

KARL MARX

Capital

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Political Economy

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Chapter 10: The Working Day

I. THE LIMITS OF THE WORKING DAY

We began with the assumption that labour-power is bought and sold at its value. Its value, like that of all other commodities, is determined by the labour-time necessary to produce it. If it takes 6 hours to produce the average daily means of subsistence of the worker, he must work an average of 6 hours a day to produce his daily labour-power, or to reproduce the value received as a result of its sale. The necessary part of his working day amounts to 6 hours, and is therefore, other things being equal, a given quantity. But with this the extent of the working day itself is not yet given.

Let us assume that a line A-----B represents the length of the necessary labour-time, say 6 hours. If the labour is prolonged beyond AB by 1, 3 or 6 hours, we get three other lines:

Working day I: A-----B-C

Working day II: A-----B---C

Working day III: A-----B-----C

which represent three different working days of 7, 9 and 12 hours. The extension BC of the line AB represents the length of the surplus labour. As the working day is AB + BC, or AC, it varies with the variable magnitude BC. Since AB is constant, the ratio of BC to AB can always be calculated. In working day I, it is one-sixth, in working day II, three-sixths, in working day III, six-sixths of AB. Since, further, the ratio of surplus labour-time to necessary labour-time determines the rate of surplus-value, the latter is given by the ratio of BC to AB. It amounts in the three different working days respectively to 16⅓, 50 and 100 per cent. On the other hand, the rate of surplus-value alone would not give us the extent of the working day. If this rate were 100 per cent, the working day might be of 8, 10, 12 or more hours. It would indicate that

the two constituent parts of the working day, necessary labour-time and surplus labour-time, were equal in extent, but not how long each of these two constituent parts was.

The working day is thus not a constant, but a variable quantity. One of its parts, certainly, is determined by the labour-time required for the reproduction of the labour-power of the worker himself. But its total amount varies with the duration of the surplus labour. The working day is therefore capable of being determined, but in and for itself indeterminate.¹

Although the working day is not a fixed but a fluid quantity, it can, on the other hand, vary only within certain limits. The minimum limit, however, cannot be determined. Of course, if we make the extension line BC, or the surplus labour, equal to zero, we have a minimum limit, i.e. the part of the day in which the worker must necessarily work for his own maintenance. Under the capitalist mode of production, however, this necessary labour can form only a part of the working day: the working day can never be reduced to this minimum. On the other hand, the working day does have a maximum limit. It cannot be prolonged beyond a certain point. This maximum limit is conditioned by two things. First by the physical limits to labour-power. Within the 24 hours of the natural day a man can only expend a certain quantity of his vital force. Similarly, a horse can work regularly for only 8 hours a day. During part of the day the vital force must rest, sleep; during another part the man has to satisfy other physical needs, to feed, wash and clothe himself. Besides these purely physical limitations, the extension of the working day encounters moral obstacles. The worker needs time in which to satisfy his intellectual and social requirements, and the extent and the number of these requirements is conditioned by the general level of civilization. The length of the working day therefore fluctuates within boundaries both physical and social. But these limiting conditions are of a very elastic nature, and allow a tremendous amount of latitude. So we find working days of many different lengths, of 8, 10, 12, 14, 16 and 18 hours.

The capitalist has bought the labour-power at its daily value. The use-value of the labour-power belongs to him throughout one working day. He has thus acquired the right to make the

¹ 'A day's labour is vague, it may be long or short' (*An Essay on Trade and Commerce, Containing Observations on Taxes, etc.*, London, 1770, p. 73).

worker work for him during one day. But what is a working day?² At all events, it is less than a natural day. How much less? The capitalist has his own views of this point of no return, the necessary limit of the working day. As a capitalist, he is only capital personified. His soul is the soul of capital. But capital has one sole driving force, the drive to valorize itself, to create surplus-value, to make its constant part, the means of production, absorb the greatest possible amount of surplus labour.³ Capital is dead labour which, vampire-like, lives only by sucking living labour, and lives the more, the more labour it sucks. The time during which the worker works is the time during which the capitalist consumes the labour-power he has bought from him.⁴ If the worker consumes his disposable time for himself, he robs the capitalist.⁵

The capitalist therefore takes his stand on the law of commodity-exchange. Like all other buyers, he seeks to extract the maximum possible benefit from the use-value of his commodity. Suddenly, however, there arises the voice of the worker, which had previously been stifled in the sound and fury of the production process:

'The commodity I have sold you differs from the ordinary crowd of commodities in that its use creates value, a greater value than it costs. That is why you bought it. What appears on your side as the valorization of capital is on my side an excess expenditure of labour-power. You and I know on the market only one

2. This question is far more important than the celebrated question of Sir Robert Peel to the Birmingham Chamber of Commerce: 'What is a pound? Peel was able to pose this question only because he was as much in the dark about the nature of money as the "little shilling men" of Birmingham.

