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ON CAPITAL ✱ F. Engels

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By Frederick Engels

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Frederick Engels

(NEW EDITION)

This volume is a collection of the reviews and commentaries on Karl Marx's *Capital* and a synopsis of *Capital*, Vol. 1, written by Frederick Engels, Marx's lifelong collaborator and closest friend. The reader will find the lucid style with which Engels expresses his thoughts of very great assistance to a study of *Capital*, but at the same time the articles stand by themselves as clear expositions of the most important aspects of Marxist economics.

The Appendix contains, among other letters, one written to Victor Adler in prison, in which Engels gives advice on how to set about reading *Capital*, which are the most important chapters and which should be left for later study till the idea of the whole has been grasped; invaluable advice for the reader first approaching the study of Marx's great masterpiece.

Lawrence & Wishart are happy to be able to offer this reprint to the public during 1945, the 50th anniversary of the death of Frederick Engels.

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By Frederick Engels

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Volume Sixteen

ENGELS ON *CAPITAL*

Synopsis, Reviews, Letters and Supplementary Materials

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EDITOR'S FOREWORD

This volume is a collection of reviews and commentaries on Karl Marx's *Capital*, and a synopsis of *Capital*, Vol. I, written by Frederick Engels, Marx's lifelong collaborator and closest friend. Of the nine known reviews of *Capital* written by Engels, the two most important ones are included. The first appeared on March 21 and 28, 1868, in the *Demokratisches Wochenblatt*, a Social-Democrat weekly in Leipzig edited by Wilhelm Liebknecht. The second review was written for the *Fortnightly Review*, the British liberal magazine edited by John Morley. It was submitted to the *Fortnightly Review* through the good offices of Professor Edward Beesly, who had acted as chairman of the meeting in London at which the First International was founded in 1864. The review was to comprise two articles, only the first of which was ever written. Though Samuel Moore, one of Engels' English friends, had signed the review to facilitate its acceptance, Morley objected to its publication and it was never printed. Thereupon Engels ceased work on the second instalment. The opening paragraphs of the review were written by Marx at Engels' request.

These reviews are followed by an excerpt from Engels' preface to Volume II of *Capital*, in which he defines Marx's place in the history of economic thought and outlines Marx's contribution to the theory of surplus value.

Engels' Synopsis of Volume I of *Capital* comprises the second section of this volume. The Synopsis presents the contents of *Capital* largely in Marx's own words, supplemented by Engels' summaries of Marx's exposition. Engels completed the summarizing of the first four parts (thirteen chapters) of Volume I.

After the publication of Volume III of *Capital* Engels commenced a supplement to the whole work, planned as a further exposition of the law of value and the rate of profit, and an analysis of later developments, such as the stock exchange, the rise of trusts, and imperialism. This Supplement to *Capital*, Vol. III, comprising the third section of the present volume, was written by Engels during the last few months of his life and was published posthumously in the *Neue Zeit*, the theoretical weekly of the Social Democratic Party of Germany. Engels had planned to write the Supplement in two parts, but of these two parts he managed to write only the first, his fatal illness supervening. Only a brief outline of the second part has been preserved. The fragmentary outline, and Engels' insertion in Chapter 27 of Volume III which concludes this section, deal with the transition from the capitalism of free competition to monopoly capitalism and imperialism during the last three decades of the nineteenth century.

The appendix contains several letters of Marx and Engels which discuss the law of value, surplus value, the rate of profit, and related topics.

The *Fortnightly Review* article, written in English, is published, for the first time, from the photostatic copy of Engels' manuscript preserved in the archives of the Marx-Engels-Lenin Institute in Moscow. The synopsis of *Capital*, Vol. I, is translated from the photostatic copy of the manuscript in the same archives. The supplement to *Capital*, Vol. III, and the fragmentary outline are translated from the German text published in the *Volksausgabe* (Popular Edition) of *Capital*, Vol. III, Part 1, Moscow, 1933.

The text of the Synopsis retains Engels' subdivisions and arrangement. The page references in parentheses, inserted by Engels, are to the 1867 first edition of *Capital*, Vol. I (German); the page references in square brackets that follow refer to the corresponding passages in the Allen & Unwin edition of the Moore and Aveling English translation. All quotations and excerpts from *Capital*, Vols. II and III (Kerr edition), have been carefully checked with the German original owing to serious defects in the English translation.

All unsigned footnotes are by Engels; footnotes by the editor are so marked. Words in square brackets in the text are insertions by the editor to complete otherwise incomplete sentences or to avoid ambiguities. Wherever possible, the wording of the English translation of *Capital* has been used in these insertions.

MARX'S *CAPITAL*[1]

By FREDERICK ENGELS

As long as there have been capitalists and workers on earth, no book has appeared which is of as much importance for the workers as the one before us. The relation between capital and labour, the hinge on which our entire present system of society turns, is here treated scientifically for the first time, and with a thoroughness and acuity possible only for a German. Valuable as the writings of an Owen, Saint-Simon, Fourier, are and will remain—it was reserved for a German to climb to the height from which the whole field of modern social relations can be seen clearly and in full view just as the lower mountain scenery is seen by an observer standing on the topmost peak.

Political economy up to now has taught us that labour is the source of all wealth and the measure of all values, so that two objects whose production has cost the same labour time also possess the same value and must also be exchanged for each other, since on the average only equal values are exchangeable for one another. At the same time, however, it teaches that there exists a kind of stored-up labour, which it calls capital; that this capital, owing to the auxiliary sources contained in it, raises the productivity of living labour a hundred and a thousandfold, and in return claims a certain compensation which is termed profit or gain. As we all know, this occurs in reality in such a way that the profits of stored-up, dead labour become ever more massive, the capital of the capitalists becomes ever more colossal, while the wages of living labour become constantly less, and the mass of workers living solely

[1] The two articles here were written by Engels at the beginning of March 1868. They were intended to acquaint German workers with the contents of the first volume of *Capital*, which had been published a short time before. The articles appeared in the Leipzig *Demokratisches Wochenblatt*, Nos. 12 and 13, May 21 and 28, 1868. The editor of the paper was Wilhelm Liebknecht.—*Ed.*

on wages becomes ever more numerous and poverty-stricken. How is this contradiction to be solved? How can there remain a profit for the capitalists if the worker gets back in another form the full value of the labour he adds to his product? And this should be the case, nevertheless, since only equal values are exchanged. On the other hand, how can equal values be exchanged, how can the worker receive the full value of his product, if, as is admitted by many economists, this product is divided between him and the capitalists? Economists up to now have been helpless in the face of this contradiction, and write or stutter embarrassed phrases which say nothing. Even the previous socialist critics of economics have not been able to do more than to emphasize the contradiction; no one has solved it, until now at last Marx has traced the process by which this profit arises right to its birthplace and has thereby made everything clear.

In tracing the development of capital, Marx starts out from the simple, notoriously obvious fact that the capitalists turn their capital to account by exchange: they buy commodities for their money and afterwards sell them for more money than they cost. For example a capitalist buys cotton for 1,000 talers[1] and resells it for 1,100, thus "earning" 100 talers. This excess of 100 talers over the original capital, Marx calls *surplus value*. What is the origin of this surplus value? According to the economists' assumption, only equal values are exchanged, and in the sphere of abstract theory this is correct. Hence, the purchase of cotton and its subsequent sale can just as little yield surplus value as the exchange of a silver taler for thirty silver groschen[2] and the re-exchange of the small coins for a silver taler, a process by which one becomes neither richer nor poorer. But surplus value can just as little arise from sellers selling commodities above their value, or purchasers buying them below their value, because each one is in turn buyer and seller and this would, therefore, again balance.

[1] Taler—a silver coin worth approximately three shillings, which was in circulation in Germany and parts of Western Europe until the end of the nineteenth century.—*Ed.*

[2] Silver groschen—a small silver coin, one-thirtieth of a taler, in circulation in Prussia until the seventies of the last century.—*Ed.*

Just as little can it arise from buyers and sellers reciprocally overreaching each other, for this would create no new or surplus value, but would only divide the existing capital differently between the capitalists. In spite of the fact that the capitalist buys the commodities at their value and sells them at their value, he gets more value out than he put in. How does this happen?

The capitalist finds on the market, under present social conditions, *one commodity* which has the peculiar property that *its use is a source of new value, is a creator of new value*. This commodity is *labour power*.

What is the value of labour power? The value of every commodity is measured by the labour required for its production. Labour power exists in the form of the living worker who requires a definite amount of means of subsistence for his existence, as well as for the maintenance of his family, which ensures the continuance of labour power even after his death. Hence the labour time necessary for producing these means of subsistence represents the value of labour power. The capitalist pays him weekly and purchases for that the use of one week's labour of the worker. So far Messrs. the economists will be pretty well in agreement with us as to the value of labour power.

The capitalist now sets his worker to work. In a certain period of time the worker will have delivered as much labour as was represented by his weekly wages. Supposing that the weekly wage of a worker represents three labour days, then, if the worker begins on Monday, he has by Wednesday evening *replaced for the capitalist the full value of the wage paid*. But does he then stop working? Not at all. The capitalist has bought his *week's* labour and the worker must also go on working during the last three days of the week. This *surplus labour* of the worker, over and above the time necessary to replace his wages, is the *source of surplus value*, of profit, of the continually growing accumulation of capital.

Do not say it is an arbitrary assumption that the worker reproduces in three days the wages he has received and works the remaining three days for the capitalist. Whether he takes exactly three days to replace his wages, or two or four, is, to be sure, quite immaterial here and varies according to circumstances; the main point is that the capitalist, besides the labour he pays for, also extracts labour that he *does not pay for*, and this is no arbitrary assumption, for the day the capitalist only extracts from the worker as much labour in the long run as he paid him in wages, on that day he would shut down his workshops, since indeed his whole profit would come to naught.

Here we have the solution of all those contradictions. The origin of surplus value (of which the capitalist's profit forms an important part) is now quite clear and natural. The value of the labour power is paid for, but this value is far less than that which the capitalist can extract from the labour power, and it is precisely the difference, the *unpaid labour*, that constitutes the share of the capitalist, or more accurately, of the capitalist class. For even the profit that the cotton dealer made on his cotton in the above example must consist of unpaid labour, if cotton prices have not risen. The trader must have sold to a cotton manufacturer, who is able to extract a profit for himself from his product besides the 100 talers, and therefore divides with him the unpaid labour he has pocketed. In general, it is this unpaid labour which maintains all the non-working members of society. The state and municipal taxes, as far as they affect the capitalist class, are paid from it, as is the rent of the landowners, etc. On it rests the whole existing social system.

It would, however, be absurd to assume that unpaid labour arose only under present conditions where production is carried on by capitalists on one hand and wage workers on the other. On the contrary, the oppressed class at all times has had to perform unpaid labour. During the whole long period when slavery was the prevailing form of the organization of labour, the slaves had to perform much more labour than was returned to them in the form of means of subsistence. The same was the case under the rule of serfdom and right up to the abolition of peasant *corvée* labour; here in fact the difference stands out palpably between the time during which the peasant works for his own maintenance and the surplus labour

for the feudal lord, precisely because the latter is carried out separately from the former. The form has now been changed, but the substance remains and as long as "a part of society possesses the monopoly of the means of production, the labourer, free or not free, must add to the working time necessary for his own maintenance an extra working time in order to produce the means of subsistence for the owners of the means of production."[1]

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In the previous article we saw that every worker employed by the capitalist performs two kinds of labour; during one part of his working time he replaces the wages advanced to him by the capitalists, and this part of his labour Marx terms the *necessary labour*. But afterwards he has to go on working and during that time he produces *surplus value* for the capitalist, a significant portion of which constitutes profit. That part of the labour is called surplus labour.

Let us assume that the worker works three days of the week to replace his wages and three days to produce surplus value for the capitalist. Putting it otherwise, it means that, with a twelve-hour working day, he works six hours daily for his wages and six hours for the production of surplus value. One can only get six days out of the week, at most seven, even by including Sunday, but one can extract six, eight, ten, twelve, fifteen or even more hours of labour out of every working day. The worker sells the capitalist a working day for his day's wages. But, *what is a working day*? Eight hours or eighteen?

It is to the capitalist's interest to make the working day as long as possible. The longer it is, the more surplus value he obtains. The worker correctly feels that every hour of labour which he performs over and above the replacement of the wage is unjustly extorted from him; he experiences in his own person what it means to work excessive hours. The capitalist fights for his profit, the worker for his health, for a few hours of daily rest, to be able to occupy himself as a human being

[1] *Capital*, Vol. 1, p. 218, Allen & Unwin edition; p. 259, Kerr edition.—*Ed.*

as well, in other ways besides working, sleeping and eating. It may be remarked in passing that it does not depend at all upon the goodwill of the individual capitalists whether they desire to embark on this struggle or not, since competition compels even the most philanthropic among them to join withs his colleagues and to make a working time as long as their the rule.

The struggle for the fixing of the working day has lasted from the first historical appearance of free workers on the scene up to the present day. In various trades, different traditional working days prevail; but in reality they are seldom adhered to. Only where the law fixes the working day and supervises its observance can one really say that there exists a normal working day. And up to now this is the case almost solely in the factory districts of England. Here the ten-hour working day (ten and a half hours on five days, seven and a half hours on Saturday) has been fixed for all women and for youths of thirteen to eighteen, and since the men cannot work without them, they also come under the ten-hour working day. This law has been won by English factory workers through years of endurance, through the most persistent, stubborn struggle with the factory owners, through freedom of the press, the right of association and assembly, as well as through adroit utilization of the divisions within the ruling class itself. It has become the palladium of the English workers; it has gradually become extended to all branches of large-scale industry and last year to almost *all trades*, at least to all those employing women and children. The present work contains most exhaustive material on the history of this legislative regulation of the working day in England. The next "North German Reichstag"[1] will also have factory regulations to discuss and therefore the regulations of factory labour. We expect that none of the deputies elected by German workers will proceed to discuss this bill without previously making themselves thoroughly conversant with Marx's book. *There is much to be achieved there.* The divisions within the ruling

[1] "North German Reichstag": a representative body of the North German confederation, the federation of 22 German states established after Prussia's victory over Austria in 1866.—*Ed.*

classes are more favourable to the workers than they ever were in England, because *universal suffrage compels the ruling classes to court the favour of the workers.* Under these circumstances, four or five representatives of the proletariat are a *power*, if they know how to use their position, if above all they know what is at issue, which the bourgeois do not know. And for this purpose, Marx's book gives them all the material in ready form.

We will pass over a number of other very fine investigations of more theoretical interest and will halt only at the final chapter which deals with the accumulation of capital. Here it is first shown that the capitalist mode of production, i.e., that effected by capitalists on one hand and by wage workers on the other, not only continually reproduces the capital of the capitalist but also continually reproduces the poverty of the workers at the same time. Thereby it is ensured that there always exist anew, on the one hand, capitalists who are the owners of all means of subsistence, raw materials and instruments of labour, and, on the other, the great mass of workers who are compelled to sell their labour power to these capitalists for an amount of the means of subsistence which at best just suffices to maintain them in a condition capable of working and to bring up a new generation of able-bodied proletarians. But capital does not merely reproduce itself; it is continually increased and multiplied—hence its power over the propertyless class of workers. And just as it itself is reproduced on an ever-greater scale, so the modern capitalist mode of production reproduces the class of propertyless workers also on an ever-greater scale and in ever-greater numbers. ". . . accumulation [of capital] reproduces the capital relation on a progressive scale, more capitalists or larger capitalists at this pole, more wage workers at that. . . . *Accumulation of capital is, therefore, increase of the proletariat.*"[1]

Since, however, owing to the progress of machinery, owing to improved agriculture, etc., fewer and fewer workers are necessary in order to produce the same quantity of products, since this perfecting, i.e., this making the workers superfluous,

[1] *Capital*, Vol. I, p. 627, Allen & Unwin edition; p. 673, Kerr edition. —*Ed.*

grows more rapidly than the growing capital itself, what becomes of this ever-increasing number of workers? They form an industrial reserve army, which is paid *below* the value of its labour and is irregularly employed, or comes under the care of public Poor Law institutions during times of bad or moderate business, but which is indispensable to the capitalist class at times when business is especially lively, as is palpably evident in England—but which *under all circumstances* serves to break the power of resistance of the regularly employed workers and to keep their wages down. "The greater the social wealth . . . the greater is the [relative surplus population or][1] industrial reserve army. . . . But the greater this reserve army in proportion to the active labour army, the greater is the mass of a consolidated [permanent][1] surplus population [or stratum of workers][1] whose misery is in inverse ratio to its torment of labour. Finally, the more extensive the Lazarus layers of the working class, and the industrial reserve army, the greater is official pauperism. *This is the absolute general law of capitalist accumulation.*"[2]

These, strictly scientifically proved—and the official economists take great care not to make even an attempt at refutation—are some of the chief laws of the modern, capitalist social system. But with this is everything said? By no means. Just as sharply as Marx stresses the bad sides of capitalist production, does he also clearly prove that this social form was necessary to develop the productive forces of society to a level which will make possible an equal development, worthy of human beings, for *all* members of society. All earlier forms of society were too poor for this. Capitalist production for the first time creates the wealth and the productive forces necessary for this but at the same time it also creates in the mass of oppressed workers the social class which is more and more compelled to claim the utilization of this wealth and these productive forces for the whole of society—instead of as today for a monopolist class.

[1] Insertions in brackets by Engels.—*Ed.*

[2] *Capital*, Vol. I, pp. 659–60, Allen & Unwin edition; p. 707, Kerr edition.—*Ed.*

UNPUBLISHED REVIEW OF MARX'S *CAPITAL* FOR THE *FORTNIGHTLY REVIEW*[1]

Mr. Thomas Tooke, in his inquiries on currency, points out the fact that money, in its function as capital, undergoes a reflux to its point of issue, while this is not the case with money performing the function of mere currency. This distinction (which, however, had been established long before by Sir James Steuart) is used by Mr. Tooke merely as a link in his argumentation against the "currency men" and their assertions as to the influence of the issue of paper-money on the prices of commodities. Our author, on the contrary, makes this distinction the starting-point of his inquiry into the nature of capital itself, and especially as regards the question: How is money, this independent form of existence of value, converted into capital?

All sorts of businessmen—says Turgot—have this in common, that they *buy in order to sell*; their purchases are an advance which afterwards is returned to them.

. . . *To buy in order to sell*, such is indeed the transaction in which money functions as capital, and which necessitates its return to its point of issue; in contradistinction to *selling in order to buy*, in which process money *may* function as currency only. Thus is it seen that the different order in which the acts of selling and buying follow upon each other, impress upon money two different motions of circulation. In order to illustrate these two processes, our author gives the following formulae:

To sell in order to buy: a commodity C is exchanged for money M, which is again exchanged for another commodity C; or: C—M—C.

To buy in order to sell: money is exchanged for a commodity and this is again exchanged for money: M—C—M.

The formula C—M—C represents the simple circulation

[1] *Das Kapital*, von Karl Marx. Erster Band, Hamburg, Meissner, 1867. Review written for the *Fortnightly Review*, British liberal periodical.—*Ed.*

of commodities, in which money functions as means of circulation, as currency. This formula is analysed in the first chapter of our book which contains a new and very simple theory of value and of money, extremely interesting scientifically, but which we here leave out of consideration as, on the whole, immaterial to what we consider the vital points of Mr. Marx's views on capital.

The formula M—C—M, on the other hand, represents that form of circulation in which money resolves itself into capital.

The process of buying in order to sell: M—C—M, may evidently be resolved into M—M; it is an indirect exchange of money against money. Suppose I buy cotton for £1,000 and sell it for £1,100; then, *in fine*, I have exchanged £1,000 for £1,100, money for money.

Now, if this process were always to result in returning to me the same sum of money which I had advanced, it would be absurd. But whether the merchant, who had advanced £1,000, realizes £1,100, or £1,000, or even £900 only, his money has gone through a phase essentially different from that of the formula C—M—C; which formula means, to sell in order to buy, to sell what you do not want in order to be able to buy what you do want. Let us compare the two formulae.

Each process is composed of two phases or acts, and these two acts are identical in both formulae; but there is a great difference between the two processes themselves. In C—M—C, money is merely the mediator; the commodity, useful value, forms the starting and the concluding point. In M—C—M, the commodity is the intermediate link, while money is the beginning and the end. In C—M—C the money is spent once for all; in M—C—M it is merely advanced, with the intention to recover it; it returns to its point of issue, and in this we have a first palpable difference between the circulation of money as *currency* and of money as *capital*.

In the process of selling in order to buy, C—M—C, the money can return to its point of issue on the condition only that the whole process be repeated, that a fresh quantity of commodity be sold. The reflux, therefore, is independent of the process itself. But in M—C—M, this reflux is a necessity and intended from the beginning; if it does not take place, there is a hitch somewhere and the process remains incomplete.

To sell in order to buy has for its object the acquisition of *useful* value; to buy in order to sell, that of *exchangeable* value.

In the formula C—M—C, the two extremes are, economically speaking, identical. They are both commodities; they are, moreover, of the same quantitative value, for the whole theory of value implies the supposition that, normally, equivalents only are exchanged. At the same time, these two extremes C—C are two useful values different in quality, and they are exchanged on that very account. In process of M—C—M, the whole operation, at the first glance, appears meaningless. To exchange £100 for £100, and that by a roundabout process, appears absurd. A sum of money can differ from another sum of money by its quantity only. M—C—M, therefore, can only have any meaning by the quantitative difference of its extremes. There must be more money drawn out from circulation than had been thrown into it. The cotton bought for £1,000 is sold for £1,100=£1,000+£100; the formula representing the process thus changes to M—C—M′, in which M′=M+$\triangle$M, M plus an increment. This $\triangle$M, this increment, Mr. Marx calls *surplus value*.[1] The value originally advanced not only maintains itself, it also adds to itself an increment, it *begets value*, and *it is this process which changes money into capital*.

In the form of circulation C—M—C, the extremes *may*, certainly, also differ in value, but such a circumstance would here be perfectly indifferent; the formula does not become absurd if both extremes are equivalents. On the contrary, it is a condition of its normal character that they should be so.

The repetition of C—M—C is limited by circumstances entirely extraneous to the process of exchange itself: by the requirements of consumption. But in M—C—M beginning and end are identical as to quality, and by that very fact the

[1] Wherever *value* is here used without qualification, it always means *value in exchange*. [Note by Engels.]

motion is, or may be, perpetual. No doubt, $M + \Delta M$ is different in quantity from M; but still it is a mere limited sum of money. If you spend it, it will cease to be capital; if you withdraw it from circulation, it will be a stationary hoard. The inducement once admitted for the process of making value beget value, this inducement exists as much for M′ as it existed for M; the motion of capital becomes perpetual and endless, because at the close of each separate transaction its end is no more attained than before. The performance of this endless process transforms the owner of money into a *capitalist*.

Apparently, the formula M—C—M is applicable to merchants' capital alone. But the manufacturers' capital, too, is money which is exchanged for commodities and re-exchanged for more money. No doubt, in this case, a number of operations intervene between purchase and sale, operations which are performed outside of the sphere of mere circulation; but they do not change anything in the nature of the process. On the other hand, we see the same process in its most abbreviated form in capital lent on interest. Here the formula dwindles down to M—M′, value which is, so to say, greater than itself.

But whence does this increment of M, this surplus value arise? Our previous inquiries into the nature of commodities, of value, of money, and of circulation itself, not only leave it unexplained, but appear even to exclude any form of circulation which results in such a thing as a surplus value. The whole difference between the circulation of commodities (C—M—C) and the circulation of money as capital (M—C—M) appears to consist in a simple reversion of the process; how should this reversion be capable of producing such a strange result?

Moreover: this reversion exists for *one* only of the three parties to the process. I, as a capitalist, buy a commodity from A, and sell it again to B. A and B appear as mere sellers and buyers of commodities. I myself appear, in buying from A, merely as an owner of money, and in selling to B, as owner of a commodity; but in neither transaction do I appear as a capitalist, as the representative of something which is *more* than either money or commodity. For A the transaction

began with a sale, for B it began with a purchase. If from my point of view there is a reversion of the formula C—M—C, there is none from theirs. Besides, there is nothing to prevent A from selling his commodity to B without my intervention, and then there would be no occasion for any surplus value.

Suppose A and B buy their respective requirements from each other directly. As far as useful value is concerned they may both be gainers. A may even be able to produce more of his particular commodity than B could produce in the same time, and *vice versa*, in which case they both would gain. But it is different with regard to value in exchange. In this latter case equal quantities of value are exchanged, whether money serves as the medium or not.

Considered in the abstract, that is to say excluding all circumstances which are not deducible from the inherent laws of the simple circulation of commodities, there is in this simple circulation, besides the fact of one useful value being replaced by another, a mere change of form of the commodity. The *same* value in exchange, the same quantity of social labour fixed in an object, remains in the hands of the owner of the commodity, be it in the shape of this commodity itself, or in that of the money it is sold for, or in that of the second commodity bought for the money. This change of form does not in any way involve any change in the quantity of the value, as little as the exchange of a five-pound note for five sovereigns. Inasmuch as there is merely a change in the *form* of the value in exchange, there must be exchange of equivalents, at least whenever the process takes place in its purity and under normal conditions. Commodities *may* be sold at prices above or below their values, but if they are, the law of the exchange of commodities is always violated. In its pure and normal form, therefore, the exchange of commodities is not a means of creating surplus value. Hence arises the error of all economists who attempt to derive surplus value from the exchange of commodities, such as Condillac.

We will, however, suppose that the process does not take place under normal conditions and that non-equivalents are exchanged. Let every seller, for instance, sell his commodity ten per cent above its value. *Ceteris paribus*[1] everybody loses again as a buyer what he had gained as a seller. It would be exactly the same as if the value of money had fallen 10 per cent. The reverse, with the same effects, would take place if all buyers bought their goods 10 per cent below their value. We do not get an inch nearer to a solution by supposing that every owner of commodities sells them above their value in his quality as a producer and buys them above their value in his quality as a consumer.

