear and tear, that is to say, of elements transferred from the fixed portion of some constant capital to the commodities which represent the natural form of v+s. On the other hand, such elements do exist in II c and constitute that portion of value due to fixed capital which is immediately converted from money into its natural form, but first accumulated in the form of money. The exchange between I (1000 v+1000 s) and 2000 II c, therefore, presents the difficulty that the means of production of I, which are the natural form of (1000 v+1000 s), are to be exchanged to the full value of 2000 for articles of consumption of II, while the 2000 II c of articles of consumption cannot be offered entirely in exchange for I (1000 v+1000 s), because a portion of them, corresponding in value to the wear and tear of the fixed capital, must be accumulated in the form of money and do not serve as a medium of circulation during the current period of annual reproduction which we are examining. But the money paying for this element of wear and tear incorporated in the value of 2000 II c can come only from department I, since II cannot pay for its own articles, but must secure payment for them by selling them, and since we have assumed that I (1000 v+1000 s)

buys the full amount of commodities of 2000 II c. Hence department I must supply the money to cover that wear and tear of II c. Now, according to the rules previously determined, money advanced to the circulation returns to that capitalist producer who later on throws an equal amount of commodities into the circulation. It is evident that department I, in buying II c, cannot transfer commodities worth 2000 to department II and yield up to it every time an additional amount of money without any equivalent returning by way of the circulation. Otherwise department I would buy the commodities II c at a price exceeding their value. If department II actually exchanges its 2000 c for I (1000 v + 1000 s), then it has no further claims on department I, and the money circulating in this transaction returns either to I or to II, according to whether I or II acted first as a buyer. And in that case department II would have reconverted the entire value of its commodity-capital into the natural form of means of production, contrary to our assumption that it would not reconvert an aliquot portion during the current period of annual reproduction into the natural form of fixed elements of its constant capital. Department II could not secure a balance of money in its favor, unless it sold a value of 2000 to department I and bought less than that from department I, for instance, only 1800. In that case department I would have to make good the balance of 200 in money, which would not return to it, because it would not have recovered this amount by an equivalent surrender of commodities to the circulation. Only then could II have a fund of money which it could place to the credit of the wear and tear of its fixed capital. But then we should also have an overproduction of means of production to the amount of 200 on the part of department I, and the basis of our diagram would be destroyed, which assumed reproduction on the same scale, in other words, a complete proportionality between the various systems of production. We should have done away with one difficulty and created another, which would be still worse.

As this problem offers peculiar difficulties and has never been mentioned by political economy, we shall consider one by one all possible solutions (at least apparent solutions), or rather all possible formulations of the problem.

In the first place, we had just assumed that department II sells commodities valued at 2000 to department I, but buys from it only 1800 worth. The value of the commodities of 2000 c contains 200 for wear and tear of fixed capital, which must be accumulated as money. The value of 2000 c would therefore be dissolved into 1800, which would be exchanged for means of production of I, and 200 for the reproduction of worn-out elements of fixed capital, which would be held in the form of money after the sale of 2000 II c to department I. Expressed in terms of value, this would be 2000 II c = 1800 c + 200 w, this w standing for wear and tear.

We should then be studying the transaction

I. 1000 v + 1000 s
II. 1800 c + 200 w.

Department I buys with 1000 p. st., which the laborers have received as wages in payment for their labor-power, 1000 II c of articles

of consumption. Department II buys with the same 1000 p. st. means of production from department I from the lot 1000 v. The capitalists of I thus recover their variable capital in the form of money and can employ it next year in the purchase of labor-power to the same amount, that is to say, they can reproduce the variable portion of their productive capital in its natural form.—Department II furthermore advances 400 p. st. and buys means of production from the lot I s, and department I s buys with the same 400 p. st. articles of consumption from II c. The 400 p. st. advanced by the capitalists of II have thus returned to them, but only as an equivalent for sold commodities. Department I now buys from II articles of consumption to the amount of 400 p. st. ; II buys from I 400 worth of means of production, thereby returning the 400 p. st. to department I.

So far, then, we have the following calculation: Department I b throws into circulation 1000 v + 800 s in commodities ; it also throws into circulation, in money, 1000 p. st. of wages and 400 p. st., thus facilitating its transaction with II. After the transaction is closed, department I has 1000 v in money, 800 s exchanged for articles of consumption from 800 II c, and 400 p. st. in money.

Department II throws into circulation 1800 c in commodities (articles of consumption) and 400 p. st. in money. At the close of the transaction it has 1800 in commodities (means of production from department I) and 400 p. st. in money.

There still remain on the side of department I 200 s in means of production, and on the side of II 200 c (w) in articles of consumption.

According to our assumption department I buys with 200 p. st. the articles of consumption II w, valued at the same amount. But II holds these 200 p. st., since 200 w represents wear and tear and is not immediately reconverted into means of production. Therefore 200 I s cannot be sold. One-tenth of the surplus-value of I cannot be realized by any exchange, cannot be converted from the natural form of means of production into that of articles of consumption.

This does not only contradict our assumption of reproduction on a simple scale, but it is not even a hypothesis which would explain the payment of 200 II w in money. It is another way of saying that it cannot be explained. Since it cannot be demonstrated in what manner 200 w is converted into money, it is assumed that department I is obliging enough to supply the money, just because it is not able to convert its own remainder of 200 into money. This is as much a legitimate method of analysis as the assumption that 200 p. st. fall every year from the clouds in order to convert 200 II w into money.

But the absurdity of such an assumption does not become evident at once, if I s, instead of appearing, as it does in this case, in its primitive mode of existence—that is to say, as an element of the value of means of production, as an element of the value of commodities which must be converted into money by their capitalist producers—appears in the hands of capitalist stockholders, for instance, as ground rent in the hands of landowners, or as interest in the hands of money-lenders. Now, if that portion of the surplus-value of commodities, which the industrial capitalist yields in the form of ground rent or interest to other

shareholders in the surplus-value, cannot be in the long run converted into money by the sale of the commodities, then there is an end to the payment of rent and interest, and the landowners or recipients of interest can no longer serve in the role of miraculous interlopers who convert aliquot portions of the annual reproduction into money by spending their revenue. The same is true of the expenditures of all so-called unproductive laborers, state officials, physicians, lawyers, etc., and others who serve economists as an excuse for explaining inexplicable things, in the role of the "general public."

Nor does it improve the matter if the direct transaction between departments I and II, the two great departments of capitalist producers, is circumvented and the merchant is dragged in as a mediator, in order to overcome all difficulties with his "money."* In the present case, for instance, 200 I s must ultimately be sold to the industrial capitalists of II. It may pass through the hands of a number of merchants, but the last of them will find himself in the same predicament in which the capitalists of I were at the outset, that is to say, he cannot sell the 200 I s to the capitalists of II. And this amount, being arrested in its course, cannot renew the same process with department I.

We see, then, that, aside from our ultimate purpose, it is quite necessary to view the process of reproduction in its fundamental simplicity, in order to get rid of all obscuring interference and dispose of the false subterfuges which assume the semblance of scientific analysis, but which cannot be removed so long as the process of social reproduction is immediately analyzed in its concrete and complicated form.

The law that under normal conditions of reproduction—whether it be on a simple or on an enlarged scale—the money advanced by the capitalist producer to the circulation must return to its point of departure (no matter whether the money is his own or borrowed) excludes decidedly the hypotheses that 200 II w can be converted into money by an advance of money on the part of department I.

(2) *The Reproduction of Fixed Capital in its Natural Form.*

Having disposed of the above hypothesis, only such hypotheses remain as assume the possibility of a reproduction of the worn-out fixed capital partly in money and partly in its natural form.

We had assumed in the preceding case

(a) That 1000 p. st. had been paid in wages by department I and spent by the laborers for articles of consumption of II c to the same amount.

It is a simple affirmation of fact that these 1000 p. st. are advanced by I in money. Wages must be paid in money by the various capitalist producers. This money is then spent by the laborers for articles of consumption and serves the sellers of articles of consumption in their turn as a medium of circulation in the conversion of their constant capital from a commodity-capital into a productive capital. It passes indeed through many channels (storekeepers, houseowners, tax collectors, unproductive laborers, such as physicians, etc., who are needed by the laborer himself) and therefore it flows only in part directly from the hands of the laborer of I into those of the capitalist of II.

Its flow may be retarded more or less and the capitalist may therefore require more reserve funds of money. But all this is ruled out of the analysis of the simplest fundamental form.

(b) We had furthermore assumed that department I advances at a certain time 400 p. st. in money for the purchase of articles from II and that this money returns to it, while at some other time department II advances also 400 p. st. for the purchase of commodities from I and likewise recovers this money. This assumption must be granted, for it would be arbitrary to think that only the capitalist class of I, or only that of II, should advance the money required for the exchange of their commodities. Now, since we have shown (under 1) that it would be absurd to think that department I should throw money into circulation in order to promote the conversion of 200 II w into money, there would remain only the seemingly still more absurd hypothesis that department II itself should advance this money, by which that portion of the value of its commodities which makes good the depreciation of its fixed capital through wear and tear is converted into money. For instance, that portion of value which is lost by the spinning machine of Mr. X. in the process of production re-appears as a portion of the value of the yarn. That which his spinning machine loses on the one hand through wear and tear, is supposed on the other hand to be accumulated by him in money. Now take it that X. buys 200 p. st.'s worth of cotton from Y. and advances 200 p. st. in money for this purpose. Y. then buys from him 200 p. st.'s worth of yarn, and X. now accumulates this money as a fund for the reproduction of the worn-out portion of his machine. This would simply amount to the statement that X., aside from his production, its product, and the sale of this product, keeps 200 p. st. in reserve, in order to make good to himself the depreciation of his machine, in other words, that he not only loses 200 p. st. by the depreciation of his machine, but must also put up 200 p. st. additional every year out of his own pocket in order to be finally able to buy a new spinning machine.

This looks only seemingly absurd. For the producers of department II are capitalists whose fixed capital is in various stages of its reproduction. In the case of some of them it has arrived at the stage where it must be entirely renewed in its natural form. In the case of the others it is more or less removed from this stage. All the capitalists of these last-named stages have this in common, that their fixed capital is not actually reproduced, that is to say, not actually renewed in its natural form by a new specimen of the same kind, but that its value is successively accumulated in money. The first class of the capitalists of II are in the same (or almost the same) position as they were at the establishment of their business, when they came on the market with their money-capital in order to convert this money partly into constant (fixed and circulating) capital, partly into labor-power (variable capital). They have once more to advance this money to the circulation, the value of fixed constant capital as well as that of circulating constant and variable capital.

Hence, if we assume that half of the 400 p. st. thrown into circulation by the capitalist class of II for the purpose of transacting business

with department I comes from those capitalists of II who have to reproduce by means of the sale of their commodities not only their means of production so far as they are circulating capital, but also to buy with money new fixed capital in its natural form, while the other half of the capitalists of II reproduce with their money only the circulating portion of their constant capital in its natural form, but not the fixed portion, then there is no contradiction in the statement that these 400 p. st., when returned by department I in exchange for articles of consumption, are variously distributed among these two classes of department II. They return to department II, but they do not return into the same hands. They are distributed within this department and pass from one of its sections to another.

One section of II has secured means of production whose value is covered by their commodities, and has furthermore converted 200 p. st. of money into natural elements of new fixed capital. The money thus spent does not return to this section by way of the circulation until after a succession of years and is gradually accumulated by the sale of products created by this fixed capital and bearing the value of its worn-out portion.

But the other section of II did not purchase any commodities from I for 200 p. st. That section is rather paid with the money which the first section of II spent for elements of its fixed capital. The first section of II has its fixed capital-value once more in a natural form, while the second section is still engaged in accumulating money for the purpose of renewing its fixed capital later on.

The basis on which we now have to work, after the previous transactions have been closed, is the remainder of the commodities still to be exchanged by the two departments ; 400 s on the part of I, and 400 c on the part of II.[47] We assume that II advances 400 p. st. in money for the exchange of commodities aggregating 800 in value. One-half, or 200 p. st., must be advanced under all circumstances by that section of IIc which has accumulated 200 in money for making good the depreciation by wear and tear and which has to reconvert this fund into the natural form of its fixed capital.

Just as constant capital-value, variable capital-value, and surplus-value—being the elements of the value of the commodity-capital of II and I—may be represented by proportional quantities of the commodities of II and I, so that portion of the value of the constant capital which is not to be converted into the natural form of fixed capital for the present, but rather to be accumulated in money, may likewise be represented. A certain quantity of commodities of II (in the present case one-half of the remainder of 400, or 200) is as yet the bearer of the value of this depreciation, which has to be converted into money by sale. (The first section of the capitalists of II, who renew their fixed capital in its natural form, may have done so with a portion of its depreciation by means of a corresponding portion of the remaining commodities, but they still have to realize 200 in money.)

[47] These figures do not coincide with those previously assumed. But this does not alter the substance of the argument, since it is merely a question of proportions.—F. E.

The second 200 of the 400 thrown into circulation by II in this remaining transaction buy circulating elements of constant capital from I. A portion of these 200 p. st. may be thrown into circulation by both sections of II, or only by the one not renewing its fixed capital in its natural form.

Department I, then, secures with these 400 p. st. in the first place commodities valued at 200 p. st., consisting only of elements of fixed capital ; in the second place, commodities valued at 200 p. st., reproducing only natural elements of the circulating portion of the constant capital of II. Department I has then sold its entire annual product in commodities, so far as it is sold to department II. And the value of one-fifth, or 400 p. st., is now held in its hands in the form of money. This money is monetized surplus-value which must be spent as revenue for articles of consumption. Department I having bought with its 400 p. st. the entire stock of department II, valued at 400, this money flows back to II.

Now we may assume three possibilities. Let us name those capitalists of II, who renew their fixed capital in its natural form, section 1, and those, who accumulate the equivalent for the depreciation of fixed capital, section 2. The three possibilities are: (a) That the 400 still remaining in the shape of commodities of II may make good certain portions of the circulating part of the constant capital of both section 1 and section 2 (perhaps one-half for each) ; (b) that section 1 has already sold all its commodities, so that section 2 has for sale all of the 400 ; (c) that section 2 has sold all but the 200 which are the bearers of the value of depreciation.

Then we have the following distributions:

(a) Of the value of the commodities still in the hands of department II, namely 400 c, section 1 holds 100, and section 2 holds 300 ; 200 out of the 300 represent depreciation. In that case section 1 originally advanced 300 of the 400 in money returned by department I for commodities of II, namely 200 in money, for which it secured elements of fixed capital from I, and 100 in money for the promotion of its transaction with I. Section 2, on the other hand, advanced only 100 of the 400, likewise for the promotion of its exchange with I.

Remember, then, that section 1 advanced 300, and section 2 advanced 100 of the 400.

Now these 400 return in the following manner: Section 1 recovers only one-third of the money advanced by it, or 100. But it has in place of the other 200 a renewed fixed capital. Section 1 has given money to department I for these elements of fixed capital, but sold no more commodities. So far as this money is concerned, section 1 has met department I for the purpose of buying, but not of selling later on. This money cannot return to section 1, otherwise it would receive the elements of fixed capital from I as a gift. So far as the last third of its advanced money is concerned, section 1 first acted as a buyer of circulating elements of its constant capital. The same money serves department I for the purchase of the remainder of the commodities of section 1, valued at 100. This money, then, returns to section 1 of department II, because it acts as a seller of commodities soon after

having acted as a buyer. If this money did not return, then section 1 of department II would have given to department I a sum of 100 in money for commodities of the same value and in addition thereto 100 in commodities, in other words, it would have given away its commodities as a present.

On the other hand, section 2 receives 300 in money back, while it has advanced only 100 in money. As a buyer it first threw 100 in money into circulation, and these it receives back when acting as a seller. And it receives 200 more, because it acts only as a seller of commodities to that amount, but not in turn as a buyer. Hence the money cannot return to department I. The value of the depreciation of the fixed capital is thus balanced by the money thrown into circulation by section 1 of department II in the purchase of elements of fixed capital. But it reaches the hands of section 2, not as money of section 1, but as money of department I.

(b) Under these conditions the remainder of IIc is distributed so that section 1 has 200 in money, and section 2 has 400 in commodities.