3. 'It is the aim of the capitalist to obtain with his expended capital the greatest possible quantity of labour (*d'obtenir du capital dépensé la plus forte somme de travail possible*)' (J. G. Courcelle-Seneuil, *Traité théorique et pratique des entreprises industrielles*, 2nd edn, Paris, 1857, p. 63).

4. 'An hour's labour lost in a day is a prodigious injury to a commercial State... There is a very great consumption of luxuries among the labouring poor of this kingdom; particularly among the manufacturing populace, by which they also consume their time, the most fatal of consumptions' (*An Essay on Trade and Commerce*, etc., pp. 47, 153).

5. 'If the free worker rests for an instant, the base and petty management which watches over him with wary eyes claims he is stealing from it' (N. Linguet, *Théorie des lois civiles*, etc., London, 1767, Vol. 2, p. 466).

*The followers of the banker and Radical M.P. Thomas Attwood (1783-1856) of Birmingham, so called because they advocated the repayment of creditors in shillings of a reduced gold content, as a way of solving the currency problems incurred at the end of the Napoleonic Wars. See *A Contribution to the Critique of Political Economy*, English edition, pp. 81-3.

law, that of the exchange of commodities. And the consumption of the commodity belongs not to the seller who parts with it, but to the buyer who acquires it. The use of my daily labour-power therefore belongs to you. But by means of the price you pay for it every day, I must be able to reproduce it every day, thus allowing myself to sell it again. Apart from natural deterioration through age etc., I must be able to work tomorrow with the same normal amount of strength, health and freshness as today. You are constantly preaching to me the gospel of "saving" and "abstinence". Very well! Like a sensible, thrifty owner of property I will husband my sole wealth, my labour-power, and abstain from wasting it foolishly. Every day I will spend, set in motion, transfer into labour only as much of it as is compatible with its normal duration and healthy development. By an unlimited extension of the working day, you may in one day use up a quantity of labour-power greater than I can restore in three. What you gain in labour, I lose in the substance of labour. Using my labour and despoiling it are quite different things. If the average length of time an average worker can live (while doing a reasonable amount of work) is 30 years, the value of my labour-power, which you pay me from day to day, is $\frac{1}{365 \times 30}$ or $\frac{1}{10,950}$ of its total value. But if you consume it in 10 years, you pay me daily $\frac{1}{10,950}$ instead of $\frac{1}{3,650}$ of its total value, i.e. only one-third of its daily value, and you therefore rob me every day of two-thirds of the value of my commodity. You pay me for one day's labour-power, while you use three days of it. That is against our contract and the law of commodity exchange. I therefore demand a working day of normal length, and I demand it without any appeal to your heart, for in money matters sentiment is out of place. You may be a model citizen, perhaps a member of the R.S.P.C.A., and you may be in the odour of sanctity as well; but the thing you represent when you come face to face with me has no heart in its breast. What seems to throb there is my own heartbeat. I demand a normal working day because, like every other seller, I demand the value of my commodity.⁶

6. During the great strike of the London building workers [1859-60] for the reduction of the working day to 9 hours, their committee published a manifesto that contained, to some extent, the plea of our worker. The manifesto alludes, not without irony, to the fact that the greatest profit-

We see then that, leaving aside certain extremely elastic restrictions, the nature of commodity exchange itself imposes no limit to the working day, no limit to surplus labour. The capitalist maintains his rights as a purchaser when he tries to make the working day as long as possible, and, where possible, to make two working days out of one. On the other hand, the peculiar nature of the commodity sold implies a limit to its consumption by the purchaser, and the worker maintains his right as a seller when he wishes to reduce the working day to a particular normal length. There is here therefore an antinomy, of right against right, both equally bearing the seal of the law of exchange. Between equal rights, force decides. Hence, in the history of capitalist production, the establishment of a norm for the working day presents itself as a struggle over the limits of that day, a struggle between collective capital, i.e. the class of capitalists, and collective labour, i.e. the working class.

2. THE VORACIOUS APPETITE FOR SURPLUS LABOUR. MANUFACTURER AND BOYAR

Capital did not invent surplus labour. Wherever a part of society possesses the monopoly of the means of production, the worker, free or unfree, must add to the labour-time necessary for his own maintenance an extra quantity of labour-time in order to produce the means of subsistence for the owner of the means of production,⁷ whether this proprietor be an Athenian *καλὸς κ' ἀγαθός*,* an Etruscan theocrat, a *civis romanus*, a Norman baron, an American slave-owner, a Wallachian boyar, a modern landlord or a capital-

monger among the building masters, a certain Sir M. Peto, was in the 'odour of sanctity'.* (The same Peto, after 1867, came to an end *à la* Stroussberg.)†

7. 'Those who labour . . . in reality feed both the pensioners, called the rich, and themselves' (Edmund Burke, op. cit., pp. 2-3).

*Peto was a Baptist, a benefactor to various chapels, and the author in 1842 of a pamphlet entitled *Divine Support in Death*.