The consistent representatives of the delusion that surplus value arises from a nominal addition to the price of commodities presuppose always the existence of a class which buys without ever selling, which consumes without producing. At this stage of our inquiry, the existence of such a class is as yet inexplicable. But admit it. Whence does that class receive the money with which it keeps buying? Evidently from the producers of commodities—on the strength of no matter what legal or compulsory titles, without exchange. To sell to such a class commodities above their value means nothing but to recover a portion of the money which had been given away gratuitously. Thus the cities of Asia Minor, while paying a tribute to the Romans, recovered part of this money by cheating the Romans in trade; but after all, these cities were the greater losers of the two. This, then, is no method of creating surplus value.

Let us suppose the case of cheating. A sells B wine of the value of £40 for corn of the value of £50. A has gained £10 and B has lost £10, but betwixt them, they have only £90 just as before. Value has been transferred but not created. The whole capitalist class of a country cannot, by cheating one another, increase their collective wealth.

Therefore: If equivalents are exchanged, there arises no surplus value, and if non-equivalents are exchanged, there arises no surplus value either. The circulation of commodities creates no new value. This is the reason why the two oldest and most popular forms of capital, commercial capital and interest-bearing capital, are here left entirely out of considera-

[1] Other things being equal.—*Ed.*

tion. To explain the surplus value appropriated by these two forms of capital otherwise than as the result of mere cheating, a number of intermediate links are required which are still wanting at this stage of the inquiry. Later on we shall see that they both are secondary forms only and shall also trace the cause why both appear in history long before modern capital.

Surplus value, then, cannot originate from the circulation of commodities. But can it originate outside of it? Outside of it, the owner of a commodity is simply the producer of that commodity, the value of which is established by the amount of his labour contained in it and measured by a fixed social law. This value is expressed in money of account, say in a price of £10. But this price of £10 is not at the same time a price of £11; this labour contained in the commodity creates value, but no value which begets new value; it can add new value to existing value, but merely by adding new labour. How, then, should the owner of a commodity, outside the sphere of circulation, without coming into contact with other owners of commodities—how should he be able to produce surplus value, or in other words, to change commodities or money into capital?

"Capital, then, cannot originate from the circulation of commodities, and no more can it *not* originate from it. It has to find its source in it, and yet *not* in it. The change of money into capital has to be explained on the basis of the laws inherent in the exchange of commodities, *the exchange of equivalents forming the starting point*. Our owner of money, as yet the mere chrysalis of a capitalist, has to buy his commodities at their value, to sell them at their value, and yet to extract more money[1] from this process than he had invested in it. His development into the capitalist butterfly has to take place within the sphere of the circulation of commodities, and yet *not* within it. These are the terms of the problem. *Hic Rhodus, hic salta.*"[2]

[1] In *Capital*, value (*Wert*).—*Ed.*

[2] Here is Rhodes; jump here, i.e., show what you can do here. See *Capital*, Vol. 1, pp. 144–5, Allen & Unwin edition; p. 184, Kerr edition.—*Ed.*

And now for the solution:

"The change in the value of the money which is to be transformed into capital cannot take place in that money itself; for as means of purchase and means of payment, it merely *realizes* the price of the commodity which it buys or pays for, while if it remained in its money-form, without being exchanged it could never change its value at all. No more can the change arise from the second act of the process, the re-sale of the commodity; because this merely changes the commodity from its natural form into the form of money. *The change must take place with the commodity* which is bought in the first act M—C; but it cannot take place in its value in exchange, because we exchange equivalents; the commodity is bought at its value. *The change can only arise from its value in use,* that is *from the use which is made of it.* In order to extract value in exchange from the use of a commodity, our owner of money must have the good luck to discover, within the sphere of circulation, in the market, a commodity, *the useful value of which is endowed with a peculiar quality of being a source of exchangeable value, the using-up of which is the realization of labour and therefore the creation of value.* And the owner of money finds, in the market, such a specific commodity: the power to work, *the labour power.*

"By power to work, or labour power, we understand the sum total of the physical and mental faculties which exist in the living person of a human being and which he puts into motion when he produces useful values.

"But in order to enable the owner of money to meet the labour power as a commodity in the market, several conditions have to be fulfilled. In itself, the exchange of commodities does not include any other relations of dependence except such as arise from its own nature. On this supposition, labour power can appear as a commodity in the market, so far only as it is offered for sale or sold by its own owner, the person whose labour power it is. In order to enable its owner to sell it as a commodity, he must be able to dispose of it, he must be the free proprietor of his labour power, of his person. He and the owner of money meet in the market, and transact business, as each other's peers, as free and independent owners of commodities, so far different only, that the one is the buyer and the other the seller. This relation of equality before the law must continue; the owner of the labour power can, therefore, sell it for a limited time only. If he were to sell it in a lump, once for all, he would sell himself, he would from a free man change into a slave, from an owner of a commodity into a commodity. . . . The second essential condition to enable the money-owner to meet labour power as a commodity in the market, is this: that the owner of the labour power, instead of selling commodities in which his labour has been embodied, be compelled to sell this, his labour power itself, such as it exists in his own personality.

"No producer can sell commodities different from his own labour power, unless possessed of means of production, raw materials, instruments of labour, etc. He can make no boots without leather. Moreover, he requires the means of subsistence. Nobody can feed upon future products, upon useful values the production of which he has not yet completed; as on the first day of his appearance on the stage of the world, man is compelled to consume before and while he produces. If his products are produced as *commodities,* they must be sold *after* production, and can satisfy his wants after the sale only. The time of production is lengthened by the time required for sale.

"The change of money into capital, thus, requires that the money-owner meet in the market the *free labourer,* free in that double sense, that he, as a free person, can dispose of his labour power; and that, on the other hand, he have no other commodities to sell, that he be entirely unencumbered with, perfectly free from, all the things necessary for putting his labour power into action.

"The question why this free labourer meets him in the market has no interest for the money-owner. For him the labour-market is only one of the various departments of the general market for commodities. And, for the moment, it has no interest for us either. We stick to the fact theoretically, as he sticks to it practically. One thing, however, is clear. It is not nature which produces, on the one hand, owners of money and of commodities, and on the other, owners of nothing but their own labour power. This relation does not belong to natural history; nor is it a social relation common to all historical periods. It is evidently the result of a long historical process, the product of a number of economical revolutions, of the destruction of a whole series of older strata of social production.

"The economical categories which we have previously analysed bear in the same manner the impress of their historical origin. The existence of a product in the form of a commodity involves certain historical conditions. In order to become a commodity, the product must not be produced as the immediate means of subsistence of the producer. Now, if we had inquired: How and under what circumstances do all, or at least the great majority of products adopt the form of commodities?—we should have found that this occurs exclusively on the basis of a specific system of production, the *capitalistic* mode of production. But this inquiry was entirely foreign to the analysis of commodity. The production and circulation of commodities may take place, while the overwhelming mass of products—produced for immediate domestic self-use—is never changed into commodities; while, thus, the process of social production, in all its breadth and depth, is, as yet, far from being ruled by value in exchange . . . or, in analysing money, we find that the existence of money presupposes a certain development of the circulation of commodities. The peculiar forms of existence of money, such as the form of simple equivalent, or of means of circulation, means of payment, hoard, or universal money, as either one or the other may prevail, point to very different stages of the process of social production. Still, experience shows that a relatively crude state of the circulation of commodities suffices to produce all these forms. But with capital it is quite different. The historical conditions necessary for its existence are far from being created simultaneously with the mere circulation of commodities and money. Capital can originate when the owner of the means of production and subsistence meets in the markets the free labourer offering for sale his labour power, and this one condition implies ages of historical development. Thus capital at once heralds itself as a specific epoch of the process of social production."[1]

We have now to examine this peculiar commodity, the labour power. It has a value in exchange, as all other commodities; this value is determined in the same way as that of all other commodities; by the time of labour required for its production, which includes reproduction. The value of labour power is the value of the means of subsistence necessary for the maintenance of its owner in a normal state of fitness for work. These means of subsistence are regulated by climate and other natural conditions and by a standard historically established in every country. They vary, but for a given country and a given epoch they are also given. Moreover, they include the means of subsistence for the substitutes of worn-out labourers, for their children, so as to enable this peculiar species of owners of a commodity to perpetuate itself. They include, finally, for skilled labour, the expense of education.

The minimal limit of the value of labour power is the value of the physically absolute necessaries of life. If its price falls to this limit, it falls below its value, as the latter involves labour power of normal, not of inferior quality.

The nature of labour makes it evident that labour power is used *after* the conclusion of the sale only; and in all countries with capitalist mode of production labour is paid after having been performed. Thus everywhere the labourer gives credit to the capitalist. Of the practical consequences of this credit given by the labourer, Mr. Marx gives some interesting examples from Parliamentary papers, for which we refer to the book itself.

In consuming labour power, its purchaser produces at once commodities and surplus value; and in order to examine this, we have to leave the sphere of circulation for that of production.

Here we find at once that the process of labour is of a double nature. On the one hand it is the simple process of production of useful value; as such, it can and must exist under all historical forms of social existence; on the other hand, it is this process carried on under the specific conditions of capitalistic production, as before stated. These we have now to inquire into.

The process of labour on a capitalistic basis has two peculiarities. Firstly, the labourer works under the control of the capitalist who takes care that no waste is made and that no

[1] *Capital*, pp. 145–9, Allen & Unwin edition; pp. 185–9, Kerr edition.—*Ed.*

more than the socially indispensable amount of labour is spent upon each individual piece of work. Secondly, the product is the property of the capitalist, the process itself being carried on between two things belonging to him: the labour power and the means of work.

The capitalist does not care for the useful value, except so far as it is the incorporation of exchangeable value, and above all, of surplus value. His object is to produce a commodity of a value higher than the sum of value invested in its production. How can this be done?

Let us take a given commodity, say cotton yarn, and analyse the quantity of labour embodied in it. Suppose that for the production of 10 lbs. of yarn we require 10 lbs. of cotton, value 10s. (leaving waste out of consideration). There are further required certain means of work, a steam-engine, carding-engines and other machinery, coal, lubricants, etc. To simplify matters, we call all these "spindle" and suppose that the share of wear and tear, coal, etc., required for spinning 10 lbs. of yarn, is represented by 2s. Thus we have 10s. cotton + 2s. spindle = 12s. If 12s. represent the product of 24 working hours or two working days, then the cotton and spindle in the yarn incorporate two days' labour. Now, how much is added in the spinning?

We will suppose the value, *per diem*, of labour-power to be 3s., and these 3s. to represent the labour of six hours. Further, that six hours are required to spin 10 lbs. of yarn by one labourer. In this case 3s. have been added to the product by labour, the value of the 10 lbs. yarn is 15s. or 1s. 6d. per lb.

This process is very simple, but it does not result in any surplus value. Nor can it, as in capitalistic production things are not carried on in this simple way.

"We supposed the value of labour power was 3s. *per diem* and that 6 hours' labour was represented by that sum. But if *half* a day's labour is required to maintain a labourer for 24 hours, there is nothing in that to prevent the same labourer from working a *whole* day. The exchangeable value of labour power, and the value which it may produce, are two entirely different quantities, and it was this difference which the capitalist had in his eye when he invested his money in that commodity. That it has the quality of producing useful value was a mere *conditio sine qua non*[1] inasmuch as labour must be invested in a useful form in order to produce value. But our capitalist looked beyond that; what attracted him was the specific circumstance that this labour power is the source of exchangeable value, and of more exchangeable value than is contained in itself. This is the peculiar "service" which he expects from it. And in doing so, he acts in accordance with the eternal laws of the exchange of commodities. The seller of the labour power realizes its exchangeable, and parts with its useful value. He cannot obtain the one without giving away the other. The useful value of the labour power, labour itself, no more belongs to its seller than the useful value of sold oil to an oil-merchant. The capitalist has paid the value *per diem* of the labour power; to him, therefore, belongs its use during the day, a day's labour. The circumstance that the maintenance of the labour power for one day costs half a day's labour only, although this labour power can be made to work a whole day; that therefore, the value created by its use during the day is twice as great as its own daily value—this circumstance is a peculiar piece of good luck for the buyer, but not at all a wrong inflicted upon the seller.

"The labourer, then, works 12 hours, spins 20 lbs. of yarn representing 20s. in cotton, 4s. spindle, etc., and his labour costs 3s.—total 27s. But if 10 lbs. of cotton absorbed 6 hours of labour, 20 lbs. of cotton have absorbed 12 hours of labour, equal to 6s. The 20 lbs. of yarn now represent 5 days of labour; 4 in the shape of cotton and spindle, etc.; 1 in the shape of spinning labour; the expression in money, for 5 days' labour, is 30s., consequently the price of the 20 lbs. yarn is 30s.; or 1s. 6d. per lb. as before. But the sum total of the value of the commodities invested in this process was 27s. The value of the product has increased beyond the value of the commodities invested in its production by one-ninth. Thus 27s. have been transformed into 30s. They have produced a surplus value of 3s. The trick has, at last, succeeded. Money has been converted into capital.

"All the conditions of the problem have been solved, and the laws of the exchange of commodities have in no way been

[1] Indispensable condition.—*Ed.*

violated. Equivalent has been exchanged against equivalent. The capitalist, as purchaser, has paid for every commodity at its value: cotton, spindles, etc., labour power. After which, he did what every buyer of commodities does. He consumed their useful value. The process of consumption of the labour power, at the same time process of production of the commodity, resulted in a product of 20 lbs. of yarn value 30s. Our capitalist returns to the market and sells the yarn at 1s. 6d. per lb., not a fraction above or below its value, and yet he extracts 3s. more from circulation than he originally invested in it. The whole of this process, the transformation of his money into capital, passes within the sphere of circulation, and at the same time *not* within it. By the intervention of circulation, because the purchase in the market of the labour power was its indispensable condition. Not within the sphere of circulation, because this merely initiates the process of value begetting value, which is performed in the sphere of production. And thus *tout est pour le mieux dans le meilleur des mondes possibles*."[1]

From the demonstration of the mode in which surplus value is produced, Mr. Marx passes to its analysis. It is evident from what precedes that only one portion of the capital invested in any productive undertaking directly contributes to the production of surplus value, and that is the capital laid out in the purchase of labour power. This portion only produces *new* value; the capital invested in machinery, raw material, coal, etc., does indeed reappear in the value of the product *pro tanto*,[2] it is maintained and reproduced, no surplus value can proceed from it. This induces Mr. Marx to propose a new subdivision of capital into *constant* capital, that which is merely reproduced—the portion invested in machinery, raw materials and all other accessories to labour; and *variable* capital, that which is not only reproduced, but is, at the same time, the direct source of surplus value—that portion which is invested in the purchase of labour power, in wages. From this it is clear that, however necessary constant capital may be to

[1] All is for the best in the best of possible worlds. See *Capital*, Vol. 1 pp. 174–6, Allen & Unwin edition; pp. 215–17, Kerr edition.—*Ed.*

[2] Proportionately.—*Ed.*

the production of surplus value, yet it does not directly contribute to it; and, moreover, the amount of constant capital invested in any trade has not the slightest influence upon the amount of surplus value produced in that trade.[1] Consequently, it ought not to be taken into consideration in fixing the *rate* of surplus value. That can be determined only by comparing the amount of surplus value to the amount of capital directly engaged in creating it, that is to say, the amount of *variable* capital. Mr. Marx, therefore, determines the rate of surplus value by its proportion to variable capital only: if the daily price of labour be 3s., and the surplus value created daily be also 3s., then he calls the rate of surplus value 100 per cent. What curious blunders may result from reckoning, according to usual practice, constant capital as an active factor in the production of surplus value is shown in an example from Mr. N. W. Senior "when that Oxford professor, noted for his scientific attainments and his beautiful diction, was invited in 1836 to Manchester in order to learn political economy there (from the cotton-spinners) instead of teaching it in Oxford."

The working time in which the labourer reproduces the value of his labour power, Mr. Marx calls "*necessary labour*"; the time worked beyond that, and during which surplus value is produced, he calls "*surplus labour*". Necessary labour and surplus labour combined form the "*working day*".

In a working day the time required for necessary labour is given; but the time employed in surplus labour is not fixed by any economical law, it may be longer or shorter, within certain limits. It can never be zero, as then the inducement for the capitalist to employ labour would have ceased; nor can the total length of the working day ever attain 24 hours for physiological resons. Between a working day of, say, six hours, and one of 24, there are, however, many intermediate stages. The laws of the exchange of commodities demand that the working day have a length not exceeding that which is compatible with the normal wear and tear of the labourer. But what is this

[1] We must observe here, that *surplus value* is not at all identical with *profit*. [Note by Engels.]

normal wear and tear? How many hours of daily labour are compatible with it? Here the opinions of the capitalist and those of the labourer differ widely, and, as there is no higher authority, the question is solved by *force*. The history of the determination of the length of the working day is the history of a struggle about its limits between the collective capitalist and the collective labourer, between the two classes of capitalist and working men.

"Capital, as has been stated before, has not invented surplus labour. Wherever a portion of society holds the exclusive monopoly of the means of production, there the labourer, slave, serf, or free, has to add, to the labour necessary for his own subsistence, an increment of labour in order to produce the means of subsistence for the owner of the mean of production, be that owner an Athenian καλὸς κἀγαθός[1], an Etruscan theocrat, a *civis Romanus*,[2] a Norman baron, an American slave owner, a Wallachian boyar, a modern landlord or capitalist.[3]

"It is, however, evident that in any form of society where the value in use of the product is more important than its value in exchange, surplus labour is restrained by the narrower or wider range of social wants; and that under these circumstances there does not exist necessarily a desire for surplus labour for its own sake.

"Thus we find in the classical period surplus labour in its extremist form, the working to death of people existed almost exclusively in gold and silver mines, where value in exchange was produced in its independent form of existence: money. . . . But wherever a nation whose production is carried on in the more rudimentary forms of slavery or serfage, lives in the midst of a universal market dominated by capitalist production, and where therefore the sale of its products for exports forms its chief purpose—there to the barbarous infamies of slavery or serfdom are superadded the civilized infamies of overworking. Thus in the Southern States of America slave-labour preserved a moderate and patriarchal character while production was directed to immediate domestic consumption

[1] Aristocrat.—*Ed.* [2] Roman citizen.—*Ed.*
[3] See *Capital*, Vol. 1, p. 218, Allen & Unwin edition; pp. 259–60, Kerr edition.

chiefly. But in the same measure as the export of cotton became a vital interest to those states, the overworking of the Negro, in some instances even the wearing-out of his life in seven working years, became an element in a calculated and calculating system. . . . Similar with the *corvée* of the serfs in the Danubian principalities."[1]

Here the comparison with capitalist production becomes particularly interesting, because, in the *corvée*, surplus labour has an independent, palpable form.

"Suppose the working day counts six hours of necessary and six hours of surplus labour; then the labourer furnishes the capitalist with 36 hours of surplus labour a week. He might as well have worked three days for himself and three days for the capitalist. But this is not at once visible. Surplus labour and necessary labour are more or less mixed together. I might express the same relation thus, that, in every minute, the labourer works 30 seconds for himself and 30 more for the capitalist. But with the serf's *corvée* it is different. The two kinds of labour are separated in space. The labour which, for instance, a Wallachian peasant performs for himself, he performs on his own field, his surplus labour for the boyar he performs on the boyar's estate. The two portions of his labour exist independent of each other, surplus labour, in the shape of *corvée*, is completely separated from necessary labour."[2]

We must refrain from quoting the further interesting illustrations from the modern social history of the Danubian principalities, by which Mr. Marx proves the boyars there, aided by Russian intervention, to be quite as clever extractors of surplus labour as any capitalist employers. But what the *réglement organique*, by which the Russian General Kisseleff presented the boyars with almost unlimited command over the peasants' labour, expresses positively, the English Factory Acts express negatively.

"These acts oppose the inherent tendency of capital to an unlimited *exploitation*—we ask pardon for introducing this

[1] *Capital*, p. 219, Allen & Unwin edition; p. 260, Kerr edition.
[2] Ibid., pp. 219–20, Allen & Unwin edition; p. 261, Kerr edition.

French term, but there does not exist any English equivalent[1]—of the labour power, by forcibly putting a limit to the length of the working day by the power of the State, and that a State ruled by landlords and capitalists. Not to speak of the working-class movement which was daily gaining greater dimensions, this limitation of factory labour was dictated by the same necessity which brought Peruvian guano on the fields of England. The same blind rapacity which in the one case had exhausted the soil, in the other case had attacked the vitality of the nation at its root. Periodical epidemics here spoke as plainly as, in France and Germany, the necessity for constantly reducing the standard of height for soldiers."[2]

To prove the tendency of capital to extend the working day beyond all reasonable limits Mr. Marx quotes amply from the Reports of the Factory Inspectors, of the Children's Employment Commission, the Reports on Public Health and other Parliamentary Papers, and sums up in the following conclusions:

"What is a working day? How long is the time during which capital may be allowed to consume the working power on paying for its value *per diem*? How far may the working day be extended beyond the time necessary for reproducing the working power itself? Capital, as we have seen, replies: the working day counts full 24 hours, excepting those few hours of rest without which the labour power absolutely refuses to renew its services. It is a matter of course that the labourer during the whole of the livelong day is nothing but labour power, that all his disposable time is working time and belongs to value-begetting capital. . . . But in this madly blind race after surplus labour, capital outruns not only the moral, but also the purely physical maximum limits of the working day. . . . Capital does not care for the duration of life of the working power . . . it produces its premature exhaustion and death, it effects the prolongation of the working time during a given period by shortening the labourer's life."[3]

[1] The words in parentheses were added by Engels to explain the wording in this sentence of his translation from the first edition of *Das Kapital*, Meissner, Hamburg, 1867.

[2] Ibid., p. 222, Allen & Unwin edition; pp. 263–4, Kerr edition.

[3] Ibid., pp. 249–51, Allen & Unwin edition; pp. 290–2, Kerr edition.

But is not this against the interests of capital itself? Has capital, in the long run, not to replace the cost of this excessive wear and tear? That may be the case theoretically. Practically, the organized slave trade in the interior of the Southern States had raised the practice of using up the working power of the slave in seven years to an acknowledged economical principle; practically, the English capitalist relies upon the supply of labourers from the agricultural districts.

"He sees constant over-population, that is, an over-population as compared with the capacity of capital to absorb living labour, though this over-population be formed by a constant current of crippled, quickly fading generations of men, pressing upon their successors and plucked before maturity. Certainly, to an uninterested observer, experience would show on the other hand how soon capitalist production, though dating, historically speaking, from yesterday only, has attacked the vital root of national strength, how the degeneration of the industrial population is retarded only by the constant absorption of agricultural elements, and how even these agricultural labourers, in spite of fresh air and that principle of natural selection which is so specially powerful amongst them, have already begun to decline. Capital, which has such capital motives to deny the sufferings of the working classes in the midst of which it exists, capital will be disturbed in its practical activity as little and as much by the prospect of future degeneracy of the human race and of inevitable ultimate depopulation, as by the possible fall of the earth into the sun. In every joint-stock "limited" swindle, every participator knows that the thunderstorm will come sooner or later, but every one expects that the lightning will fall on the head of his neighbour, after he himself shall have had time to collect the golden rain and store it up safely. *Après moi le déluge*[1] is the battle-cry of every capitalist and of every capitalist nation. Capital, therefore, is reckless of the health and life of the labourer, unless society compels it to act otherwise. And, upon the whole this disregard of the labourer does not depend upon the good or bad will of the individual capitalist. Free competition imposes the immanent laws of capitalist production

[1] After me the deluge.—*Ed.*

upon every individual capitalist in the shape of extraneous compulsory laws."[1]

The determination of the normal working day is the result of many centuries of struggle between employer and labourer. And it is curious to observe the two opposing currents in this struggle. At first, the laws have for their end to compel the labourers to work longer hours; from the first Statute of Labourers, 23 Edward III (1349), up to the eighteenth century, the ruling classes never succeeded in extorting from the labourer the full amount of possible labour. But with the introduction of steam and modern machinery, the tables were turned. So rapidly did the introduction of the labour of women and children break down all traditional bounds to working hours, that the nineteenth century began with a system of overworking which is unparalleled in the history of the world, and which, as early as 1803, compelled the legislature to enact limitations of working hours. Mr. Marx gives a full account of the history of English factory legislation up to the Workshops Act of 1867, and draws from it these conclusions:

(1) Machinery and steam cause overwork, at first, in those branches of industry where they are applied, and legislative restrictions are, therefore, first applied to these branches; but in the sequel we find that this system of overwork has spread also to almost all trades, even where no machinery is used, or where the most primitive modes of production continue in existence. (*Vide* Children's Employment Commission's Reports.)

(2) With the introduction of the labour of women and children in the factories, the individual "free" labourer loses his power of resistance to the encroachments of capital and has to submit unconditionally. Thus he is reduced to collective resistance; the struggle of class against class, of the collective workmen against the collective capitalists begins.

If we now look back to the moment when we supposed our "free" and "equal" labourer to enter into a contract with the capitalist, we find that, under the process of production, a

[1] *Capital*, pp. 254–5, Allen & Unwin edition; pp. 295–7, Kerr edition.

good many things have changed considerably. That contract, on the part of the labourer, is not a free contract. The daily time during which he is at liberty to sell his working power is the time during which he is compelled to sell it; and it is merely the opposition of the labourers, as a mass, which forcibly obtains the enactment of a public law to prevent them from selling themselves and their children, by a "free" contract, into death or slavery.