Section 1 has sold all of its commodities, but 200 in money are a changed form of the fixed elements of its constant capital which it has to renew in their natural form. It acts only as a buyer in the present case and receives in exchange for its money the same value in commodities of department I having the natural form of elements of its fixed capital. Section 2 has to throw 200 p. st. into circulation, at a maximum (if department I does not advance any money for the transaction between I and II), since it is to the extent of one-half of the value of its commodities only a seller to I, not a buyer from I.

It recovers from the circulation 400 p. st. It gets 200, because it has advanced them as a buyer and recovers them as a seller of commodities of the same value. It receives another 200, because it sells commodities of that value to I without buying an equivalent from I.

(c) Section 1 has 200 in money and 200c in commodities. Section 2 has 200c (w) in commodities.

Section 2 has not any adavnce of money to make under these circumstances, because it does not act any more in the role of a buyer from I, but only as a seller, so that it must wait till some one wants to buy from it.

Section 1 advances 400 p. st. in money, of which 200 serve for a mutual exchange with department I, while 200 are used to buy from I. The last 200 serve in the purchase of the elements of fixed capital.

Department I buys from section 1 commodities to the value of 200 with 200 p. st. in money, so that section 1 thus recovers the money it had advanced for its transaction with I. And I buys with the other 200 p. st., which it has likewise received from section 1, commodities valued at 200 from section 2, which thus recovers the value of the depreciation of its fixed capital.

The matter would not be altered by the assumption that, in the case of (c), department II instead of section 1 of this department should advance the 200 in money required for the exchange of the existing commodities. If I buys in that case first 200 in commodities from section 2 of department II—assuming that this section has only thi

much left to sell—then the 200 p. st. do not return to I, since section 2 of department II no longer acts in the role of buyer. But section 1 of department II has in that case 200 p. st. to spend in buying and 200 in commodities to offer for sale, making a total of 400 which it has to trade with department I. 200 p. st. in money then return to department I from section 1 of department II. When I spends them again in the purchase of 200 in commodities from section 1 of department II, then they return to department I as soon as section 1 of department II buys the second half of the 400 in commodities from I. Section 1 of department II has spent 200 p. st. in the purchase of elements of fixed capital, without selling anything in return. Therefore this money does not return to it, but serves to monetize the remaining 200 c of commodities of section 2 of department II, while the 200 p. st. in money advanced by I for the promotion of the transactions return to it by way of section 1 of department II, not section 2. In the place of its commodities of 400 it has secured an equivalent, and the 200 p. st. in money advanced by it for transacting business to the extent of 800 in commodities have likewise returned to it. Everything is therefore settled.

The difficulty encountered in the transaction between I (1000 v + 1000 s) and II 2000 c was reduced to the difficulty of balancing accounts between I 400 s and II (section 1) 200 in money plus 200 c in commodities plus (section 2) 200 c in commodities. Or, to make the matter still clearer, I (200 s + 200 s) against II (200 in money of section 1 plus 200 c in commodities of section 1 plus 200 c in commodities of section 2).

Since section I of department II exchanges 200 c for commodities of department I representing 200 s, and since all the money circulating in this exchange of 400 commodities between I and II returns to him who first advances it, be he I or II, this money promoting the exchange between I and II is not an element of the problem which troubles us here. Or, to express it differently, if we assume that the money used in the transaction between 200 I s (commodities) and 200 IIc (commodities of section 1, department II) serves only as a medium of payment, not as a medium of purchase and therefore not as a "medium of circulation," strictly speaking, it is evident that the means of production valued at 200 are exchanged for articles of consumption valued at 200, because the commodities of 200 I s and 200 IIc (section 1) are equivalent in value, that therefore the money serves here merely ideally, and that neither side has to advance any money to the circulation for the payment of any balance. Hence the problem does not show itself in its clearest form, until we eliminate the commodities of 200 I s and their equivalent, the commodities of 200 IIc (section 1), from both sides.

After the elimination of these two amounts of commodities of equal value, which balance one another in I and II, the remainder of the transaction shows the problem clearly, namely I 200 s in commodities against II (200 c in money of section 1 plus 200 c in commodities of section 2).

It is evident that section 1 of department II buys with 200 in money the elements of its fixed capital from 200 I s. The fixed capital of section 1, department II, is thereby renewed in its natural form, and the surplus-value of I, to the amount of 200, is converted from the form of commodities (means of production representing elements of fixed capital) into that of money. Department I buys with this money articles of consumption from section 2, department II, and the result for II is that section 1 has renewed a fixed element of its constant capital in its natural form; and that section 2 has stored up another element in money which is destined to make good the depreciation of its fixed capital. And this continues every year, until this last element is also renewed in its natural form.

The first condition is here evidently that this fixed element of constant capital II, which must annually be reconverted into money to the full extent of its value and, therefore, entirely reproduced in its natural form (section 1), should be equal to the annual depreciation of the other fixed element of constant capital II, which continues its function in its old natural form and whose depreciation, represented by the value transferred by it to the commodities produced by it, is first accumulated in money. Such a balance of value would seem to be a law of reproduction on the same scale. This is equivalent to saying that the proportional division of labor in department I, which puts out means of production, must remain unchanged, to the extent that it produces partly circulating, partly fixed portions of the constant capital of department II.

Before we analyze this more closely, we must first see how the matter looks, if the remaining amount of II c (1) is not equal to the remainder of II c (2). It may be larger or similar. Let us study either case.

First Case.

I. 200 s.

II. (1) 220 c in money plus (2) 200 c in commodities.

In this case II c (1) buys with 200 p. st. the commodities of 200 I s, and I buys with the same money the commodities of 200 II c (2), in other words, that portion of the fixed capital which has to be accumulated in money. This portion is thus converted into money. But 20 II c (1) cannot be reconverted into the natural form of fixed capital.

It seems that we might remedy this inconvenience by making the remainder of I s 220 instead of 200, so that only 1780 instead of 1800 of the 2000 I would be disposed of by former transactions. Then we should have:

I. 220 s.

II. (1) 220 c in money plus (2) 200 c in commodities.

Section 1 of II c buys with 220 p. st. in money the 220 I s, and I buys with 200 p. st. the 200 II c (2) of commodities. But now 20 p. st. in money remain on the side of I, a portion of surplus-value which it can hold only in money, without being able to spend it in articles of consumption. The difficulty is thus merely transferred from section 1, department II c, to I s.

Let us now assume, on the other hand, that section 1, II c, is smaller than section 2, II c, then we have:

Second Case.

I. 200 s in commodities.

II. (1) 180 c in money plus (2) 200 c in commodities.

Section 1, department II, buys with 180 p. st. in money the commodities of 180 I s. Department I buys with the same money commodities of the same value from section 2, department II, that is to say, 180 II c (2). There remain 20 I s unsaleable on one side, and 20 II c of section 2 on the other. In other words, commodities valued at 40 remain unsaleable.

It would not help us any to make the remainder of I equal to 180. It is true, there would not be any surplus in I under these circumstances, but the same surplus of 20 would remain unsaleable in section 2 of department II and could not be converted into money.

In the first case, where section 1 of department II is greater than section 2 of department II there remains a surplus of money in section I of department II and cannot be covered into fixed capital; or, if the remainder in I s is assumed to be equal to II c (1), the same surplus in money remains inconvertible into articles of consumption in I s.

In the second case, where II c (1) is smaller than II c (2), there remains a deficit of money on the side of 200 I s and II c (2), and an equal surplus of commodities on both sides, or, if the remainder of I s is assumed to be equal to II c (2), there remains a deficit of money and a surplus of commodities in II c (2).

If we assume the remainder of I s to be always equal to II c (1) —seeing that production is determined by demand, and reproduction is not altered by the fact that there may be a greater output of fixed elements of capital this year, and a greater output of circulating elements of constant capitals I and II next year—then I s could not be reconverted into articles of consumption in the first case, unless I brought with it a portion of the surplus-value of II and accumulated it in money instead of consuming it; in the second case there would be no other way out but an expenditure of the money on the part of I itself, an assumption which we have already rejected.

If II c (1) is greater than II c (2), then the importation of foreign commodities is required for the employment of the money-surplus in I s. If II c (1) is smaller than II c (2), then an exportation of commodities (articles of consumption) is required for the realization of the value of the depreciation of II c in means of production. In either case, foreign trade is necessary.

Even assuming that, on the basis of simple reproduction on the same scale, the productivity of all lines of industry, and thus the proportional relation of the value of their commodities, would remain unchanged, there would nevertheless be an incentive for production on an enlarged scale whenever the two last-named cases may occur, in which II c (1) is greater or smaller than II c (2).

(3) Results.

With reference to the reproduction of the fixed capital, the following general remarks may be made:

If a larger portion of the fixed element of II c expires this year than last and must be reproduced in its natural form—all other circumstances remaining the same, that is to say, not only the scale of production, but also the productivity of labor, etc.—then that portion of the fixed capital, which is as yet only declining and must be temporarily accumulated in money until its term of expiration arrives, must decline in the same proportion, since we have assumed that the sum of the fixed capital serving in II (also the sum of its values) remains unchanged. This implies the following consequences: If a greater portion of the commodity-capital of I consists of elements of the fixed capital of II c, then a correspondingly smaller portion consists of circulating elements of II c, because the total production of I for II c remains unchanged. If one of these portions increases, then the other decreases, and *vice versa*. On the other hand, the total production of II also retains the same volume. But how is this possible, if the production of its raw materials, half-wrought products, and auxiliary materials (the circulating elements of the constant capital of II) decreases? In the second place, a greater portion of fixed capital of II c, restored to its money-form, flows into department I, in order to be reconverted from its money-form into its natural form. In other words, there is a greater flow of money into department I, aside from the money circulating between I and II merely for the transaction of their business, more money which does not merely serve as a medium for the mutual exchange of their commodities, but acts onesidedly in purchase without a corresponding sale. At the same time the quantity of commodities of II c, the bearers of the value of the depreciation of fixed capital, would have decreased proportionately. This is that quantity of commodities of II which is not exchanged for commodities of I, but must be converted into money of I. More money would have flown from II into I for onesided purchase, and there would be fewer commodities of II which would stand only in the relation of a buyer toward I. Under these circumstances a great portion of I s—for I v has already been converted into commodities of II—would not be convertible into commodities of II, but would be held in the form of money.

The opposite case, in which the reproduction of expired fixed capitals of a certain year exceeds that of the depreciation, need not be discussed in detail after the preceding statements.

The result would be a crisis—a crisis in production—in spite of the fact that reproduction had taken place on the same scale.

In short, unless a constant proportion between expiring (and about to be renewed) fixed capital and still continuing (merely transferring the value of its depreciation to its product) fixed capital is assumed, so long as reproduction takes place on a simple scale under the same conditions, such as productivity, volume, intensity of labor, the mass of circulating elements to be reproduced in one case would

remain the same while the mass of fixed elements to be reproduced would have been increased. Therefore the aggregate production of I would have to increase, or there would be a deficit in the reproduction, even aside from money matters.

In the other case, if the proportional magnitude of the fixed capital of II, to be reproduced in its natural form, should decrease and the elements of the fixed capital of II, which must be merely accumulated in money, should increase in the same ratio, then the quantity of the circulating elements of the constant capital of II, reproduced by I, would remain unchanged, while that of the fixed elements about to be reproduced would have decreased. Hence there would be either a decrease in the aggregate production of I, or a surplus (the same as previously a deficit) which could not be converted into money.

It is true that the same labor may, in the first case, supply a greater product with an increase in its productivity, extension, or intensity, and so the deficit could be covered in the first case. But such a change could not take place without a transfer of capital and labor from one line of production of department I to another, and every transfer would cause monetary disturbances. Furthermore, to the extent that an expansion and intensification of labor would increase, department I would have to exchange more of its value for less value of II. In other words, there would be a depreciation of the product of I.

The reverse would take place in the second case, where I must contract its production, which implies a crisis for its laborers and capitalists, or produce a surplus, which implies another crisis. Such a surplus is not an evil in itself, but it is an evil under the capitalist system of production.

Foreign trade could relieve the pressure in either case. In the first case it would convert products of I held in the form of money into articles of consumption, in the second case it would dispose of the surplus of commodities. But foreign trade, so far as it does not merely reproduce certain elements of production, only transfers these contradictions to a wider sphere and gives them a greater latitude.

Once that the capitalist mode of production is abolished, the problem resolves itself into the simple proposition that the magnitude of the expiring portion of fixed capital, which must be reproduced in its natural form every year (which served in our illustration for the production of articles of consumption), varies in successive years. If it is very large in a certain year (in excess of the average mortality, the same as among men), then it is so much smaller in the next year. The quantity of raw materials, half-wrought articles, and auxiliary materials required for the annual production of the articles of consumption—other circumstances remaining the same—does not decrease in consequence. Hence the aggregate production of means of production would have to increase in the one case and decrease in the other. This can be remedied only by a continuous relative overproduction. There must be on the one hand a certain quantity of fixed capital in excess of that which is immediately required ; on the other hand there must be above all a supply of raw materials, etc., in excess of the actual requirements of

annual production (this applies particularly to articles of consumption). This sort of reproduction may take place when society controls the material requirements of its own reproduction. But in capitalist society it is an element of anarchy.

This illustration of fixed capital, on the basis of an unchanged scale of reproduction, is convincing. A disproportion of the production of fixed and circulating capital is one of the favorite arguments of political economists in explaining productive crises. That such a disproportion can and must arise even when the fixed capital is merely preserved by renewal is new to them. And yet, it can and must arise even on the assumption of an ideal and normal production on the basis of a simple reproduction of the already existing capital of society.

XII. THE REPRODUCTION OF THE MONEY SUPPLY.

One element has so far been entirely disregarded, namely, the annual reproduction of gold and silver. To the extent that these metals serve as material for articles of luxury, gilding, etc., they do not deserve any special mention, any more than any other products. But they play an important role as money-material, as potential money. For the sake of simplicity, we regard only gold as material for money.

According to older statements, the entire annual production of gold amounts to about 8—900,000 lbs., equal to about 1100 to 1250 million marks (264 to 392.5 million dollars). But according to Soetbeer[48] it amounts to only 170,675 kilograms, valued at about 476 million marks on an average of the years 1871 to 1875. Of this amount, Australia supplied about 167, the United States 166, Russia 93 million marks. The remainder is distributed over various countries in sums of less than 10 million marks each. The annual production of silver, during the same period, amounted to somewhat less than 2 million kilograms, valued at 354.5 million marks. Of this amount, Mexico supplied about 108, the United States 102, South America about 67, Germany about 26 million, etc.

Among the countries with predominating capitalist production only the United States are producers of gold and silver. The capitalist countries of Europe obtain almost all their gold and by far the greater part of their silver from Australia, the United States, Mexico, South America, and Russia.

But we transfer the gold mines into the country with capitalist production whose annual reproduction we are analyzing, for the following reasons:

Capitalist production does not exist at all without foreign commerce. But when we assume annual reproduction on a given scale, we also assume that foreign commerce replaces home products only by articles of other use-value, or natural form, without affecting the relations of value, such as those of the two categories known as means of production and articles of consumption and their transactions, nor the relations of constant capital, variable capital, and surplus-value, into

[48] Ad. Soetbeer, *Edelmetall-produktion*. Gotha. 1875.

which the value of the products of each of these categories may be dissolved. The introduction of foreign commerce into the analysis of the annually reproduced value of products can, therefore, produce only confusion, without furnishing any new point in the aspect or solution of the problem. For this reason we leave it aside. And consequently gold as a direct element of annual reproduction is not regarded as a commodity imported from a foreign country.

The production of gold, like that of metals generally, belongs to department I, which occupies itself with means of production. Let us assume that the annual production of gold amounts to 30 (from reasons of expediency, although it is far too high compared to the other figures of our diagrams). Let this value be resolved into 20 c + 5 v + 5 s ; 20 c is to be exchanged for other elements of department I c, and this is to be studied later ; but the 5 v + 5 s are to be exchanged for elements of II c, namely, articles of consumption.

As for the 5 v, every gold-producing business begins by buying labor-power. This is done, not with money produced by this particular business, but with a portion of the money existing in the land. The laborers buy with this 5 v articles of consumption from II, and this department buys with the same money means of production from I. Let us say that II buys from I gold for elements of its commodities (elements of constant capital) to the value of 2, then 2 v flow back to the gold producers of I in money which was formerly in circulation. If II does not buy any more material from I, then I buys from II by throwing its gold into circulation, for gold can buy any commodity. The difference is only that I does not act as a seller, but as a buyer, in that case. The gold producers of I can always get rid of their product, for it is always in a form which may be directly exchanged.