†The bankruptcy of Peto's firm was in fact in 1866; the allusion here is to the bankruptcy of the German financier and speculator B. H. Stroussberg in St Petersburg in 1875 and his subsequent expulsion from Russia after being charged with fraud.

ist.⁸ It is however clear that in any economic formation of society where the use-value rather than the exchange-value of the product predominates, surplus labour will be restricted by a more or less confined set of needs, and that no boundless thirst for surplus labour will arise from the character of production itself. Hence in antiquity over-work becomes frightful only when the aim is to obtain exchange-value in its independent monetary shape, i.e. in the production of gold and silver. The recognized form of over-work here is forced labour until death. One only needs to read Diodorus Siculus.⁹ Nevertheless, these are exceptions in antiquity. But as soon as peoples whose production still moves within the lower forms of slave-labour, the *corvée*, etc. are drawn into a world market dominated by the capitalist mode of production, whereby the sale of their products for export develops into their principal interest, the civilized horrors of over-work are grafted onto the barbaric horrors of slavery, serfdom etc. Hence the Negro labour in the southern states of the American Union preserved a moderately patriarchal character as long as production was chiefly directed to the satisfaction of immediate local requirements. But in proportion as the export of cotton became of vital interest to those states, the over-working of the Negro, and sometimes the consumption of his life in seven years of labour, became a factor in a calculated and calculating system. It was no longer a question of obtaining from him a certain quantity of useful products, but rather of the production of surplus-value itself. The same is true of the *corvée*, in the Danubian Principalities for instance.

The comparison of the appetite for surplus labour in the Danubian Principalities with the same appetite as found in English factories has a special interest, because the *corvée* presents surplus labour in an independent and immediately perceptible form. Suppose the working day consists of 6 hours of necessary

8. Niebuhr remarks very naively in his *Roman History*: 'It is evident that monuments like those of the Etruscans, which astound us even in their ruins, presuppose lords and vassals in small (!) states.' Sismondi, with deeper insight, says that 'Brussels lace' presupposes wage-lords and wage-slaves.

9. 'One cannot see these unfortunates' (in the gold mines between Egypt, Ethiopia and Arabia) 'who are unable even to keep their bodies clean or to clothe their nakedness, without pitying their miserable lot. There is no indulgence, no forbearance for the sick, the feeble, the aged, or for feminine weaknesses. All, forced by blows, must work on until death puts an end to their sufferings and their distress' (Diodorus Siculus, *Historische Bibliothek*, Bk III, Ch. 13).

* 'Handsome and good': ancient Greek expression for an aristocrat.

labour and 6 hours of surplus labour. Then the free worker gives the capitalist 6×6 or 36 hours of surplus labour every week. It is the same as if he worked 3 days in the week for himself and 3 days in the week gratis for the capitalist. But this fact is not directly visible. Surplus labour and necessary labour are mingled together. I can therefore express the same relation by saying for instance that in every minute the worker works 30 seconds for himself and 30 seconds for the capitalist, etc. It is otherwise with the *corvée*. The necessary labour which the Wallachian peasant performs for his own maintenance is distinctly marked off from his surplus labour on behalf of the boyar. The one he does on his own field, the other on the seignorial estate. Both parts of the labour-time thus exist independently, side by side with each other. In the *corvée* the surplus labour is accurately marked off from the necessary labour. However, this clearly alters nothing in the quantitative relation of surplus labour to necessary labour. Three days' surplus labour in the week remain three days that yield no equivalent to the worker himself, whether the surplus labour is called *corvée* or wage-labour. But in the capitalist the appetite for surplus labour appears in the drive for an unlimited extension of the working day, while in the boyar it appears more simply in a direct hunt for days of *corvée*.¹⁰

In the Danubian Principalities the *corvée* was linked with rents in kind and other appurtenances of serfdom, but it formed the most important tribute paid to the ruling class. Where this was the case, the *corvée* rarely arose from serfdom; instead serfdom arose, inversely, from the *corvée*.¹¹ This is what took place in the 10. What follows refers to the situation in the Romanian provinces before the transformations which have occurred since the Crimean War.*

11. [Note by Engels to the third German edition:] This is also true of Germany, and especially of Prussia east of the Elbe. In the fifteenth century the German peasant was nearly everywhere a man who, though subject to certain obligations in the form of produce and labour, was otherwise at least in practice free. The German colonists in Brandenburg, Pomerania, Silesia and East Prussia were even legally acknowledged as free men. The victory of the nobility in the Peasants' War put an end to that. Not only were the conquered South German peasants again enslaved, but also, after the middle of the sixteenth century, the peasants of East Prussia, Brandenburg, Pomerania and Silesia were degraded to the condition of serfs. Soon afterwards the free peasants of Schleswig-Holstein followed them. (Maurer, *Fronhöfe*, Vol. 4; Meitzen, *Der Boden des Preussischen Staates*; Hanssen, *Leibensschaft in Schleswig-Holstein*.)

*The agrarian reforms of the 1860s, which included the abolition of serfdom (see p. 271, last note).