"In the place of the grandiloquent catalogue of the inalienable rights of man, he has now nothing but the modest *Magna Charta* of the Factory Act."[1]

We have next to analyse the *rate* of surplus value and its relation to the *total quantity* of surplus value produced. In this inquiry, as we have done hitherto, we suppose the value of labour power to be a determinate constant quantity.

Under this supposition, the rate of surplus value determines at the same time the quantity furnished to the capitalist by a single labourer in a given time. If the value of our labour power be 3s. a day, representing six hours' labour, and the rate of surplus value be 100 per cent, then the variable capital of 3s. produces every day a surplus value of 3s., or the workman furnishes six hours of surplus labour every day.

Variable capital being the expression in money of all the labour power employed simultaneously by a capitalist, the sum total of the surplus value produced by the labour power is found by multiplying that variable capital by the rate of surplus value; in other words it is determined by the proportion between the number of working powers simultaneously employed and the degree of exploitation. Either of these factors may vary, so that the decrease in the one may be compensated by the increase of the other. A variable capital required to employ 100 labourers with a rate of surplus value of 50 per cent (say 3 hours of daily surplus labour) will produce no more surplus value than half that variable capital, employing 50 labourers at a rate of surplus value of 100 per cent (say

[1] Ibid p. 288, Allen & Unwin edition; p. 330, Kerr edition.

six hours of daily surplus labour). Thus, under certain circumstances and within certain limits, the surplus of labour at the command of capital may become independent of the actual supply of labourers.

There is, however, an absolute limit to this increase of surplus value by increasing its rate. Whatever may be the value of labour, whether it be represented by two or by ten hours of necessary labour, the total value of the work performed, day after day, by any labourer, can never attain the value representing 24 hours' labour. In order to obtain equal quantities of surplus value, variable capital may be replaced by prolongation of the working day within this limit only. This will be an important element in explaining, hereafter, various phenomena arising from the two contradictory tendencies of capital: (1) to reduce the number of labourers employed, i.e., the amount of variable capital, and (2) yet to produce the greatest possible quantity of surplus labour.

It follows further:

"The value of labour being given, and the rate of surplus value being equal, the quantities of surplus value produced by two different capitals are in direct proportion to the quantities of variable capital contained in them. This law flatly contradicts all experience founded upon the *appearance* of facts. Everybody knows that a cotton spinner who works with a relatively large constant, and relatively small variable capital, does not, on that account, obtain a lesser ratio of profit than a baker who puts in motion relatively little constant and relatively much variable capital. To solve this apparent contradiction, a good many intermediate links are required, just as, starting from elementary algebra, a great number of intermediate links are required in order to understand that $\frac{0}{0}$ may represent a real quantity."[1]

For a given country and a given length of working day, surplus value can be increased only by increasing the number of labourers, i.e., by an increase of population; this increase forms the mathematical limit for the production of surplus value by the collective capital of that country. On the other

[1] Ibid., p. 293, Allen & Unwin edition; p. 335, Kerr edition.

hand, if the number of labourers be determined, this limit is fixed by the possible prolongation of the working day. It will be seen hereafter that this law is valid for that form only of surplus value which has been hitherto analysed.

We find, at this stage of our inquiry, that not every amount of money is capable of being converted into capital; that there is an extreme minimum for it: the cost of a unit of labouring power and of the means of labour necessary to keep it going. Suppose the rate of surplus value to be 50 per cent, our infant-capitalist would be required to be able to employ two workmen in order to live, himself, as a workman lives. But this would prevent him from saving anything; and the end of capitalist production is not merely preservation, but also and chiefly increase of wealth. To live twice as well as a common labourer and to retransform one-half of the surplus value produced into capital, he would have to be able to employ eight workmen. He might certainly take his share of the work, along with his workmen, but he would still remain a small master, a hybrid between capitalist and labourer. Now, a certain development of capitalist production renders it necessary that the capitalist should devote the whole of the time during which he acts as a capitalist, as capital personified, to the appropriation and control of other people's labour and to the sale of its products. The restrictive guilds of the Middle Ages attempted to check the transformation of the small master into a capitalist by fixing a very low maximum to the number of workmen which each was allowed to employ. The owner of money or commodities changes into a real capitalist only then, when he is able to advance, for the purpose of production, a minimum sum far higher than this medieval maximum. "Here, just as in the natural sciences, the correctness is proved of the law discovered by Hegel that mere quantitative changes, at a certain point, imply a qualitative difference." The minimum amount of value required to change an owner of money or commodities into a capitalist varies for different stages of the development of capitalist production, and for a given stage of development, it varies for different branches of industry.

"During the process of production detailed above, the relation of capitalist and labourer has changed considerably. First of all, capital has been developed into command of labour, i.e., into command over the labourer himself. Personified capital, the capitalist, takes care that the labourer performs his work regularly, carefully and with the required degree of intensity. Further, capital has been developed into a compulsory relation which obliges the working class to perform more labour than is prescribed by the narrow circle of their own requirements. And as a producer of other people's industry, as an extortioner of surplus labour and exploiter of labour power, capital far exceeds in energy, recklessness, and efficiency all former systems of production, though they were based upon direct forced labour.

"Capital, at first, takes the command of labour, under such technological conditions as it finds historically established. It does not, therefore, necessarily at once change the mode of production. The production of surplus value, in the form hitherto analysed, that is to say by mere prolongation of the working day, appeared independent of every change in the mode of production itself. It was quite as efficient in the primitive baking trade as in modern cotton-spinning.

"In the process of production considered as a mere process of labour, the relation between the labourer and his means of production is not that of labour and capital, but that of labour and the mere instrument and raw material of productive action. In a tannery, for instance, he treats the skins as a mere object for labour. It is not the capitalist whose skin he tans. But things change as soon as we look upon the process of production as a process of creating surplus value. The means of production at once change into means of absorbing other people's labour. It is no longer the workman who employs the means of production, it is the means of production which employ the workman. It is not he who consumes *them* as material elements of his productive action; it is they which consume *him* as the ferment of their own vital process; and the vital process of capital consists in nothing but its progressive motion as value begetting value. Furnaces and workshops which have to stand idle at night, without absorbing labour, are a pure loss to the capitalist. Therefore furnaces and workshops constitute a "title upon the night-work of the hands".

(See Reports of Children's Empl. Commission, 4th Report, 1865, pages 79 to 85.)[1] The mere change [. . .] into legal and compulsory titles upon other people's labour and surplus labour."[2]

There is, however, another form of surplus value. Arrived at the utmost limit of the working day, another means remains to the capitalist for increasing surplus labour, by increasing the productivity of labour, by thereby reducing the value of labour, and thus shortening the period of necessary labour. This form of surplus value will be examined in a second article.

Samuel Moore.[3]

[1] Note by Engels.

[2] Ibid., pp. 296–7, Allen & Unwin edition; pp. 338–9, Kerr edition. The last sentence reads in the Moore and Aveling translation: "The simple transformation of money into the material factors of the process of production, into means of production, transforms the latter into a title and a right to the labour and surplus labour of others."

[3] To facilitate publication in England, Engels' friend Moore signed this review.—*Ed.*

EXCERPT FROM THE PREFACE TO *CAPITAL*, VOLUME II

But what did Marx say about surplus value that is new? How is it that Marx's theory of surplus value struck home like a thunderbolt out of a clear sky, and that in all modern countries too, while the theories of all his socialist predecessors, including Rodbertus, vanished without effect?

The history of chemistry offers an illustration which explains this.

Until late in the eighteenth century, the phlogistic theory prevailed, as we know. It assumed that the essence of all combustion consisted in the separation from the burning substance of another, hypothetical substance, an absolute combustible, named phlogiston. This theory sufficed for the explanation of most of the chemical phenomena then known, although not without considerable forcing in many cases. But in 1774 Priestley discovered a kind of air "which he found to be so pure, or so free from phlogiston, that common air seemed adulterated in comparison with it." He called it "dephlogisticated air". Shortly after him, Scheele obtained the same kind of air in Sweden, and demonstrated its presence in the atmosphere. He also found that this air disappeared whenever a substance was burned in it or in ordinary air, and therefore he called it fire-air. "From these facts he drew the conclusion that the compound arising from the union of phlogiston with one of the components of the air" (that is to say by combustion) "was nothing but fire or heat, which escaped through the glass."[1]

Priestley and Scheele had produced oxygen, but did not know what they discovered. They remained "entangled in" the phlogistic "categories as they found them". The element, which was to abolish the whole phlogistic concept and to revolutionize chemistry, remained barren in their hands. But

[1] Roscoe-Schorlemmer, *Ausführliches Lehrbuch der Chemie.* Braunschweig, 1877, 1, p. 13, 18. [Note by Engels.]

Priestley had immediately communicated his discovery to Lavoisier in Paris, and Lavoisier, by means of this new fact, now examined all phlogistic chemistry. He first discovered that the new kind of air is a new chemical element, and that in combustion the mysterious phlogiston does not *depart* from the burning substance, but this new element *combines* with the substance. Thus he placed chemistry which in its phlogistic form had so long stood on its head, on its feet for the first time. And although he did not produce oxygen independently of the others and at the same time as they, as he claimed later on, he nevertheless is the real *discoverer* of oxygen as compared to the others, who had merely *produced* it without any suspicion of *what* it was they had found.

Marx stands in the same relation to his predecessors in the theory of surplus value as Lavoisier to Priestley and Scheele. The *existence* of that part of a product's value which we now call surplus value had been ascertained long before Marx. What it consists of had also been stated, more or less distinctly, viz., of the product of labour for which its appropriator had not paid any equivalent. But they got no further. Some of them—the classical bourgeois economists—investigated at most the proportion in which the product of labour is divided between the labourer and the owner of the means of production. Others—the socialists—found this division unjust and looked for Utopian means of abolishing this injustice. Both remained in thrall to the economic categories as they had found them.

Then Marx came forward. And he did so in direct opposition to all his predecessors. Where they had seen a *solution*, he saw only a *problem*. He saw that here there was neither dephlogisticated air, nor fire-air, but oxygen, that it was not simply a matter of recording an economic fact, or of pointing out the conflict of this fact with eternal justice and true morals, but of a fact destined to revolutionize the whole of political economy and offering a key to the understanding of all capitalist production—to the one who knew how to use it. With this fact as a starting point Marx examined all the categories he found at hand, just as Lavoisier had examined with oxygen the categories of phlogistic chemistry he had found at hand. In order to know what surplus value was, he had to find out what value was. Ricardo's theory of value itself had to be subjected to criticism first of all. Thus Marx investigated labour in regard to its value-creating quality, and for the first time established *what* labour produces value, and why and how it does this, and that value is nothing but coagulated labour of *this* kind—a point which Rodbertus never grasped to the very end. Marx then examined the relation of commodities to money, demonstrating how and why, thanks to their immanent property of value, commodities and commodity exchange must produce the antagonism of commodities and money. His theory of money, founded on this basis, is the first exhaustive, and now tacitly generally accepted one. He investigated the transformation of money into capital, demonstrating that this transformation is based on the purchase and sale of labour power. By substituting labour power, the value-producing property, for labour, he solved with one stroke one of the difficulties upon which the Ricardian school was wrecked, viz., the impossibility of harmonizing the mutual exchange of capital and labour with the Ricardian law of value determination by labour. By establishing the distinction between constant and variable capital, he was first enabled to trace the real course of the process of surplus value formation in the utmost detail, and thus to explain it, which none of his predecessors had accomplished. Thus he established a distinction within capital itself with which neither Rodbertus nor the capitalist economists had been able to do anything, but which, nevertheless, furnished a key for the solution of the most complicated economic problems, as is most strikingly proved once again by this Volume II, and still more by Volume III, as will be seen. He analysed surplus value itself further, finding its two forms: absolute and relative surplus value. And he showed the different, but in each case decisive role that they had played in the historical development of capitalist production. On the basis of surplus value he developed the first rational theory we have of wages, and gave for the first time the basic features of a history of capitalist accumulation and a portrayal of its historical trend.

CAPITAL BY KARL MARX. VOL. I

BOOK I—THE PROCESS OF CAPITALIST PRODUCTION

CHAPTER I

COMMODITIES AND MONEY

1. COMMODITIES AS SUCH

THE wealth of societies in which capitalist production prevails consists of *commodities*. A commodity is a thing that has use-value; the latter exists in all forms of society, but in capitalist society, use-value is, in addition, the material depository of *exchange-value*.

Exchange-value presupposes a *tertium comparationis*[1] by which it is measured: labour, the common social substance of exchange-values, namely the socially necessary *labour-time* materialized in them.

Just as a commodity is something twofold: use-value and exchange-value, so the labour embodied in it is twofold determined: on the one hand, as *definite productive activity*, weaving labour, tailoring labour, etc.—*useful labour*; on the other, as the *simple expenditure of human labour power, precipitated abstract labour*. The former produces use-value, the latter exchange-value; only the latter is quantitatively comparable (the differences between skilled and unskilled, composite and simple labour, *confirm* this).

Hence substance of exchange-value is abstract labour, its magnitude the latter's measure of time. Now to consider the *form* of exchange-value.

(1) x commodity $a=y$ commodity b; the value of a commodity expressed in the use-value of another is its *relative value*. The expression of the equivalence of two commodities is the simple form of relative value. In the above equation

[1] A standard of comparison.—*Ed.*

y commodity b is the *equivalent*. In it *x commodity a* acquires its value form in contrast to its [the commodity's] natural form, while *y commodity b* acquires at the same time the property of direct exchangeability, even *in* its natural form. Exchange-value is impressed upon the use-value of a commodity by definite historical circumstances. Hence it [the commodity] cannot express it in its own use-value, but only in the use-value of another commodity. Only in setting two concrete products of labour equal to each other does the property of the concrete labour contained in both come to light as abstract human labour, i.e. a commodity cannot be related to the concrete labour contained in itself, as the mere form of realization of abstract labour, but it can be so related to the concrete labour contained in other kinds of commodities.

The equation x commodity $a=y$ commodity b necessarily implies that x C a can also be expressed in other commodities, thus:

(2) x commodity $a=y$ commodity $b=z$ commodity $c=v$ commodity $d=u$ commodity $e=$etc., etc. This is the *expanded* form of relative value. Here x commodity a no longer refers to *one*, but to *all* commodities as the mere forms of manifestation of the labour represented in it. But through simple reversal it leads to

(3) the converse second form of relative value:

y commodity $b=x$ commodity a
v commodity $c=x$ commodity a
u commodity $d=x$ commodity a
t commodity $e=x$ commodity a
etc., etc.

Here the commodities are given the *general form of relative value*, in which all of them abstract from their use-values and set themselves equal to x commodity a as the materialization of abstract labour. x commodity a is the generic form of the equivalent for all other commodities; it is their *universal equivalent*; the labour materialized in it is at once valid as the realization of abstract labour, as general labour. Now, however,

(4) *Every* commodity of the series can take over the role of universal equivalent, but only one of them can do so *at a time*, since if *all* commodities were universal equivalents, each of them would in turn exclude the others from that role. Form 3 is not set up by x commodity a, but by the other commodities, objectively. Hence a definite commodity must take over the role—for the time being; it can change—and only in this way does a commodity become a commodity completely. This special commodity, with whose natural form the general equivalent form merges is *money*.

The *difficulty* with a *commodity* is that, like all categories of the capitalist mode of production, it represents a personal relationship under a material wrapping. The producers bring their different kinds of work into relation with each other as general human labour by relating their products to one another as *commodities*—they cannot accomplish it without this mediation of the thing. The relation of *persons* thus *appears* as the relation of *things*.

For a society in which commodity production prevails, Christianity, particularly Protestantism, is the fitting religion.

2. The Process of Commodity Exchange

A commodity proves that it is a commodity in exchange. The owners of two commodities must be willing to exchange their respective commodities and to recognize each other therefore as *private proprietors*. This legal relation, the *form* of which is the contract, is only a relation of wills, in which the economic relation is reflected. The *content* of the same is given by the economic relation itself. (p. 45) [56].[1]

A commodity is a use-value for its non-owner, a non-use-value for its owner. Hence the need for exchange. But every commodity owner wants to get in exchange specific use-values that he needs—to that extent the exchange is an individual process. On the other hand, he wants to realize his commodity as value, that is, in any other suitable commodity, whether

[1] The page numbers in parentheses are Engels' references to the first edition of *Capital*, Hamburg, 1867. The figures in square brackets are the references to the corresponding pages of the English edition published by Allen & Unwin.—*Ed.*

or not *his* commodity is use-value to the owner of the other commodity. To that extent the exchange is for him a generally social process. But one and the same process cannot be simultaneously both individual and generally social for all commodity owners. To every commodity owner *his own* commodity is the universal equivalent, while all other commodities are that many particular equivalents of his own. Since *all* commodity owners do the same, *no* commodity is the universal equivalent, and hence *no* commodity possesses a general form of relative value, in which they are equated as values and compare in magnitude of their values. Therefore they do not confront each other as values at all, but only as products (p. 47) [58].

Commodities can be brought into relation as values and hence as commodities only by their comparison with some other commodity as the universal equivalent. But only the *social act can make a particular commodity the universal equivalent: money.*

The immanent contradiction in a commodity as the direct unity of use-value and exchange-value, as the product of useful private labour . . . and as the direct social materialization of abstract human labour—this contradiction does not rest until it has turned into the differentiation of commodities into commodities and money (p. 48) [59].

Since all other commodities are merely particular equivalents of money, and money is their universal equivalent, they are related as particular commodities to money as the universal commodity (p. 51) [62]. The process of exchange gives the commodity which it converts into money, not its *value*, but its value-*form* (p. 51) [63]. Fetishism: a commodity does not seem to become money only because the other commodities all express their values in it, but conversely, they seem to express their values in it because it *is money.*

3. Money, or the Circulation of Commodities

(*A*) *The Measure of Values (assuming gold=money)*

Money, as the measure of value, is the necessary *manifestation* of the measure of value *immanent* in commodities, *labour-time.* The simple, relative expression of the value of commodities in money, x commodity $a=y$ money, is their price (p. 53) [66–7].

The price of a commodity, its money-form, is expressed in *imagined* money; hence money is the measure of values only as ideational (p. 57) [67–8].

Once the transformation of value into price is effected, it becomes technically necessary to develop the measure of values further, into the *standard of prices* i.e., a quantity of gold is fixed, by *which different quantities of gold are measured.* This is quite different from the measure of values, which itself depends upon the value of gold, but the latter is immaterial for the standard of prices (p. 59) [70].

Once prices are expressed in names of gold units, money serves as *money of account.*

If price, as the exponent of the magnitude of a commodity's value, is the exponent of its exchange ratio with gold, it does *not* follow conversely that the exponent of its exchange ratio with gold is *necessarily* the exponent of its value's magnitude. Assuming that circumstances permit or compel the sale of a commodity above or below its value, these selling prices do not correspond to its value, but they are none the less *prices* of the commodity, for they are (1) its value-form, money, and (2) exponents of its exchange ratio with gold. . . . The possibility, therefore, of quantitative incongruity between price and magnitude of value is *given in the price-form itself.* That is no defect of this form, but on the contrary makes it the adequate form of a mode of production in which the rule can impose itself only as the blindly acting law of averages of irregularity. The price-form, however, can also . . . harbour a qualitative contradiction, so that price ceases altogether to be an expression of value. . . . Conscience, honour, etc. . . . can acquire the form of commodities through their price (p. 61) [75].

Measurement of values in gold, the price-form, includes the necessity of sale, the ideal relinquishment of the actual. Hence circulation.

(B) *The Medium of Circulation*

(A) THE METAMORPHOSIS OF COMMODITIES

Simple form: C—M—C. Its material content = C—C. Exchange-value is given away and use-value appropriated.

(*a*) First phase: C—M=sale, for which two persons are required, hence the possibility of failure, or of sale below value, or even below the cost of production, if the social value of the commodity changes. "The division of labour converts the product of labour into a commodity, and thereby makes *necessary* its further conversion into money. At the same time it also makes the accomplishment of this transubstantiation quite *accidental*" (p. 67) [81]. But here the phenomenon is to be considered in its *pure* form. C—M presupposes that the possessor of the money (unless he is a producer of gold) previously got his money through exchange for other commodities; hence it is not only conversely M—C for the *buyer*, but it presupposes that he made a previous sale, etc., so that we have an endless series of purchases and sales.

(*b*) The same takes place in the second phase, M—C, *purchase*, which is at the same time, a sale for the other party.

(*c*) The total process hence is a circuit of purchases and sales. *The circulation of commodities.* This is quite different from the direct exchange of products; first, the individual and local bounds of the direct exchange of products are broken through, and the metabolism of human labour is effected; on the other hand, here it already appears that the whole process depends upon social natural relations that are independent of the actors (p. 72) [86]. Simple exchange was extinguished in the one act of exchange, where each exchanges non-use-value for use-value; circulation advances infinitely (p. 73) [86]. Here the false economic dogma: *the circulation of commodities involves a necessary equilibrium of purchases and sales, because every purchase is also a sale and vice versa—which is to say that every seller also brings his buyer to market with him.* (1) Purchase and sale are, on the one hand, an identical act of two polarly opposite persons; on the other hand, they are two polarly opposite acts of one and the same person. Hence the identity of purchase and sale implies that the commodity is useless unless it is sold, and likewise that this case *can* occur. (2) C—M, as a partial process, is likewise an independent process and implies that the acquirer of money can choose the time when he again converts this money into a commodity. He can *wait*. The inner unity of the independent processes C—M and M—C proceeds in external antitheses precisely because of the independence of these processes, and when these dependent processes grow so independent of each other that they reach a certain limit, *their unity asserts itself in a* CRISIS. Hence the *possibility* of the latter is already given here.

As the agent of commodity circulation, money is the *medium of circulation.*

(B) THE CURRENCY OF MONEY

Money effects for each individual commodity its entrance into, and its exit from, circulation; it always remains therein itself. Hence, although [the movement of money is] merely the *expression* of commodity circulation, the circulation of commodities *appears* as the result of money circulation. Since money always remains within the sphere of circulation, the question is: *how much money* is there present in it?

The quantity of money in circulation is determined by the *sum of the prices of commodities* (money-value remaining the same), and the latter by the *quantity* of commodities in circulation. Assuming that this *quantity* of commodities is given, the circulating quantity of money fluctuates with the *fluctuations* in the prices of commodities. Now, since one and the same piece of money always effects a number of transactions in succession in a given time, for a given internval of time we have:

$$\frac{\text{Sum of the prices of commodities}}{\text{Number of moves made by a piece of money}} = \begin{array}{c}\text{Quantity of money functioning}\\ \text{as medium of circulation}\end{array}$$

(p. 80) [95]

Hence paper money can displace gold money if it is thrown into a saturated circulation.

Since the currency of money only reflects the process of commodity circulation, its rapidity reflects that of the latter's change in form, its stagnation the separation of purchase from sale, the stagnation of social metabolism. Whence this stagnation arises cannot be seen from circulation, of course; the latter shows only the phenomenon itself. The philistines attribute it to a deficient quantity of the circulation medium (p. 81) [96].

Ergo: (1) If the prices of commodities remain constant, the quantity of money circulating rises with a rise in the quantity of circulating commodities or a retardation in currency of money; and drops *vice versa.*

(2) With a general rise in the prices of commodities, the quantity of money circulating remains constant if the quantity of commodities decreases or the velocity of circulation increases in the same proportion.

(3) With a general drop in the prices of commodities, the converse of (2).

In general, a fairly constant average results, suffering appreciable deviations practically only as a result of *crises.*

(c) COIN, SYMBOLS OF VALUE

The standard of prices is fixed by the state, as well as the name of the particular piece of gold—the coin, and its fabrication. In the world market the respective national uniforms are doffed again (seigniorage is disregarded in this connection), so that coin and bullion differ only in form. But *a coin wears away* during currency; money as a circulation medium differs from money as a standard of prices. The coin becomes more and more a *symbol* of its official content.

Herewith the possibility is latently given of replacing metallic money by tokens or symbols. Hence: (1) small coinage of copper and silver tokens, the permanent establishment of which in place of real gold money is prevented by limiting the quantity in which they are legal tender. Their content [is] determined purely arbitrarily by law, and thus their function as coinage becomes independent of their *value.* Hence the

advance is possible to *quite worthless* symbols: (2) *paper money, i.e., paper money issued by the state, having a compulsory rate.* (Credit money not to be discussed here as yet.) So far as this paper money actually circulates in place of gold money, it is subject to the laws of gold circulation. Only the proportion in which paper replaces gold can be the subject of a special law, and the latter is: that the issue of paper money is to be limited to the quantity in which the gold represented by it would actually have to circulate. The degree of saturation of circulation fluctuates, to be sure, but everywhere an empirical minimum develops, below which it never falls. This minimum can be issued. What is more, when the degree of saturation drops to the minimum, a portion at once becomes superfluous. In that case the total amount of paper within the commodity world still represents only the quantity of gold fixed by the latter's immanent laws, and thus alone representable. Thus, if the amount of paper represents twice the absorbable amount of gold, each piece of paper depreciates to half its nominal value. Just as if gold, in its function as the measure of prices, were changed in value (p. 89) [104].

(C) *Money*

(A) HOARDING

With the earliest development of commodity circulation itself there develops the need, and the passionate desire, to hold on to the product of C—M, money. From a mere agency of change of matter, this change of form becomes an *end in itself.* Money petrifies into a *hoard*; the commodity seller becomes a *hoarder* (p. 91) [106–7].

This form dominant, precisely in the beginnings of commodity circulation. *Asia.* With further development of commodity circulation every producer of commodities must secure for himself the *nexus rerum,*[1] the social pledge in hand—money. Thus hoards accumulate everywhere. The development of commodity circulation increases the power of money, the absolutely social form of wealth, always ready for use

[1] The bond between things.—*Ed.*

(p. 92) [108]. The urge for hoarding is by nature boundless. Qualitatively, or with respect to its form, money is unrestricted, i.e., the universal representative of material wealth, because directly convertible into any commodity. But *quantitatively*, every actual sum of money is limited, and therefore of only limited efficacy as a mean of purchase. This contradiction always drives the hoarder back again, and again, to the Sisyphus labour of accumulation.