Take it that some producer of yarn has paid 5 v to his laborers, who create for him in return—aside from a surplus-product—yarn to the amount of 5. The laborers buy values worth 5 from II c, and II c buys with the same 5 in money yarn from I, and this 5 in money flows back to the producer of yarn. Now we had assumed that I g, (meaning the producer of gold) advanced to his laborers 5 v in money which had previously belonged to the circulation. The laborers spend it for articles of consumption, but only 2 of the 5 return from II to I g. However, I g can begin his process of reproduction anew, just as well as the producer of yarn. For his laborers have supplied him with 5 in gold, 2 of which he sold, and 3 of which he still has, so that he has but to coin it,[49] or exchange it for bank notes, in order that his entire variable capital may be immediately in his hands, without the intervention of II.

Even this very first process of annual reproduction has wrought a change in the quantity of money actually or virtually in circulation. We assumed that II c bought 2 v from I g for material, and that I g invested 3 in II as the money-form of its variable capital. In other words, 3 of the amount of money supplied by the new gold production

[49] "A considerable quantity of gold bullion . . . is taken by the gold diggers directly to the Mint in San Francisco."—Reports of H. M. Secretaries of Embassy and Legation. 1879. Part III, p. 337.

remained within department II and did not return to I. According to our assumption II has satisfied its needs for gold material. The 3 remain in its hands as a hoard of gold. Since they cannot constitute any elements of its constant capital, and since II had previously enough money-capital for the purchase of labor-power; since, furthermore, these additional 3 g, with the exception of the element making good the loss through depreciation, have no function to perform within II c, for a portion of which they were exchanged (they could only serve to cover a shortage in the element making good loss through depreciation, in the case that section 1 of department II should be smaller than section 2 of department II, which would be accidental); and since, on the other hand, the entire commodity-product of II c, with the exception of the element making up for depreciation, must be exchanged for means of production of I (v+s); therefore this money must be entirely transferred from II c to II s, no matter whether it exists in necessities of life or articles of luxury, and *vice versa*, a corresponding value of commodities must be transferred from II s to II c. Result: A portion of the surplus-value is accumulated as a hoard of money.

In the second year of reproduction, when the same proportion of annually produced gold continues to be used as material, 2 will again flow back to I g, and 3 will be reproduced in its natural form, that is to say, it will be set aside in department II as a hoard, etc.

With reference to the variable capital in general, it may be said that the capitalist of I g must continually advance money for the purchase of labor-power, the same as every other capitalist. But so far as these wages are concerned, it is not he, but his laborers who buy from II. He can never appear as a buyer, transferring gold to II, without the initiative of II. But to the extent that II buys material from him for the purpose of converting its constant capital II c into a gold supply, a portion of the v of I g flows back to it from II in the same way that it does to other capitalists of I. And so far as this is not the case, he reproduces his v in gold direct from his product. But to the extent that the v advanced by him in money does not flow back to him from II, a portion of the existing medium of circulation (received from I and not returned to it) is converted by II into a hoard and a portion of its surplus-value is not converted into articles of consumption. Since new gold mines are continually opened or old ones re-opened, a certain proportion of the money invested by I g in v is always money existing previously to the new gold production, and passing from I g by way of its laborers into II, where it becomes an element in the formation of a hoard, or as much of it as is not returned from II to I g.

But as for (I g) s, department I g can always act as a buyer in this case. It throws its s in the shape of gold into circulation and withdraws from it in return articles of consumption of II c. The gold is there used in part as material, and thus serves as a real element of the constant portions c of productive capital II. And any portion of the gold not so employed becomes once more an element in the formation of a hoard in the role of that part of II s which retains the shape of money. We see, then,—aside from I c which we reserve for a later

analysis—that even simple reproduction, excluding accumulation strictly so called, namely reproduction, on an enlarged scale, inevitably includes the accumulation, or hoarding, of money.[50] And as this is annually repeated, it explains the assumption from which we started in the analysis of capitalist production, namely, that a supply of money corresponding to the exchange of commodities is in the hands of the capitalists of departments I and II at the beginning of the reproduction. Such an accumulation takes place even after deducting the amount of gold lost by the depreciation of money in circulation.

It is a matter of course that the quantity of money accumulated on all sides increases in proportion to the advancing age of capitalist production, and that the quantity annually added to this hoard by the production of new gold decreases proportionately, although the absolute quantity thus added may be considerable. We revert once more in general terms to the objection raised against Tooke and contained in the question: How is it possible that every capitalist draws a surplus-value in money out of the circulation, in other words, draws more money out of the circulation than he throws into it, seeing that the capitalist class must be the ultimate source which throws all money into circulation?

We reply by summarizing the statements made previously (in chapter XVII):

(1) The only essential assumption, namely, that there is money enough available for the exchange of the various elements of annual reproduction, is not touched by the fact that a portion of the value of commodities consists of surplus-value. Take it that the entire production belonged to the laborers, so that their surplus-labor were done for themselves, not for the capitalists, then the quantity of circulating commodity-values would be the same and, other circumstances remaining equal, would require the same amount of money for circulation. The question in either case is therefore only: Where does the money come from which serves as a medium of exchange for this quantity of commodity-values? It is not at all: Where does the money come from which monetizes the surplus-value?

It is true, to repeat it once more, that every individual commodity consists of $c+v+s$, and the circulation of the entire quantity of commodities therefore requires a certain quantity of money for the circulation of the capital $c+v$, and another for the circulation of s, the revenue of the capitalists. For the individual capitalist as well as for the entire capitalist class, the money in which they advance capital is distinct from the money in which they spend their revenue. Where does this last money come from? Simply from the entire quantity of money available in society, a portion of which circulates as the revenue of the capitalist. We have already seen in previous instances that every capitalist establishing a new business recovers the money which he spent for his maintenance in the purchase of articles of consumption, by the process of converting his surplus-value into money, once that

[50] The analysis of the exchange of newly produced gold within the constant capital of department I is not contained in the manuscript.—F. E.

his business is fairly under way. But generally speaking, the difficulty is due to two sources:

In the first place, if we analyze only the circulation and the turnover of capital, regarding the capitalist merely as a personification of capital, not as a capitalist consumer and sport, then we see indeed that he is continually throwing surplus-value into circulation as a part of his commodity-capital, but we never see money as a form of revenue in his hands. We never see him throwing money into circulation for the consumption of his surplus-value.

In the second place, if the capitalist class throw a certain amount of money into circulation in the shape of revenue, it seems as though they were paying an equivalent for this portion of the total annual product, so that this portion is then no longer surplus-value. But the surplus product in which the surplus-value is incorporated does not cost the capitalist anything. As a class, they possess and enjoy it gratuitously, and the circulation of money cannot alter this fact. The alteration due to this circulation consists merely in the fact that every capitalist, instead of consuming his surplus-product in its natural form, a thing which is generally impossible, draws commodities of all sorts up to the amount of his surplus-value out of the general stock of the annual surplus-product of society and appropriates them for his own use. But the mechanism of the circulation has shown that the capitalist class, while throwing money into the circulation for the purpose of spending their revenue, also recover this money from the circulation, so that they can continue the same process over and over; so that, as a class of capitalists, they always remain in possession of the amount of money necessary for the monetization of their surplus-value. Hence, seeing that the capitalist does not only withdraw his surplus-value from the market in the form of commodities for his individual consumption, but also the money which he has paid for these commodities, it is evident that he secures the commodities without paying an equivalent for them. They do not cost him anything, although he pays money for them. If I buy commodities for one pound sterling and recover this money from the seller by means of a surplus product which I got for nothing, it is obvious that I have received the commodities gratis. The continual repetition of this transaction does not alter the fact that I continually secure commodities and continually remain in possession of my pound sterling, although I release it temporarily in the purchase of the commodities. The capitalist continually retains this money as an equivalent of surplus-value that has not cost him anything.

We have seen that with Adam Smith the entire value of the social product resolves itself into revenue, into $v+s$, so that the constant capital-value is set down as zero. It follows necessarily that the money required for the circulation of the yearly revenue must also suffice for the circulation of the entire annual product, so that, in our illustration, the money of 3000 required for the circulation of the articles of consumption of the same value must also suffice for the circulation of the entire annual product valued at 9000. This is indeed the opinion of Adam Smith, and it is repeated by Th. Tooke. This erroneous conception of the

ratio of the quantity of money required for the realization of the revenue to the quantity of money required for the circulation of the entire social product is a necessary result of misapprehending, thoughtlessly conceiving the manner in which the various elements of material and value of the total annual product are reproduced and annually renewed. It has already been refuted by us.

Let us listen to Smith and Tooke themselves.

Smith says in Book II, chapter 2: "The circulation of every country may be divided into two parts: the circulation of the merchants among themselves and the circulation between merchants and consumers. Although the same pieces of money, paper or metal, may be used now in the one, now in the other circulation, both of them nevertheless take place continually side by side, and each one of them requires therefore a certain quantity of money of this or that kind in order to keep moving. The value of the commodities circulating among the various merchants can never exceed the value of the commodities circulating between merchants and consumers; for whatever the merchants may buy must be sold ultimately to the consumers. As the circulation between the merchants is wholesale, it generally requires a rather large sum for every exchange. The circulation between merchants and consumers, on the other hand, is mostly retail and requires often but very small sums of money: one shilling, or even half penny, suffices sometimes. But small sums circulate much more rapidly than large ones. * * * * Although the annual purchases of all consumers are therefore at least"—this at least is rich—"equal in value to those of the merchants, they may nevertheless be effected, as a rule, with a much smaller quantity of money," etc.

Th. Tooke remarks to this passage of Adam Smith (in "An Inquiry into the Currency Principle," London, 1844, pages 34 to 36): "There cannot be any doubt that the distinction here made is essentially correct. * * * * The exchange between merchants and consumers includes also the payment of wages, which are the principal means of the consumers. * * * * All transactions between merchant and merchant, that is to say, all sales from the producer or importer, through all gradations of intermediate processes of manufacture, etc., down to the retail merchant or export merchant, may be dissolved into movements transferring capital. But transfers of capital do not necessarily imply, nor indeed carry actually with them, in the great number of exchanges, a real cession of bank notes or coin—I mean a substantial, not a fictitious, cession—at the time of transfer. * * * * The total amount of exchanges between merchants and merchants must in the last instance be determined and limited by the amount of exchanges between merchants and consumers."

If this last sentence stood by itself, one might think that Tooke stated simply the fact of a ratio between the exchanges of merchants and merchants and those of merchants and consumers, in other words, a ratio between the value of the total annual revenue and the value of the capital with which it is produced. But this is not the case. He explicitly endorses the view of Adam Smith. A special criticism of his theory of circulation is therefore superfluous.

(2) Every industrial capital, when beginning its career, throws at one single investment enough money into circulation to cover its entire fixed element, which it recovers but gradually in the course of years by the sale of its annual products. Thus it throws at first more money into circulation than it recovers from it. This is repeated at every renewal of its entire capital in a natural form. It is repeated every year in a certain number of enterprises whose fixed capital must be renewed in its natural form. It is repeated in fragments at every repair, every partial renewal of fixed capital. While more money is on the one hand withdrawn from circulation than is thrown into it, the opposite takes place on the other hand.

In all lines of industry whose period of production—as distinguished from the working period—extends over a long term, money is continually thrown into circulation during this period by the capitalist producers, either in payment for labor-power employed, or in the purchase of means of production to be consumed. Means of production are thus directly withdrawn from the commodity market, and articles of consumption either indirectly by the laborers spending their wages, or directly by the capitalists, who do not by any means stop consuming, although they do not immediately throw any equivalent on the market, in the shape of commodities. During this period, the money thrown by them into circulation serves for the conversion of the value of commodities, including the surplus value embodied in them, into money. This element becomes very important in an advanced stage of capitalist production in the case of lengthy enterprises, such as are undertaken by stock companies, for instance, the construction of railways, canals, docks, large municipal buildings, iron ships, drainage of land on a large scale, etc.

(3) While the other capitalists, aside from the investment of fixed capital, draw more money out of the circulation than they threw into it in the purchase of labor-power and the circulating elements of capital, the gold and silver producing capitalists, on the other hand, throw only money into the circulation, aside from the precious metals which serve as raw material, while they withdraw only commodities from it. The constant capital, with the exception of the depreciated portion, furthermore the greater portion of the variable capital and the entire surplus value, with the exception of the hoard which is eventually accumulated in the hands of these capitalists, is thrown into the circulation as money.

(4) On one side, various things circulate as commodities which were not produced during the current year, such as real estate, houses, etc., furthermore products whose period of production extends over more than one year, such as cattle, wood, wine, etc. It is important to emphasize in this respect that aside from the quantity of money required for the immediate circulation, there is always a certain quantity in a latent state which may enter into service when so required. Furthermore, the value of such products circulates often in fractions and gradually, for instance, the value of houses in the rents of a number of years.

On the other hand, not all movements of the process of reproduction are promoted by the circulation of money. The entire process of pro

duction, once that its elements have been purchased, is excluded from it. Furthermore all products, which the producer consumed directly in his own individual or productive consumption. Under this head belongs also the board of agricultural laborers.

The quantity of money, then, which circulates the annual product, exists in society, having been gradually accumulated. It does not belong to the values produced during the current year, with the exception of the gold used for making good the loss of depreciated money.

This presentation of the matter assumes the exclusive circulation of precious metals as money, and the simplest form of cash purchases and sales, although even plain metals, as a basis of circulation, may serve as money, and have actually so served in history and have been the fundament for the development of a credit system and of certain portions of its mechanism.

This assumption is not made from mere considerations of method, although these are important enough, as demonstrated by the fact that Tooke and his school as well as his adversaries were continually compelled in their controversies concerning the circulation of bank notes to revert to the hypothesis of a purely metallic circulation. They were compelled to do so subsequently, and did so very superficially, because they thus reduced to an incidental point what should have been the point of departure of their analysis.

But the simplest study of the circulation of money in its primitive form, which is the immanent factor of the process of annual reproduction, demonstrates:

(a) Assuming capitalist production to be developed to the point where the wage system predominates, money-capital evidently plays a prominent role, seeing that it is the form in which the variable capital is advanced. To the extent that the wage system develops, all products are converted into commodities and must, therefore, pass through the stage of money as one phase of their metamorphoses, with a few important exceptions. The quantity of circulating money must suffice for this conversion of commodities into money, and the greater part of this quantity is furnished in the form of wages, in that money, which is the money-form of the variable capital advanced by the industrial capitalists in payment for labor-power, and which serves in the hands of the laborers overwhelmingly as a medium of circulation (of purchase). It is quite the reverse under a system of natural economy such as was predominant under every form of vassalage (including serfdom), and still more in more or less primitive communities, whether they are infected by conditions of vassalage or slavery, or not.

In a slave system, the money-capital invested in the purchase of slaves plays the role of the fixed capital in money-form, which is but gradually replaced after the expiration of the active life period of the slaves. Among the Athenians, therefore, the gain realized by a slave owner through the industrial employment of his slaves, or indirectly by hiring them out to other industrial employers (for instance mine owners), was regarded merely as an interest (with sinking fund) on the advanced money-capital, just as the industrial capitalist under capitalist production places a portion of the surplus-value plus the depreciation of his

fixed capital to the account of interest and renewal of his fixed capital. This is also the rule in the case of capitalists offering fixed capital, such as houses, machinery, etc., for rent. Mere household slaves, who perform the necessary services or are kept as luxuries are not considered here. They correspond to the modern servant class. But the slave system—so long as it is the dominant form of productive labor in agriculture, manufacture, navigation, etc., as it was in the advanced states of Greece and Rome—preserves an element of natural economy. The slave market maintains its supply of labor-power by war, piracy, etc., and this rape is not promoted by a process of circulation, but by the natural appropriation of the labor-power of others by physical force. Even in the United States, after the conversion of the neutral territory between the wage labor states of the North and the slave labor states of the South into a slave-breeding region for the South, where the slave thus raised for the market had become an element of annual reproduction, this method did not suffice for a long time, so that the African slave trade was continued as long as possible for the purpose of supplying the market.