Romanian provinces. Their original mode of production was based on communal property, but not communal property in its Slav or Indian form. Part of the land was cultivated independently as free private property by the members of the commune, another part – the *ager publicus* – was cultivated by them in common. The products of this common labour served partly as a reserve fund against bad harvests and other misfortunes, partly as a kind of state treasury to cover the costs of war, religion and other communal expenses. In the course of time military and clerical dignitaries usurped the communal land, and along with this the obligations owed to it. The labour of the free peasants on their communal land was transformed into *corvée* performed for the thieves who had taken that land. This *corvée* soon developed into a servile relationship existing in point of fact, though not legally, until Russia, the liberator of the world, raised it to the level of a law on the pretext of abolishing serfdom.* The code of the *corvée*, which the Russian General Kiselev proclaimed in 1831, was of course dictated by the boyars themselves. Thus, at one stroke, Russia both conquered the magnates of the Danubian Principalities and earned the applause of cretinous liberals throughout Europe.

According to the *Règlement organique*, as this code of the *corvée* is called, every Wallachian peasant owes to the so-called landlord, besides a mass of payments in kind, which are specified in detail, the following: (1) 12 days of labour in general, (2) 1 day of field labour, (3) 1 day of wood-carrying. Taken together, this is 14 days in the year. However, with deep insight into political economy, the working day is not taken in its ordinary sense, but as the working day necessary to the production of an average daily product; and that average daily product is determined in such a sly manner that even a Cyclops would be unable to finish the job within 24 hours. Therefore the *Règlement* itself declares, dryly and with true Russian irony, that by 12 working days one must understand the product of the manual labour of 36 days, by 1 day of field labour 3 days, and by 1 day of wood-carrying, similarly, 3 times as much. The sum total is now 42 days of *corvée*. To this had to be added the so-called *jobbagio*, service due to the lord for emergency requirements. In proportion to the size of its population, every village has to furnish annually a definite contingent to the *jobbagio*. This additional *corvée* is estimated at 14 days for each Wallachian

*The Danubian Principalities were under Russian occupation between 1828 and 1834. General P. D. Kiselev was the viceroy.

peasant. Thus the prescribed *corvée* amounts to 56 working days every year. But because of the severe climate the agricultural year in Wallachia numbers only 210 days, of which 40 for Sundays and holidays, and 30 on an average for bad weather, together 70 days, do not count. 140 working days remain. The ratio of the *corvée* to the necessary labour 56/84, or 66⅔ per cent, gives a much smaller rate of surplus-value than that which regulates the work of the English agricultural labourer or factory worker. This is, however, only the legally prescribed *corvée*. And in a spirit yet more 'liberal' than the English Factory Acts, the *Règlement organique* was able to facilitate its own evasion. After it has made 56 days out of 12, the nominal day's work of each of the 56 *corvée* days is again so arranged that a portion of it must fall on the next day. In one day, for instance, an amount of land must be weeded which would require twice as much time for this work, particularly on the maize plantations. The legal day's work for some kinds of agricultural labour can be interpreted in such a way that the day begins in the month of May and ends in the month of October. For Moldavia the regulations are even stricter. 'The 12 *corvée* days of the *Règlement organique*,' cried a boyar, drunk with victory, 'amount to 365 days in the year.'¹²

If the *Règlement organique* of the Danubian Principalities was a positive expression of the appetite for surplus labour which every paragraph legalized, the English Factory Acts are the negative expression of the same appetite. These laws curb capital's drive towards a limitless draining away of labour-power by forcibly limiting the working day on the authority of the state, but a state ruled by capitalist and landlord. Apart from the daily more threatening advance of the working-class movement, the limiting of factory labour was dictated by the same necessity as forced the manuring of English fields with guano. The same blind desire for profit that in the one case exhausted the soil had in the other case seized hold of the vital force of the nation at its roots. Periodical epidemics speak as clearly on this point as the diminishing military standard of height in France and Germany.¹³

¹² Further details are to be found in E. Regnault's *Histoire politique et sociale des principautés danubiennes*, Paris, 1855 [pp. 304 ff.].

¹³ 'In general and within certain limits, evidence of the prosperity of organic beings is provided by their exceeding the medium size of their kind. As for man, his bodily height diminishes if his due growth is interfered with, either by physical or by social conditions. In all European countries in which

The Factory Act of 1850 now in force (1867) allows 10 hours for the average working day, i.e. for the first five days 12 hours from 6 a.m. to 6 p.m., including half an hour for breakfast, and an hour for dinner, thus leaving 10½ working hours, and 8 hours for Saturday, from 6 a.m. to 2 p.m., of which half an hour is subtracted for breakfast. 60 working hours are left, 10½ for each of the first 5 days, 7½ for the last.¹⁴ Certain guardians of these laws are appointed, factory inspectors, directly under the Home Secretary, and their reports are published every six months by order of Parliament. They therefore provide regular and official statistics of the voracious appetite of the capitalists for surplus labour.