Besides, the accumulation of gold and silver in *plate* provides both a new market for these metals and a latent source of money.

Hoarding serves as a *conduit for supplying or withdrawing circulating money*, with the continuous fluctuations of the circulation's degree of saturation (p. 95) [111].

(B) MEANS OF PAYMENT

With the development of commodity circulation new conditions enter: disposing of a commodity can be separated in time from the realization of its price. Commodities require different periods of time for their production; they are produced in different seasons; some must be sent to distant markets, etc. Hence A can be a seller before B, the buyer, is able to pay. Practice regulates the conditions of payment in this way: A becomes a *creditor*, B a *debtor*; money becomes a *means of payment*. Thus the relation of *creditor and debtor* already becomes more *antagonistic*. (It can also occur independent of commodity circulation, e.g., in antiquity and the Middle Ages) (p. 97) [111–12].

In this relation, money functions: (1) as the measure of value in the determination of the price of the commodity sold; (2) as an ideal means of purchase. In the hoard, money was *withdrawn* from circulation; here, with the means of payment, money enters circulation, but only after the commodity has left it. The indebted buyer sells in order to be able to *pay*, or he will be sold out. Therefore, money now becomes *the sale's end in iteslf* through a social necessity arising out of the circumstances of the circulation process itself (pp. 97–8) [112–13].

The lack of simultaneity of purchases and sales, which gives rise to the function of money as a means of payment, at the same time effects an economy of the circulation media, payments being concentrated at a definite place. The *virements* in Lyons in the Middle Ages—a sort of clearing-house, where only the net balance of the mutual claims is paid (p. 98) [114].

In so far as the payments balance one another, money functions only ideally, as *money of account* or measure of values. In so far as actual payment has to be made, it does not appear as a circulation medium, as only the vanishing and mediating form of metabolism, but as the individual incarnation of social labour, as the independent existence of exchange-value, as the *absolute commodity*. This *direct contradiction* breaks out at the instant of production and commerical crises *that is called a monetary crisis*. It occurs only where the progressing chain of payments, and an artificial system of settling them, are fully developed. With more general disturbances of this mechanism, no matter what their origin, money changes suddenly and immediately from its merely ideal shape of *money of account into hard cash*; it becomes irreplaceable by profane commodities (p. 99) [115].

Credit money originates in the function of money as a means of payment; certificates of indebtedness themselves circulate in turn to transfer these debts to other. The function of money as a means of payment expands together with the system of credit; as a means of payment it acquires its own forms of existence, in which it occupies the sphere of large-scale commercial transactions, while coin is largely relegated to the sphere of retail trade (p. 101) [116–17].

At a certain stage and extent of commodity production the function of money as a means of payment reaches beyond the sphere of commodity circulation; it becomes the *universal commodity of contract. Rents, taxes, and the like, are transformed* from *deliveries in kind* into *money payments*. *Cf.* France under Louis XIV (Boisguillebert and Vauban); on the other hand, Asia, Turkey (p. 105) [117–18].

The evolution of money into a means of payment renders necessary the accumulattion of money against the days when payment is due—hoarding, vanishing as an independent form of acquiring riches with continued social development, again makes its appearance as a reserve fund of the means of payment (p. 103) [119].

(c) WORLD MONEY

In world trade the local forms of coin, small coinage, and paper money are stripped off and only the bullion form of money is valid as *world money. Only in the world market does money fully function as the commodity whose natural form is at the same time the directly social form of realization of human labour* in abstracto.[1] Its mode of existence becomes adequate to its concept (p. 104; details p. 105) [119; details 120–2].

[1] In general.—*Ed.*

CHAPTER II

THE TRANSFORMATION OF MONEY INTO CAPITAL

1. The General Formula for Capital

Commodity circulation is the starting point of capital. Hence commodity production, commodity circulation and the latter's developed form, commerce, are always the historical antecedents upon which capital arises. The modern life history of capital dates from the creation of modern world trade and the world market in the sixteenth century (p. 106) [123].

If we consider only the economic forms produced by commodity circulation, its final product is money, and the latter is the *first manifestation of capital*. Historically, capital invariably confronts landed property at first as *moneyed wealth*, merchant capital, or usurer's capital, and even today all new capital first comes on the stage in the shape of *money*, which is to be transformed into capital by definite processes.

Money as money and money as capital differ, to begin with, only in their different FORM of *circulation*. The form M—C—M: buying in order to sell, also occurs alongside C—M—C. Money that describes *this* form of circulation in its movement *becomes* capital, is already in itself capital (i.e., with regard to its destination).

The result of M—C—M is M—M, the indirect exchange of money for money. I buy cotton for £100 and sell it for £110; and ultimately I have exchanged £100 for £110, money for money.

If this process yielded as its outcome the same money value that was originally put into it, £100 out of £100, it would be absurd. Yet whether the merchant realizes £100, £110, or merely £50 for his £100, his money has described a specific movement quite different from that of commodity circulation, C—M—C. In the examination of the differences in form of this movement from C—M—C the intrinsic difference will also be found.

The two phases of the process are each the same as in C—M—C. But there is a great difference in the total process. In C—M—C money constitutes the intermediary, the commodity the starting point and the finish; in this case the commodity is the intermediary, with money starting point and finish. In C—M—C the money is spent once for all; in M—C—M it is merely *advanced*, it is to be got back again. *It flows back to its starting point*—here already a palpable difference, therefore, between the circulation of money as money and money as capital.

In C—M—C money can return to its starting point only through the *repetition of the whole process*, through the sale of *fresh* commodities. Hence the return flow is independent of the process itself. In M—C—M, on the other hand, it is conditioned from the outset by the structure of the process itself, which is incomplete if the return flow fails (p. 110) [127].

The ultimate object of C—M—C is use-value, of M—C—M *exchange-value itself*.

In C—M—C both extremes possess the same definiteness of economic form. Both are *commodities*, and of *equal value*. But at the same time they are qualitatively different use-values, and the process has social metabolism as its content. In M—C—M the operation, at first glance, seems tautological, empty of meaning. To exchange £100 for £100, and in a roundabout way to boot, seems absurd. One sum of money is distinguishable from another only by its *size*; M—C—M acquires its meaning, therefore, only through the *quantitative difference* in the extremes. More M is withdrawn from circulation than had been thrown into it. The cotton bought for £100 is sold, say, for £100+£10; the process thus follows the formula M—C—M′, where M′=M+△M. This △M, *this increment is* SURPLUS VALUE. The value originally advanced not only *remains intact* in circulation, but adds to itself a surplus value; it *is put to account*—and *this movement* CONVERTS MONEY INTO CAPITAL.

In C—M—C there *may* also be a difference in the value of the extremes, but this is purely fortuitous in this form of circulation, and C—M—C does not become absurd when the extremes are equivalent—on the contrary, this is rather the necessary condition for the normal process.

The repetition of C—M—C has as its end and aim an ultimate object outside itself: consumption, the satisfaction of definite needs. In M—C—M, on the other hand, the beginning and end are the same, money, and that already makes the movement endless. To be sure, M+△M differs quantitatively from M, but it too is merely a *limited* sum of money; if spent, it is no longer capital; if it is withdrawn from circulation, it remains stationary as a hoard. Once the need for putting value to account is given, it exists for M′ as well as for M, and the movement of capital is boundless, because its goal is as much unattained at the end of the process as at its beginning (pp. 111–12) [127–9]. As the representative of this process, the owner of money becomes a *capitalist*.

If in commodity circulation exchange-value matures at most into an independent form compared to the use-value of commodities, *it suddenly manifests itself here as a substance in process, endowed with motion of its own, for which commodity and money are mere forms*. Indeed, *as original value it is differentiated from itself as surplus value*. It becomes money in process, and as such, capital (p. 116) [132–3].

M—C—M′ does appear to be a form peculiar to merchant capital alone. But industrial capital too is money which is converted into commodities, and by the sale of the latter's sale reconverted into more money. Acts that take place *outside the sphere of circulation, say in between purchase and sale*, effect no change in this. Lastly, in interest-bearing capital, the process appears directly [as] M—M′, value that is greater than itself as it were (p. 117) [133].

2. Contradictions in the General Formula

The form of circulation by means of which money becomes capital contradicts all previous laws regarding the nature of commodities, of value, of money and of circulation itself.

Can the purely formal difference of inverted sequence cause this?

What is more. This inversion exists only for one of the three transacting persons. As a capitalist I buy commodities from A and sell them in turn to B. A and B appear merely as simple purchaser and seller of a commodity. In each of the two cases I confront them merely as a simple owner of money or owner of commodities, confronting one as purchaser or money, the other as seller or commodity, but confronting neither as a capitalist nor a representative of something that is more than money or commodities. For A the deal began with a *sale*; for B it ended with a *purchase*, hence, just as in commodity circulation. Moreover, if I base the right to surplus value upon the inverted sequence, A could sell to B *directly*, and the chance for surplus value is eliminated.

Assume that A and B buy commodities from each other directly. As far as *use-value* is concerned, *both* may profit; A may even produce more of his commodity than B might produce in the same time, and *vice versa*, whereby both would gain again. But otherwise with *exchange-value*. Here *equal values* are exchanged for each other, even if money, as the medium of circulation, intervenes (p. 119) [135].

Abstractly considered, only a *change in form* of the commodity takes place in simple commodity circulation, except for the substitution of one use-value for another. So far as it involves only a change in form of its exchange-value, it involves the *exchange of equivalents*, if the phenomenon proceeds in a *pure* form. Commodities can, indeed, be sold at prices differing from their values, but only when the law of commodity exchange is violated. In its pure form it is an exchange of equilents, hence no medium for enriching oneself (p. 120) [136].

Hence the error of all endeavour to trace surplus value to commodity circulation. Condillac (p. 121) [137], Newman (p. 122) [137–8].

But let us assume that the exchange does not take place in a pure form, *that non-equivalents are exchanged*. Let us assume that each seller sells his commodity at 10 per cent above its value. Everything remains the same; what each one makes as a seller, he loses in turn as a buyer, just as if the value of money had changed by 10 per cent. Likewise if the *buyers* bought everything at 10 per cent *below* value (p. 123) [138–9] (Torrens).

The assumption that surplus value arises from a mark-up of prices presupposes that a class exists which *buys without selling*, i.e., CONSUMES WITHOUT PRODUCING, which consantly receives money *gratis*. To sell commodities above their value to this class means merely to get back, by cheating, part of the money given away gratis. (Asia Minor and Rome.) Yet the seller always remains the cheated one and cannot grow richer, cannot form surplus value thereby.

Let us take the case of CHEATING. A sells wine to B, worth £40, in exchange for grain worth £50. A has made £10. But A and B together have only £90. A has £50 and B only £40; value has been transferred but not *created*. The whole of the capitalist class in one country cannot cheat itself (p. 126) [141].

Hence: if equivalents are exchanged, no surplus value results; and if non-equivalents are exchanged, still no surplus value results. Commodity circulation creates no new value.

That is why the oldest and most popular forms of capital, merchant capital and usurers' capital, are not considered here. If the putting of merchant capital to account is not to be explained by mere *cheating*, many intermediate factors, lacking here as yet, are required. Even more so for usurers' and interest-bearing capital. It will later be shown that both are derived forms, as well as why they occur historically *before* modern capital.

Hence surplus value cannot originate in circulation. But outside it? Outside it the commodity owner is the simple producer of his commodity, the value of which depends upon the quantity of his own labour contained in it, measured according to a definite social law; this value is expressed in money of account, e.g., in a price of £10. But this value is not at the same time a value of £11; his labour creates values, but not value-begetting values. It can add more value to existing value, but this occurs only though the addition of *more labour*. Thus the commodity producer *cannot produce surplus value outside* *the sphere of circulation* without coming in contact with other commodity owners.

Hence capital must originate WITHIN commodity circulation and at the same time NOT WITHIN it (p. 128) [144].

Thus: the change of money into capital has to be explained on the basis of the laws inherent in the exchange of commodities, the exchange of equivalents forming the starting point. Our owner of money, as yet the mere chrysalis of a capitalist, has to buy his commodities at their value, to sell them at their value, and yet to extract more value from this process than he had invested in it. His development into the capitalist butterfly has to take place within the sphere of circulation and yet not within it. *Hic Rhodus, hic salta!* (p. 129) [144–5].

3. The Buying and Selling of Labour Power

The change in value of the money that is to be converted into capital cannot take place in this money itself, for in buying, it merely realizes the price of the commodity; and on the other hand, as long as it *remains money*, it does not change the magnitude of its value; and in selling, it merely converts the commodity from its natural form into its money form. The change must therefore take place in the *commodity* of M—C—M; but not in its *exchange-value*, since equivalents are exchanged; it can only arise, rather, from its *use-value as such*, that is, from its *consumption*. For that purpose a commodity is required *whose use-value possesses the property of being the source of exchange-value*—and this does exist: LABOUR POWER (p. 130) [145].

But for the owner of money to find labour power in the market as a commodity, it must be sold by its own possessor, that is, it must be FREE labour power. Since buyer and seller both are *equal* persons *juridically* as contracting parties, labour power must be sold only *temporarily*, since in a sale *en bloc* the seller no longer remains the seller, but becomes a commodity himself. But then the owner, instead of being able to sell *commodities* in which his labour is embodied, must rather be in a position where he has to sell HIS LABOUR POWER ITSELF AS A COMMODITY (p. 131) [146–7].

To convert money into capital, therefore, the owner of money must find the *free* labourer in the commodity market, free in the double sense that as a free man he can dispose of his labour power as *his* commodity, and that, on the other hand, he has no *other* commodities to sell, has no ties, is free of all *things* necessary for the realization of his labour-power (p. 132) [147].

Parenthetically, the relation of money owner and labour-power owner is not a natural one, or a social one common to all ages, but a *historical* one, the product of many economic revolutions. So too do the economic categories discussed up to now bear their historical stamp. To become a commodity, a product must no longer be produced as the immediate means of subsistence. The mass of products can assume the commodity form only *within a certain mode of production*, the *capitalist mode*, although commodity production and circulation can take place even where the mass of products never becomes commodities. Likewise, money can exist in all periods that have attained a certain level of commodity circulation; the specific money forms, from mere equivalent to world money, presuppose various stages of development; nevertheless, a very slightly developed circulation of commodities can give rise to all of them. *Capital*, on the other hand, arises only under the above condition, and this one condition comprises a world's history (p. 133) [147–9].

Labour power has an exchange-value which is determined like that of all other commodities: by the labour-time required for its production, and hence for its reproduction as well. The value of labour power is the value of the means of subsistence necessary for the maintenance of its owner, and, what is more, his maintenance in a state of normal capacity for work. These depend upon *climate*, *natural conditions*, etc., as well as on the standard of life *historically* given in any one country. They vary, but they are *given* for any one country and for any one epoch. Moreover, they include the means of subsistence for the *substitutes*, i.e., the *children*, so that the race of these peculiar commodity owners perpetuates itself. Furthermore, for skilled labour, the cost of *education* (p. 135) [149–51].

The minimum limit of the value of labour power is the value of *the physically indispensable means of subsistence.* If the price of labour power drops to this minimum, it drops below its *value,* since the latter presupposes *normal* quality of labour-power, not stunted (p. 136) [151–2].

The nature of labour implies that labour-power is consumed only *after* conclusion of the contract, and (since in such commodities money is usually a *means of payment*) in all countries with the capitalist mode of production it is paid for only after it is *performed.* Everywhere, therefore, *the labourer advances credit to the capitalist* (pp. 137–8) [153].

The process of consuming labour power is at the same time *the process of producing the commodity and surplus value,* and this consumption takes place outside the sphere of circulation (p. 140) [154].

CHAPTER III

THE PRODUCTION OF ABSOLUTE SURPLUS VALUE

1. The Labour Process and the Process of Producing Surplus Value

The purchaser of labour power consumes it by putting its seller to work. This labour to produce commodities at first turns out use-values, and in this property it is independent of the specific relation between capitalist and labourer. . . . Description of the labour process as such (pp. 141–9) [156–64].

The labour process, on a capitalist basis, has two peculiarities. (1) The labourer works under the capitalist's control. (2) The product is the capitalist's property since the labour process is now only a process of two *things* purchased by the capitalist: labour power and means of production (p. 150) [165].

But the capitalist does not want the use-value produced *for its own sake,* but only as the bearer of exchange-value and especially of *surplus value.* Labour under this condition—where the commodity was a unity of use-value and exchange-value—becomes the *unity of the production process and of the process of creating value* (p. 151) [166].

Thus the quantity of labour embodied in the product is to be investigated.

Yarn, for example. Let 10 pounds of cotton be necessary for making it, say 10 shillings, and instruments of labour, whose wear and tear necessary in the spinning—here denoted in brief as spindle share—represent two shillings for the spindle. Thus, there are 12 shillings' worth of means of production in the product, i.e., as soon as the product: (1) has become *an actual use-value,* in this case yarn; and (2) to the extent that *only* the socially necessary labour-time was represented in these instruments of labour. How much is added to it by the labour of spinning?

Thus, the labour process is here viewed from an altogether different angle. In the value of the product the labours of the cotton planter, spindle-maker, etc., and the spinner: all commensurable parts—set equal to each other qualitatively as general, humanly necessary, *value-creating* labour—are thus to be distinguished merely quantitatively, and for that very reason are *quantitatively comparable* by the length of time. Presupposing that it is *socially necessary* labour-time, for only the latter is value-creating.

Assumed the value of a day's labour power=3 shillings, that they represent 6 hours of labour, and that $1\frac{2}{3}$ lbs. of yarn are made per hour, hence in six hours: 10 pounds of yarn from 10 pounds of cotton (as above); 3 shillings of value have been added in 6 hours, and the product is worth 15 shillings (10+2+3 shillings) or a shilling and a half per pound of yarn.

But in this case no surplus value. This is of no use to the capitalist. (Vulgar-economic humbug, p. 157 [172–4].)

We assumed that the value of a day's labour power was 3 shillings, because $\frac{1}{2}$ working day, or 6 hours, is embodied in it. *But the fact that $\frac{1}{2}$ working day is required to maintain the worker for 24 hours in no way prevents him from working 1 whole day.* The *value* of labour power and its *begetting of surplus value* are two different quantities. Its *useful* property was only a *conditio sine qua non*; but what was decisive was the *specific* use-value of labour power *in being the source of more exchange-value than it has itself* (p. 159) [174–5].

Hence, the labourer works 12 hours, spins 20 pounds of cotton=20 shillings and 4 shillings' worth of spindles, and his labour costs 3 shillings=27 shillings. But in the product there are embodied 4 days' labour: spindles and cotton, and 1 day's labour of the spinner=5 days at 6 shillings=30 *shillings' worth of product. A surplus value of 3 shillings is there: money has been converted into capital* (p. 160) [175–6]. All the conditions of the problem are fulfilled. Details (p. 160) [176].

The labour process as a value-producing process is a *process of begetting surplus value* the moment it is *prolonged beyond* the point where it delivers a simple *equivalent* for the paid-for value of labour power.

The value-creating process differs from the simple labour process in that the latter is considered *qualitatively*, the former *quantitatively*, and, what is more, only to the extent that it comprises socially necessary labour (p. 160) [177]. Details (p. 162) [177–8].

As the unity of labour process and *value-creating* process, the production process is the *production of commodities*; as the unity of labour process and the *process of producing surplus value* it is the *process of capitalist production of commodities* (p. 163) [179].

Reduction of compound labour to simple labour (pp. 163–5) [179–80].

2. Constant and Variable Capital

The labour process adds *new* value to the object of labour, but at the same time it *transfers* the value of the object of labour to the product, thus *maintaining* it by merely adding new value. This double result is attained in this manner: the *specifically useful qualitative character* of labour transforms a use-value into another use-value *and thus maintains value*; the *value-creating, abstractly general, quantitative character* of labour, however, *adds value* (p. 166) [180–2].

E.g., let the productivity of spinning labour multiply sixfold. As (qualitatively) *useful* labour it *maintains* in the same period of time six times as many instruments of labour. But it adds only the same *new* value as before, i.e., in each pound of yarn there is only $\frac{1}{6}$ of the new value previously added. As *value-creating* labour it accomplishes no more than before (p. 167) [183]. Conversely if the productivity of spinning labour remains the same, but the value of the instrument of labour rises (p. 168) [183–4].

The instrument of labour transmits to the product only that value which it *loses itself* (p. 169) [185]. This is the case in differing degree. Coal, lubricants, etc., are consumed completely, raw materials take on a new form. Instruments, machinery, etc., transmit value only slowly and in part, and the wear and tear are calculated empirically (pp. 169–70) [185–6]. But in this case the instrument remains continually *as a whole* in the labour process. In this case, therefore, the same instrument is reckoned *wholly in the labour process* but only partly in the *process of producing surplus value*, so that the difference between the two processes is reflected here in material factors (p. 171) [186–7]. Conversely, the raw material, which forms waste, enters wholly into the process of producing surplus value, and only partly into the labour process, since it appears in the product minus the waste (p. 171) [187].

But in no case can an instrument of labour give up *more* exchange value than it possessed itself—in the labour process it acts only as a use-value and hence can give up only the exchange-value that it possessed previously (p. 172) [188].

This maintaining of value, worth very much to the capitalist, costs him nothing (pp. 173–4) [189].

Yet the maintained value *only reappears*; it was present, and solely the labour process *adds new value*. That is, in capitalist production, *surplus value, the excess of the product's value over the value of the consumed constituents of the product* (means of production and labour power) (pp. 175–6) [190–1].

Herewith there have been described the forms of existence which the original capital value takes on in dropping its money form, in being transformed into factors of the labour process: (1) in the purchase of *instruments of labour*; (2) in the purchase of *labour power*.

Hence the capital invested in *instruments* of labour does *not* alter the magnitude of its value in the production process. We call it *constant capital*.

The portion invested in labour *power does change* its value; it produces: (1) its *own* value, and (2) *surplus* value—*variable capital* (p. 176) [191–2].

Capital is *constant* only in relation to the production process specifically given, in which it does not change; it can consist, sometimes of more, sometimes of less instruments of labour, and the purchased instruments of labour may rise or fall in value, but that does not affect their relationship to the production process (p. 177) [192–3]. Likewise, the percentage in which a given capital is subdivided into constant and variable capital may change, but in any given case the c remains constant and the v variable (p. 178) [193–4].

3. The Rate of Surplus Value

$C = £500 = \overbrace{410}^{c} + \overbrace{90}^{v}$. At the end of the labour process, in which v is turned over into labour power once, we get $\overbrace{410}^{c} + \overbrace{90}^{v} + \overbrace{90}^{s} = 590$. Let us assume c consists of 312 raw material, 44 auxiliary material, and 54 wear and tear of machinery = 410. Let the value of all the machinery, however, be 1054. If this were entered as a *whole*, we would get 1410 for c on both sides; the surplus value would remain 90 as before (p. 179) [194–5].

Since the value of c merely *reappears* in the product, the *value of the product* we get differs from the *value-product* obtained in the process; the latter, therefore, is not $=c+v+s$, but $=v+s$. Hence the magnitude of c is immaterial to the process of begetting value, i.e., $c=0$. (p. 180) [195–6]. This also takes place in practice the moment the commercial mode of reckoning is disregarded, e.g., in calculating a country's profit from its industry, where its imported raw material is deducted (p. 181) [197]. *Cf.* Vol. III for the ratio of surplus value to total capital.

Hence: the rate of surplus value $= s : v$, in the above case $90 : 90 = 100\%$.

The labour-time during which the labourer reproduces the value of his labour power—in capitalist or other circumstances—is the *necessary* labour; what goes beyond that, producing surplus value for the capitalist, *surplus labour* (pp. 183–4) [199–200]. Surplus value is coagulated surplus labour, and only the *form of extorting* the same differentiates the various social formations. Example of the incorrectness of including c (pp. 185–96) [202–13] (*Senior*).

The sum of the necessary labour + the surplus labour = the *working day*.

4. The Working Day

The *necessary* labour-time is *given*. The *surplus* labour is *variable*, but within certain limits. It can never $=0$, since then capitalist production ceases. It can never go as high as 24 hours for physical reasons, and, moreover, the maximum limit is always affected by moral grounds as well. But these limits are very elastic. The economic demand is that the working day should be no longer than for normal wear and tear of the worker. But what is *normal*? An antinomy results and only force can decide. Hence the struggle between the working class and the capitalist class for the *normal working day* (pp. 198–202) [214–18].

Surplus value in former social eras. As long as the exchange-value is not more important than the use-value, surplus labour is milder, e.g., among the ancients; only where direct exchange-value—gold and silver—was produced, frightful surplus labour (p. 203) [219]. Likewise in the slave states of America until the production of quantities of cotton for export. Likewise *corvée* labour, e.g., in Rumania.

Corvée labour the best means of comparison with capitalist exploitation, because the former fixes and exhibits the surplus labour as a specific labour-time to be performed—*Réglement organique* of Wallachia (pp. 204–6) [219–22].

The English *Factory Acts* are negative expressions of the greed for surplus labour, just as the foregoing were its positive expression.

The Factory Acts. That of 1850 (p. 207) [223]. 10½ hours and 7½ hours on Saturdays=60 hours per week. Millowners' profit through evasion (pp. 208–11) [223–6].