(b) The natural flux and reflux of money by the exchange of the annual-products on the basis of capitalist production ; the advances of fixed capital in one bulk to the full value and the gradual and prolonged recovery of this outlay from the circulation in the course of successive years, in other words, the gradual reconstitution of fixed capital in money by the annual formation of a hoard, which is different from the simultaneous accumulation of a hoard based on the annual production of new gold ; the different length of time in which money is advanced according to the duration of the periods of reproduction of commodities, and in which money must, therefore, be accumulated anew, before it can be recovered from the circulation by the sale of commodities ; the different length of time for which money must be advanced, resulting even from the different distances of the places of production from their selling market ; furthermore the differences in the magnitude and period of the reflux according to the relative size or condition of the productive supplies in the various lines of business and in the individual business of the same line, and with them the terms at which the elements of constant capital are bought—all this taking place during the year of reproduction, it was necessary that all these different factors should be noted and brought home by experience in order to give rise to a systematization of the mechanical aids of the credit-system and to an actual discovery of whatever capital was available for lending.

This is further complicated by a difference between lines of business whose production proceeds continuously under normal conditions on the same scale, and those which are carried on at different scales at different periods of the year, such as agriculture.

XIII. DESTUTT DE TRACY'S THEORY OF REPRODUCTION.

As an illustration of the confused and at the same time boastful thoughtlessness of political economists analyzing social reproduction, the great logician Destutt de Tracy may serve (compare volume I),

whom even Ricardo took seriously, calling him a very distinguished writer.

This distinguished writer makes the following revelations concerning the entire process of social reproduction and circulation:

"One may ask me how these industrial capitalists can make such large profits and out of whom they can draw them. I reply that they do so by selling everything which they produce for more than it has cost to produce ; and that they sell

(1) to one another to the extent of the entire share of their consumption, intended for the satisfaction of their needs, which they pay with a portion of their profits ;

(2) to the wage workers, both those whom they pay and those whom the idle capitalists pay ; from these wage workers they recover the entire wages in this way, except what little they may save ;

(3) to the idle capitalist, whom they pay with a portion of their revenue which they have not spent for the wages of the laborers employed by them directly ; so that the entire rent, which they pay them annually, flows back to them in this way." (Destutt de Tracy, *Traité de la volonté et de ses effets*. Paris, 1821. Page 239.)

In other words, the capitalists enrich themselves by mutually getting the best of one another in the exchange of that portion of their surplus-value which they reserve for their individual consumption, or consume as revenue. For instance, if this portion of their surplus-value, or of their profits, is 400 p. st., this sum is supposed to be increased to, say, 500 p. st. by mutually selling their respective shares at an excess of 25% over the normal. But if all do the same, the result will be just what it would have been if they had mutually sold their shares at their normal values. They merely need in that case 500 p. st. in money for the circulation of commodities valued at 400 p. st., and this would seem to be rather a method of impoverishing than of enriching themselves, since it means that they are compelled to reserve a large portion of their total wealth unproductively in the state of a medium of circulation. The outcome is simply that the capitalist class can divide only 400 p. st.'s worth of commodities among themselves for their individual consumption, after nominally raising prices all around, but that they do one another the favor of circulating 400 p. st.'s worth of commodities by means of a quantity of money which would just as well circulate 500 p. st.'s worth of commodities.

And this is saying nothing about the fact that the assumption deals here only with a "portion of their profits," or any supply of commodities representing profits. But Destutt undertook precisely to tell us where these profits come from. The quantity of money required to circulate it represents a very subordinate question. It seems that the quantity of commodities, in which the profit is incorporated, is produced by the circumstance that the capitalists do not only sell these commodities to one another (an assumption which is quite fine and profound), but also mutually sell them too dearly. Thus we are acquainted with the secret of the wealth of the capitalists. It is on a par with the secret of Reuter's funny "Inspector Braesig" who discovered that the great poverty is due to the great "pauvreté."

(2) The same capitalists, furthermore, sell "to the wage workers, both those whom they pay and those whom the idle capitalists pay; from these wage workers they recover the entire wages in this way, except what little they may save."

According to Destutt, then, the reflux of the money-capital advanced to the laborers as wages is the second source of the wealth of the capitalists.

For instance, if the capitalists have paid 100 p. st. to their laborers as wages, and if these same laborers buy from the same capitalists commodities of this same value of 100 p. st., so that what the capitalists have advanced to the laborers as wages returns to the capitalists when the laborers spend it for commodities, then the capitalists get richer. A common mortal would think that the capitalists recover only their 100 p. st., which they possessed before this transaction. At the beginning of the transaction they have 100 p. st. They buy labor-power valued at 100 p. st. This labor-power, so bought, produces commodities of a certain value which, so far as we know, amounts to 100 p. st. By selling these commodities for 100 p. st. to their laborers, the capitalists recover 100 p. st. in money. The capitalists then have once more 100 p. st., the same as before, and the laborers have 100 p. st.'s worth of commodities which they have themselves produced. It is hard to understand how that can make the capitalists any richer. If they did not recover the 100 p. st., then they would have to pay first 100 p. st. to the laborers in wages and then to give them their product for nothing, although it is also worth 100 p. st. The reflux of this money might therefore at best explain why the capitalists do not get any poorer by this transaction, but not why they get richer by it.

It is another question, how the capitalists got possession of the 100 p. st., and why the laborers, instead of working for their own account, are compelled to exchange their labor-power for this money. But this is a fact which is self-explanatory for a thinker of Destutt's caliber.

However, Destutt himself is not quite satisfied with his solution. He did not simply tell us that the capitalists get richer by spending a sum of 100 p. st. in money and then recovering the same amount. He had not plainly spoken of a reflux of 100 p. st. which merely explains why this money is not lost. He had told us that the capitalists get richer "by selling everything which they produce for more than it has cost to produce."

Consequently the capitalists must also get richer by their transaction with the laborers by selling too dearly to them. Very well! "They pay wages * * * * and all this flows back to them by the expenditures of all these people who pay them more" (for the products) "than they cost the capitalists in wages." (Page 240.) In other words, the capitalists pay 100 p. st. in wages to the laborers, and then they sell to these laborers their own product at 120 p. st., so that they not only recover their 100 p. st., but also gain 20 p. st. That is impossible. The laborers can pay for the commodities only with the money which they receive in the form of wages. If they get only 100 p. st. in wages,

they can buy only 100 p. st.'s worth, not 120 p. st.'s worth. This is therefore impracticable. But there is still another way. The laborers buy from the capitalists commodities for 100 p. st., but receive only 80 p. st.'s worth. They are cheated out of 20 p. st. Then the capitalists have certainly gained 20 p. st., because they practically pay 20% less than the actual value for labor-power. This is equivalent to cutting wages 20% by a circuitous route.

The capitalists would accomplish the same end if they paid the laborers in the first place only 80 p. st. in wages and gave them only 80 p. st.'s worth of commodities in exchange. This seems to be the normal way for the class of capitalists as a whole, for according to Destutt the laboring class must "receive sufficient wages" (page 219), since their wages must be at least sufficient to maintain them alive and working, "to gain the barest subsistence" (page 180). If the laborers do not receive such sufficient wages, then that means according to the same Destutt "the death of industry" (page 208), which does not seem to be a way by which the capitalists can get richer. But whatever may be the scale of wages, paid by the capitalists to the laborers, they have a certain value, for instance, 80 p. st. If the capitalist class pays the laborers 80 p. st., then it has to supply them with commodities worth 80 p. st. in exchange for these wages, and the reflux of this sum does not make the capitalists any richer. If the capitalists pay the laborers 100 p. st. in wages, and supply them in exchange for 100 p. st. only with 80 p. st.'s worth of commodities, then they pay 20% above the normal scale in wages and supply on the other hand 20% less in commodities.

In other words, the fund from which the capitalist class would derive its profits, would be made up of deductions from the normal scale of wages of the laborers, by paying less than its value for labor-power, in other words, less than the value of the necessities of life required for the normal reproduction of the laborer. If the normal scale of wages were paid, which is supposed to be the case according to Destutt, there can be no fund for profits, neither for the industrial nor for the idle capitalists.

Hence Destutt should have reduced the entire secret of how the capitalist class get richer, to these words: A deduction from the wages of the laborers. In that case the other sources of surplus-value, which he mentions under (1) and (3), would not exist.

Under these conditions all the countries, in which the money paid to the laborers in wages is reduced to the value of the articles of consumption required for the subsistence of the working class, would not have any fund for the consumption of capitalists, nor any fund for the accumulation of capital. In other words, there would be no fund permitting a capitalist class to live, and therefore no capitalist class. And according to Destutt this would be the case in all wealthy and developed countries with an old civilization, for in them, "in our deep-rooted old societies, the fund from which wages are paid * * * * is an almost constant magnitude" (page 202).

Even with a deduction from the wages, the capitalist does not enrich himself by first paying the laborer 100 p. st. in wages and then

supplying him with 80 p. st.'s worth of commodities for 100 p. st. of wages, in other words, by circulating 80 p. st.'s worth of commodities by means of 100 p. st., an excess of 20%. The capitalist gets richer by appropriating, aside from the surplus-value—that portion of the product in which surplus-value is incorporated—20% of that portion of the produced which the laborer should receive in exchange for his wages: The captalist class would not gain anything by the silly method which Destutt assumes. They pay 100 p. st. for wages and give to the laborer for these 100 p. st. a part of his own product valued at 80 p. st. But in the next transaction they must again advance 100 p. st. for the same purpose. They would thus indulge in the useless sport of advancing 100 p. st. in money and giving in exchange therefor 80 p. st. in commodities, instead of paying 80 p. st. and exchanging it for 80 p. st. in commodities. That is to say, they would be continually advancing a money-capital which is 20% in excess of the normal required for the circulation of their variable capital. That is a very peculiar method to get rich.

(3) The capitalist class, finally, sells "to the idle capitalists, whom they pay with a portion of their revenue which they have not spent for the wages of the laborers employed by them directly; so that the entire rent, which they pay them annually, flows back to them in this way."

We have seen a while ago that the industrial capitalists pay with a portion of their profits "the entire share of their consumption, intended for the satisfaction of their needs." Take it, then, that their profits amount to 200 p. st. And let them consume 100 p. st. of this in their individual consumption. But the other half, or 100 p. st., does not belong to them. It belongs to the "idle" capitalists, that is to say, to those who take ground rent and lend money on interest. In other words, they have to pay 100 p. st. to this gentry. Let us assume that this gentry use 80 p. st. for their individual consumption, and 20 p. st. for the purchase of servants, etc. They buy with those 80 p. st. articles of consumption from the industrial capitalists. These capitalists, then give up commodities valued at 80 p. st. and receive in return 80 p. st. in money, or four-fifths of the 100 p. st. paid by them to the idle capitalists under the name of rent, interest, etc. The servant class, who are the wage workers directly in attendance upon the idle capitalists, have received 20 p. st. from their masters. These servants likewise buy articles of consumption from the industrial capitalists to the amount of 20 p. st. In this way these capitalists recover also the last 20 p. st., or the last fifth, of the 100 p. st., which they have paid to the idle capitalist for rent, interest, etc., while they give up in return commodities valued at 20 p. st.

At the close of this transaction the industrial capitalists have recovered the full 100 p. st., which they paid to the idle capitalists for rent, interest, etc., in money. But one-half of their surplus products, valued at 100 p. st., have passed from their hands into the fund for the individual consumption of the idle capitalists.

It is evidently immaterial for the present question, whether the division of the 100 p. st. among the idle capitalists and their dependent wage workers is drawn into this discussion or not. The matter is simple:

Their rent, interest, in short, their share in the surplus-value of 200 p. st., is paid to them by the industrial capitalists in money to the amount of 100 p. st. With these 100 p. st. they buy directly or indirectly articles of consumption from the industrial capitalists. They return the 100 p. st. in money to them and take from them instead articles of consumption valued at 100 p. st.

This completes the reflux of the 100 p. st. paid by the industrial capitalists to the idle capitalists. Is this transaction a means of making the industrial capitalists any richer, as Destutt imagines? Before this transaction they had values amounting to 200 p. st., 100 being money and 100 articles of consumption. After the transaction they have only one-half of the original amount of values. They have once more 100 p. st. in money, but they have lost the articles of consumption valued at 100 p. st., which have passed into the possession of the idle capitalists. In other words, they have become poorer to the extent of 100 p. st., instead of being richer. If, instead of first choosing the circuitous route of paying out 100 p. st. in money, and then receiving this money back in payment for articles of consumption valued at 100 p. st., they had paid rent, interest, etc., directly in the natural form of commodities, then they would not recover any 100 p. st. in money, because they did not throw that amount of money into the circulation. In the case of a payment in commodities, the transaction would simply have been confined to keeping one-half of the surplus product of 200 p. st. for themselves and giving the other half to the idle capitalists without receiving any equivalent in return. Even Destutt would not have been able to consider this a means of getting richer.

Of course, the land and capital borrowed by the industrial capitalists from the idle capitalists and paid for by a porion of their surplus-value in the form of ground rent and interest, etc., are profitable for them, for they constitute one of the conditions for the production of any commodity, and more especially of that portion of the product which creates surplus-value, or in which surplus-value is incorporated. This profit flows from the use of the borrowed land and capital, not out of the price paid for them. This price rather constitutes a deduction from the profit. Or one would have to contend that the industrial capitalists do not get richer, but poorer, if they are enabled to keep the other half of their surplus-value, instead of being compelled to give it up. This is the confusion which results from the indiscriminate mixing up of such phenomena of circulation as a reflux of money with the distribution of the product, which is merely promoted by this circulation.

And yet the same Destutt is so sharp as to remark: "Whence come the revenues of these idle people? Do they not come out of the rent paid by them out of the profits of those who put the capitals of the former to work, that is to say, who pay with the funds of the former a certain kind of labor which produces more than it costs, in other words, the profits of the industrial capitalists? It is always necessary to revert to them, in order to find the source of wealth. It is they who in reality feed the wage workers employed by the idle capitalists." (Page 246).

In other words, in this quotation the rent, etc., of the idle capitalists is a deduction from the profit of the industrial capitalists. In former quotations it was a means of enriching them.

But at least one consolation is left for our friend Destutt. These good industrials treat the idle capitalists in the same way that they have treated one another and their laborers. They sell them all commodities too dearly, for instance, at a raise of 20%. Now there are two possibilities. The idle capitalists either have other funds of money aside from the 100 p. st. which they receive from the industrials, or they have not. In the first case, the industrials sell them commodities valued at 100 p. st. at a price of, say, 120 p. st. In other words, they recover by the sale of their commodities not only the 100 p. st. paid to the idle capitalists, but also 20 p. st. of new values. Now, how stands the account? They have given away 100 p. st. in commodities for nothing for the 100 p. st. that paid for their commodities were their own money. Their own commodities have been paid with their own money. In other words, they have lost 100 p. st. But they have also received an additional sum of 20 p. st. in the price of their commodities. In other words, 20 p. st. of gain. Balance this against the loss of 100 p. st., and you still have a loss of 80 p. st. Never a plus, always a minus. The advantage taken by the industrials over the idle capitalists has reduced the loss of the industrials, but for all that it has not transformed a reduction of their wealth into an increase of wealth. But this method cannot go on indefinitely, for the idle capitalists cannot pay year after year 120 p. st., if they receive only 100 p. st.

There remains the other possibility. The industrials sell commodities valued at 80 p. st. in exchange for the 100 p. st. paid to the idle capitalists. In this case, they still give away 80 p. st. for nothing, in the form of rent, interest, etc. By means of cheating the industrials have reduced their tribute to the idlers, but it nevertheless is exacted from them the same as ever, and the idlers are enabled, on the same theory, assuming the prices to depend on the free will of the sellers, to demand in the future 120 p. st. instead of 100 p. st. as rent and interest on their land and capital.

This brilliant analysis is quite worthy of that depth of thought which copies on the one hand from Adam Smith that "labor is the source of all wealth" (page 242), that the industrial capitalists "employ their capital for the payment of labor that reproduces it with a profit" (page 246), and which concludes on the other hand that these industrial capitalists "maintain all the other people, are the only ones who increase the public wealth, and create all the means for our enjoyment" (page 242), that it is not the capitalists who are maintained by the laborers, but the laborers who are maintained by the capitalists, for the brilliant reason that the money, with which the laborers are paid, does not remain in their hands, but continually returns to the capitalists in payment of the commodities produced by the laborers. "They receive only with one hand, and return with the other. Their consumption must therefore be regarded as being due to those who pay their wages." (Page 235).