Let us listen for a moment to the factory inspectors.¹⁵ 'The fraudulent mill-owner begins work a quarter of an hour (some-

there is conscription, the medium height of adult men, and in general their fitness for military service, has diminished since it was introduced. Before the revolution of 1789 the minimum for the infantry in France was 165 cm.; in 1818 (law of 10 March), 157 cm.; by the law of 21 March 1832, 156 cm.; on an average in France more than half of all the conscripts are rejected on account of deficient height or bodily weakness. The military standard of height in Saxony in 1780 was 178 cm. It is now 155. In Prussia it is 157. According to Dr Meyer's statement of 9 May 1862 in the *Bayrische Zeitung*, taking an average over nine years, in Prussia 716 out of every 1,000 conscripts were unfit for military service, 317 because of deficiency in height, and 399 because of bodily defects. . . . Berlin in 1838 could not provide its contingent of recruits; it was 156 men short' (J. von Liebig, *Die Chemie in ihrer Anwendung auf Agrikultur und Physiologie*, 7th edn, Vol. 1, pp. 117-18).

¹⁴ The history of the Factory Act of 1850 will be found later in this chapter.

¹⁵ I only touch here and there on the period from the beginning of modern industry in England to 1845, concerning which I would refer the reader to *Die Lage der arbeitenden Klasse in England*, by Friedrich Engels, Leipzig, 1845 (English translation: *The Condition of the Working Class in England*, Panther, 1969). How well Engels understood the spirit of the capitalist mode of production is shown by the Factory Reports, Reports on Mines, etc. which have appeared since 1845, and how wonderfully he painted the circumstances in detail is seen on the most superficial comparison of his work with the official reports of the Children's Employment Commission, published eighteen to twenty years later (1863-7). These deal especially with the branches of industry in which the Factory Acts had not, up to 1862, been introduced, and in part remain un-introduced up to the present. Here then, little or no alteration had been enforced by authority in the conditions depicted by Engels. I have taken my examples chiefly from the free-trade period after 1848, that parasitic age whose commercial travellers spin such fabulous tales to the Germans, so blatantly and with such a total neglect of economic science. In passing, let us note that England figures in the foreground here because it is the classic representative of capitalist production, and is the only country to possess a continuous set of official statistics relating to the matters we are considering.

times more, sometimes less) before 6 a.m., and leaves off a quarter of an hour (sometimes more, sometimes less) after 6 p.m. He takes 5 minutes from the beginning and from the end of the half hour nominally allowed for breakfast, and 10 minutes at the beginning and end of the hour nominally allowed for dinner. He works for a quarter of an hour (sometimes more, sometimes less) after 2 p.m. on Saturday. Thus his gain is:

Before 6 a.m.	15 minutes
After 6 p.m.	15 minutes
At breakfast time	10 minutes
At dinner time	20 minutes
	60 minutes
Total for five days	300 minutes
On Saturday before 6 a.m.	15 minutes
At breakfast time	10 minutes
After 2 p.m.	15 minutes
	40 minutes
Weekly total	340 minutes

Or 5 hours and 40 minutes weekly, which, multiplied by 50 working weeks in the year (allowing two for holidays and occasional stoppages), is equal to 27 working days.¹⁶

'Five minutes a day's increased work, multiplied by weeks, are equal to two and a half days of produce in the year.'¹⁷ 'An additional hour a day gained by small instalments before 6 a.m., after 6 p.m., and at the beginning and end of the times nominally fixed for meals, is nearly equivalent to working 13 months in the year.'¹⁸

Crises during which production is interrupted and the factories work 'short time', i.e. for only a part of the week, naturally do not affect the tendency to extend the working day. The less business there is, the more profit has to be made on the business done. The less time spent in work, the more of that time has to be turned into surplus labour-time. This is how the factory inspectors report on the period of crisis from 1857 to 1858:

16. 'Suggestions, etc., by Mr L. Horner, Inspector of Factories', in *Factories Regulation Acts*. Ordered by the House of Commons to be printed, 9 August 1859, pp. 4-5.

17. *Reports of the Inspectors of Factories for the Half Year, October 1856*, p. 35.

18. *Reports, etc.* . . . 30 April 1858, p. 9.

'It may seem inconsistent that there should be any over-working at a time when trade is so bad; but that very badness leads to the transgression by unscrupulous men, they get the extra profit of it . . . In the last half year,' says Leonard Horner, '122 mills in my district have been given up; 143 were found standing, yet over-work is continued beyond the legal hours.'¹⁹ 'For a great part of the time,' says Mr Howell, 'owing to the depression of trade, many factories were altogether closed, and a still greater number were working short time. I continue, however, to receive about the usual number of complaints that half, or three-quarters of an hour in the day, are snatched from the workers by encroaching upon the times professedly allowed for rest and refreshment.'²⁰

The same phenomenon was repeated on a smaller scale during the frightful cotton crisis from 1861 to 1865.²¹ 'It is sometimes advanced by way of excuse, when persons are found at work in a factory, either at a meal hour, or at some illegal time, that they will not leave the mill at the appointed hour, and that compulsion is necessary to force them to cease work' (cleaning their machinery, etc.) 'especially on Saturday afternoons. But, if the hands remain in a factory after the machinery has ceased to revolve . . . they would not have been so employed if sufficient time had been set apart specially for cleaning, etc., either before 6 a.m. or before 2 p.m. on Saturday afternoons.'²²

19. *Ibid.*, p. 10.