Exploitation in *unrestricted* or only later restricted branches: *lace industry* (p. 212) [227–8], *potteries* (p. 213) [228–30], *lucifer matches* (p. 214) [230], *wallpaper* (pp. 214–17) [230–2], *baking* (pp. 217–22) [232–7], *railway employees* (p. 223) [237–8], *seamstresses* (pp. 223–5) [239–40], *blacksmiths* (p. 226) [240–1]. *Day and night workers in shifts:* (*a*) *metallurgy and the metal industry* (pp. 227–35) [241–8].

These facts prove that capital regards the labourer as nothing else than *labour power*, all of whose time is labour-time to the extent that this itself is at all possible at a given moment, and that the length of life of labour power is immaterial to the capitalists (pp. 236–8) [249–51]. But is this not against the interests of the capitalist? What about the replacement of what is rapidly worn out? The organized slave trade in the interior of the United States has raised the rapid wearing out of slaves to an economic principle, exactly like the supply of labourers from the rural districts in Europe (p. 239) [251–2]. Poorhouse supply (p. 240) [252–3]. The capitalist sees only the continuously available surplus population and wears it out. Whether the race perishes—*après lui le déluge.*[1] *Capital is ruthless towards the health and length of life of the labourer, unless it is constrained to considerateness by society . . . and free competition makes the immanent laws of capitalist production hold good as an external compulsory law for the individual capitalist* (p. 243) [254–5].

Establishment of a normal working day—the result of a century-old struggle between capitalist and worker.

At the beginning laws were made to *raise* working time; now to lower it (p. 244) [256–7]. The first Statute of Labourers, 23 Edward III. 1349, under the pretext that the plague had so decimated the population that everyone had to do more work. Hence maximum wages and limit of the working day were fixed by law. In 1496, under Henry VII, the working day of agricultural labourers and all artificers from 5 a.m. to between 7 and 8 p.m. in summer—March to September, with 1 hour, 1½ hours and ½ hour=3 hours' intermission. In winter from 5 a.m. to dark. This statute never strictly enforced. In the eighteenth century the *whole* week's labour not yet available to capital (with the exception of agricultural labour). *Cf.* controversies of that time (pp. 248–51) [259–61]. Only with large-scale industry was this and more achieved; it broke down *all* bounds and exploited the workers most shamelessly. The proletariat resisted as soon as it recovered its senses. The five Acts of 1802–33 only nominal, since no inspectors. Only the Act of 1833 created a normal working day in the four textile industries: from 5.30 a.m. to 8.30 p.m., during which time young persons from 13 to 18 years of age could be employed only 12 hours with 1½ hours' pause, children from 9 to 13 years of age only 8 hours, while night work of children and young persons was prohibited (pp. 253–5) [263–6].

[1] After him the deluge.—*Ed.*

The *relay system* and its abuse for purposes of evasion (p. 256) [267]. Finally, the Act of 1844 which put *women of all ages* on the same basis as young persons. *Children* limited to 6½ hours; the relay system curbed. On the other hand, children permitted from *8 years* on. At last in 1847 the *ten-hour bill* forced through for women and young persons (p. 259) [271]. The capitalists' efforts against it (pp. 260–8) [272–9]. A flaw in the Act of 1847 led to the compromise Act of 1850 (p. 269) [279], which fixed the working day for young persons and women at 5 days of 10½, 1 day of 7½=60 hours per week, moreover *between 6 and 6 o'clock*. Otherwise the Act of 1844 in force for children. The exception for the silk industry, *cf.* p. 270 [279–80]. In 1853 the working time *for children* also limited to between 6 and 6 o'clock (p. 272) [281].

Printworks' Act—1845, limits almost nothing—women and children can work 16 hours!

Dye works and bleaching works 1860. Lace factories 1861; potteries and many other branches 1863 (under the Factory Act); special acts passed the same year for bleaching in the open air and baking (p. 274) [282–4].

Large-scale industry thus at first creates the need for limiting working time, but it is later found that the same overwork has gradually taken possession of all other branches as well (p. 277) [284–5].

Moreover, history shows that the *individual* "free" labourer is defenceless against the capitalist, and succumbs, especially with the introduction of women's and children's labour, so that it is here that the class struggle develops between the workers and the capitalist (p. 277) [285].

In France, the twelve-hour day law for all ages and branches of work only in 1848 (*cf.*, however, p. 253 [264], footnote on the French child labour law of 1841, which was really enforced only by 1853, and then only in the Département du Nord). Complete "freedom of labour" in Belgium. The eight-hour movement in America (p. 279) [287].

Thus, the labourer comes out of the production process quite other than he entered. The labour contract was not the act of a *free agent*; the time for which he *is at liberty* to sell his labour is the time for which he *is compelled* to sell it, and only the *mass* opposition of the workers wins for them a *state law* that prevents the workers from selling themselves and their generation into slavery and death through voluntary contract with capital. The modest *Magna Charta* of the Factory Act takes the place of the grandiloquent catalogue of the inalienable rights of man (pp. 280–1) [288].

5. Rate and Mass of Surplus Value

Given the *rate*, the *mass* is also given at the same time. If the daily value of *one* labour power is 3 shillings, and the rate of surplus value=100%, its daily mass=3 shillings for one labourer.

I. Since the *variable capital* is the money expression of the value of *all* the labour powers simultaneously employed by one capitalist, the *mass* of the surplus value produced by them is equal to the variable capital multiplied by the rate of surplus value. Both factors can vary, various combinations thus arising. The *mass* of surplus value can grow, even with decreasing variable capital, if the rate rises, that is, the working day is *lengthened* (p. 282) [290–1].

II. This increase in the rate of surplus value has its *absolute limit* in that the working day can never be prolonged to the full 24 hours; hence the total value of *one* worker's daily production can *never* equal the value of 24 working hours. Thus, in order to obtain the *same* mass of surplus value, variable capital can be replaced by increased exploitation of labour only *within these limits*. This is important for the explanation of various phenomena arising from the contradictory tendency of capital: (1) to *reduce* the variable capital and the number of workers employed; and (2) to produce the greatest possible mass of surplus value none the less (pp. 283–4) [291–2].

III. The masses of value and surplus value produced by different capitals, for given value and equally high degree of exploitation of labour power, *are related directly as the magnitudes of the variable components of these capitals* (p. 285) [293]. This apparently in the face of all facts.

For a given society and a given working day, surplus value can be increased only by increasing the number of workers, i.e., the population; with a given number of workers, only by lengthening the working day. This is correct, however, only for *absolute* surplus value.

It is now found that not *every* sum of money can be transformed into capital—that a minimum exists: the cost price of *a single* labour power and the necessary instruments of labour. In order to be able to live *himself* like a worker, he would have to have two workers, with a rate of surplus value of 50 per cent, and yet save nothing. Even with eight he is still a small master. Hence, people forcibly hampered in transformation from craftsmen into capitalists in the Middle Ages by limitation of the number of journeymen to be employed by one master. The minimum of wealth required to form a real capitalist varies in different periods and branches of business (p. 288) [295–6].

Capital has evolved into *command over labour*, and sees to it that work is done intensively and in orderly fashion. Moreover, it *compels* the workers to do more work than is necessary for their sustenance; and in pumping out surplus labour it surpasses all earlier production systems based upon *direct* compulsory labour.

Capital took over labour with the given technological conditions, and at first does not change them. Hence, with the production process considered as a *labour process*, the worker treats the means of production not as capital, but as the means of his own purposeful activity. But, considered as a process of *creating surplus value*, otherwise. The means of production becomes means of *absorbing the labour of others*. It is *no longer the worker who employs the means of production, but them eans of production employ the worker* (p. 289) [297]. Instead of being consumed *by him . . . they consume him* as the ferment of their own life-process, and the life-process of capital consists only of its motion *as value-begetting value. . . .* The mere transformation of money into . . . the means of production transforms the latter into a *legal title* and a coercive title *to the labour of others and surplus labour.*

CHAPTER IV

PRODUCTION OF RELATIVE SURPLUS VALUE

1. The Concept of Relative Surplus Value

For a given working day, surplus labour can be increased only by reducing the *necessary* labour, this latter in turn to be obtained—aside from depressing wages below their value—only by reducing the value of labour, that is, by reducing the price of the necessary means of sustenance (pp. 291–3) [301–2]. The latter, in turn, is to be attained only by *increasing the productive power of labour, by a revolution in the mode of production itself.*

The surplus value produced by lengthening the working day is *absolute*, that produced by shortening the necessary labour-time is *relative* surplus value (p. 295) [304].

In order to depress the value of labour, the increase in productive power must seize hold of branches of industry whose products determine the value of labour power—ordinary means of sustenance, substitutes for the same, and their raw materials, etc. Proof of how competition makes the increased productive power manifest in a lower commodity price (pp. 296–9) [305–8].

The *value* of commodities is *inversely proportional* to the productive power of labour, as is also *the value of labour power*, because determined by commodity values. *Relative surplus value*, on the contrary, is *directly proportional* to the productive power of labour (p. 299) [308–9].

The capitalists are not interested in the *absolute* value of commodities, but solely in the *surplus value* incorporated in them. Realization of surplus value implies refunding of the value advanced. Since, according to p. 299 [308–9], the same process of increasing productive power lowers the value of commodities and increases the surplus value contained in them, it is clear why the capitalist, whose sole concern is the production of exchange-value, continually endeavours to lower the exchange-value of commodities. *Cf.* Quesnay (p. 300) [309–10].

Hence in capitalist production, economizing labour through developing productive power by no means aims at shortening the working day—the latter may even be *lengthened.* One can read, therefore, in economists of the stamp of McCulloch, Ure, Senior and *tutti quanti*,[1] on one page *that the labourer owes thanks to capital for developing productive forces*, and on the next page *that he must prove this gratitude by working 15 hours henceforth instead of 10.* The aim of this development of productive forces is only to shorten the *necessary labour*, and to lengthen the labour for the capitalist (p. 301) [311].

2. Co-operation

According to p. 288 [295], capitalist production requires an individual capital big enough to employ a fairly large number of workers at a time; only when he himself is wholly released from labour does the employer of labour become a full-blooded capitalist. The activity of a large number of workers, at the same time, in the same field of work, for the production of the same kind of commodity, under the command of the same capitalist, constitutes, *historically and conceptually, the starting point of capitalist production* (p. 302) [311].

At first, therefore, only a *quantitative* difference compared to the past, when *fewer* labourers were employed by one employer. But a modification takes place at once. The very plurality of labourers guarantees that the employer gets *real average labour*, which is not the case with the small master, who must pay the average value of labour none the less; in the small shops the inequalities are compensated for society at large, but not for the individual master. Thus the *law of begetting surplus value* is fully realized on the whole for the individual producer only when he produces *as a capitalist*, and sets many labourers to work at the same time—hence *from the outset social average labour* (pp. 303–4) [311–13].

And moreover: economy in means of production only

[1] All their kind.—*Ed.*

through large-scale operation; less transfer of value to the product by constant capital components, arising solely from their joint consumption in the labour process of many workmen. That is how the *instruments* of labour acquire a social character before the labour *process* itself acquires it (up to this time merely similar processes side by side) (p. 305) [314–15].

The economy in the means of production is to be considered here only so far as it cheapens commodities and thus *lowers the value of labour.* The extent to which it alters the ratio of surplus value to the *total capital* advanced $(c+v)$ will not be considered until Volume III. This severance quite in keeping with capitalist production; since it lets the working conditions confront the worker independently, economy in their use appears to be a distinct operation, which does not concern him and is therefore detached from the methods by which the productivity of the labour power consumed by the capitalist is increased.

The form of labour of many persons, methodically working together and alongside one another in the same production process or in related production processes, is called co-operation (p. 306) [315]. (*Concours de forces.* Destutt de Tracy.)

The sum total of the mechanical forces of individual workers differs substantially from the *exponential* mechanical *force* developed when many hands *act together* at one time in one and the same undivided operation (lifting a load, etc.). Co-operation, from the very start, creates a productive force that is, in itself, a *mass force.*

Furthermore, in most productive work, *mere social contact* creates a *spirit of emulation* which raises the individual efficiency of each, so that 12 workers turn out more work in a joint working day of 144 hours than 12 workers in 12 distinct working days, or one worker in 12 successive days (p. 307) [316].

Although many may be doing the same or similar things, the individual labour of each may still represent a different phase of the labour process (chain of persons passing something along), whereby co-operation again saves labour. Likewise, when a building is started from several sides at once. The combined worker, or total worker, has hands and eyes in front and in back and possesses, to a certain degree, omnipresence (p. 308) [316–17].

In complicated labour processes co-operation permits the special processes to be distributed and to be done simultaneously, thus shortening the labour-time for manufacturing the whole product (p. 308) [317].

In many spheres of production there are *critical moments* when many workers are needed (harvesting, herring catches, etc.). Here only co-operation can be of aid (p. 309) [318].

On the one hand, co-operation extends the field of production and thus becomes a necessity for work requiring great spatial continuity of the working area (drainage, road-building, dam construction, etc.); on the other hand, it *contracts* the area by concentrating the workers in one locality, thus cutting down costs (p. 310) [318–19].

In all these forms, co-operation is the specific productive power of the combined working day, social productive power of labour. It arises from co-operation itself. In systematic co-operation with others, the worker sheds his individual limitations and develops the capacities of his species.

Now, wage labourers cannot co-operate unless *one and the same capitalist* employs them simultaneously, pays them and provides them with instruments of labour. Hence the scale of co-operation depends upon *how much capital a capitalist has*. The requirement that a certain amount of capital has to be present to make its owner formally a capitalist now becomes the *material* condition for the conversion of the numerous dispersed and independent labour processes into one combined social labour process.

In a like manner, the capitalist's *command* over labour was up to now only the formal result of the relation between capitalist and labourer; now it is the *necessary prerequisite* for the labour process itself; the capitalist represents precisely combination in the labour process. In co-operation, *control* of the labour process becomes the *function of capital*, and as such it acquires specific characteristics (p. 312) [320–1].

In accordance with the aim of capitalist production (the greatest possible self-increase of capital), this control is at the

same time the function of the greatest possible exploitation of a social labour process, and hence involves the inevitable antagonism between exploiter and exploited. Moreover, control of proper utilization of the instruments of labour. Finally, the connection of the various workers' functions lies *outside them*, in capital, so that their own unity confronts them as *the capitalist's authority*, as an outside will. Capitalist control is thus *two-sided* ((1) Social labour process to manufacture a product; (2) Capital's process for begetting surplus value), and in its form *despotic*. This despotism now evolves its own peculiar forms: the capitalist, just relieved from labour himself, now transfers subordinate supervision to his organized band of officers and non-coms., who themselves are wage labourers of capital. In *slavery*, the economists count these supervision expenses as *faux frais*,[1] but in capitalist production they bluntly identify control, so far as it is conditioned by exploitation, with the same function, so far as it arises from the nature of the social labour process (pp. 313–14) [321–2].

High command of industry becomes the attribute of capital, just as high command in war and in court was the attribute of landed property in feudal times (p. 314) [323].

The capitalist buys 100 individual labour powers, and gets in return a combined labour power of 100. He does *not* pay for the combined labour power of the 100. With the entrance of the workers into the combined labour process, the workers have already ceased to belong to themselves; they are incorporated in capital. Thus the *social productive power of labour* appears as the *productive power immanent in capital* (p. 315) [323–4].

Examples of co-operation among the ancient Egyptians, etc. (p. 316) [324–5].

The natural co-operation at the beginnings of civilization, among hunting peoples, nomads, or in Indian communities, is based: (1) on common ownership of the conditions of production; (2) on the natural attachment of the individual to the tribe and the primeval community. The sporadic co-operation in antiquity, the Middle Ages, and in modern colonies is based

[1] Overhead costs.—*Ed.*

upon direct rule and violence, mostly slavery. Capitalist co-operation, on the contrary, presupposes the free wage labourer. Historically, it appears in direct opposition to peasant economy and the independent handicraft shop (whether guild or not), and in this connection, as a historical form peculiar to and distinguishing the capitalist production process. It is the first change experienced by the labour process through its subsumption under capital. Thus, here at once: (1) the capitalist mode of production presents itself as a historical necessity for the transformation of the labour process into a social process; but (2) this social form of the labour process also appears as a method of capital to exploit the latter more profitably by increasing its productive power (p. 317) [325–6].

Co-operation, so far as considered up to now, in its *simple* form, coincides with production on a larger scale, but it does not constitute a fixed form characteristic of a particular epoch of capitalist production, and it still exists today, when capital operates on a large scale, without division of labour or machinery playing an important part. Thus, although co-operation is the basic form of the whole capitalist mode of production, its *simple* form reappears, as a particular form, alongside its more developed forms (p. 318) [326].

3. Division of Labour and Manufacture

Manufacture, the classic form of co-operation based upon division of labour, prevails from about 1550 to 1770. It arises:

(1) Either through the throwing together of different crafts, each of which performs a detail operation (e.g., wagon manufacture), whereby the individual craftsman in question very soon loses his ability to pursue his *whole* handicraft, in return doing his detail craft so much better; whereby the process is thus converted into a division of the whole operation into its component parts (pp. 318–19) [327–8].

(2) Or many craftsmen doing the same or similar work are united in one and the same factory, and the individual operations, instead of being performed successively by one worker, are gradually separated and done simultaneously by several workers. (Needles, etc.) Instead of being the work of one craftsman, the product is now the work of a union of craftsmen, each of whom performs only a detail operation (pp. 319–20) [328–9].

In both cases their result is: a *production mechanism whose organs are human beings*. The work retains a *handicraft nature*; each partial process through which the product goes must be performable by *hand labour*; hence any *really scientific analysis of the production process is out of the question*. Each individual worker is so completely chained to a detail function just *because* of his handicraft nature (p. 321) [329–30].

In this way labour is saved, compared to the craftsman, and this is increased still more by transmission to succeeding generations. Thus the division of labour in manufacture corresponds to the tendency of former societies to make a trade hereditary. Castes, guilds (p. 322) [330–2].

Subdivision of tools through adaptation to the various partial operations—500 kinds of hammers in Birmingham (pp. 323–4) [332–3].

Manufacture, considered from the standpoint of its *total* mechanism, has two aspects: either merely mechanical assembly of independent detail products (watch), or a series of related processes in *one* workshop (needle).

In manufacture, each group of workers supplies the other with its raw material. Hence basic condition, that each group *produces a given quantity in a given time*; thus quite another continuity, regularity, uniformity and intensity of labour are produced than even in co-operation. *Thus here already the* TECHNOLOGICAL *law of the* PRODUCTION PROCESS: *that the labour be socially necessary labour* (p. 329) [338].

The inequality of the time required for the individual operations requires that the different groups of workers be of different *size* and number (in type founding: 4 founders and 2 breakers to 1 rubber). Thus manufacture sets up a mathematically fixed ratio for the quantitative size of the several organs of the collective worker, and production can be expanded only by newly hiring a *multiple* of the whole group.

Moreover, only after a certain level of production has been reached does it pay to make certain functions independent: supervision, transporting the products from place to place, etc. (pp. 329–30) [338–9].

Combination of various manufactures into a united manufacture also occurs, but as yet it always lacks the real technological unity, which arises only with machinery (p. 331) [340].

Machines appeared in manufacture at an early date—sporadically—grain and stamping mills, etc., but only as something subordinate. The chief machinery of manufacture is the *combined collective worker*, who possesses a much higher degree of perfection than the old individual craft worker, and in whom all the imperfections, such as are often necessarily developed in the detail worker, appear as perfection (p. 333) [341–2]. Manufacture evolves differences among these detail workers, skilled and unskilled, and even a complete hierarchy of workers (p. 334) [342].

Division of labour: (I) general (into agriculture, industry, shipping, etc.); (II) particular (into species and sub-species;) (III) individual (in the workshop). The social division of labour also develops from different starting points. (1) Within the family and the tribe the natural division of labour according to sex and age, plus slavery through violence against neighbours, which extends it (p. 335) [344]. (2) Different communities turn out products according to location, climate, and level of culture, and the latter are *exchanged where these communities come in contact* (p. 49) [60]. Exchange with foreign communities is then one of the chief means of rupturing the natural association of the community itself through further development of the natural division of labour (p. 336) [345].

Manufacturing division of labour thus presupposes a certain degree of development of the social division of labour; on the other hand, it develops the latter further—likewise the territorial division of labour (pp. 337–8) [346–7].

For all that, there is always this difference between social and manufacturing division of labour: that the former necessarily produces *commodities*, whereas in the latter the detail worker does *not* produce commodities. Hence concentration and organization in the latter, scattering and disorder of competition in the former (pp. 339–41) [348–49].

Earlier: organization of the Indian communities (pp. 341–2) [350–2]. The guild (pp. 343–4) [352–3]. Whereas in all these there exists division of labour in *society*, the manufacturing division of labour is a *specific creation of the capitalist mode of production.*

As in co-operation, the functioning working body is a *form of existence of capital* in manufacture as well. Hence the productive power arising from the combination of labours appears as the *productive power of capital.* But whereas co-operation leaves the mode of labour of the individual unchanged on the whole, manufacture revolutionizes it, *cripples* the worker; unable to make a product independently, he is now merely an *appendage* of the capitalist's workshop. The intellectual faculties of labour vanish on the side of the many, to expand in scope on the side of the one. It is a result of the division of labour in manufacture that the workers *are confronted* by the intellectual faculties of the labour process as *another's property and as the power governing them.* This process of separation, which begins as early as co-operation and develops in manufacture, is completed in large-scale industry, which detaches science from labour as an independent force of production and presses it into the service of capital (p. 346) [355].

Illustrative quotations (p. 347) [356–7].

Manufacture, in one aspect a definite organization of social labour, is in another only a particular *method of producing relative surplus value* (p. 350) [359]. Historical significance, ibid.

Obstacles to the development of manufacture even during its classical period: limitation of the number of unskilled workers through predominance of the skilled; limitation of the work of women and children owing to the men's resistance; the insistence on the laws of apprenticeship to the very end, even where superfluous; continual insubordination of the workers, since the collective worker possesses no structure as yet independent of the workers; emigration of the workers (pp. 353–4) [361–2].

Moreover, it was unable itself to revolutionize all of social production or even merely to control it. Its narrow technical basis came into conflict with the production requirements that it had itself created. The machine became necessary, and manufacture had already learned how to make it (p. 355) [362–3].

4. MACHINERY AND LARGE-SCALE INDUSTRY

(A) *Machinery as Such*

The revolution in the mode of production, starting in manufacture with labour *power*, here starts with the labour *instrument*.

All fully developed machinery consists of (1) the motive mechanism; (2) the transmission drive; (3) the machine tool (p. 357) [367].

The industrial revolution of the eighteenth century started with the *machine tool*. What characterizes it is that the tool—in a more or less changed form—is transferred from man to the machine, and is operated by the latter through his functioning. At the outset it is immaterial whether the motive *power* is human or a natural one. The specific difference is that man *uses* only his *own organs while the machine can, within certain limits, employ as many tools as demanded.* (Spinning wheel, 1 spindle; jenny, 12 to 18 spindles.)

So far, in the spinning wheel [it is] not the treadle, the power, but the spindle [that is] affected by the revolution—at the beginning man [is] still motive power and tender at the same time everywhere. The revolution of the machine tool, on the contrary, first made the perfection of the steam engine a necessity, and then also effected this perfection (pp. 359–60) [369–70]. Likewise pp. 361–2 [371–3].

Two kinds of machinery in large-scale industry: either (1) co-operation of similar machines (power loom, envelope machine, which combines the work of a number of detail workers through the combination of various tools), in this case technological unity already, through the drive and the motive power; or (2) machine system, combination of different detail machines (spinning mill). The natural basis for this is the

division of labour in manufacture. But at once an essential difference. In manufacture every detail process had to be adapted to the *workman*; no longer necessary here—the labour process can be *objectively* dissected into its component parts, which are then left to science, or to experience based upon it, to be mastered by machines. Here the quantitative ratio of the several groups of workers repeated as the ratio of the several groups of machines (pp. 363–6) [373–6].

In both cases the factory constitutes a *huge automaton* (moreover perfected to that stage only recently) and this is its adequate form (p. 367) [376]. And its most perfect form is the *machine-building automaton*, which abolished the handicraft and manufacture foundation of large-scale industry, and thus first provided the consummate form of machinery (pp. 369–72) [378–82].

Connection between the revolutionizing of the various branches, up to the means of communication (p. 371) [379–80].

In manufacture the combination of workers is subjective. Here there is an objective production organism, which the worker finds ready at hand, and which can function only in the hands of collective labour: the co-operative character of the labour process is now a *technological necessity* (p. 372) [382].

The productive forces arising from co-operation and the division of labour cost capital nothing; the natural forces: steam, water, also cost nothing. Nor the forces discovered by science. But the latter can be realized only with suitable apparatus, which can be constructed only at great expense; and likewise the machine tools cost much more than the old tools. But these machines have a much longer life and a much greater field of production than the tool, and therefore transfer a much smaller portion of value, comparatively, to the product than a tool, and hence the *gratuitous service* performed by the machine (which does *not* reappear in the value of the product) is much greater than in the case of the tool (pp. 374, 375–6) [382–4].

Reduction in cost through concentration of production much greater in large-scale industry than in manufacture (p. 375) [384].

The prices of finished goods prove how much the machine has cheapened production, and that the portion of value due to the instruments of labour grows relatively but declines absolutely. The productivity of the machine is measured by the extent to which it replaces *human labour power*. Examples pp. 377–9 [386–8].

Assumed a steam plough takes the place of 150 workers getting an annual wage of £3,000, this annual wage does *not* represent *all the labour performed by them*, but only the *necessary* labour—however, they also perform *surplus labour* in addition. If the steam plough costs £3,000, however, that is the expression in money of *all* the labour embodied in it. Thus, if the machine costs as much as the labour power it replaces, the human labour embodied in it is always *much* less than that which it replaces (p. 380) [389].