After this exhaustive analysis of social reproduction and consumption, as promoted by the circulation of money, Destutt continues: "This is what perfects this *perpetuum mobile* of wealth, this movement which, though ill understood" (I should say so!) "yet has justly been named circulation. For it is indeed a circulation and always returns to its point of departure. This is the point where production is accomplished." (Pages 139, 140).

Destutt, that very distinguished writer, *membre de l' Institut de France et de la Société Philosophique de Philadelphie,* and indeed to a certain extent a beacon light among the vulgar economists, finally requests his readers to admire the wonderful lucidity with which he has presented to them the course of the social process, the flood of light which he has poured over the matter, and he is condescending enough to communicate to his readers where all this light comes from. This must be read in the original in order to be appreciated.

"On remarquera, j'espere, combien cette maniere de considérer la consommation de nos richesses est corcordante avec tout ce que nous avons dit a propos de leur production et de leur distribution, et en meme temps *quelle clarté elle répand sur toute la marche de la société.* D'ou viennent cet accord et cette *lucidité*? De ce que nous avons rencontré la vérité. Cela rappelle l' effet de ces miroirs ou les objets se peignent nettement et dans leurs justes proportions, quand on est placé dans leur vrai point-de-vue, et ou tout parait confus et desuni, quand on est trop près ou trop loin." (Page 242,243). (It will be noted, I hope, how much this manner of viewing the consummation of our wealth is in accord with all we have said concerning its production and distribution, and also how much light it throws on the entire course of society. Whence come this accord and this lucidity? It is due to the fact that we have met truth face to face. This recalls the effect of those mirrors in which the objects are reflected clearly and in their true proportions, when we are placed in their correct focus, but in which everything appears confused and distorted, when we are too close or too far away from them).

There you have the bourgeois idiocy in all its beatitude!

CHAPTER XXI.[51]

ACCUMULATION AND REPRODUCTION ON AN ENLARGED SCALE.

It has been shown in Volume I, how accumulation works in the case of the individual capitalist. By the conversion of the commodity-capital into money, the surplus-product, in which the surplus-value is incorporated, is also monetized. The capitalist reconverts the surplus-value thus monetized into additional natural elements of his productive capital. In the next cycle of production the increased capital furnishes an increased product. But what happens in the case of the individual

[51] From here to the end manuscript VIII.

capital, must also show in the annual reproduction of society as a whole, just as we have seen it done in the case of reproduction on a simple scale, where the successive precipitation of the depreciated elements of fixed capitals in the form of money, accumulated as a hoard, also makes itself felt in the annual reproduction of society.

If a certain individual capital amounts to 400 c + 100 v, with an annual surplus-value of 100 s, then the product in commodities amounts to 400 c + 100 v + 100 s. This amount of 600 is converted into money. Of this money, again, 400 c are converted into the natural form of constant capital, 100 v into labor-power, and—provided that the entire surplus-value is accumulated—100 s are converted into additional constant capital by their transformation into natural elements of productive capital. The following assumptions go with this case: (1) That this amount is sufficient under the given technical conditions either to expand the existing constant capital, or to establish a new industrial business. But it may also happen that surplus-value must be converted into money and this money hoarded for a much longer time, before these steps may be taken, before actual accumulation, or expansion of production, can take place. (2) It is furthermore assumed that production on an enlarged scale has actually been in process previously. For in order that the money (the surplus-value hoarded as money) may be converted into elements of productive capital, these elements must be advailable on the market as commodities. It makes no difference whether they are bought as finished products, or made to order. They are not paid for until they are finished, and at any rate, until actual reproduction on an enlarged scale, an expansion of hitherto normal production, has taken place so far as they are concerned. They had to be present potentially, that is to say, in their elements, for it required only an impulse in the form of an order, that is to say, a purchase preceding their actual existence and anticipating their sale, in order to stimulate their production. The money on one side in that case calls forth expanded reproduction on the other, because the possibility for it exists without the money. For money in itself is not an element of actual reproduction.

For instance, capitalist A, who sells during one year, or during a number of successive years, certain quantities of commodities produced by him, thereby converts that portion of the commodities which bears surplus-value, the surplus-product, or, in other words, the surplus-value produced by himself, successively into money, accumulates it gradually, and thus makes for himself a new potential money-capital. It is potential money-capital on account of its capacity and destination of being converted into the elements of productive capital. But practically he merely accumulates a simple hoard, which is not an element of actual production. His activity for the time being consists only in withdrawing circulating money out of circulation. Of course, it is not impossible that the circulating money thus laid away by him was itself, before it entered into circulation, a portion of some other hoard. This hoard of A, which is potentially a new money-capital, is not an addition to the social wealth, any more than it would be if it were spent in articles of consumption. But money, when withdrawn from circu-

lation, having previously circulated, may have been held somewhere as a hoard, or may have been the money-form of wages, may have monetized means of production or other commodities, may have circulated portions of constant capital or of the revenue of some capitalist. It is no more new wealth than money, considered from the standpoint of the simple circulation of commodities, is the bearer, not only of its simple value, but also of its tenfold value, because it may have been turned over ten times a day and realized ten different values of commodities. The commodities exist without it, and it remains what it is (or becomes even less by depreciation) whether in one turn-over or in ten. Only in the production of gold—to the extent that the output of gold contains a surplus-product and is the bearer of surplus-value—is new value created (potential money), and the new output of gold increases the money-material of potential new money-capitals only to the extent that it enters entirely into the circulation.

Although the surplus-value hoarded in the form of money is not an addition to the social wealth, it represents an addition to the potential money-capital, on account of the function for which it is hoarded. (We shall see later that new money-capital may arise in still another way than by the gradual monetization of surplus-value.)

Money is withdrawn from circulation and accumulated as a hoard by the sale of commodities without a subsequent purchase. If this operation is conceived as one taking place universally, then it seems inexplicable where the buyers are to come from, since in that case everybody would want to sell in order to hoard, and none would want to buy. And it must be so conceived, since every individual capital may be in process of accumulation.

If we were to conceive of the process of circulation as one taking place in a straight line between the various divisions of annual reproduction—which would be incorrect, as it consists with a few exceptions of mutually retroactive movements, then we should have to start out from the producer of gold (or silver) who buys without selling, and to assume that all others sell to them. In that case the entire social surplus-product of the current year would pass into his hands, representing the entire surplus-value of the year, and all the other capitalists would distribute among themselves their relative shares in his surplus-product, which consists naturally of money, gold being the natural form of his surplus-value. For that portion of the product of the gold producer, which has to make good his active capital, is already tied up and disposed of. The surplus-value of the gold producer, in the form of gold, would then be the only fund from which all other capitalists would have to derive the material for the conversion of their annual surplus-product into gold. The magnitude of its value would then have to be equal to the entire annual surplus-value of society, which must first assume the guise of a hoard. Absurd as this assumption would be, it would accomplish nothing more than to explain the possibility of a universal formation of a hoard at the same period. It would not further reproduction itself, except on the part of the gold producer one single step.

Before we solve this seeming difficulty, we must distinguish between the accumulation in department I (production of means of production) and in department II (production of articles consumption). We start out from I.

I. ACCUMULATION IN DEPARTMENT I.

(1). The Formation of a Hoard.

It is evident that both the investments of capital in the numerous lines of industry constituting department I, and the different individual investments of capital within each of these lines of industry, according to their age, that is to say, the space of time during which they have served, quite aside from their volume, technical conditions, market conditions, etc., must be in different stages of the process of successive transformation from surplus-value into potential money-capital. It is immaterial whether this money-capital is to serve for the expansion of the active capital, or for the establishment of new industrial enterprises, which constitute the two forms of expansion of production. One portion of the capitalists, then, is continually converting its potential capital, when grown to a sufficient size, into productive capital, that is to say, they buy, with the money hoarded by the monetization of surplus-value means of production, additional elements of constant capital. Another portion of the capitalists is meanwhile still engaged in accumulating potential money-capital. Capitalists belonging to these two categories meet as buyers and sellers, each one of them exclusively in one of these roles.

For instance, let A sell 600, representing 400 c + 100 v + 100 s, to B, who may represent more than one buyer. A sells 600 in commodities for 600 in money, of which 100 are surplus-value which he withdraws from circulation and hoards in the form of money. But these 100 in money are but the money-form of the surplus-product in which a value of 100 was incorporated. The formation of a hoard, then, is not a production, nor is it an increment of production. The action of the capitalist consists merely in withdrawing from circulation 100 obtained by the sale of his surplus-product, in holding and hoarding this amount. This operation is carried on, not alone on the part of A, but at numerous points of the periphery of circulation by other capitalists, named A', A'', A''', all of whom work busily at this sort of accumulation. These numerous points at which money is withdrawn from circulation and accumulated in numerous individual hoards appear as so many obstacles of circulation, because they stop the movement of money and deprive it of its capacity to circulate for a certain length of time. But it must be remembered that hoarding takes place in the simple circulation of commodities long before it is based on the capitalist mode of production. The quantity of money existing in society is always greater than the amount in actual circulation, although this varies according to circumstances. We meet the same hoards, and the same accumulation of hoards, at this stage, but now it is a factor immanent in the capitalist process of production.

One can understand the pleasure felt by some men when all these potential capitals, by their concentration in the hands of bankers, etc., by means of the credit system, become disposable, "loanable capital," money-capital, which is no longer merely passive and a dream of the future, but active usury-capital, self-expanding capital.

However, A accomplishes the formation of a hoard only to the extent that he acts as a seller, so far as his surplus-product is concerned, not as a buyer. His successive production of surplus-products, the bearers of his surplus-value convertible into money, is therefore a promise for the formation of his hoard. In the present case, where we are dealing only with the circulation within department I, the natural form of the surplus-product, and of the total product of which it is a part, is that of an element of constant capital of I, that is to say, it belongs to the category of a means of production creating means of production. We shall see presently what becomes of it, what function it performs, in the hands of the buyers such as B, B', B'', etc.

It must be particularly noted at this point that A, while withdrawing money from circulation and hoarding it, on the other hand throws commodities into it without withdrawing other commodities in return. The capitalists B, B', B'', etc., are thereby enabled to throw only money into it and withdraw only commodities from it. In the present case, these commodities, according to their natural form and destination, become a fixed or circulating element of the constant capital of B, B', etc. We shall hear more about this anon, when we shall deal with the buyer of the surplus-product, with B, B', etc.

We remark by the way: Once more we find here, as we did in the case of simple reproduction, that the disposal of the various elements of annual reproducion, that is to say, their circulation which must comprise the reproduction of the capital to the point of replacing its various elements, such as constant, variable, fixed, circulating, money and commodity-capital, is not conditioned on the mere purchase of commodities followed by a corresponding sale, or a mere sale followed by a corresponding purchase, so that there would actually be a bare exchange of commodity for commodity, as the political economists assume, especially the free trade school from the time of the physiocrats and Adam Smith. We know that the fixed capital, once that its investment is made, not replaced during the entire period of its function, but serves in its old form, until its value is gradually precipitated in the form of money. Now we have seen that the periodical renewal of the fixed capital of IIc [the entire value of the capital of IIc being converted into elements of I valued at (v + s)] presupposes on the one hand the mere purchase of the fixed portion of IIc, which is reconverted from the form of money into its natural form, and to which corresponds the mere sale of Is; and presupposes on the other hand the mere sale on the part of IIc, the sale of its fixed (depreciating) value, which is precipitated in money and to which corresponds the mere purchase of Is. In order that the transaction may take place normally in this case, it must be assumed that the mere purchase on the

part of IIc is equal in value to the mere sale on the part of IIc, and that in the same way the mere sale of Is to IIc, section 1, is equal in value to the mere purchase from department IIc, section 2. Otherwise simple reproduction is interrupted. The mere sale on one side must be offset by a mere purchase on the other. It must likewise be assumed that the mere sale of that portion of Is, which forms the hoards of A, A', A'', is balanced by the mere purchase of that portion of Is, which converts the hoards of B, B', B'', into elements of additional productive capital.

So far as the balance is restored by the fact that the buyer acts later on as a seller to the same amount, and *vice versa*, the money returns to the side that has advanced it in the first place, which sold first before it bought again. But the actual balance, so far as the exchange of commodities itself is concerned, that it to say, the disposal of the various portions of the annual product, is conditioned on the equal value of the commodities exchanged for one another.

But to the extent that only one-sided exchanges are made, a number of mere purchases on one hand, a number of mere sales on the other—and we have seen that the normal disposal of the annual product on the basis of capitalist production requires such onesided metamorphoses—the balance can be maintained only on the assumption that the value of the onesided purchases and onesided sales is the same. The fact that the production of commodities is the general form of capitalist production implies the role which money is playing not only as a medium of circulation, but also as money-capital, and creates conditions peculiar for the normal transaction of exchange under this mode of production, and therefore peculiar for the normal course of reproduction, whether it be on a simple, or on an expanded scale. These conditions become so many causes of abnormal movements, implying the possibility of crises, since a balance is an accident under the crude conditions of this production.

We have also seen that there is indeed, in the exchange of Iv for a corresponding value of IIc, an ultimate renewal of the value of the commodities of II by an equivalent value of commodities of I, so that the sale of the commodities of the aggregate capitalist of II is balanced subsequently by the purchase of commodities from I to the same amount. This restitution takes place. But it is not an exchange which takes place between the capitalists of I and II in the disposal of their relative commodities. IIc sells its commodities to the working class of I. This class meets it one-sidedly in the role of a buyer of commodities, and it meets that class onesidedly as a seller of commodities. With the money so obtained IIc meets the aggregate capitalist of I onesidedly as buyer of commodities, and the aggregate capitalist of I meets it onesidedly as a seller of commodities to the extent of Iv. It is only by means of this sale of commodities that department I finally reproduces its variable capital in the form of money-capital. Just as onesidedly as the capitalist class of I faces that of II in the role of a seller of commodities to the extent of Iv, so does that class face its working class in the role of a buyer of commodities, a buyer of labor power. And just as one-sidedly as that working class faces the capi

talists of II in the role of a buyer of commodities (namely of articles of consumption), so it faces the capitalists of I as a seller of commodities, namely, a seller of its labor-power.

The continual offer of labor-power on the part of the working class of I, the reconversion of a portion of the commodity-capital of I into the money-form of variable capital, the renewal of a portion of the commodity-capital of II by natural elements of the constant capital of IIc—all these are necessary premises dovetailing into one another, but they are promoted by a very complicated process including three processes of circulation which occur independently of one another, but intermingle. The complicatedness of this process presents so many opportunities for abnormal deviations.

(2). The Additional Constant Capital.

The surplus-product, the bearer of surplus-value, does not cost its appropriators, the capitalists of I, anything. They are in no way obliged to advance any money or commodities in order to secure it. An advance means even in the writings of the physiocrats the general form of value materialized in elements of productive capital. Hence, what they advance is nothing but their constant and variable capital. The laborer preserves by his labor not only their constant capital ; he reproduces not only the value of their variable capital by creating corresponding qualities of new values ; he supplies them also by his surplus-labor with surplus-values in the form of surplus-products. By the successive sale of this surplus-product, they accumulate a hoard, additional potential money-capital. In the present case, this surplus-product consists at the outset of means of production used in the creation of means of production. It is not until it reaches the hands of B, B', B'', etc. (I), that this surplus-product serves as additional constant capital. But it is virtually that even in the hands of the accumulators of hoards, the capitalists A, A', A'', (I), before it is sold. If we consider merely the volume of values of the reproduction on the part of I, then we are still moving within the limits of simple reproduction, for no additional capital has been set in motion for the purpose of creating this virtual additional constant capital (the surplus-product), nor has any greater amount of surplus-labor been performed than that done on the basis of simple reproduction. The difference is here only one of the form of the surplus-labor performed, of the concrete nature of its particularly useful service. It is expended in means of production for department Ic instead of IIc, in means of production of means of production instead of means of production of articles of consumption. In the case of simple reproduction it had been assumed that the entire surplus-value was spent as revenue in commodities of II. Hence it consisted only of such means of production as restore the constant capital of IIc in its natural form. In order that the transition from simple to expanded reproduction may take place, the production in department I must be enabled to create fewer elements for the constant capital of II and more for that of I. This transition, which will not always take place without

difficulties, is facilitated by the fact that some of the products of I may serve as means of production in either department.