20. *Ibid.*, p. 25.

21. *Reports, etc.*, for the Half Year ending 30 April 1861. See Appendix No. 2; *Reports, etc.*, 31 October 1862, pp. 7, 52, 53. Violations of the Acts became more numerous during the last half of the year 1863. Cf. *Reports, etc.*, ending 31 October 1863, p. 7.

22. *Reports, etc.*, 31 October 1860, p. 23. With what fanaticism, according to the evidence of manufacturers given in courts of law, their hands set themselves against every interruption in factory labour, is shown by the following curious incident. At the beginning of June 1836, information reached the magistrates of Dewsbury (Yorkshire) that the owners of eight large mills in the neighbourhood of Batley had violated the Factory Act. Some of these gentlemen were accused of having kept five boys between 12 and 15 years of age at work from 6 a.m. on Friday to 4 p.m. on the following Saturday, not allowing them any respite except for meals and one hour for sleep at midnight. And these children had to do this ceaseless labour of 30 hours in the 'shoddy-hole', the name for the hole where the woolen rags are pulled to pieces, and where a dense atmosphere of dust, shreds, etc. forces even the adult worker to cover his mouth continually with handkerchiefs for the protection of his lungs! The accused gentlemen affirmed in lieu of taking an oath - as Quakers they were too scrupulously religious to take an oath - that they had, in their

'The profit to be gained by it' (over-working in violation of the Act) 'appears to be, to many, a greater temptation than they can resist: they calculate upon the chance of not being found out; and when they see the small amount of penalty and costs, which those who have been convicted have had to pay, they find that if they should be detected there will still be a considerable balance of gain...'²³ 'In cases where the additional time is gained by a multiplication of small thefts in the course of the day, there are insuperable difficulties to the inspectors making out a case.'²⁴

These 'small thefts' of capital from the workers' meal-times and recreation times are also described by the factory inspectors as 'petty pilferings of minutes',²⁵ 'snatching a few minutes',²⁶ or, in the technical language of the workers, 'nibbling and cribbling at meal-times'.²⁷

It is evident that in this atmosphere the formation of surplus-value by surplus labour is no secret. 'If you allow me (as I was informed by a highly respectable master) to work only ten minutes in the day over-time, you put one thousand a year in my pocket.'²⁸ 'Moments are the elements of profit.'²⁹

In this connection, nothing is more characteristic than the designation of the workers who work full time as 'full-timers', and the children under 13 who are only allowed to work six hours as 'half-timers'.³⁰ The worker is here nothing more than personified

great compassion for the unhappy children, allowed them four hours for sleep, but the obstinate children absolutely would not go to bed. The Quaker gentlemen were fined £20. Dryden anticipated the attitude of these Quakers:

'Fox full fraught in seeming sanctity,
That feared an oath, but like the devil would lie,
That look'd like Lent, and had the holy Jeer,
And durst not sin! before he said his prayer!'

23. *Reports, etc.*, 31 October 1856, p. 34.

24. *ibid.*, p. 35.

25. *ibid.*, p. 48.

26. *ibid.*, p. 48.

27. *ibid.*, p. 48.

28. *ibid.*, p. 48.

29. *Reports of the Inspectors of Factories for 30 April 1860*, p. 56.

30. This is the official expression both in the factories and in the reports.

* Dryden, 'The Cook and the Fox: or, the Tale of the Nun's Priest' (1700), lines 480-88. 'Fox' in the first line is presumably George Fox (1624-91), the founder of the Quaker sect.

labour-time. All individual distinctions are obliterated in that between 'full-timers' and 'half-timers'.

3. BRANCHES OF ENGLISH INDUSTRY WITHOUT LEGAL LIMITS TO EXPLOITATION

So far, we have observed the drive towards the extension of the working day, and the werewolf-like hunger for surplus labour, in an area where capital's monstrous outrages, unsurpassed, according to an English bourgeois economist, by the cruelties of the Spaniards to the American red-skins,³¹ caused it at last to be bound by the chains of legal regulations. Now let us cast a glance at certain branches of production in which the exploitation of labour is either still unfettered even now, or was so yesterday.