As a *means of cheapening* production, the machine must *cost less labour than it replaces*. But *for capital its value* must be less than *that of the labour-power supplanted by it*. Therefore, machines that do not pay in England may pay in America (e.g., for stone-breaking). Hence, as a result of certain legal restrictions, machines that formerly did not pay for capital may suddenly make their appearance (pp. 380–1) [389–91].

(B) *Appropriation of Labour Power by Machinery*

Since machinery itself contains the power driving it, muscle-power drops in value—*labour of women and children*, immediate *increase in the number of wage labourers* through enrolling members of the family who had not worked for wages up to that time. Thus *the value of the man's labour spread over the labour power of the whole family, i.e., depreciated*. Now four must perform not only labour, but also *surplus labour* for capital that one family may live, where only one did previously. Thus the *degree* of exploitation is increased together with the *material* of exploitation (p. 383) [391–2].

Formerly the sale and purchase of labour powers a relation between *free persons*; now *minors or children* are bought; the worker now sells wife and child—he becomes a *slave dealer*. Examples pp. 384–5 [393–4].

Physical ruin—mortality of workers' children (p. 386) [395], in industrialized agriculture as well. (Gang system.) (p. 387) [396].

Moral ruin (p. 388) [397]. Educational clauses and manufacturers' resistance to them (p. 390) [397–9].

The entrance of women and children into the factory at last breaks down the *male worker's resistance to the despotism of capital* (p. 391) [400].

If machinery *shortens* the labour-time necessary to produce an object, in the hands of capital it becomes the most powerful weapon for *lengthening* the working day *far beyond its normal bounds*. It creates, on the one hand, *new conditions* that enable capital to do so, and on the other, *new motives* for so doing.

Machinery is capable of perpetual motion, and limited only by the weakness and limitations of the assisting human labour power. The machine that is worn out in seven years, working twenty hours daily, absorbs *just as much surplus labour* for the capitalist, BUT IN HALF THE TIME, as another that is worn out in fifteen years working ten hours daily (p. 393) [401–2].

The moral depreciation of the machine—by superseding—is in this way risked still less (p. 394) [402].

Moreover, the larger quantity of labour is absorbed *without increasing the investments* in buildings and machines; thus not only does surplus value grow with a lengthened working day, but the outlay required to obtain it diminishes relatively. This is more important in so far as the proportion of *fixed* capital greatly predominates, as is the case in large-scale industry (p. 395) [403].

During the first period of machinery, when it possesses a *monopoly* character, profits [are] enormous, and hence the thirst for more, for boundless lengthening of the working day. With the general introduction of machinery this monopoly profit vanishes, and the law that surplus value arises, not from the labour *supplanted* by the machine, but from the labour *employed* by it, that is, from the variable capital, asserts itself; but the latter is necessarily *reduced* by the large outlays in the case of machine operation. Thus there is an inherent contradiction in the capitalist employment of machinery: for a given mass of capital it *increases* one factor of surplus value, its *rate*, by *reducing* the other, the *number of workers*. As soon as the machine-made value of the commodity becomes the regulating social value of this commodity, this contradiction comes to light, and *again drives towards lengthening the working day* (p. 397) [404–5].

But at the same time machinery, by setting free supplanted workers, as well as by enrolling women and children, produces a *surplus working population*, which must let capital dictate the law to it. Hence it overthrows all the moral and natural bounds of the working day. Hence the paradox that the most powerful means of shortening labour-time is the most infallible means of converting the whole lifetime of the worker and of his family into available labour-time for expanding the value of capital (p. 398) [406].

We have already seen how the social reaction occurred here through fixing the normal working day; and on this basis there now develops the *intensification of labour* (p. 399) [407].

At the beginning, with the speeding-up of the machine, the intensity of labour increases simultaneously with the lengthening of labour-time. But soon the point is reached where the two exclude each other. Otherwise, however, with restriction. Intensity alone can grow; in 10 hours as much work being done as ordinarily in 12 or more, and now the more intensive working day counts as *raised to a higher power*, and labour is measured not merely by its length of time, but by its intensity (p. 400) [408]. Thus in 5 hours of necessary and 5 hours of surplus labour, the same surplus value can be attained as in 6 hours of necessary and 6 hours of surplus labour at lower intensity (p. 400) [408–9].

How is labour intensified? In MANUFACTURE it has been proved (Note 159) [p. 409, footnote 3], pottery, for instance, etc., that *mere shortening of the working day* [is] sufficient, that productivity [is] raised enormously. In *machine labour* this was more doubtful. But R. Gardner's proof (pp. 401–2) [410].

As soon as the shortened working day becomes *law*, the machine becomes a means of squeezing more intensive labour out of the worker, either by greater speed or less hands in relation to machine—examples (pp. 403–7) [411–15]. Evidence that enrichment and expansion of the factory grew simultaneously therewith (pp. 407–9) [415–17].

(C) *The Whole Factory in its Classical Form*

In the factory the *machine* takes care of the proper manipulation of the tool; thus the qualitative differences of labour, developed in manufacture here abolished; labour is *levelled out* more and more; at most, difference in age and sex. The division of labour is here a *distribution of workers among the specialized machines*. Here only division between *principal workers*, who are really employed at the machine tool, and *feeders* (this is correct only for the self-acting mule, scarcely so for the throstle, and still less for the power loom), in addition, supervisors, engineers and stokers, mechanics, joiners, etc., a class only outwardly aggregated to the factory (pp. 411–12) [419–20].

The necessity for adapting the workers to the continuous motion of an automaton requires training from childhood, but by no means that a worker any longer be attached to one detail function all his life, as in manufacture. Change of personnel can take place at the same machine (relay system), and because of the slight effort of learning, the workers can be shifted from one kind of machine to another. Feeder work is either very simple or is taken over more and more by the machine. None the less, at the beginning, manufacture division of labour persists traditionally, and itself becomes a greater weapon for exploitation by capital. The worker becomes a lifelong part of a detail machine (p. 413) [421].

All capitalist production, in so far as it is not only a labour process, but also a process for expanding the value of capital, has this in common: that it is not the worker who employs the conditions of labour, but vice versa, the *conditions of labour employ the worker*; but only through machinery does this perversion acquire technological, *tangible reality*. Through its conversion into an *automaton*, the instrument of labour *itself confronts the labourer*, during the labour process, *as capital*, as dead labour that dominates the living labour power and sucks it dry. Ditto the intellectual faculties of the production process as powers of capital over labour. . . . The detail skill of the individual, pumped-out machine operator vanishes as a tiny secondary thing alongside science, the tremendous natural forces and social mass labour which are embodied in the machine system (pp. 414–15) [423].

Barracks-like discipline of the factory, factory code (p. 416) [423–4].

Physical conditions of the factory (pp. 417–18) [425–6].

(C′) or (D) *The Workers' Struggle Against the Factory System and Machinery*

This struggle, existing ever since the capital relationship, first occurs here as a revolt against the machine as the material basis of the capitalist mode of production. Ribbon looms (p. 419) [427–8]. Luddites (p. 420) [429]. Only later do the workers distinguish between the material means of production and their social form of exploitation.

During manufacture the improved division of labour rather a means of *virtually* replacing the labourers (p. 421) [429]. (Digression on agriculture, displacement (p. 422) [430]). But in machinery the worker *actually displaced*; the machine competes with him directly. Hand loom weavers (p. 423) [431]. Likewise India (p. 424) [432]. This effect permanent, since machinery continually seizes upon new fields of production. The self-dependent and estranged form that capitalist production gives the intrument of labour as against the labourer is developed by *machinery* to a complete *antagonism*—hence now the labourer's revolt first against the instrument of labour (p. 424) [432].

Details of the displacement of workers by machines (pp. 425–6) [432–5]. The machine a means of breaking the workers' resistance to capital by displacing them (pp. 427–8) [436–8].

Liberal economics maintains that the machine, displacing workers, at the same time releases a capital that can employ these workers. On the contrary, however, every introduction

of machines *binds* capital, diminishes its *variable* and increases its constant component; it can, therefore, merely *restrict* capital's capacity for employment. In fact—and this is what these apologists also mean—in this manner not capital is set free; but *the means of subsistence* of the displaced workers are set free; *the workers are set free from the means of subsistence*, which the apologist expresses by saying that *the machine sets free means of subsistence for the worker* (pp. 429–30) [438–40].

This further developed (*very good for Fortnightly*[1]) (pp. 431–2) [440–2]: the antagonisms inseparable from the capitalist employment of machinery *do not exist for the apologists, because they do not grow out of machinery itself, but out of its capitalist employment* (p. 432) [442].

Expansion of production by machines direct and indirect, and thus *possible* increase in number of workers hitherto employed: miners, slaves in cotton states, etc. On the other hand, displacement of Scotch and Irish by sheep as a result of the woollen factory (pp. 433–4) [444–5].

Machine operation increases the *social* division of labour much more than manufacture did (p. 435) [446].

(C″) or (E) *Machinery and Surplus Value*

The first result of machinery: *increasing surplus value* together with the mass of products in which it is embodied and on which the capitalist class and its hangers-on live, thus increasing the number of capitalists; new luxury wants together with the means of satisfying them. *Luxury production* grows. Likewise *means of communication* (which absorb only little labour power in the more developed countries, however), (evidence p. 436) [447]—finally, the *servant class* grows, the *modern house slaves*, whose material is supplied by the *releasing* [of workers]. (p. 437) [448]. STATISTICS.

Economic contradiction (p. 437) [448–9].

Possibility of the *absolute increase* in numbers of workers in one branch of business owing to machines, and the modalities of this process (pp. 439–40) [451–2].

[1] *Fortnightly Review*, see footnote, p. 15.—*Ed.*

Enormous elasticity, capacity for sudden expansion of large-scale industry by leaps and bounds to a high degree of development (p. 441) [453]. Reaction upon the countries producing raw materials. Emigration owing to release of workers. International division of labour of the industrial and agricultural countries—periodicity of crises and prosperity (p. 442) [453–5]. Workers thrown back and forth in this process of expansion (p. 444) [456].

Historical data on this (pp. 445–9) [457–61].

Likewise on the displacement of co-operation and manufacture by machinery (and the intermediate stages) (pp. 450–1) [462–4]. Also change in the branches of industry not run on factory lines in the sense of large-scale industry—home work, an outside department of the factory (p. 452) [464–5]. In home work and modern manufacture, exploitation still more shameless than in the factory proper (p. 453) [465]. Examples: London print-shops (p. 453) [466], book-binding, rag-sorting (p. 454) [466–7], brick-making (p. 455) [467–8], modern manufacture in general (p. 456) [468–9]. *Home work: lace making* (pp. 457–9) [469–72], *straw plaiting* (p. 460) [472–4]. Conversion into factory operation with achievement of ultimate limit of exploitability: *wearing apparel by the sewingmachine* (pp. 462–6) [474–9]. Speeding-up of this conversion by extension of the compulsory Factory Acts, which put an end to the good old customs based upon unlimited exploitation (p. 466) [479–80]. *Examples: pottery* (p. 467) [480–1], lucifer matches (p. 468) [481]. Furthermore effect of the Factory Acts upon irregular work, owing to the workers' irregular habits, as well as to seasons and fashions (p. 470) [482–3]. Overwork plus idleness, owing to the seasons, in home work and manufacture (p. 471) [483–4].

Sanitary clauses of the Factory Acts (p. 473) [486–8]. Educational clauses (p. 475) [488–9].

Discharge of workers merely because of *age*, as soon as they are grown up and are no longer fitted for the work, and can no longer live on a child's wages, while at the same time they have learned no new trade (p. 477) [491].

Dissolution of the *mysteries*, and of the traditional ossification

of manufacture and handicraft, by large-scale industry, which converts the production process into a conscious application of natural forces. Hence it alone is *revolutionary*, as against all earlier forms (p. 479) [492]. But as a capitalist form it lets the ossified division of labour *persist for the worker*, and since it revolutionizes the former's basis daily, it ruins the worker. On the other hand, in this very thing, in this necessary change of activities of one and the same worker, the requirement of his being as versatile as possible and the possibilities of the social revolution (pp. 480–1) [493–4].

Need for extending factory legislation to all branches not operated on factory lines (pp. 482 ff.) [495 ff.]. Act of 1867 (p. 485) [499]. Mines, note (pp. 486 ff.) [501 ff.].

Concentrating effect of the Factory Acts; generalization of factory operation and thus of the classical form of capitalist production; accentuation of its inherent contradictions, maturing of the elements for overturning the old society, and of the elements for forming the new (pp. 488–93) [511–12].

Agriculture. Here release [of workers] by machines even more actue. Replacement of the peasant by the wage labourer. Destruction of rural domestic manufacture. Accentuation of the antithesis between town and country. Dispersion and weakening of the rural labourers, whereas the urban workers are concentrated; hence wages of agricultural workers down to a minimum. At the same time *robbing the soil*: the acme of the capitalist mode of production is the undermining of the sources of all wealth: the soil and the labourer (pp. 493–6) [512–15].

CHAPTER V

FURTHER INVESTIGATIONS OF THE PRODUCTION OF SURPLUS VALUE[1]

[1] Here the manuscript breaks off.—*Ed.*

SUPPLEMENT TO *CAPITAL*, VOLUME III[1]

THE third volume of *Capital* is receiving many and various interpretations ever since it has been subject to public judgment. It was not otherwise to have been expected. In publishing it, what I was chiefly concerned with was to produce as authentic a text as possible, to exhibit the new results obtained by Marx in Marx's own words as far as possible, to intervene myself only where absolutely unavoidable, and even then to leave the reader in no doubt as to who was talking to him. This has been criticized; it has been said that I should have converted the material available to me into a systematically written book, *en faire un livre*, as the French say; in other words, sacrifice the authenticity of the text to the reader's convenience. But this was not how I had conceived my task. I lacked all justification for such a revision; a man like Marx has the right to be heard himself, to transmit his scientific discoveries to posterity in the full genuineness of his own phrasing. Moreover I lacked all desire to infringe—as I had to look upon it—upon the posthumous papers of so preeminent a man in such a way; it would have seemed to me a breach of faith. And third, it would have been quite useless. For the people who cannot or do not want to read, who took more trouble even in Volume I to understand it wrongly than was necessary to understand it correctly—for these people it is altogether useless to put oneself out in any way. But for those who are interested in a real understanding, the original text itself was precisely the most important thing; for them my rewriting would have had the value at most of a commentary, and, what is more, a commentary on something unpublished and inaccessible. The original text would have had to be referred to at the first controversy in any case, and at the second and third its publication *in extenso*[2] would have been quite unavoidable.

[1] Friedrich Engels: *Ergänzung und Nachtrag zum III. Band des "Kapital"* (*Supplement and Postscript to Volume III of "Capital"*) (1895). From the photostat manuscript in the Marx-Engels-Lenin Institute, Moscow.—*Ed.*

[2] In full.—*Ed.*

Such controversies are a matter of course in a work that contains so much that is new, and in a hastily sketched and partly incomplete first draft to boot. And here my intervention can be of use, to be sure: to eliminate difficulties in understanding, to bring important aspects, whose significance is not strikingly enough evident in the text, more to the fore, and to add a few more important supplements to the text written in 1865 to fit the state of affairs in 1895. Indeed, there are already two points which seem to me to require a brief discussion.

I. LAW OF VALUE AND RATE OF PROFIT

It was to be expected that the solution of the apparent contradiction between these two factors would lead to debates just as much after the publication of Marx's text as before it. Very many were prepared for a complete miracle, and find themselves disappointed because they see a simple-rational, prosaic-sober resolution of the contradiction instead of the hocus-pocus they had expected. Most joyfully disappointed of course is the well-known, illustrious Loria. He has at least found the Archimedean fulcrum from which even a gnome of his calibre can lift the solidly built, gigantic Marxian structure into the air and explode it. What, he declaims indignantly, is that supposed to be a solution? That is pure mystification! The economists, when they speak of value, speak of the value that is actually determined in exchange.

"No economist with any trace of rationality had ever concerned himself or will ever want to concern himself with a value which commodities do not sell for *and never can sell for* (*ne possono vendersi mai*). . . . In asserting that the value for which commodities *never* sell is proportional to the labour they contain, what has he [Marx] done if not repeated in an inverted form the thesis of the orthodox economists, that the value which commodities really sell for is *never* proportional to the labour expended on them? . . . Matters are not helped by Marx's observation that despite the divergency of individual prices the total price of commodities always coincides with their total value, or amount of labour contained in the totality of the commodities themselves. But inasmuch as value is nothing more than the exchange ratio between one commodity and another, the very concept of a total value is an absurdity, nonsense . . . a *contradictio in adjecto*. . . .[1]

"At the very beginning of the book, Marx says, exchange can equate two commodities only by virtue of a similar and equally large element contained in them, namely, the equal amount of labour therein contained. And now he most solemnly repudiates himself by asserting that commodities exchange with each other in a totally different ratio than that of the amount of labour contained in them.

"Was there ever such an utter *reductio ad absurdum*,[2] such complete theoretical bankruptcy? Was ever, I ask, scientific suicide committed with greater pomp and more solemnity!" [Engels' italics.][3]

We see: our Loria is more than happy. Wasn't he right in treating Marx as one of his own, as an ordinary charlatan? There you see it—Marx sneers at his public just like Loria; he lives on mystifications just like the most insignificant Italian professor of economics. But, whereas Dulcamara[4] can afford that because he knows his trade, the clumsy Northerner, Marx, commits nothing but ineptitudes, writes nonsense and absurdities, so that there is nothing left finally for him but ceremonial suicide.

Let us save for later the statement that commodities have never been sold, nor can they ever be sold, at the values determined by labour. Let us deal here merely with Mr. Loria's assurance that "value is nothing more than the exchange ratio between one commodity and another, the very concept of a total value of commodities is an absurdity, nonsense . . . a *contradictio in adjecto*." The ratio in which two commodities exchange for each other, their value, is therefore something purely accidental, stuck on to the commodities from the outside, which can be one thing today and something else tomorrow. Whether a metric hundredweight of wheat exchanges for a gram or a kilogram of gold does not in the least depend upon conditions inherent in this wheat or gold, but upon circumstances totally foreign to both. For otherwise these conditions would also have to make themselves felt in the exchange, dominate the latter on the whole, and also have an independent existence aside from exchange, so that one could speak of a total value of commodities. That is nonsense, says the illustrious Loria. No matter in what ratio two commodities may exchange for each other, that is their value—and that's all there is to it. Hence value is identical with price, and every commodity has as many values as the prices it can get. And price is determined by supply and demand; and any one asking any more questions is a fool to expect an answer.

[1] Contradiction in terms.—*Ed.*
[2] Reduction to absurdity.—*Ed.*
[3] *Nuova Antologia*, Feb. 1, 1895, pp. 478–9.
[4] Name of physician in *L'Elisir d'Amore*, comic opera by Donizetti.—*Ed.*

But there is a little hitch to the matter. In the normal state, supply and demand balance. Therefore, let us divide all the commodities in the world into two parts, the supply group and the equally large demand group. Let us assume that each represents a price of 1,000 billion marks, francs, pounds sterling or what you will. According to elementary arithmetic that makes a price or value of 2,000 billions. Nonsense, absurd, says Mr. Loria. The two groups together may represent a price of 2,000 billions. But it is otherwise with value. If we say price: 1,000+1,000=2,000. But if we say value: 1,000+1,000=0. At least in this case, where the totality of commodities is involved, for here the commodities of each of the two groups are worth 1,000 billions only because each of the two can and will give this sum for the commodities of the other. But if we unite the totality of the commodities of both groups in the hands of a third person, the first has no value in his hand any longer, nor the second, and the third certainly not—in conclusion no one has anything. And again we marvel at the superiority with which our southern Cagliostro[1] has manhandled the concept of value in such a fashion that not the

[1] Cagliostro, Alessandro (1743–95), famous Italian charlatan.—*Ed.*

slightest trace of it has been left. This is the acme of vulgarized economics![1]

[1] Somewhat later, the same gentleman "well known through his fame" (to use Heine's phrase) also felt himself compelled to reply to my preface to Volume III—that is, after the latter had been published in Italian in the first number of *Rassegna* in 1895. The reply is printed in the *Riforma Sociale* of February 25, 1895. After having lavished upon me the adulation unavoidable with him (and for that very reason twice as repulsive), he states that he never thought of filching for himself Marx's merits with regard to the materialist conception of history. He had acknowledged them as early as 1885, to wit: quite parenthetically in a magazine article. But in return he passes over it in silence all the more stubbornly where it is due, that is, in his book on the subject, where Marx is mentioned for the first time on page 129, and then merely in connection with small landed property in France. And now he bravely declares that Marx is not at all the originator of this theory; if Aristotle had not already suggested it, Harrington doubtless proclaimed it as early as 1656, and it had been developed by a Pleiades of historians, politicians, jurists and economists long before Marx. All of which is to be read in the French edition of the Loria book. In short, the perfect plagiarist. After I have made it impossible for him to brag any more with plagiarisms from Marx, he boldly maintains that Marx adorns himself with borrowed plumes just like himself.

Of my other attacks, he takes up the charge that, according to Loria, Marx never planned to write a second or indeed a third volume of *Capital*. "And now Engels replies triumphantly by throwing the second and third volumes at me. . . . excellent! And I am so pleased with these volumes, to which I owe so much intellectual enjoyment, that never was a victory so dear to me as today this defeat is—if it really is a defeat. But it is actually? Is it really true that Marx wrote, with the intention of publication, this mixture of disconnected notes that Engels, with pious friendship, has compiled? Is it really permissible to assume that Marx . . . has confided the coronation of his work and his system to these pages? Is it indeed certain that Marx would have published that chapter on the average rate of profit, in which the solution, promised for so many years, is reduced to the most dismal mystification, to the most vulgar playing with phrases? It is at least permissible to doubt it. . . . That proves, it seems to me, that Marx, after publishing his magnificent (*splendido*) book, did not intend to provide it with a successor, or else wanted to leave the completion of the gigantic work to his heirs, beyond his own responsibility." (*Riforma Sociale*, February 25, 1895, p. 267. Translated from Engels' German version.—*Ed.*)

So it is written on p. 267. Heine could not speak any more contemptuously of his philistine German public than in the words: "The author finally gets used to his public as if it were a reasonable being." What must the illustrious Loria think his public is?

In conclusion another load of praise that comes pouring down on my unlucky self. In this our Sganarelli puts himself on a par with Balaam, who came to curse but whose lips bubbled forth "words of blessing and love" against his will. For the good Balaam was distinguished by the fact that he rode upon an ass that was more intelligent than its master. This time Balaam evidently left his ass at home. (Sganarelli is the typical buffoon in Italian *commedia dell' arte*.—*Ed.*)

In Braun's *Archiv für soziale Gesetzgebung* (*Archives for Social Legislation*), Vol. VII, No. 4, Werner Sombart gives an outline of the Marxian system which is excellent, all in all. It is the first time that a German university professor succeeds on the whole in seeing in Marx's writings what Marx really says, stating that the criticism of the Marxian system cannot consist of a refutation—"let the political careerist occupy himself with that"—but merely in a further development. Sombart, too, deals with our subject, as is to be expected. He investigates the question of what importance value has in the Marxian system, and arrives at the following results: Value is not manifest in the exchange relation of commodities produced capitalistically; it does not live in the consciousness of the agents of capitalist production; it is not an empirical, but a conceptual, a logical fact; the concept of value in its material definiteness in Marx is nothing but the economic expression for the facts of the social productive force of labour as the basis of economic existence; in the final analysis the law of value dominates economic events in a capitalist economic system, and for this economic system quite generally has the following content: the value of commodities is the specific and historical form in which the productive force of labour, in the last analysis dominating all economic transactions, determiningly asserts itself.

That much for Sombart; it cannot be said that this concept of the significance of the law of value for the capitalist form of production is wrong. But it does seem to me to be too broad, and capable of a narrower, more precise formulation; in my opinion it by no means exhausts the entire significance of the law of value for the economic stages of society's development dominated by this law.

There is likewise an excellent article by Conrad Schmidt on the third volume of *Capital* in Braun's *Sozialpolitisches Zentralblatt* (*Central Journal for Social Policy*), February 25, 1895, No. 22. Especially to be emphasized here is the proof of how the Marxian derivation of average profit from surplus value for the first time gives an answer to the question not even posed by economics up to now: how the magnitude of this average rate of profit is determined, and how it comes about that it is, say, 10 or 15 per cent and not 50 or 100 per cent. Since we know that the surplus value first appropriated by the industrial capitalist is the sole and exclusive source from which profit and rent flow, this question solves itself. This passage of Schmidt's article might be directly written for economists *à la* Loria, if it were not labour in vain to open the eyes of those who do not want to see.

Schmidt, too, has his formal misgivings regarding the law of value. He calls it a scientific *hypothesis*, set up to explain the actual exchange process, which proves its worth as the necessary theoretical starting point, illuminating and indispensable, even with respect to the apparently wholly contradictory phenomena of competitive prices. According to him, without the law of value all theoretical insight into the economic machinery of capitalist reality ceases. And in a private letter that he permits me to quote, Schmidt declares the law of value to be actually a fiction, though theoretically necessary, within the capitalist form of production. This viewpoint, however, is quite incorrect in my opinion. The law of value has a far greater and more definite significance for capitalist production than that of a mere hypothesis, not to mention a fiction, even though a necessary one.

Sombart as well as Schmidt—I mention the illustrious Loria merely as an amusing vulgar-economic foil—do not make sufficient allowance for the fact that we are dealing here not only with a purely logical process, but with a historical process and its explanatory reflection in thought, the logical pursuance of its inner connections.

The decisive passage is to be found in Marx, Vol. III, p. 200:[1]

"The whole difficulty arises from the fact that commodities are not exchanged simply as *commodities*, but as *products of capitals*, which claim participation in the total amount of surplus value, proportional to their magnitude, or equal if they are of equal magnitude."