Considering the matter merely from the point of view of the volume of values, it follows, then, that the material requirements of expanded reproduction are produced within simple reproduction. It is simply a question of the expenditure of the surplus-labor of the working class of I for the production of means of production, the creation of virtual additional capital of I. The virtual additional money-capital, created on the part of A, A', A'', by the successive sale of their surplus-product, which was formed without any capitalist expenditure of money, is in this case simply the money-form of the additional means of production made by I.

The production of virtual additional capital expresses in our case (we shall see that it may also be formed in a different way) merely the fact that it is a phenomenon of the process of production itself, the production of elements of productive capital in a particular form.

The production of virtual additional money-capital on a large scale, at numerous points of the periphery of circulation, is therefore but a result and expression of a multifarious production of virtual additional productive capital, whose rise does not itself require any additional expenditure of money on the part of the industrial capitalists.

The successive transformation of this virtual additional productive capital into virtual money-capital (hoard) on the part of A, A', A'', etc., (I), conditioned on the successive sale of their surplus-product, which is a repeated onesided sale without a compensating purchase, is accomplished by a repeated withdrawal of money from circulation and a corresponding formation of a hoard. This hoarding, except in the case of buyers who are gold producers, does not in any way imply an addition to the wealth in precious metals, but only a change of function on the part of money previously circulating. A while ago it served as a medium of circulation, now it serves as a hoard, as a virtual additional money-capital in process of formation. In other words, the formation of additional money-capital and the volume of the precious metals existing in a certain country are not directly connected facts.

Hence it follows furthermore: The greater the productive capital already serving in a certain country (including the labor-power incorporated in it as the producer of the surplus-product), the more developed the productive power of labor and at the same time the technical appliances for the rapid extension of the production of means of production, the greater furthermore the quantity of the surplus-product both as to value and mass, so much greater is

(1) The virtual additional productive capital in the form of a surplus-product in the hands of A, A', A'', etc., and

(2) The mass of this surplus-product transformed into money, in other words, the virtual additional money-capial in the hands of A, A', A''. The fact that Fullerton, for instance, will have nothing to do with any overproduction in the ordinary meaning of the term, but only with the over-production of capital, meaning money-capital, shows how pitifully little even the best bourgeois economists understand of the mechanism of their own system.

While the surplus-product, directly produced and appropriated by the capitalists A, A', A'' (I), is the actual basis of the accumulation of capital, that is to say, of expanded reproduction, although it does not actually serve in this capacity until it reaches the hands of the capitalists B, B', B'', etc. (I), it is quite unproductive in its chrysalis stage of money, of a hoard representing virtual money-capital in process of formation. It runs parallel with the process of production, but moves outside of it. It is a dead weight of capitalist production. The desire to utilize this surplus-value, while accumulating as virtual money-capital, for the purpose of deriving profits or revenue from it, finds in the credit system and paper securities its consummation. Money-capital thereby gains in another form an enormous influence on the course and the stupendous development of the capitalist system of production.

The surplus-product converted into virtual money-capital will grow so much more in volume, the greater the aggregate amount of capital actually engaged which produced it by its function. With the absolute increase of the volume of the annually reproduced virtual money-capital its segmentation also becomes easier, so that it is more rapidly invested in a certain business, either in the hands of the same capitalist or in those of others (for instance members of the family, in the case of a division of inheritances, etc.). By segmentation of money-capital I mean in this case that it is wholly detached from the parent capital in order to be invested as a new money-capital in a new and independent business.

While the sellers of the surplus-product, A, A', A'', etc., (I), have obtained it as a direct outcome of the process of production, which does not require any additional act of circulation aside from the advance of constant and variable capital made even in simple reproduction ; and while they thereby construct the real basis for a reproduction on an expanded scale, seeing that they manufacture virtually additional capital—the attitude of B, B', B'', etc. (I), is different. (1) The surplus-product of A, A', A'', etc., does not actually serve as additional constant capital until it reaches the hands of B, B', B'', etc. (We leave out of consideration for the present the other elements of productive capital, the additional labor-power, in other words, the additional variable capital). (2) In order that the surplus-product may reach their hands, they must buy it.

In regard to point 1, it may be noted that a large portion of the surplus-product (virtual additional constant capital) is produced by A, A', A'', (I), in the course of the current year, but may not serve as industrial capital in the hands of B, B', B'', (I), until next year, or still later. With reference to point 2, the question is: Whence comes the money required for the process of circulation?

To the extent that the products created by B, B', B'', etc., (I), re-enter in their natural form into their own process, it goes without saying that a corresponding portion of their own surplus-product is transferred directly (without any intervention of circulation) to their productive capital and becomes an element of additional constant capital. To the same extent they do not help to convert any surplus-product of A, A', A'', etc., (I), into money. Aside from this where

does the money come from? We know that they have formed their hoard in the same way as A, A', etc., by the sale of their respective surplus-products. Now they have arrived at the point where their accumulated hoard of virtual money-capital is to enter effectually upon its function as additional money-capital. But this is merely turning around in a circle. The question still remains: Where does the money come from, which the various B's (I) withdrew from the circulation and accumulated?

Now we know from the analysis of simple reproduction, that the capitalists of I and II must have a certain amount of ready money in their hands, in order to be able to dispose of their surplus-products. In that case, the money which served only for the spending of revenue in articles of consumption returned to the capitalists in the same measure in which they advanced it for the purpose of disposing of their commodities. Here the same money re-appears, but in a different function. The A's and B's supply one another alternately with the money for converting their surplus-product into virtual additional capital, and throw the newly formed money-capital alternately into circulation as a medium of purchase.

The only assumption made in this case is that the amount of money existing in a certain country (the velocity of circulation, etc. being the same) suffices for both the active circulation and the reserve hoard. It is the same assumption which had to be made in the case of the simple circulation of commodities, as we have seen. Only the function of the hoards is different in the present case. Furthermore, the existing amount of money must be larger, first, because all the products (with the exception of the newly produced precious metals and the few products consumed by the producer himself) are produced as commodities under capitalist production and must, therefore, pass through the stage of money ; secondly, because on a capitalist basis the quantity of the commodity-capital and the volume of its value is not only absolutely greater, but also grows with much greater rapidity ; thirdly, an ever more voluminous variable capital must be converted into money-capital; fourthly, with the extension of production, the formation of new money-capital keeps step, so that the material for it must be available in the form of a hoard.

While this is a common truism for the first phase of capitalist production, in which even the credit system is accompanied by a prevalence of metallic circulation, it applies even to the most developed phase of the credit system to the extent that metallic circulation remains its basis. On the one hand, the additional production of precious metals may exert a disturbing influence on the prices of commodities according to whether it is abundant or scarce, not only in long, but also in very short intervals. On the other hand, the entire mechanism of credit is continually occupied in reducing the actual metallic circulation to a relatively more and more decreasing minimum by means of sundry operations, methods, and technical devices. To the same extent are the artificiality of the entire mechanism and the possibility of disturbing its normal flow increased.

It may be that the different B, B', B'', etc., (I), whose virtual

new capital enters upon its active function, are compelled to buy from one another their product (portions of their surplus-product) or to sell it to one another. In that case the money advanced by them for the circulation of their surplus-product flows back under normal conditions to the different B's in the same proportion in which they advanced it for the circulation of their respective commodities. If the money circulates as a medium of payment, then only balances are to be paid so far as the alternate purchases and sales do not cover one another. But it is important to assume here, as everywhere, metallic circulation in its simplest form, because then the flux and reflux, the balancing of accounts, in short all elements appearing as consciously directed processes under the credit system, appear as forms independent of the credit system, show themselves in their primitive form instead of their later, reflected, one.

(3). The Additional Variable Capital.

Hitherto we have been dealing only with additional constant capital. Now we must direct our attention to a consideration of the additional variable capital.

We have explained at great length in volume I that labor-power is always held available under the capitalist system of production, and that more labor can be set in motion, if necessary, without increasing the number of laborers, or quantity of labor-power, employed. We need not detail this any further for the present, but assume without ceremony that the portion of the newly created money-capital which is to be converted into variable capital will always find as much labor-power as it cares to transform. It has also been explained in volume I that a certain capital may expand its volume of production within certain limits without any accumulation. But now we are dealing with the accumulation of capital in the strict meaning of the term, so that the expansion of production is conditioned on the conversion of surplus-value into additional capital, and thus on an expansion of the basis of productive capital.

The gold producer can accumulate a portion of his golden surplus-value as a virtual money-capital. As soon as it reaches a sufficient volume, he can transform it directly into new variable capital, without first selling his surplus-product. In the same way he can convert it into the elements of constant capital. But in this last case, he must find the material elements of constant capital at hand. This may be accomplished by having each producer working to stock his supply, as was hitherto assumed, and then bringing his finished product on the market, or by having them work to fill orders. The actual expansion of production, that it to say, the surplus-product, is assumed in either case, in the one case as actually on hand, in the other as virtually available, because ordered.

II. ACCUMULATION IN DEPARTMENT II.

We have hitherto assumed that the capitalists A, A', A'', etc., (I), sell their surplus-product to the capitalists B, B', B'', etc., who

belong to the same department. But take it now that A(I) converts his surplus-product into gold by selling it to a capitalist B in department II. This can be done only by the sale of means of production on the part of A(I) to B(II) without a subsequent purchase of articles of consumption, in other words, only by a one-sided sale on A's part. Now we have seen that IIc cannot be converted into the natural form of productive constant capital unless not only Iv, but also at least a portion of Is, is exchanged for a portion of IIc, which IIc exists in the form of articles of consumption. But now that A has converted his Is into gold by making this exchange impossible and withdrawing the money obtained from IIc out of circulation, instead of spending it for articles of consumption of IIc, there is indeed on the part of A(I) a formation of additional virtual money-capital, but on the other hand there is a corresponding portion of the value of the constant capital B(II) held in the form of commodity-capital, unable to transform itself into natural productive constant capital. In other words, a portion of the commodities of B(II), and at that a portion which must be sold if he wishes to reconvert his entire constant capital ino its productive form, has become unsaleable. To that extent there is an overproduction, which clogs reproduction, even on the same scale.

In this case, the additional virtual money-capital on the side of A(I) is indeed a gilded form of surplus-product (surplus-value), but the surplus-product (surplus-value) as such is as yet but a phenomenon of simple reproduction, not of reproduction on an expanded scale. In order that the reproduction of IIc may take place on the same scale, I (v+s) must ultimately be exchanged for IIc, and this applies at all events to a portion of Is. By the sale of his surplus-product to B(II), A(I) has supplied to B(II) a certain portion of the value of constant capital in its natural form. But at the same time he has rendered an equal portion of the value of commodities of B(II) unsaleable by withdrawing the money from circulation and not making a compensating purchase. Hence, if we view the entire social reproduction which comprises both the capitalists of I and II, then the conversion of the surplus-product of A(I) into a virtual money-capital implies the impossibility of reconverting an equal portion of the value of the commodity-capital of B(II) into productive (constant) capital, in other words, not a virtual production on an enlarged scale, but an obstruction of simple reproduction, a deficit in the simple reproduction. As the formation and sale of the surplus-product of A(I) are normal phenomena of simple reproduction, we have here even on the basis of simple reproduction the following mutually interdependent phenomena: The formation of virtual additional money-capital in deparment I (implying underconsumption in department II); the stagnation of commodities of department II which cannot be reconverted into productive capital (implying a relative overproduction in department II); a surplus of money-capital in department I and a deficit in the reproduction of department II.

Without pausing any longer at this point, we simply repeat that we had assumed in the analysis of simple reproduction that the entire

surplus-value of I and II is spent as revenue. As a matter of fact, however, one portion of the surplus-value is spent as revenue, and another is converted into capital. Actual accumulation can take place only on this condition. That accumulation should take place at the expense of consumption is, as a general assumption, an illusion contradicting the nature of capitalist production. For it takes for granted that the aim and compelling motive of capitalist production is consumption, instead of the gain of surplus-value and its capitalization, in other words, accumulation.

Let us now take a closer look at the accumulation in department II.

The first difficulty with reference to IIc, that is to say, the conversion of an element of the commodity-capital of II into the natural form of constant capital of II, concerns simple reproduction.

Let us take the formula previously used.

(1000 v + 1000 s) I are exchanged for 2000 IIc.

Now, if one-half of the surplus-product of I, or 500 s, is reincorporated in department I as constant capital, then this portion, being detained in department I, cannot take the place of any portion of IIc. Instead of being converted into articles of consumption, it is made to serve as an additional means of production in department I itself (and it must be noted that in this section of the circulation between I and II the exchange is annually mutual, consisting of a double change of position, different from the substitution of 1000 Iv for 1000 IIc by the laborers of I). It cannot perform this function simultaneously in I and II. The capitalist cannot spend the value of his surplus-product for articles of consumption, and at the same time consume the surplus-product itself productively, by incorporating it in his productive capital. Instead of 2000 I(v + s), only 1500 are exchangeable for 2000 IIc, namely 1000 v + 500 s of I. But 500 Ic cannot be reconverted from the form of commodities into productive constant capital of II. Hence there would be an over-production in department II; equal in volume to the expansion of production in department I. This overprodution of II might react to such an extent on department I that even the reflux of the 1000 v spent by the laborers of I for articles of consumption of II might take place but partially, so that these 1000 would not return to the hands of the capitalists of I in the form of variable money-capital. In that case, these capitalists would be hampered even in reproduction on a simple scale by the mere attempt of expanding it. And it must be remembered in this connection that department I had actually resumed only simple reproduction, and that only the elements classified in our diagram were differently grouped with a view to expanding in the future, say, next, year.

One might attempt to circumvent this difficulty in the following way: The 500 IIc which are held by the capitalists, and cannot be immediately converted into productive capital, do not by any means represent any overproduction, but are, on the contrary, a necessary element of reproduction, which we have so far neglected. We have seen that a money supply must be accumulated at many points by

withdrawing it from circulation, either for the purpose of facilitating the formation of new money-capital in department I, or to the end of temporarily holding the gradually depreciating portion of the fixed capital in the form of money. But since we have placed all the available money and commodities exclusively into the hands of the capitalists of I and II, when we made up our diagram, eliminating merchants, money-changers, and bankers, and all merely consuming and not directly producing classes, it follows that the formation of supplies of commodities in the hands of their respective producers is here indispensable in order to keep the machinery of reproduction in motion. The 500 IIc now held in stock by the capitalists of II therefore represent the supply of articles of consumption by which the continuity of the process of consumption included in the process of reproduction is promoted. This means in the present case the transition from this year into next. The fund for consumption, which is as yet in the hands of its sellers and producers, cannot fall to the point of zero and begin with zero next year, and more than such a thing can take place in the transition from to-day to to-morrow. Since new supplies of commodities must be continually accumulated, even though their volume may differ, our capitalist producers of department II must have a reserve capital, which enables them to continue their process of production, although one portion of their productive capital is temporarily tied up in the shape of commodities. Our assumption is all the time that they combine the business of a merchant with that of a producer. Hence they must also have at their disposal an additional money-capital which would be in the hands of merchants, if the various functions in the process of reproduction were distributed among independent capitalists.

But we would reply to this argument: (1) That the forming of such supplies and the necessity for it applies to all capitalists, those of I as well as of II. Considering them in their capacity as sellers of commodities, they differ only by the fact that they sell different kinds of commodities. A supply of commodities of II implies a previous supply of commodities of I. If we neglect this supply on one side, we must also do so on the other. But if we count them in on both sides, the problem is not altered in any way. (2) Just as this year closes on the side of II with a supply of commodities for next year, so it was opened by a supply of commodities on the same side taken over from last year. In the analysis of annual reproduction, reduced to its abstract form, we must therefore strike it out at both ends. By leaving this year in possession of its entire production, including the supply held for next year, we take from it the supply of commodities transferred from last year, and thus we have actually to deal with the aggregate product of an average year as the object of our analysis. (3) The simple circumstance that the difficulty which must be overcome did not show itself in the analysis of simple reproduction proves that it is a specific phenomenon due merely to the different arrangement of the elements of department I with a view to reproduction, an arrangement without which reproduction on an expanded scale cannot take place at all.