'Mr Broughton Charlton, county magistrate, declared, as chairman of a meeting held at the Assembly Rooms, Nottingham, on 14 January 1860, that there was an amount of privation and suffering among that portion of the population connected with the lace trade, unknown in other parts of the kingdom, indeed, in the civilized world... Children of nine or ten years are dragged from their squalid beds at two, three, or four o'clock in the morning and compelled to work for a bare subsistence until ten, eleven, or twelve at night, their limbs wearing away, their frames dwindling, their faces whitening, and their humanity absolutely sinking into a stone-like torpor, utterly horrible to contemplate... We are not surprised, he went on, that Mr Mallett, or any other manufacturer, should stand forward and protest against discussion... The system, as the Rev. Montagu Valpy describes it, is one of unmitigated slavery, socially, physically, morally, and spiritually... What can be thought of a town which holds a public meeting to petition that the period of labour for men shall be diminished to eighteen hours a day?... We declaim against the Virginian and Carolinian cotton-planters. Is their black-market, their lash, and their barter of human flesh more detestable than

31. 'The cupidity of mill-owners whose cruelties in the pursuit of gain have hardly been exceeded by those perpetrated by the Spaniards in the conquest of America in the pursuit of gold' (John Wade, *History of the Middle and Working Classes*, 3rd edn, London, 1835, p. 114). The theoretical part of this book, which is a kind of outline of political economy, contains, considering when it was published, certain original elements, for instance on commercial crises. The historical part suffers by being a shameless plagiarism of Sir F. M. Eden's *The State of the Poor*, London, 1797.

this slow sacrifice of humanity which takes place in order that veils and collars may be fabricated for the benefit of capitalists.³²

The potteries of Staffordshire have, during the last twenty-two years, formed the subject-matter of three Parliamentary inquiries. The results are embodied in Mr Scriven's Report of 1841 to the 'Children's Employment Commissioners', in Dr Greenhow's Report of 1860 published by order of the medical officer of the Privy Council (*Public Health, Third Report*, I, 102-13), and lastly in Mr Longe's Report of 1862, printed in the *Children's Employment Commission, First Report*, dated 13 June 1863. For my purpose it is enough to take some of the depositions of the exploited children themselves from the reports of 1860 and 1863. From the children we may deduce the situation of the adults, especially the girls and women, and in a branch of industry, indeed, alongside which cotton spinning appears as a very agreeable and healthy occupation.³³

William Wood, 9 years old, 'was 7 years 10 months old when he began to work'. He 'ran moulds' (carried ready-moulded articles into the drying-room, afterwards bringing back the empty mould) from the very beginning. He came to work every day in the week at 6 a.m., and left off at about 9 p.m. 'I work till 9 o'clock at night six days in the week. I have done so for the last seven or eight weeks.' Fifteen hours of labour for a child of 7! J. MURRAY, 12 years of age, says: 'I turn jigger and run moulds. I come at 6. Sometimes I come at 4. I worked all night last night, till 6 o'clock this morning. I have not been in bed since the night before last. There were eight or nine other boys working last night. All but one have come this morning. I get 3 shillings and sixpence. I do not get any more for working at night. I worked two nights last week.' FERRYHOUGH, a boy of 10: 'I have not always an hour (for dinner). I have only half an hour sometimes: on Thursday, Friday, and Saturday.'³⁴

Dr Greenhow states that the average life-expectancy in the pottery districts of Stoke-on-Trent and Wolstanton is extraordinarily low. Although only 36.6 per cent of the male population over the age of 20 are employed in the potteries in the district of Stoke, and 30.4 per cent in Wolstanton, more than half the deaths

among men of that age in the first district, and nearly two-fifths in the second district, are the result of pulmonary diseases among the potters. Dr Boothroyd, a medical practitioner at Hanley, says: 'Each successive generation of potters is more dwarfed and less robust than the preceding one.' Similarly another doctor, Mr McBean, states: 'Since I began to practise among the potters 25 years ago, I have observed a marked degeneration, especially shown in diminution of stature and breadth.' These statements are taken from Dr Greenhow's Report of 1860.³⁵

From the report of the Commissioners in 1863, the following: Dr J. T. Arledge, senior physician of the North Staffordshire Infirmary, says: 'The potters as a class, both men and women, represent a degenerated population, both physically and morally. They are, as a rule, stunted in growth, ill-shaped, and frequently ill-formed in the chest; they become prematurely old, and are certainly short-lived; they are phlegmatic and bloodless, and exhibit their debility of constitution by obstinate attacks of dyspepsia, and disorders of the liver and kidneys, and by rheumatism. But of all diseases they are especially prone to chest-disease, to pneumonia, phthisis, bronchitis, and asthma. One form would appear peculiar to them, and is known as potter's asthma, or potter's consumption. Scrofula attacking the glands, or bones, or other parts of the body, is a disease of two-thirds or more of the potters... That the "degenerescence" of the population of this district is not even greater than it is, is due to the constant recruiting from the adjacent country, and intermarriages with more healthy races.'³⁶

Mr Charles Parsons, until recently the House Surgeon of the same hospital, writes in a letter to Commissioner Longe, amongst other things: 'I can only speak from personal observation and not from statistical data, but I do not hesitate to assert that my indignation has been aroused again and again at the sight of poor children whose health has been sacrificed to gratify the avarice of either parents or employers.' He enumerates the causes of the diseases of the potters, and sums them up in the phrase 'long hours'. In their report, the Commissioners express the hope that 'a manufacture which has assumed so prominent a place in the whole world, will not long be subject to the remark that its great success is accompanied with the physical deterioration, wide-

32. *Daily Telegraph*, 17 January 1860.