[1] *Capital*, Vol. III, p. 206, Kerr edition.—*Ed.*

To illustrate this difference, it is supposed that the workers are in possession of their means of production, that they work on the average with equal intensity, and for equally long periods of time, and exchange their commodities with one another directly. Then, in one day, two workers would have added an equal amount of new value to their products by their labour, but the product of each would have different value, depending on the labour already embodied in the means of production earlier. This latter part of the value would represent the constant capital of capitalist economy, while that part of the newly added value employed for the workers' means of subsistence would represent the variable capital, and the portions of the new value still remaining: the surplus value, which in this case, therefore, belongs to the worker. Thus, after deducting the amount to replace the "constant" part of value only advanced by them, both workers would get equal values; but the ratio of the part representing surplus value to the value of the means of production—which would correspond to the capitalist rate of profit—would be different in each case. But since each of them gets back in exchange the value of the means of production, this would be a wholly immaterial circumstance.

"The exchange of commodities at their values, or approximately at their values, thus requires a *much lower stage* than their exchange at their prices of production, which requires a certain level of capitalist development. . . . Aside from the domination of prices and price movements by the law of value, it is quite appropriate to regard the value of commodities as antecedent to the prices of production, not only *theoretically* but also *historically*. This applies to conditions *in which the labourer owns his means of production*, and this is the condition of the land-owning working farmer and the craftsman, in the ancient as well as in the modern world. This agrees also with the view we expressed previously, that the development of products into commodities arises through exchange between different communities, not through that between the members of the same community. It holds not only for this primitive condition, but also for subsequent conditions based on slavery and serfdom, and for the guild organization of handicrafts, so long as the means of production involved in each branch of production can be transferred from one sphere to another only with difficulty and therefore the various spheres of production are related to one another, within certain limits, as foreign countries or communist communities."[1]

If Marx had had an opportunity to work over the third volume once more, he would doubtless have extended this passage considerably. As it stands it gives only the sketchy outline of what is to be said on the point in question. Let us therefore examine it somewhat closer.

We all know that at the beginnings of society products are consumed by the producers themselves, and that these producers are spontaneously organized in more or less communistically organized communities; that the exchange of the surplus of these products with strangers, which ushers in the conversion of products into commodities, is of a later date; and that it takes place at first only between individual communities of different tribal affiliations, but later also prevails within the community, and contributes considerably to the latter's dissolution into bigger or smaller family groups. But even after this dissolution, the exchanging family heads remained working peasants, who produced almost all their requirements with the aid of their families on their own farmsteads, and got only a slight portion of the required necessities from the outside in exchange for surplus products of their own. The family does not carry on merely agriculture and livestock-raising; it also works their products up into finished articles of consumption; now and then it even does its own milling with the handmill; it bakes bread, spins, dyes, weaves flax and wool, tans leather, builds and repairs wooden buildings, makes tools and utensils, and not infrequently does cabinet work and blacksmithing; so that the family or family group is largely self-sufficient.

The little that such a family had to obtain by barter or buy from outsiders, even up to the beginning of the nineteenth century in Germany, consisted principally of the objects of

[1] *Capital*, Vol. III, pp. 208–9, Kerr edition.—*Ed.*

handicraft production, that is, such things the nature of whose manufacture was by no means foreign to the peasant, and which he did not produce himself only because he lacked the raw material or because the purchased article was much better or very much cheaper. Hence the peasant of the Middle Ages knew fairly accurately the labour-time required for the manufacture of the articles obtained by him in barter. The smith and the cartwright of the village worked under his own eyes; likewise the tailor and shoemaker, who in my youth still paid their visits to our Rhine peasants, one after another, turning the home-made materials into shoes and clothing. The peasants, as well as the people from whom they bought, were themselves workers [direct producers][1]; the exchanged articles were each one's own products. What had they expended in making these products? Labour and labour alone: for replacing tools, for producing the raw material, and for working it up they spent nothing but their own labour power; how then could they exchange these products of theirs for those of other labouring producers otherwise than in the ratio of the labour employed on them? Not only was the labour-time spent on these products the only suitable measure for the quantitative determination of the values to be exchanged: no other was at all possible. Or is it believed that the peasant and the artisan were so stupid as to exchange the product of ten hours' labour of one person for that of a single hour's labour of another? No other exchange is possible in the whole period of peasant barter economy than that in which the exchanged quantities of commodities tend to gauge each other more and more according to the amounts of labour embodied in them. From the moment money penetrates into this mode of economy, the tendency towards adaptation to the law of value (in the Marxian formulation, *nota bene!*) grows more pronounced on the one hand, while on the other it is already interrupted by the interference of usurers' capital and the tax authorities' fleecing; the periods begin to grow longer for which prices approach values on the average, except for a negligible difference.

[1] The words in brackets are crossed out in Engels' manuscript.—*Ed.*

The same holds true for exchange between peasant products and those of the urban artisans. At the beginning this barter takes place directly, without the medium of the merchant, on the cities' market days, when the peasant sells and makes his purchases. Here too, not only does the peasant know the artisan's working conditions, but the latter knows those of the peasant as well. For the artisan is himself still a bit of a peasant; he not only has a vegetable and fruit garden, but very often also has a bit of land, one or two cows, pigs, poultry, etc. People in the Middle Ages were thus able to check up with considerable accuracy on each other's production costs for raw material, auxiliary material, and labour-time—at least with respect to articles of general daily use.

But in this barter on the basis of the quantity of labour, how was the latter to be calculated, even if only indirectly and relatively, for products requiring a longer labour, interrupted at irregular intervals and uncertain in yield—grain or cattle, for example? And among people, to boot, who could not figure? Obviously only by means of a lengthy process of zigzag approximation, often feeling its way here and there in the dark; and as is usual, they only learned through their mistakes. But each one's necessity for covering his outlay on the whole helped to correct matters again and again; and the slight number of kinds of articles in commerce, as well as the stable nature of their production, often lasting for centuries, facilitated the attaining of this goal. And that it by no means took so long for the relative amount of value of these products to be fixed fairly closely is already proved by the fact that cattle, the commodity for which this appears to be most difficult because of the long time of production of the individual head, became the first rather generally accepted money commodity. To accomplish this, the value of cattle, its exchange ratio with a large number of other commodities, must already have attained a rather unusual definiteness, acknowledged without contradiction in the territories of many tribes. And the people of that time were certainly clever enough—both the cattle-breeders and their customers—not to give away the labour-time expended by them without an equivalent in barter. On

the contrary, the closer people are to the primitive state of commodity production—the Russians and Orientals for example—the more time do they still waste today in order to squeeze out, through long tenacious bargaining, the full compensation for their labour-time expended on a product.

Starting with this determination of value by labour-time, all of commodity production developed, and with it the multifarious relations in which the various aspects of the law of value assert themselves, as described in the first section of Vol. I of *Capital*; that is, in particular, the conditions under which labour alone is value-forming. In fact, these are conditions which assert themselves without entering the consciousness of the participants and can themselves be abstracted from daily practice only through laborious theoretical investigation, which act, therefore, like natural laws following necessarily from the nature of commodity production, as Marx proved. The most important and most incisive advance was the transition to metallic money, the consequence of which, however, was that the determination of value by labour-time was no longer visible upon the surface of commodity exchange. From the practical point of view, money became the decisive measure of value, the more so the more varied the commodities entering in trade became, the more they came from distant countries, and hence the less the labour-time necessary for their manufacture could be checked. For did not money itself usually first come from foreign parts; even when precious metals were obtained within the country, the peasant and artisan were in part unable to estimate approximately the labour employed therein, and partly their own consciousness of the value-measuring property of labour had been fairly well dimmed by the habit of reckoning with money; in popular mind money began to represent absolute value.

In a word: the Marxian law of value holds generally, to the extent that economic laws are valid at all, for the whole period of simple commodity production, that is, up to the time when the latter suffers a modification through the entrance of the capitalist form of production. Up to that time prices gravitate towards the values fixed by the Marxian law and oscillate around these values, so that the more fully simple commodity production develops, the more do the average prices of long periods uninterrupted by external violent disturbances coincide with values within the limits of error. Thus the Marxian law of value has general economic validity for a period lasting from the beginning of exchange, which transforms products into commodities, down to the fifteenth century of the present era. But the exchange of commodities dates from a time before all written history, which in Egypt goes back to at least 3,500 B.C. and perhaps 5,000 B.C., and in Babylonia to 4,000 B.C., perhaps 6,000 B.C.; thus the law of value has prevailed during a period of from five to seven thousand years. And now let us admire the thoroughness of Mr. Loria, who calls the value generally and directly valid during this period a value at which commodities are never sold nor can ever be sold, and with which no economist having a spark of common sense would ever occupy himself!

We have not spoken of the merchant up to now. We could save the consideration of his intervention for now, when we pass to the transformation of simple into capitalist commodity production. The merchant was the revolutionary element in this society where everything else was stable, stable, as it were, through inheritance; where the peasant obtained not only his hide[1] of land but his status as a freehold proprietor, as a free or enthralled quit-rent peasant or serf, by inheritance and almost inalienably, where the urban artisan obtained his trade and his guild privileges in the same fashion, and each of them, in addition, his customers, his market, as well as his skill, trained from childhood for the inherited craft. Into this world there entered the merchant with whom its revolution was to start. But not as a conscious revolutionary; on the contrary, as flesh of its flesh, bone of its bone. The merchant of the Middle Ages was by no means an individualist; he was essentially a co-operator like all his contemporaries. The mark association, grown out of primitive communism, prevailed in the countryside. Each peasant originally had an equally large hide, with equally large pieces of land of corresponding quality,

[1] A holding of land sufficient for the support of one family.—*Ed.*

and a corresponding, equally large share in the rights of the common mark. After the mark association had become a closed association and no new hides were allocated any longer, subdivision of the hides occurred through inheritance, etc., with corresponding subdivisions of the common rights in the mark; but the full hide remained the unit, so that there were half, quarter and eighth-hides with half, quarter and eighth-rights in the common mark. All later productive associations, particularly the guilds in the cities, whose statutes were nothing but the application of the mark constitution to a craft privilege instead of to a restricted area of land, followed the pattern of the mark association. The centre of the whole organization was the equal participation of every member in the privileges and commons, assured to all, as is still strikingly expressed in the 1527 licence of the Elberfeld and Barmen yarn trade. (Thun: *Industrie am Niederrhein* [*Industry on the Lower Rhine*], Vol. II, pp. 164 ff.) The same holds true of the mine guilds, where each share participated equally and was also divisible, together with its rights and obligations, like the hide of the mark member. And the same holds true in no less degree of the merchant companies, which initiated overseas trade. The Venetians and the Genoese in the harbour of Alexandria or Constantinople, each "nation" in its own *fondaco*—dwelling, inn, warehouse, exhibition and salesrooms, together with central offices—formed complete trade associations; they were closed to competitors and customers; they sold at prices fixed among themselves; their commodities had a definite quality guaranteed by public investigation and often by a stamp; they deliberated in common on the prices to be paid the natives for their products, etc. Nor did the Hanseatic merchants act otherwise upon the German Bridge (Tydske Bryggen) in Bergen, Norway; the same held true of their Dutch and English competitors. Woe to the man who sold under the price or bought above the price! The boycott that struck him meant at that time unconditional ruin, not counting the direct penalties imposed by the association upon the guilty. And even closer associations were founded for definite purposes, such as the Maona of Genoa in the fourteenth and fifteenth centuries, for years the ruler of the alum mines of Phocæa in Asia Minor, as well as of the island of Chios; furthermore the great Rabensberg trading company, which dealt with Italy and Spain ever since the end of the fourteenth century, founding branches in those countries; the German company of the Augsburgers: Fugger, Welser, Vöhlin, Höchstetter, etc.; that of the Nürnbergers: Hirschvogel and others, which participated with a capital of 66,000 ducats and three ships in the 1505–6 Portuguese expedition to India, making a net profit of 150 per cent, according to others 175 per cent (Heyd: *Levantehandel* [*Levantine Trade*], Vol. II, p. 524); and a large number of other companies, "Monopolia", over which Luther waxes so indignant.

Here for the first time we meet with a profit and a rate of profit. And the merchants' efforts are deliberately and consciously aimed at making this rate of profit equal for all concerned. The Venetians in the Levant, and the Hanseatics in the North, each paid the same prices for his commodities as his neighbour; his transportation charges were the same, he got the same prices for his goods and bought return cargo for the same prices as every other merchant of his "nation". Thus the rate of profit was equal for all. In the big trading companies the allocation of profit *pro rata* for the paid-in capital share is as much a matter of course as the participation in mark rights *pro rata* of the entitled hide share, or as the mine profit *pro rata* of the mining share. The equal rate of profit, which in its fully developed form is one of the final results of capitalist production, thus manifests itself here in its simplest form as one of the points from which capital started historically, as a direct offshoot in fact of the mark association, which in turn is a direct offshoot of primitive communism.

This original rate of profit was necessarily very high. The business was [first, a monopoly business and hence exceptionally profitable][1] very risky, not only because of widespread piracy; the competing nations also permitted themselves all sorts of acts of violence when the opportunity arose; finally, sales and marketing conditions were based upon licences granted by foreign princes, which were broken or recalled

[1] The words in brackets are crossed out in Engels' manuscript.—*Ed.*

often enough. Hence the profit had to include a high insurance premium. Then turnover was slow, the handling of transactions slow, and in the best periods, which were seldom of long duration to be sure, the business was a monopoly trade with monopoly profit. The very high interest rates prevailing at the time, which always had to be lower on the whole than the percentage of usual commercial profit, also prove that the rate of profit was on the average very high.

But this high rate of profit, equal for all participants and obtained through co-operative collaboration, held only locally within the associations, that is, in this case the "nation". Venetians, Genoese, Hanseatics and Dutchmen had a special rate of profit for each nation, and at the beginning more or less for each individual market area as well. Equalization of these different company profit rates took place through the opposite channel, through competition. First, the profit rates of the different markets for one and the same nation. If Alexandria offered more profit for Venetian goods than Cyprus, Constantinople or Trebizond, the Venetians would start more capital moving towards Alexandria, withdrawing it from trade with the other markets. Then the gradual equalization of profit rates among the different nations, exporting the same or similar goods to the same markets, had to follow, and some of these nations were very often squeezed to the wall, disappearing from the scene. But this process was being continually interrupted by political events, just as all Levantine trade collapsed owing to the Mongolian and Turkish invasions; the great geographic-commercial discoveries since 1492 only accelerated this decline and then made it conclusive.

The sudden expansion of the market area that followed, and the revolution in arteries of traffic connected with it, introduced no essential change at first in the nature of trade operations. At first, co-operative companies also dominated trade with India and America. But first of all, bigger nations stood behind these companies. In trade with America, the whole of great united Spain took the place of the Catalonians trading with the Levant; alongside it two great countries like England and France, and even Holland and Portugal, the smallest, were still at least as large and strong as Venice, the greatest and strongest trading nation of the preceding period. This gave the travelling merchant, the merchant adventurer of the sixteenth and seventeenth centuries, a backing that made the company, which also protected its companions with arms, more and more superfluous, and its expenses therefore an outright burden. Moreover, the wealth in a single hand grew considerably faster, so that single merchants soon could invest as large sums in an enterprise as formerly an entire company. The trading companies, wherever still existent, usually were converted into armed corporations, which conquered and monopolistically exploited whole newly discovered countries under the protection and the sovereignty of the mother country. But the more colonies were founded in the new areas, largely by the state, the more did company trade recede before that of the individual merchant, and the equalization of the profit rate became therewith more and more a matter of competition exclusively.

Up to now we have become acquainted with a rate of profit only for merchant capital. For only merchant and usurers' capital had existed up to that time; industrial capital was yet to be developed. Production was still predominantly in the hands of workers owning their own means of production, whose work therefore yielded no surplus value to any capital. If they had to surrender a part of the product to third parties without compensation, it was in the form of tribute to feudal lords. Merchant capital, therefore, could only make its profit, at least at the beginning, out of the foreign buyers of domestic products, or the domestic buyers of foreign products; only towards the end of this period—for Italy, that is, with the decline of Levantine trade—were foreign competition and the difficulty of marketing able to compel the handicraft producers of export commodities to sell the commodity under its value to the exporting merchant. And thus we find here the phenomenon that commodities are sold at their values, on the average, in the domestic retail trade of individual producers with one another, but, for the reasons given, not in international trade as a rule. Quite the opposite of the present-day world, where the production prices hold good in international and wholesale trade, while the formation of prices in urban retail trade is governed by quite other rates of profit. So that the meat of an ox, for example, experiences a greater mark-up in price on the way from the London wholesaler to the individual London consumer than from the wholesaler in Chicago, plus transportation, to the London wholesaler.

The instrument that gradually brought about this revolution in price formation was industrial capital. Rudiments of the latter had been formed as early as the Middle Ages, in three fields, namely, shipping, mining, textiles. Shipping on the scale practised by the Italian and Hanseatic maritime republics was impossible without sailors, i.e., wage labourers (whose wage relationship may have been concealed under association forms with profit-sharing), or without oarsmen—wage labourers or slaves—for the galleys of that day. The guilds in the ore mines, originally associated workers, had already been converted in almost every case into corporations for exploiting the deposits by means of wage labourers. And in the textile industry the merchant had begun to place the little master-weaver directly in his service, by supplying him with yarn and having it converted into cloth for his account in return for a fixed wage, in short, by himself changing from a mere buyer into a so-called *contractor*.

Here we see the first beginnings of the formation of capitalist surplus value. We can ignore the mining guilds as closed monopoly corporations. With regard to the shipowners it is obvious that their profit had to be at least as high as the customary one, plus extra charges for insurance, depreciation of ships, etc. But how were matters with the textile contractors, who first brought commodities directly manufactured for capitalist account into the market, and into competition with the commodities of the same sort made for handicraft account?

Merchant capital's rate of profit was there to start with. Likewise, it had already been equalized to an approximate average rate, at least for the locality in question. Now what could induce the merchant to take on the extra business of a contractor? Only one thing: the prospect of greater profit at the same selling price as the others. And he had this prospect. By taking the little master into his service, he broke through the traditional bonds of production, within which the producer sold his finished product and nothing else. The merchant capitalist bought the labour power, which still owned its production instruments but no longer the raw material. By thus guaranteeing the weaver regular employment, he could depress the weaver's wage to such a degree that a part of the labour-time furnished remained unpaid for. The contractor thus became an appropriator of surplus value over and above his former commercial profit. To be sure, he had to employ additional capital to do so, to buy yarn, etc., and leave it in the weaver's hands until the piece of goods, for which he formerly had to pay the full price only upon purchasing it, was finished. But, in the first place, he had already used extra capital in most cases for advances to the weaver, who as a rule only submitted to the new production conditions under the pressure of indebtedness. And secondly, apart from that, the calculation followed the following form:

Assume that our merchant operates his export business with a capital of 30,000 ducats, sequins, pounds sterling or the like. Of that, say 10,000 are engaged in the purchase of domestic goods, whereas 20,000 are used in the overseas market. Say the capital is turned over once in two years. Annual turnover=15,000. Now our merchant wants to become a contractor, to have cloth woven for his own account. How much additional capital must he invest? Let us assume that the production time of the piece of goods, such as he sells, averages two months, which is certainly very high. Let us further assume that he has to pay for everything in cash. Hence he must advance enough capital to supply his weavers with yarn for two months. Since his turnover is 15,000 a year he buys goods for 2,500 in two months. Let us say that 2,000 of that represents the value of yarn, and 500 weavers' wages; then our merchant requires an additional capital of 2,000. We assume that the surplus value he appropriates from the weaver by the new method totals only 5 per cent of the value of the cloth,

which constitutes the certainly very modest surplus value rate of 25 per cent (2,000 c+500v+125 s; $s'=\frac{125}{500}=25\%$, $p'=\frac{125}{2{,}500}=5\%$). Our man then makes an extra profit of 750 on his annual turnover of 15,000, and has thus got his additional capital back in $2\frac{2}{3}$ years.

But in order to accelerate his sales and hence his turnover, thus making the same profit with the same capital in a shorter period of time, and hence a greater profit in the same time as before, he will donate a small portion of his surplus value to the buyer—he will sell more cheaply than his competitors. These will also gradually be converted into contractors, and then the extra profit for all of them is reduced to the ordinary profit, or even to a lower profit on the capital that has been increased for all of them. The equality of the profit rate is re-established, although possibly on another level, by a part of the surplus value made at home being turned over to the foreign buyers.

The next step in the subjugation of industry by capital took place through the introduction of manufacture. This too enabled the manufacturer, who was usually his own export trader in the seventeenth and eighteenth centuries—generally so in Germany down to 1850, and still so today here and there—to produce more cheaply than his old-fashioned competitor, the handicraftsman. The same process is repeated; the surplus value appropriated by the manufacturing capitalist enables him (or the export merchant who shares with him) to sell more cheaply than his competitors, until the general introduction of the new mode of production, when equalization again takes place. The already existing mercantile rate of profit, even if it is levelled out only locally, remains the Procrustean bed in which the excessive industrial surplus value is lopped off without mercy.

If manufacture advanced by cheapening its products, this is even more true of large-scale industry, which forces the production costs of commodities lower and lower through its repeated revolutions in production, relentlessly eliminating all former modes of production. It is large-scale industry too that thus finally conquers the domestic market for capital, that puts an end to the small-scale production and natural economy of the self-sufficient peasant family, that eliminates direct exchange between small producers, and places the entire nation in the service of capital. Likewise, it equalizes the profit rate of the different commercial and industrial branches of business into *one* general rate of profit, and finally ensures industry the position of power due to it in this equalization, by eliminating most of the obstacles formerly hindering the transfer of capital from one branch to another. Thereby the conversion of values into production prices takes place for all exchange as a whole. This conversion thus takes place according to objective laws, without the consciousness or the intent of the participants. There is no difficulty at all theoretically in the fact that competition reduces excessive profits above the general rate down to the general level, thus again depriving the first industrial appropriator of the surplus value exceeding the average. All the more so in practice, however, for the spheres of production with excessive surplus value, that is, with high variable and low constant capital, i.e., with low capital composition, are by their very nature the ones that are last and least completely subjected to capitalist operation, especially agriculture. As for the rise of production prices above commodity values, on the other hand, which is required to raise the below-average surplus value, contained in the products of the spheres of high capital composition, to the level of the average rate of profit, that appears to be extremely difficult theoretically, but is soonest and most easily effected in practice, as we have seen. For when commodities of this class are first produced capitalistically and enter capitalist commerce, they compete with commodities of the same nature, produced by pre-capitalist methods, and hence dearer. Thus, even after renouncing a part of the surplus value, the capitalist producer can still obtain the rate of profit valid for his locality, which originally had no direct connection with surplus value because it had arisen from merchant capital

long before there was any capitalist production at all, that is, before an industrial rate of profit was possible.

II. The Stock Exchange[1]

1. The position of the stock exchange in capitalist production as a whole is exhibited in Vol. III, part 5, especially chapter 27. But since 1865, when the book was written, a change has taken place which assigns a considerably increased and constantly growing role to the stock exchange, and which, with continued development, tends to concentrate all production, industrial as well as agricultural, and all commerce, the means of communication as well as the functions of exchange, in the hands of stock exchange operators, so that the stock exchange becomes the most prominent representative of capitalist production itself.

2. In 1865 the stock exchange was still a *secondary* element in the capitalist system. Government bonds represented the bulk of exchange securities, and even their sum total was still relatively small. Alongside them were the joint stock banks, predominant on the Continent and in America, and just beginning to absorb the aristocratic private banks in England. But still relatively insignificant *en masse*. Third, railway shares were still comparatively weak compared to the present time. Yet only few directly productive establishments in corporation form. At the time "the minister's eye" was still an unconquered superstition—and, like the banks, most of all in the *poorer* countries: Germany, Austria, America, etc.

At that time, therefore, the stock exchange was still a place where the capitalists took away each other's accumulated capital, and which directly concerned the workers only as a new proof of the demoralizing general effect of capitalist economy and as a confirmation of the Calvinist doctrine that predestination (alias chance) decides, even in this life, blessed-

[1] Friedrich Engels: *Die Börse. Nachträgliche Anmerkungen zum III. Band des "Kapital"*. [*The Stock Exchange. Supplementary Notes to Vol. III of "Capital"*] (1895). From the photostat copy in the Marx-Engels-Lenin Institute, Moscow.—*Ed.*

ness and damnation, wealth, i.e., enjoyment and power, and poverty, i.e., privation and servitude.

3. Now otherwise. Since the crisis of 1886 accumulation has proceeded with ever-increasing rapidity, so that in no industrial country, least of all in England, could the expansion of production keep up with that of accumulation, could the accumulation of the individual capitalist be completely utilized in the enlargement of his own business: English cotton industry as early as 1845; the railway swindles. But with this accumulation the number of *rentiers* also rose, the people who were fed up with regular harness in business, who, therefore, wanted merely to amuse themselves or to follow a mild pursuit as directors or governors of companies. And third, in order to facilitate the investment of this mass floating around as money capital, new legal forms of limited liability companies were established wherever that was not yet done, and the liability of the shareholder, formerly liable to an unlimited extent, was also reduced ± [more or less] (corporations in Germany 1890. Subscription 40 per cent!).

4. Thereafter, gradual conversion of industry into corporate enterprises. One branch after another suffers this fate. First iron, where giant plants are now necessary (before that, mines, where not already organized on shares). Then the chemical industry, likewise machinery plants. On the Continent, the textile industry; in England, only in a few regions in Lancashire (Oldham Spinning Mill, Burnley Weaving Mill, etc., tailor co-operation, but this only a preliminary stage which will again fall into the masters' hands at the next crisis), breweries (the American ones sold a few years ago to English capital, then Guinness, Bass, Allsopp). Then the trusts, which create gigantic enterprises under common management (such as United Alkali). The ordinary individual firm more and more only a preliminary stage to bring the business to the point where it is big enough to be "founded".