III. DIAGRAMMATIC PRESENTATION OF ACCUMULATION.

We now study reproduction by means of the following diagram:

Diagram a) I. 4000 c + 1000 v + 1000 s = 6000 } Total, 8252
II. 1500 c + 376 v + 376 s = 2252 }

We note in the first place that the total volume of the annual product is smaller than that of the first diagram, being 8252 instead of 9000. We might just as well assume a much larger sum, for instance one ten times larger. We have chosen a smaller sum than in our first diagram, in order to demonstrate that reproduction on an enlarged scale (which is here regarded merely as a production carried on with a larger investment of capital) has nothing to do with the absolute volume of the product, and that it implies merely a different arrangement, a different distribution of functions to the various elements of a certain product, so that it is but a simple reproduction so far as the value of the product is concerned. It is not the quantity, but the destination of the given elements of simple reproduction which is changed, and this change is the material basis of a subsequent reproduction on an enlarged scale.[52]

We might vary the diagram by changing the proportions between the variable and constant capital. For instance this way:

Diagram b) I. 4000 c + 875 v + 875 s = 5750 } Total, 8252
II. 1750 c + 376 v + 376 s = 2502 }

In this case, the diagram would be arranged for reproduction on a simple scale, so that the surplus-value would be entirely consumed as revenue, instead of being accumulated. In either case, that of (a) as well as (b), we have an annual product of the same value. Only (b) has the functions of its elements arranged in such a way that reproduction is resumed on the same scale, while in the case of (a) the arrangement forms the material basis of reproduction on an enlarged scale. For in the case of (b), the factors (875 v + 875 s)I, equal to 1750 I(v + s), are exchanged without any remainder for 1750 IIc, while in the case of (a), the exchange of (1000 v + 1000 s)I, equal to 2000 (v + s)I, for 1500 IIc leaves a surplus of 500 Is for accumulation in department I.

Now let us analyze diagram (a) closer. Let us assume that both I and II accumulate one-half of their surplus-value, that is to say, convert it into an additional element of capital instead of spending it as revenue. When one-half of 1000 Is, or 500, are accumulated in one form or another, that is to say, invested as additional money-capital, converted into additional productive capital, then only (1000 v + 500 s)I are spent as revenue. Hence 1500 is here inserted as the normal size of IIc. We need not examine the exchange between 1500 I(v + s) and

[52] This puts an end, once for all, to the feud over the accumulation of capital between James Mill and S. Bailey, which we have discussed from our point of view in volume I, chapter XXIV, section 5, foot notes on pages 622 and 623, namely, the feud concerning the extensibility of the effects of industrial capital without changing its magnitude. We shall revert to this later.

1500 IIc any more, because this has already been done under the head of simple reproduction. Nor does 4000 Ic require any attention, since its re-arrangement was likewise discussed under the head of simple reproduction, although this re-arrangement is now preparing for a new reproduction on an enlarged scale.

The only thing which remains for us to examine is 500 Is and (376 v + 376 s)II, both as regards the internal conditions of the two departments and the movements between them. Since we have assumed that department II is likewise accumulating one-half of its surplus-value, 188 are to be converted into capital, of which one-fourth, or 47, or, to round it off, 48, are variable capital, so that 140 remain to be converted into constant capital.

Here we come across a new problem, whose very existence must appear strange to the current idea that commodities of one kind are exchanged for commodities of another kind, or commodities for money and the same money for commodities of another kind. The 140 IIc can be converted into productive capital only by exchanging them for commodities of Is of the same value. It is a matter of course that that portion of Is which must be exchanged for IIs must consist of means of production, which may either be fit for service in the production of both I and II, or exclusively adapted to the production of II. This change of place can be made only by means of a onesided purchase on the part of II, as the entire remaining surplus-product of 500 Is, which we shall presently examine, is reserved for accumulation in department I and cannot be exchanged for commodities of II; in other words, it cannot be simultaneously accumulated and consumed by I. Therefore department II must buy 140 Is for cash without recovering this money by a subsequent sale of its commodities to I. And this is a process which is continually repeated in every new annual production, so far as it is reproduction on an enlarged scale. Where does II get the money for this?

It rather seems as though department II were a very unprofitable field for the formation of new money-capital, by means of simple hoarding, which accompanies actual accumulation and is its basis under capitalist production.

We have first 376 IIv. The money-capital of 376, advanced for labor-power, returns through the purchase of commodities of II continually as variable capital to the capitalists of II. This continually repeated departure from and return to the starting point, the pocket of the capitalist, does not add in any way to the money moving in this cycle. This, then, is not a source of the accumulation of money. Nor can this money be withdrawn from circulation in order to form a hoard, or virtual new money-capital.

But stop! Isn't there a chance to make a little profit?

We must not forget that class II has the advantage over class I that its laborers must buy back from it the commodities produced by themselves. Department II is a buyer of labor-power and at the same time a seller of the commodities to the owners of the labor-power employed by it. Department II, then, may do two things.

(1) It may depress the wages below its average level, and this

privilege it shares with department I. By this means a portion of the money serving in the function of variable capital is released, and if this process is continually repeated, it may become a normal source of hoarding, and thus of virtual additional money-capital in department II. Of course we are not referring to a casual stolen profit here, since we are speaking of a normal formation of capital. But it must not be forgotten that the wages actually paid (which determine the magnitude of the variable capital under normal conditions) do not depend on the benevolence of the capitalists, but must be paid under certain conditions. This does away with this expedient as a source of additional money. If we assume that 376v is the variable capital at the disposal of department II, we cannot suddenly substitute the hypothesis that the capitalists pay only 350v instead of 376v, merely because we are confronted by a new problem.

(2) On the other hand, department II, taken as a whole, has the above-mentioned advantage over I that it is at the same time a buyer of labor-power and a seller of commodities to its own laborers. Every industrial country furnishes the most tangible proofs to what extent this may be exploited, by paying nominally the normal wages, but grabbing, or in plain words, stealing back a large portion without a corresponding equivalent in wages ; by accomplishing the same thing either through the truck system, or through a falsification of the medium of circulation (perhaps in a way that cannot be punished by law). England and America furnish such instances. (Illustrate this by some striking examples). This is the same operation as under (1), only disguised and carried out by a detour. Therefore it must likewise be rejected as an explanation of the present problem. The question is here of actually paid, not of nominal wages.

We see that some extraordinary disfigurations on the face of capitalism cannot be used in an objective analysis of the mechanism of capitalism as an excuse to get over some theoretical difficulties. But strange to say, the great majority of my bourgeois critics score me as though I had wronged the capitalists by assuming in volume I of this work that they really pay labor-power at its value, a thing which they rarely do! (Here I may exercise some of the magnanimity attributed to me by quoting Schaeffle.)

In short, we cannot accomplish anything with 376 IIv for the solution of this question.

But it seems to be still more impossible to do anything with 376 IIs. Here the capitalists of the same department are standing face to face, mutually buying and selling their articles of consumption. The money required for these transactions serves only as a medium of circulation and must flow back to the interested parties in the normal course of things, to the extent that they have advanced it to the circulation, in order to pass again and again over the same course.

There seem to be only two ways by which this money can be withdrawn from circulation for the purpose of forming virtual additional money-capital. Either one portion of the capitalists of II cheats the others and thus robs them of their money. We know that no preliminary expansion of the circulating medium is necessary for the

formation of new money-capital. All that is necessary is that money should be withdrawn from circulation by certain parties and hoarded. It would not alter the case if this money were stolen, so that the formation of additional money-capital on the part of a portion of the capitalists of II would be accompanied by a positive loss of money on the part of others. The cheated capitalists would have to live a little less gaily, that would be all.

Or, a certain portion of IIs, represented by necessities of life, might be directly converted into new variable capital of department II How that is done, we shall examine at the close of this chapter (in section IV).

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(1) *First Illustration.*

A. Diagram of Simple Reproduction.

I. 4000 c + 1000 v + 1000 s = 6000
II. 2000 c + 500 v + 500 s = 3000 } Total, 9000.

B. Initial Diagram for Accumulation on an Expanded Scale.

I. 4000 c + 1000 v + 1000 s = 6000
II. 1500 c + 750 v + 750 s = 3000 } Total, 9000.

Assuming that in diagram B one-half of the surplus-value of I, amounting to 500, is accumulated, we have first to accomplish the change of place between (1000 v + 500 s)I, or 1500 I(v + s), and 1500 II c. Department I then keeps 4000 c and 500 s, the last sum being accumulated. The exchange between (1000 v + 1000 s)I and 1500 II c is a process of simple reproduction, which has been examined previously.

Let us now assume that 400 of the 500 I s are to be converted into constant capital, and 100 into variable capital. The transactions within the 400 s of I, which are to be capitalized, have already been discussed. They can be immediately annexed to I c, and in that case we get in department I

4400 c + 1000 v + 100 s (these last to be converted into 100 v).

Department II buys from I for the purpose of accumulation the 100 I s (existing in means of production), which thus become additional constant capital in department II, while the 100 in money, which this department pays for them, are converted into money-form of the additional variable capital of I. We then have for I a capital of 4400 c + 1100 v (these last in money), a total of 5500.

Department II has now 1600 c for its constant capital. In order to be able to operate this, it must advance 50 v in money for the purchase of new labor-power, so that its variable capital grows from 750 to 800. This expansion of the constant and variable capital of II by a total of 150 is supplied out of its surplus-value. Hence only 600 of the 750 II s remain for the consumption of the capitalists of II, whose annual product is now distributed as follows:

II. 1600 c + 800 v + 600 s (fund for consumption), a total of 3000. The 150 s, produced in articles of consumption, which have been

converted into (100 c + 50 v)II, pass entirely into the consumption of the laborers in this form, 100 being consumed by the laborers of I(100 I v), and 50 by the laborers of II(50 II v) as explained above. Department II, where the total product is prepared in a form suitable for accumulation, must indeed reproduce surplus-value in the form of necessary articles of consumption exceeding the other portions by 100. If reproduction really starts on an expanded scale, then the 100 of variable money-capital of I flow back to II through the hands of the laborers of I, while II transfers 100 s in commodities to I and at the same time 50 in commodities to its own laborers.

The change made in the arrangement for the purpose of accumulation now presents the following aspect:

I. 4400 c + 1100 v + 500 fund for consumption = 6000
II. 1600 c + 800 v + 600 fund for consumption = 3000

Total, as before, 9000

Of these amounts, the following are capital:

I. 4400 c + 1100 v (money) = 5500
II. 1600 c + 800 v (money) = 2400 } Total, 7900

while production started out with

I. 4000 c + 1000 v = 5000
II. 1500 c + 750 v = 2250 } Total, 7250.

Now, if actual accumulation takes place on this basis, that is to say, if reproduction is actually undertaken with this increased capital, we obtain at the end of next year:

I. 4400 c + 1100 v + 1100 s = 6600
II. 1600 c + 800 v + 800 s = 3200 } Total, 9800.

Then let department I continue accumulation at the same ratio, so that 550 s are spent as revenue, and 550 s accumulated. In that case, 1100 I v are first replaced by 1100 I c, and 550 I s must be realized in an equal amount of commodities of II, making a total of 1650 I(v + s). But the constant capital of II, which is to be replaced, amounts only to 1600, and the remaining 50 must be made up out of 800 II s. Leaving aside the money aspect of the matter, we have as a result of this transaction:

I. 4400 c + 550 s (to be capitalized); furthermore, realized in commodities of II for the fund for consumption of the capitalists and laborers of I, 1650 (v + s).

II. 1650 c (50 added from II s as indicated above) + 800 v + 750 s (fund for the consumption of the capitalists).

But if the old proportion is maintained in II between v and c, then 25 v additional must be advanced for 50 c, and these must be taken from 750 s. Then we have

II. 1650 c + 825 v + 725 s.

In department I, 550 s must be capitalized. If the former proportion is maintained, 440 of this amount form constant capital, and 110 variable capital. These 110 must be eventually taken out of 725 II s,

that is to say, articles of consumption to the value of 110 are consumed by the laborers of I instead of the capitalists of II, so that the latter are compelled to capitalize these 110 s which they cannot consume. This leaves 615 II s of the 725 II s. But if II thus converts these 110 into additional constant capital, it requires an additional variable capital of 55. This again must be taken out of its surplus value. Subtracting this amount from 615 II s we find that only 560 II s remain for the consumption of the capitalists of II, and we obtain the following values of capital after accomplishing all actual and potential transfers:

I. (4400 c + 440 c) + (1100 v + 110 v) = 4840 c + 1210 v = 6050
II. (1600 c + 50 c + 110 c) + (800 v + 25 v + 55 v) = 1760 c + 880 v = 2640

Total ... 8690

If things are to proceed normally, accumulation in II must take place more rapidly than in I, because that portion of I (v + s) which must be converted into commodities of II s, would otherwise grow more rapidly than II s, for which it can alone be exchanged.

If reproduction is continued on this basis and with otherwise unchanged conditions, then we obtain at the end of the following year:

I. 4840 c + 1210 v + 1210 s = 7260
II. 1760 c + 880 v + 880 s = 3520
} Total, 10,780.

If the rate of division of the surplus-value remains unchanged, then the capitalists of I have first to spend as revenue 1210 v and one-half of s, or 605, a total of 1815. This revenue fund is again larger than II c by 55. These 55 must be taken from 880 s, leaving 825. Furthermore, the conversion of 55 II s into II c implies another deduction from II s for a corresponding variable capital of 27.5, leaving for consumption 797.5 II s.

Department I has now to capitalize 605 s. Of these 484 are constant, and 121 variable capital. The last-named sum, deducted from 797.5 II s, leaves 676.5 II s. Department II, then, converts another 121 into constant capital and requires another variable capital of 60.5 for it, which likewise comes out of 676.5 II s, leaving for consumption 616.

Then we have the following capitals:

I.	Constant capital	:	4840	+484	= 5324.
	Variable capital	:	1210	+121	= 1331.
II.	Constant capital	:	1760 + 55	+121	= 1936.
	Variable capital	:	880 + 27.5	+ 60.5	= 968.

Totals : I. 5324 c + 1331 v = 6655
II. 1936 c + 968 v = 2904
} Grand total 9559.

And at the end of the year the product is

I. 5324 c + 1331 v + 1331 s = 7986
II. 1936 c + 968 v + 968 s = 3872
} Total, 11,858

Repeating the same calculation and rounding off the fractions, we get at the end of the following year the product:

I. 5856 c + 1464 v + 1464 s = 8784
II. 2129 c + 1065 v + 1065 s = 4249
} Total, 13,033.

And at the end of the following year:

I. 6442 c + 1610 v + 1610 s = 9662
II. 2342 c + 1172 v + 1172 s = 4686
} Total, 14,348.

In the course of four years of reproduction on an expanded scale the aggregate capital of I and II has risen from 5400 c + 1750 v = 7150 to 8784 c + 2782 v = 11,566, in other words at the rate of 100: 160. The total surplus-value was originally 1750, it is now 2782. The consumed surplus-value was originally 500 for I and 535 for II, a total of 1035. In the last year it was 732 for I and 985 for II, a total of 1690. It has therefore grown at the rate of 100: 163.

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(2). Second Illustration.

Now take the annual product of 9000, which is altogether a commodity-capital in the hands of the industrial capitalist class, a form in which the average ratio of the variable to the constant capital is that of 1: 5. This pre-supposes a considerable development of capitalist production and accordingly of the productivity of social labor, a previous expansion of the scale of production to a considerable extent, and finally a development of all circumstances which bring about a relative overpopulation among the working class. The annual product will then be divided as follows, after rounding off the various fractions:

I. 5000 c + 1000 v + 1000 s = 7000
II. 1430 c + 285 v + 285 s = 2000
} Total, 9000.

Now take it that the capitalist class of I consumes one-half of its surplus-value, or 500, and accumulates the other half. In that case (1000 v + 500 s) I, or 1500, must be converted into 1500 II c. Since II c amounts to only 1430, it is necessary to take 70 from the surplus-value. Subtracting the sum from 285 II s leaves 215 II s. Then we have:

I. 5000 c + 500 s (to be capitalized) + 1500 (v + s) in the fund set aside for consumption by capitalists and laborers.

II. 1430 c + 70 s (to be capitalized) + 285 v + 215 s.

As 70 II s are directly annexed by II c, a variable capital of 70/5, or 14, is required to set this additional constant capital in motion. These 14 must come out of the 215s, so that only 201 remain, and we have:

II. (1430 c + 70 c) + (285 v + 14 v) + 201 s.

The disposal of 1500 I (v + ½ s) is a process of simple reproduction, and this has been dealt with. However, a few peculiarities remain to

be noted here, which arise from the fact that in reproduction on an expanding scale I $(v+\frac{1}{2}s)$ is not made up solely by way of II c, but by II c plus a portion of II s.

It goes without saying that as soon as we assume a process of accumulation, I (v+s) is greater than II c, not equal to II c, as it is in simple reproduction. For in the first place, department I incorporates a portion of its own surplus-product in its productive capital, and converts five-sixths of it into constant capital, so that it cannot exchange these five-sixths simultaneously for articles of consumption of department II. In the second place, department I has to supply out of its surplus-product the material for the accumulation of the constant capital of II, just as II has to supply I with the material for the variable capital, which sets in motion a portion of the surplus-product of I used as additional constant capital. We know that the actual variable capital consists of labor-power, and therefore the additional must consist of the same thing. It is not the capitalist of I who among other things buys from II a supply of necessities of life for his laborers, or accumulates them for this purpose, as the slaveholder had to do. It is the laborers themselves who trade with II. But this does not prevent the capitalist from regarding the articles of consumption of his eventual additional labor-power as so many means of production and maintenance of that labor-power, or the natural form of his variable capital. His own immediate operation, in the present case that of department I, consists in merely storing up the new money-capital required for the purchase of additional labor-power. As soon as he has incorporated this labor-power in his productive capital, the money becomes a medium for the purchase of commodities of II on the part of this labor-power, which must find these articles of consumption at hand.

By the way, the capitalist and his press are often dissatisfied with the way in which the laborer spends his money and with the commodities of II for which he spends it. On such occasions the capitalist philosophizes, babbles of culture, and dabbles in philanthropical talk, for instance after the manner of Mr. Drummond, the Secretary of the British Legation in Washington. According to him, "The Nation" (a journal) contained on the last of October, 1879, an interesting article which contained the following passages: "The laborers have not kep step in their civilization with the progress of inventions ; a mass o objects have become accessible to them which they do not know how t make use of, and for which they do not create a market." (Every capitalist naturally wants the laborer to buy his commodities.) "Ther is no reason why these laborers should not desire as much comfort as th clergyman, the lawyer, and the psysician, who earn the same amoun as he." (This class of clergymen, lawyers, and physicians have in deed to be satisfied with wishing for a good many comforts!) "Bu he does not do so. The question is still, how he may be raised as consumer by a rational and healthy method ; not an easy question since his whole ambition does not reach beyond a reduction of his hour of labor, and the demagogue incites him to this rather than to elevatin his condition by the improvement of his intellectual and moral qualities.

(Reports of H. M.'s Secretaries of Embassy and Legation on the Manufactures, Commerce, etc., of the countries in which they reside. London, 1879, page 404.)

Long hours of labor seem to be the secret of the rational and healthy method which is to elevate the condition of the laborer by an improvement of his intellectual and moral faculties and to make a rational consumer of him. In order to become a rational consumer of the commodities of the capitalist, he should above all begin to let the capitalist consume his labor-power irrationally and unhygienically —but the demagogue prevents him! What the capitalist means by a rational consumption is evident wherever he is condescending enough to engage directly in the trade with his own laborers, in the truck system, which includes also among other lines the supplying of homes to the laborers, so that the capitalist is at the same time a landlord.

The same Drummond, whose beautiful soul is enamored of the capitalists, attempts to elevate the working class, tells in the same report among other things of the cotton goods manufacture in the Lowell and Lawrence Mills. The boarding and lodging houses for the factory girls belong to the company that owns the factories. The landladies of these houses are in the pay of the same company and act according to its instructions. No girl is permitted to stay out after 10 P.M. Then comes a gem: The special police of the company patrol the surrounding country, in order to prevent a violation of this rule. After 10 P.M., no girl can leave or enter any of these houses. No girl can live anywhere but on the land of the company, and every house on this land brings about 10 dollars per week in rent. And now we see the rational consumer in his full glory: "But since the omnipresent piano is found in many of the best lodging houses of the working girls, music, singing, and dancing play a prominent role at least among those, who after ten hours of unremitting labor at the loom need a change after this monotony rather than actual rest." (Page 412). But the main secret of making a rational consumer of the laborer is yet to be told. Mr. Drummond visits the cutlery factory of Turner's Falls, Connecticut River, and Mr. Oakman, the treasurer of the company, after telling him that especially American table knives beat the English goods in quality, continues: "But we shall beat England also in the matter of prices, we are ahead of it in quality even now, that is acknowledged ; but we must have lower prices, and we shall get them as soon as we get our steel cheaper and bring down our labor." (427). A reduction of wages and long hours of labor, that is the essence of the rational and healthy method which is to elevate the laborer to the dignity of a rational consumer, in order that he may create a market for the mass of objects which civilization and the progress of invention have made accessible to him.

To repeat, then, just as department I has to supply the additional constant capital of II out of its surplus-value, so II supplies the additional variable capital for I. Department II accumulates for itself and for I, so far as the variable capital is concerned, by reproducing a greater portion of its total product, especially of its surplus-product, in the shape of necessary articles of consumption.

I (v + s), in the case of production on the basis of increasing capital, must be equal to II c plus that portion of the surplus-product which is re-incorporated as capital, plus the additional portion of constant capital required for the expansion of the production of II and the minimum of the expansion is that without which actual accumulation, that is to say, an actual expansion of the production of I, is impossible.

Reverting now to the case which we examined last, we find that it has the peculiarity that II c is smaller than I (v + ½ s), smaller than that portion of the product of I which is spent as revenue for articles of consumption, so that a portion of the surplus-product of II, equal to 70, is at once realized for the purpose of disposing of the 1500 I (v + s). As for II c, equal to 1430, it must, other circumstances remaining the same, be reproduced out of an equal amount of I (v + s), in order that simple reproduction may take place, and to that extent we need not pay any more attention to it. It is different with the additional 70 II c. That which is for I merely an exchange of revenue for articles of consumption, is for II more than a mere reconversion of its constant capital from the form of commodity-capital into its natural form, as it is in simple reproduction, for it is a process of direct accumulation, a transformation of a portion of its surplus-product from the form of articles of consumption into that of constant capital. If I buys with 70 p. st. in money (money-reserve for the conversion of surplus-value) the 70 II s, and if II does not buy in exchange 70 I s, but accumulates the 70 p. st. as money-capital, then this money is indeed always the expression of an additional product (namely the surplus-product of II, the equivalent of which it is), although this is not a product which returns into the production ; but in that case this accumulation of money on the part of II would be the evidence that 70 I s in means of production are unsaleable. There would be a relative overproduction in I, corresponding to a simultaneous break in the reproduction of II.

But apart from this, the following point must be noted: During the time in which the 70 in money, which came from I, have not as yet returned to it, or have but partially done so, by the purchase of 70 I s on the part of II, this 70 in money figures entirely or in part as additional virtual money-capital in the hands of II. This is true of every transaction between I and II, before the mutual replacement of their respective commodities has accomplished the reflux of the money to its starting point. But the money, under a normal condition of things, figures here only temporarily in this role. In the credit system, however, where all momentarily released money is to be used immediately as an active additional money-capital, such a temporarily released money-capital may be engaged, for instance, in new enterprises of I, while it still would have to liquidate additional products held in other enterprises. It must also be noted that the annexation of 70 I s to the constant capital of II requires at the same time an expansion of the variable capital of II to the extent of 14. This implies, similarly as it did in the direct incorporation of the surplus-product of 1 s in capital I c, that the reproduction in II is already in process with a view

to further capitalization; in other words, it implies the expansion of that portion of the surplus-product, which consists of necessary articles of consumption.

The product of 9000, in the second illustration, must be distributed in the following manner for the purpose of reproduction, when 500 I s is to be capitalized. We merely consider the commodities in this case and leave aside the circulation of money.

I. 5000 c + 500 s (to be capitalized) + 1500 (v + s) fund for consumption, a total of 7000 in commodities.

II. 1500 c + 299 v + 201 s, a total of 2000 in commodities. Grand total, 9000 in commodities.

Capitalization takes place in the following manner:

In department I, the 500 s, which are capitalized, divide themselves into five-sixths, or 417 c, plus one-sixth, or 83 v. The 83 v draw an equal amount out of II s, which buys elements of constant capital and adds them to II c. An increase of II c by 83 implies an increase of II v by one-fifth of 83, or 17. We have, then, after this transaction

I. (5000 c + 417 s) + (1000 v + 83 s) = 5417 c + 1083 v = 6500
II. (1500 c + 83 s) + (299 v + 17 s) = 1583 c + 316 v = 1899

Total.....8399

The capital in I has grown from 6000 to 6500, or by 1-12. That of II has grown from 1715 to 1899, or by nearly 1-9.

The reproduction on this basis in the second year brings the capital at the end of that year up to the following figures:

I. (5417 c + 452 s) c + (1083 v + 90 s) v = 5869 c + 1173 v = 7042.
II. (1583 c + 42 s + 90 s)c + (316 v + 8 s + 18 s)v = 1715 c + 342 v = 2057.

And at the end of the third year, we have as a product:

I. 5869 c + 1173 v + 1173 s.
II. 1715 c + 342 v + 342 s.

If department I then accumulates as before one-half of its surplus-value, we find that I (v + ½ s), 1173 v + 587 (½ s), amount to 1760, more than the entire 1715 II c, namely, an excess of 45. This must again be balanced by annexing an equal amount of means of production to II c, which thus grows by 45. This again requires an addition of one-fifth, or 9, to II v. Furthermore, the capitalized 587 I s are divided into five-sixths and one-sixth respectively, that is to say, 489 c and 98 v. These last 98 imply a new addition of 98 to the constant capital of II, and this again an increase of the variable capital of II by one-fifth, or 20. Then we have:

I. (5869 c + 489 s)c + (1173 v + 98 s)v = 6358 c + 1271 v = 7629
II. (1715 c + 45 s + 98 s)c + (342 v + 9 s + 20 s)v = 1858 c + 371 v = 2229

Total capital.....9858

... In three years of reproduction on an increasing scale the total capital of I has grown from 6000 to 7629, and that of II from 1715 to 2229, or the total social capital from 7715 to 9858.

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(3) Exchange of II c Under Accumulation

In the exchange of I (v+s) with II c we meet with different cases.

Under simple reproduction, both of them must be equal and take one another's places, otherwise simple reproduction cannot proceed smoothly, as we have seen.

Under reproduction on an expanded scale, it is above all the rate of accumulation which is important. In the preceding cases we had assumed that the rate of accumulation in department I was equal to one-half of I s, and also that it remained constant from year to year. We changed merely the proportion in which this accumulated capital was divided between variable and constant capital. We then had three cases.

(1) I $(v+\frac{1}{2}s)$ equal to II c, which is therefore smaller than I (v+s). This must always be the case, otherwise I cannot accumulate.

(2) I $(v+\frac{1}{2}s)$ greater than II c. In this case the exchange is effected by adding a corresponding portion of II s to II c, so that this becomes equal to I $(v+\frac{1}{2}s)$. In this case, the transaction in accumulation, an augmentation of its constant capital by that portion of its surplus-product which it exchanges for means of production of I. This augmentation implies at the same time a corresponding addition to the variable capital of II out of its own surplus-product. department II is not a simple reprodction of its constant capital, but

(3) I $(v+\frac{1}{2}s)$ smaller than II c. In this case department II had not fully reproduced its constant capital by means of exchange and had to make good the deficit by a purchase from I. But this did not require any further accumulation of variable capital on the part of II, since its constant capital was brought only to its full size by this operation. On the other hand, that portion of the capitalists of I, who accumulate only additional money-capital, had already accomplished a part of this accumulation by this transaction.

The premise of simple reproduction, that I (v+s) is equal to II c, is irreconcilable with capitalist production, although this does not exclude the possibility that a certain year in an industrial cycle of 10 or 11 years may not show a smaller total production than the preceding year, so that there would not have been even a simple reproduction, compared to the preceding year. Indeed, considering the natural growth of population per year, simple reproduction could take place only in so far as a correspondingly larger number of unproductive servants would partake of the 1500 representing the aggregate surplus-product. But accumulation of capital, actual capitalist production, would be impossible under such circumstances. The fact of capitalist production therefore excludes the possibility of II c being equal to I (v+s). Nevertheless it might occur even under capitalist production that in consequence of the process of accumulation during a preceding number of periods of production II c might not only be equal

but even greater than I (v+s). This would mean an overproduction in II and could not be compensated in any other way than by a great crash, in consequence of which some capital of II would be transferred to I. It does not alter the relations of I (v+s), if a portion of the constant capital of II reproduces itself, as happens, for instance, in the employment of home raised seeds in agriculture. This portion of II c has no more reference to the exchange between I and II than has I c. Nor does it alter the matter, if a portion of the products of II are of such a nature that they may serve as means of production in I. They are covered by a portion of the means of production supplied in II by I, and this portion must be deducted on both sides at the outset, if we wish to analyze without any obscuring interference the exchange between the two great departments of social production. the producers of means of production and the producers of articles of consumption.

To repeat, then, under capitalist production I (v+s) cannot be equal to II c, in other words, the two cannot balance. On the other hand, naming I s-x that portion of I s which is spent by the capitalists as revenue, we see that I (v+s-x) may be equal to, greater or smaller than, II c. But I (v+s-x) must always be smaller than II (c+s), namely, as much smaller as that portion of II s which must be consumed under all circumstances by the capitalist class of II.

It must be noted that in this presentation of accumulation the value of the constant capital, so far as it is a portion of the value of the commodity-capital, which it helped to produce, is not exactly represented. The fixed portion of the newly accumulated constant capital is transferred to the commodity-capital only gradually and periodically according to the different nature of these fixed elements. Whereever raw materials and halfwrought articles are employed in large quantities for the production of commodities, the commodity-capital therefore consists overwhelmingly of objects replacing circulating constant elements and variable capital. (On account of the turn-over of the circulating elements this method may nevertheless be adopted. It is then assumed that the circulating portion together with that portion of value which the fixed capital has transferred to it is turned so often during the year that the aggregate sum of the commodities supplied is equal in value to all the capital invested in the annual production.) But wherever only auxiliary materials are used for machine work and no raw material, there v, the labor element, must reappear in the commodity-capital as its largest factor. While in the calculation of the rate of profit the surplus-value is figured on the total capital, regardless of whether the fixed elements transfer periodically much or little value to the product, the fixed portion of constant capital is included in the calculation of the value of any periodically created commodity-capital only to the extent that it yields a certain average of value to the product.

IV. CONCLUDING REMARKS

The original source for the money of II is v+s of the gold producers in department I, exchanged for a portion of II c. Only to the extent that the gold producer accumulates surplus-value or converts it into means of production of I, in other words, to the extent that he expands his production, does his v+s stay out of department II. On the other hand, to the extent that the accumulation of gold on the part of the gold producer himself leads ultimately to an expansion of production, a portion of the surplus-value of gold production not spent as revenue passes into department II as additional variable capital of the gold producers, promotes the accumulation of new hoards in II and supplies it with means by which to buy from I without having to sell to it immediately. From this money derived from I (v+s) of gold production must be deducted that portion of gold which is employed by certain lines of II as raw material, etc., in short, as an element for building up their constant capital. An element of preliminary reproduction, for the purpose of future expanded production, is created for either I or II under the following conditions: For I only when a portion of I s is sold onesidedly, without a balancing purchase, to II and serves there as additional constant capital; for II, when the same case occurs on the part of I with reference to the variable capital; furthermore when a portion of the surplus-value spent by I as revenue is not covered by II c, so that a portion of II s is bought with it and thus converted into money. If I (v+s-x) is greater than II c, then II c need not for its simple reproduction make up in commodities of I what I has taken out of II s. The question is, to what extent hoarding may take place within the exchange of the capitalists of II among themselves, an exchange which can consist only of a mutual crossing of II s. We know that direct accumulation takes place within II by means of direct conversion of a portion of II s into variable capital (just as department I converts a portion of I s directly into constant capital). In the various stages of accumulation within the different lines of business of II, and for the individual capitalists of these lines, the matter explains itself, with the self-understood modifications, in the same way as in I. One side is still engaged in hoarding and sells without buying, the other is on the point of actual expansion of reproduction and buys without selling. The additional variable money-capital is first advanced for additional labor-power, but this, in its turn, buys articles of consumption from the hoarding owners of the additional articles of consumption used by the laborers. To the extent that these owners hoard the money, it does not return to its point of departure.

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