Likewise in trade: Leaf's, Parson's, Morley's, Monsieur Dillon—all founded. The same in retail stores by now, and not merely under the cloak of co-operation *à la* "stores".

Likewise banks and other credit institutions even in England. A tremendous number of new banks, all shares delimited. Even old banks like Glyns, etc., are converted, with seven private shareholders, into limited companies.

5. The same in the field of agriculture. The enormously expanded banks, especially in Germany under all sorts of bureaucratic names, more and more the holders of mortgages; with their shares the actual higher ownership of landed property is transferred to the stock exchange, and this is even more true when the farms fall into the creditors' hands. Here the agricultural revolution of prairie cultivation takes on violent forms; if this continues, the time can be foreseen when England's and France's land will also be in the hands of the stock exchange.

6. And now all foreign investments in the form of shares. Merely to mention England: American railways, North and South (consult the stock exchange list), Goldberger, etc.

7. Then colonization. To-day this is purely a subsidiary of the stock exchange, in whose interests the European powers partitioned Africa a few years ago, and the French conquered Tunis and Tonkin. Africa leased directly to companies (Nigeria, South Africa, German South-West and German East Africa), and Mashonaland and Natal seized by Rhodes for the stock exchange.

INSERTION IN CHAPTER XXVII, *CAPITAL*, VOL. III[1]

Since Marx wrote the above, new forms of industrial enterprises have developed, as we know, representing the second and third degree of stock companies. The daily increasing speed with which production may be increased in all fields of large-scale industry today is offset by the ever-increasing slowness with which the market for these increased products expands. What the former turns out in months can scarcely be absorbed by the latter in years. Add to this the protective tariff policy, by which every industrial country shuts itself off from all others, particularly from England, and even artificially increases domestic production capacity. The results are a general chronic overproduction, depressed prices, falling and even wholly disappearing profits; in short, the old boasted freedom of competition has reached the end of its tether and must itself announce its obvious, scandalous bankruptcy. And in every country this is taking place through the big industrialists of a certain branch joining in a cartel for the regulation of production. A committee fixes the quantity to be produced by each establishment and is the final authority for distributing the incoming orders. In some cases even international cartels were temporarily established, as between the English and German iron industries. But even this form of socializing production did not suffice. The antagonism of interests between the individual firms broke through it only too often, restoring competition. This led in some branches, where the scale of production permitted, to the concentration of the entire production of that branch of industry in one big corporation under single management. This has been effected several times in America; in Europe the biggest example so far is the United Alkali Trust, which has brought all British alkali production into the hands of a single business firm. The former owners of the more than thirty individual plants have received

[1] Engels' insertion enlarges upon the nature of the role of corporations and the process of their expansion indicated by Marx.—*Ed.*

shares of stock for the appraised valuation of their entire establishments, totalling about five million pounds sterling, which represent the fixed capital of the trust. The technical management remains in the same hands as before, but business control is concentrated in the hands of the general management. The floating capital, totalling about one million pounds, was offered to the public for subscription. The total capital is, therefore, six million pounds sterling. Thus, in this branch, which forms the basis of the whole chemical industry, competition has been replaced by monopoly in England, and the road has been paved, most gratifyingly, for future expropriation by the whole of society, the nation.

APPENDIX

MARX AND ENGELS: LETTERS ON *CAPITAL*

MARX TO ENGELS

June 22, 1867.

. . . As to the development of the *form of value*, I have and have not followed your advice, in order to behave dialectically in this respect as well. That is to say, I have (1) written an *appendix* in which I describe *the same thing* as simply and as much like a school-book as possible, and (2) followed your advice and divided each step in the development into paragraphs, etc., *with separate headings*. In the *preface* I then tell the "*non-dialectical*" reader that he should skip pages *x–y* and read the appendix instead. This is not merely a question of the philistine, but of youth eager for knowledge, etc. Besides, the matter is too decisive for the whole book. Messrs. the economists have hitherto overlooked the extremely simple point that the form: *20 yards of linen=1 coat* is merely the undeveloped basis of *20 yards of linen=£2*, and that therefore the *simplest form of commodity*, in which the latter's value is not yet expressed as a relation to all other commodities but only as *differentiated* from its own natural form, contains the *whole secret of the money form* and with it in a nutshell *all the bourgeois forms of the product of labour*. In my first account (Duncker)[1] I avoid the difficulty of the development by giving an actual analysis of the *expression of value* only when it appears already developed, as expressed in money. . . . You will, moreover, see from the conclusion of my Chapter III, where the transformation of the handicraft-master into a capitalist—as a result of purely *quantitative* changes—is touched upon, that in the text I refer to the law Hegel discovered, of *purely quantitative changes turning into qualitative changes*, as holding good in history and natural science alike. . . .

[1] *Zur Kritik der politischen Oekonomie* (*Critique of Political Economy*), published by Duncker in 1859.—*Ed.*

ENGELS TO MARX

June 26, 1867.

. . . As for the origin of surplus value, the following: The manufacturer, and with him the vulgar economist, will at once object: If the capitalist pays the worker only the price of 6 hours for his 12 hours of working time, no surplus value can originate from this, for then every hour of labour of the factory worker is only equal to half an hour of labour—equal to what is paid for it—and enters into the value of the product of labour as worth only that much. After which the usual book-keeping formula follows: so much for raw materials, so much for wear and tear, so much for wages (*actually spent* per actual hourly product), etc. No matter how terribly shallow this argument is, no matter how much it identifies exchange-value and price, value of labour and wages, no matter how absurd its assumption that one hour of labour enters into value as only half an hour if it is paid for as only half an hour, I marvel that you have not taken this into consideration already, for it will *quite certainly* be held up to you at once and it is better to dispose of it in advance. Perhaps you will return to it in the next sheet. . . .

MARX TO ENGELS

June 27, 1867.

. . . As for the inevitable objections you mention of the philistine and the vulgar economist (who forget, of course, that when they compute the *paid-for labour* under the name of *wages*, they compute the *unpaid-for* under the name of *profit*, etc.), this reduces, in scientific terms, to the problem:

How is the *value* of a commodity *converted* into its *production price*, in which

I. *All the labour appears as paid-for*, in the form of *wages*;

II. The surplus labour, however, or the surplus value takes the form of a *mark-up in price* under the name of interest, profit, etc., *over* the *cost price* (=the price of the constant part of the capital+wages).

The answer to this problem presupposes:

I. That the *conversion of*, say, *the value of a day's labour power into wages, or the price of a day's labour*, is set forth. This is done in *Chapter V*[1] of this volume.

II. That the *conversion of surplus value into profit, of profit into average profit*, etc., is set forth. This presupposes a previous account of the *process of the circulation of capital*, since the turnover of capital, etc. plays a part here. Hence this matter can be set forth only in the third book (Volume II contains the second and third books).[2] Here it will be shown whence the *way of thinking* of the philistine and the vulgar economist derives, namely, from the fact that only the immediate form in which relationships appear is always reflected in their brain, and not their *inner connections*. If the latter were the case, moreover, what would be the need for a *science* at all?

If I were to *silence* all such objections *in advance*, I should ruin the whole dialectical method of development. On the contrary, this method has the advantage of continually *setting traps* for these fellows which provoke them to untimely demonstrations of their asininity.

What is more, Part 3: "*The Rate of Surplus Value*", the last one in your hands, is immediately followed by the section on "*The WorkingDay*" (struggle for the length of the working day), the treatment of which demonstrates *ad oculos*[3] how well Mr. Bourgeois *practically* understands the source and substance of his profit. This is also shown in the *Senior case*, where the bourgeois asserts that all his profit and interest comes from the *last unpaid hour of labour*. . . .

[1] Chapters XVII–XX of the English edition.—*Ed.*

[2] Volume II, as published by Engels in 1885, contains only the second book, *The Process of the Circulation of Capital*. The third book, *The Process of Capitalist Production as a Whole*, was published by Engels in two parts in 1894 as Volume III.—*Ed.*

[3] Visibly.—*Ed.*

MARX TO ENGELS

April 30, 1868.

For the case under discussion it does not matter whether s (the surplus value) is *quantitatively* larger or smaller than the surplus value produced in the given branch of production itself. For instance, if $\frac{100s}{400c+100v}=20$ per cent, and this, owing to the fall in the value of money by one-tenth, becomes $\frac{110s}{400c+110v}$ (assuming that the value of the constant capital falls), then it makes no difference if the capitalist producer pockets only half the surplus value he himself produces. For the rate of profit for him will then be $\frac{55s}{400c+110v}$, greater than the former $\frac{50s}{400c+100v}$. I retain s here in order to show *qualitatively* in the expression itself where the profit comes from.

But it is proper that you should know the method by which the rate of profit is developed. I shall therefore give you the *most general features* of the process. In Book II, as you know, the *process of the circulation* of capital is described on the basis of the premises developed in Book I. Hence the new determinations of form which arise out of the process of circulation, such as fixed and circulating capital, turnover of capital, etc. In Book I, finally, we content ourselves with the assumption that if in the process of realization £100 becomes £110, the elements into which a further turnover will take place are *already present* in the market. But now we investigate the conditions under which these elements are found already in existence, namely the social intertwining of the different capitals, of the component parts of capital and of revenue (=s).

In Book III we come to the transformation of surplus value into its different forms and separate component parts.

I. *Profit* is for us first of all only *another name* or another category for *surplus value*. As, owing to the form of wages, all the labour appears to be paid for, the unpaid part necessarily seems to come not from labour but from capital, and not from the variable part of the latter but from the capital as a whole. In this way *surplus value* gets the form of *profit*, without any *quantitative* difference between the one and the other. This is only the illusory form in which surplus value appears.

Further, the part of capital consumed in the production of a commodity (the capital, constant and variable, advanced for its production *minus* the utilized but not actually consumed portion of the *fixed* capital) appears now as the *cost price* of the commodity; for to the capitalist that part of the value of the commodity *he* has to pay for is the *latter's* cost price, while the unpaid labour it contains is not included in *its* cost price from his point of view. The surplus value=profit now appears as the *excess of the sale price over the cost price*. Let us call the value of the commodity V and its cost price C, then $V=C+s$, therefore $V-s=C$, hence V is greater than C. This new category of cost price is very necessary for the details of the later development. It follows, of course, that the capitalist can sell a commodity *below its value* at a profit (so long as he sells it *above* cost price) and this is the *fundamental law* explaining the equalizations effected by competition.

If, profit, then, is at first *only formally* distinguished from surplus value, the *rate of profit*, on the other hand, is at once really distinguished from the *rate of surplus value*, for in one case the formula is $\frac{s}{v}$ and in the other $\frac{s}{c+v}$, from which it follows, of course, since $\frac{s}{v}$ is greater than $\frac{s}{c+v}$, that the rate of profit is less than the rate of surplus value—unless $c=0$.

Taking into consideration the points developed in Book II, however, it follows that we cannot compute the rate of profit on any output of commodities we choose—e.g., a weekly output—but that $\frac{s}{c+v}$ here represents the surplus value produced *during the year* in relation to the capital *advanced* during the *year* (i.e., as distinct from the capital *turned over*). Here $\frac{s}{c+v}$ stands, therefore, for the *annual rate of profit*.

We next examine how variations in the *turnover* of capital (partly depending on the relation between the circulating and fixed portions of capital, partly on the number of times the circulating capital is turned over in a year, etc.) modify the *rate of profit* while *the rate of surplus value remains the same*.

Taking the turnover as given and $\frac{s}{c+v}$ as the annual rate of profit, we examine how the latter can change, independently of the changes in the rate of surplus value and even in its total sum.

Since s, the total sum of surplus value=*the rate of surplus value multiplied by the variable capital*, then, if we call the rate of surplus value r and the rate of profit p', $p'=\frac{rv}{c+v}$. Here we have four quantities, p', r, v, c, with any three of which we can work, always seeking the fourth as an unknown quantity. This covers all possible cases of movements in the rate of profit, in so far as they are distinct from movements in the rate of surplus value and, to a certain extent, even from those in the total sum of the latter. This has, of course, been *inexplicable* to everybody hitherto.

The laws thus discovered will be, e.g., very important for understanding how the price of raw material influences the rate of profit, and they hold good *no matter how* the surplus value may be divided later between the producer, etc.[1] This can only change the *form of appearance*. These laws, moreover, remain *directly* applicable if $\frac{s}{c+v}$ is treated as the ratio of the socially produced surplus value to the social capital.

II. What were treated in I as *movements*, whether of capital in a given branch of production or of social capital—movements changing the composition, etc., of capital—are now taken as *differences* between the *sums of capital invested in the various branches of production*.

It then follows that *the rate of surplus value* (the exploitation of labour being assumed *the same*), the production of value, and hence the production of surplus value and hence the *rate of*

[1] I.e., between the producer and other capitalists.—*Ed.*

profit, are *different* in different branches of production. But out of these different rates of profit a mean or general rate of profit is formed by competition. This rate of profit, reduced to its absolute expression, can be nothing but the *surplus value* produced (annually) by the *capitalist class* in relation to the total *social* capital advanced. For instance, if the social capital $=400c+100v$, and the surplus value annually produced from it $=100s$, then the composition of the social capital $=80c+20v$ and that of the product (in percentages) $=80c+20v+20s=$ 20 per cent rate of profit. This is the *general rate of profit*.

What competition is striving to attain between the various masses of capital—differently constituted and invested in different spheres of production—is *capitalist communism*, namely that the *mass of capital belonging to each sphere of production* should snatch an aliquot part of the total surplus value proportionate to the part of the total social capital that it constitutes.

This can be achieved only if in each sphere of production (assuming as before that the total capital $=80c+20v$ and the social rate of profit $=\frac{20s}{80c+20v}$) the yearly output of commodities is sold at *cost price plus 20 per cent profit on the capital value advanced* (it makes no difference how much of the advanced fixed capital enters into the annual cost price or not). But this means that the *price determination* of the commodities *will not coincide with their values*. Only in the branches of production where the percentage composition of the capital is $80c+20v$ will the price *C* (*cost price*) *plus 20 per cent on the capital advanced* coincide with their value. Where the composition is higher (e.g., $90c+10v$), this price is *above* their value; where the composition is lower (e.g., $70c+30v$) this price is *below* their value.

The price thus equalized, which distributes the social surplus value equally among the amounts of capital in proportion to their size, is the *price of production* of commodities, the centre around which the fluctuation of market prices moves.

The branches of production which constitute natural *monopolies* are exempted from this equalization process even if their rate of profit is higher than the social rate. This is important later for the development of *ground rent*.

In this chapter there must be further developed the various *causes of equalization* among the various capital investments, which appear to the vulgar conception as so many *original sources* of profit.

Further: the *changed form of appearance* now assumed by the previously developed and still valid laws of value and of surplus value, *after the transformation of values into prices of production*.

III. *Tendency of the rate of profit to fall as society progresses.* This already follows from what was developed in Book I on the *change in the composition of capital with the development of social productive forces*. This is one of the greatest triumphs over the *pons asini*[1] of all previous economics.

IV. Until now we have dealt only with *productive capital*. Now modification enters through *merchant capital*.

According to our previous assumption the *productive capital* of society $=500$ (whether millions or billions makes no difference). And the formula was: $400c+100v+100s$; the general rate of profit $p'=20$ per cent. Now assume the merchant capital $=100$.

The $100s$ now has to be calculated on 600 instead of 500. The general rate of profit is therefore reduced from 20 per cent to $16\frac{2}{3}$ per cent. The *price of production* (for the sake of simplicity we will here assume that all the $400c$, including all of the fixed capital, enters into the *cost price* of the yearly output of commodities) now $=583\frac{1}{3}$. The merchant sells at 600 and realizes therefore, if we ignore the fixed portion of his capital, $16\frac{2}{3}$ per cent on his 100, that is, as much as the producing capitalists; in other words, he appropriates to himself one-sixth of the social surplus value. The commodities are—taken as a whole and on a social scale—sold *at their value*. His £100 (apart from its fixed portion) serves him only as circulating money capital. Whatever more the merchant swallows up he gets either by simple cheating, or by speculation on the fluctuations of commodity prices, or, in the case of the actual retailers, as wages for labour—wretched unproductive labour though it is—all under the form of profit.

V. We have now reduced profit to the form in which

[1] Stumbling-block.—*Ed.*

appears as actually given in practice, i.e., 16⅔ per cent, according to our assumptions. *Next comes the splitting up of this profit into entrepreneur's profit and interest. Interest-bearing capital. The credit system.*

VI. *Transformation of surplus profit into rent.*

VII. At last we have arrived at the *forms of appearance* which serve as the *starting point* for the vulgar: ground rent coming from the earth, profit (interest) from capital, wages from labour. But from our point of view the thing is now seen differently. The apparent movement is explained. Moreover, A. Smith's nonsense, which has become the *main pillar* of all economics hitherto, that the price of a commodity is derived from those three revenues, i.e., solely from variable capital (wages) and surplus value (ground rent, profit, interest), is overthrown. The whole movement takes place in this apparent form. Finally, since these three (wages, rent, profit (interest)) constitute the respective sources of income of the three classes of landowners, capitalists, and wage labourers, we have, in conclusion, the *class struggle*, into which the movement of the whole mass is resolved. . . .

MARX TO KUGELMANN

November 30, 1867.

. . . Will you tell your wife that the sections which can be read to begin with are those on "The Working Day", "Co-operation, the Division of Labour and Machinery", and finally "Primitive Accumulation". You will have to furnish explanations of incomprehensible terminology. On any other doubtful points, I am at your service. . . .

ENGELS TO VICTOR ADLER

March 16, 1895.

. . . As you want to have a grind in prison at *Capital* [Volumes] II and III, I will give you a few hints to make it easier.

Volume II, *Section I*. Read Chapter 1 thoroughly, then you can take Chapters 2 and 3 more lightly; Chapter 4 more exactly again as it is a summary; 5 and 6 are easy and 6, especially, deals with secondary matters.

Section II. Chapters 7–9 important. Specially important 10 and 11. Likewise 12, 13, 14. On the other hand 15, 16, 17 need only be skimmed through at first.

Section III is a most excellent account of the entire circuit of commodities and money in capitalist society—the first since the days of the Physiocrats. Excellent in content but frightfully heavy in form because (1) it is put together from two versions which proceed according to two different methods, and (2) because version No. 2 was brought to a finish by main force during a state of illness in which the brain was suffering from chronic insomnia. I should keep this for the *very end*, after working through Volume III for the *first time*. For your work, too, it is not immediately indispensable.

Then the *third volume*. Important here are: In Section I, Chapters 1 to 4; less important for the *general* connection, on the other hand, are Chapters 5, 6, 7, on which, therefore, much time need not be spent at first.

Section II. Chaps. 8, 9, 10 *very important*. Skim through 11 and 12.

Section III. *Very important:* the whole of 13–15.

Section IV. Likewise very important, but 16–20 also easy to read.

Section V. Chapters 21–27 very important. Less so Chapter 28. Chapter 29 important. As a whole Chapters 30–32 are not important for your purposes; 33 and 34 are important as soon as paper money is dealt with; 35 on international rates of exchange important, 36 *very interesting for you* and easy to read.

Section VI. Ground Rent: 37 and 38 important. Less so, but still to be taken with them, 39 and 40. 41–43 can be more neglected (differential rent II; particular cases). 44–47 important again and mostly easy to read too.

Section VII. Very fine, but unfortunately a fragment and with traces of insomnia to boot.

Thus, if you go through the main things thoroughly and the less important ones superficially to begin with, following these indications (best first to re-read the main things in Volume I), you will get an idea of the whole and can later also work through the neglected portions more easily. . . .

ENGELS TO SCHMIDT

London, March 12, 1895.

Your letter gives me some light, I think, on how you have come to be side-tracked with the rate of profit. There I find the same way of going off into details, and I attribute it to the eclectic method of philosophizing that has made such inroads in the German universities since '48, which loses all perspective and only too often ends in rather aimless and fruitless argumentation about particular points. Now of the classical philosophers it was precisely Kant with whom you had chiefly occupied yourself formerly, and Kant, owing to the position of German philosophizing in his time and to his opposition to the pedantic Wolffian form of Leibnizism, was more or less obliged to make apparent concessions in form to this Wolffian argumentation. This is how I explain your inclination, which is also manifested in the digression on the law of value in your letter, to absorb yourself in details, without always, it seems to me, paying attention to the connection as a whole; this is so to such a degree that you degrade the law of value to a fiction, a necessary fiction, somewhat as Kant makes the existence of God a postulate of practical reason.

The reproaches you make against the law of value apply to *all* concepts, regarded from the standpoint of reality. The identity of thought and being, to express myself in Hegelian fashion, everywhere coincides with your example of the circle and the polygon. Or the two of them, the concept of a thing and its reality, run along side by side like two asymptotes, always approaching each other and yet never meeting. This difference between the two is the very difference which prevents the concept from being, directly and immediately, reality, and reality from being immediately its own concept. Though a concept has the essential nature of a concept and cannot therefore *prima facie* coincide with reality directly, from which it must first be abstracted, it is still something more than a fiction, unless you are going to declare all the results of thought fictions because reality has to make a long detour before it corresponds to them, and even then only with asymptotic approximation.

Is it any different with the general rate of profit? At any moment it exists only approximately. If it were for once realized in two undertakings down to the last dot on the *i*, if both obtained *exactly the same rate of profit* in a given year, that would be pure accident; in reality the rates of profit vary from business to business and from year to year according to different circumstances, and the general rate of profit exists solely as an average of many businesses and of a series of years. But if we are to demand that the rate of profit, say 14.876934 . . ., should be exactly equal in every business and every year, down to the hundredth decimal place, on pain of degradation to a fiction, we should be grossly misunderstanding the nature of the rate of profit and of economic laws in general—none of them has any reality except as approximation, tendency, average, but not in *immediate* reality. This is partly due to the fact that their action is thwarted by the simultaneous action of other laws, but also in part to their own nature as concepts.

Or take the law of wages, the realization of the value of labour power, which is only effected as an average, and even that not always, and varies in every locality, aye, every trade, according to the customary standard of life. Or ground rent, representing the super-profit above the general rate, arising from a monopolized force of nature. There too, actual super-profit by no means coincides directly with actual rent, but only approximately, on the average.

It is exactly the same with the law of value and the distribution of the surplus value by means of the rate of profit.

(1) Both only attain their most completely approximated realization on the presupposition that capitalist production has been completely established everywhere, i.e., society has

been reduced to the modern classes of landowners, capitalists (industrialists and merchants), and workers, with all intermediate stages eliminated. This does not exist even in England and never will exist—we will not let it get that far.

(2) Profit, including rent, consists of various component parts:

(*a*) Profit from cheating—which is cancelled out in the algebraic sum.

(*b*) Profit from increase in the value of warehouse stocks (e.g., the remainder of the last harvest when the next one fails). Theoretically this also *ought* to balance out finally, in so far as it has not been already cancelled out by the fall in value of other commodities, either because the capitalist buyers have to contribute what the capitalist sellers gain, or, in the case of the means of subsistence for workers, because wages must eventually rise. The most essential of these increases in value, however, are *not permanent*, and hence the equalization takes place only averaged over the years, and extremely incompletely, notoriously at the expense of the workers; they produce more surplus value because their labour power is not fully paid.

(*c*) The sum total of surplus value, from which, however, that portion is again deducted which is *presented as a gift to the buyer*, especially in crises, when overproduction is reduced to its actual content of socially necessary labour.

From this it follows at once that the total profit and the total surplus value can only approximately coincide. But when you further take into consideration the fact that both the total surplus value and the total capital are not constant quantities, but variable ones that change from day to day, then any coincidence between the rate of profit and the sum of surplus value[1] other than that of an approximating series, and any coincidence between total price and total value other than one which is constantly striving towards unity and perpetually moving away from it again, appear a sheer impossibility. In other words, the unity of concept and appearance manifests

[1] Engels uses the formula $\frac{\Sigma s}{\Sigma (c+v)}$.—*Ed.*

itself as an essentially infinite process, and that it is, in this case as in all others.

Did feudalism ever correspond to its concept? Founded in the kingdom of the West Franks, further developed in Normandy by the Norwegian conquerors, and continued by the French Normans in England and Southern Italy, it came nearest to its concept—in the one-day kingdom of Jerusalem, which in the *Assises de Jerusalem*[1] left behind it the most classic expression of the feudal order. Was this order a fiction because it achieved a short-lived existence in full classic form only in Palestine, and even that mostly only—on paper?

Or are the concepts that prevail in natural science fictions because they by no means always coincide with reality? From the moment we accept the theory of evolution all our concepts of organic life correspond only approximately to reality. Otherwise there would be no change; on the day that concept and reality absolutely coincide in the organic world, development is at an end. The concept fish includes a life in water and breathing through gills; how are you going to get from fish to amphibian without breaking through this concept? And it has been broken through, and we know a whole series of fishes that have developed their air-bladders into lungs and can breathe air. How are you going to get from the egg-laying reptile to the mammal, which bears living young, without bringing one or both concepts into conflict with reality? And in reality we have in the Monotremata a whole sub-class of egg-laying mammals—I saw the eggs of the duck-bill in Manchester in 1843 and with arrogant narrow-mindedness mocked at the stupidity of thinking a mammal could lay eggs, and now it has been proved! So do not cause the law of value the same affront for which I later had to beg the duck-bill's pardon!

In Sombart's otherwise very good article on Volume III, I also find this tendency to qualify the theory of value; he had apparently also expected a somewhat different solution?

[1] The code of statutes for the Kingdom of Jerusalem in the eleventh century, attributed to Godfrey of Bouillon.—*Ed.*

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