33. Cf. Engels, *Lage etc.*, pp. 249-51 [English translation, pp. 232-4].

34. *Children's Employment Commission, First Report, etc.*, 1863, Appendix, pp. 16, 19, 18.

35. *Public Health, Third Report, etc.*, pp. 102, 104, 105.

36. *Children's Employment Commission, First Report, etc.*, 1863, p. 24.

spread bodily suffering, and early death of the workpeople . . . by whose labour and skill such great results have been achieved.'³⁷ And all that holds of the potteries in England is true of those in Scotland.³⁸

The manufacture of matches dates from 1833, from the discovery of the method of applying phosphorus to the match itself. Since 1845 this branch of industry has developed rapidly in England, and has spread out from the thickly populated parts of London to the cities of Manchester, Birmingham, Liverpool, Bristol, Norwich, Newcastle and Glasgow. It has brought with it tetanus, a disease which a Vienna doctor already discovered in 1845 to be peculiar to the makers of matches. Half the workers are children under 13 and young persons under 18. The manufacture of matches, on account of its unhealthiness and unpleasantness, has such a bad reputation that only the most miserable part of the working class, half-starved widows and so forth, deliver up their children to it, their 'ragged, half-starved, untaught children'.³⁹ Of the witnesses examined by Commissioner White (1863), 270 were under 18, fifty under 10, ten only 8, and five only 6 years old. With a working day ranging from 12 to 14 or 15 hours, night-labour, irregular meal-times, and meals mostly taken in the workrooms themselves, pestilent with phosphorus, Dante would have found the worst horrors in his Inferno surpassed in this industry.

In the manufacture of wallpaper the coarser sorts are printed by machine; the finer by hand (block printing). The most active business months are from the beginning of October to the end of April. During this time the work often lasts, almost uninterruptedly, from 6 a.m. to 10 p.m. or further into the night.

J. Leach's deposition: 'Last winter six out of nineteen girls were away from ill-health at one time from over-work. I have to bawl at them to keep them awake.' W. Duffy: 'I have seen when the children could none of them keep their eyes open for the work; indeed, none of us could.' J. Lightbourne: 'Am 13 . . . We worked last winter till 9 (evening), and the winter before till 10. I used to cry with sore feet every night last winter.' G. Apsden: 'That boy of mine . . . when he was 7 years old I used to carry him on my back to and fro through the snow, and he used to have 16 hours a

day . . . I have often knelt down to feed him as he stood by the machine, for he could not leave it or stop.' Smith, the managing partner of a Manchester factory: 'We (he means his "hands" who work for "us") work on, with no stoppage for meals, so that the day's work of 10½ hours is finished by 4.30 p.m., and all after that is overtime.'⁴⁰ (Does this Mr Smith take no meals himself during 10½ hours?) 'We' (this same Smith) 'seldom leave off working before 6 p.m.' (he means leave off from consuming 'our' labour-power machines), 'so that we' (the same man again) 'are really working overtime the whole year round . . . For all these, children and adults alike (152 children and young persons and 140 adults), the average work for the last 18 months has been at the very least 7 days, 5 hours, or 78½ hours a week. For the six weeks ending 2 May this year (1862), the average was higher — 8 days or 84 hours a week.' Despite this, the same Mr Smith, who is so fond of the plural of majesty, adds, smirking with satisfaction, 'Machine-work is not great.' Similarly, the employers in the block-printing trade say: 'Hand labour is more healthy than machine-work.' On the whole, manufacturers are indignantly opposed to the proposal 'to stop the machines at least during meal-times'.

'A clause which allowed work between say 6 a.m. and 9 p.m.,' says Mr Otley, manager of a wallpaper factory in the Borough (a district of London), 'would suit us (!) very well, but the factory hours, 6 a.m. to 6 p.m., are not suitable. Our machine is always stopped for dinner.' (What generosity!) 'There is no waste of paper and colour to speak of. But,' he adds sympathetically, 'I can understand the loss of time not being liked.' In the Commission's report the naive opinion is expressed that the fear in some 'leading firms' of losing time, i.e. the time for appropriating the labour of others [*fremde Arbeit*],* and thereby 'losing profit', is not a 'sufficient reason' for 'allowing children under 13, and

40. This is not to be taken in the same sense as our surplus labour-time. These gentlemen consider 10½ hours of labour as the normal working day, and this of course includes the normal quantity of surplus labour. After this begins 'overtime', which is paid a little better. It will be seen later that the labour expended during the so-called normal day is paid below its value, so that overtime is merely a capitalist trick to extort more surplus labour. In any case, this would remain true of overtime even if the labour-power expended during the normal working day were paid for at its full value.

37. *Children's Employment Commission, First Report, etc.*, 1863, p. 22, and xi.
38. *ibid.*, p. xviii.
39. *ibid.*, p. liv.

*Here, as elsewhere, we have opted for 'labour of others' rather than 'alien labour'.

young persons under 18, working 12 to 16 hours per day, to lose their dinner', nor for giving it to them as coal and water are supplied to the steam-engine, soap to wool, oil to the wheel—namely during the process of production itself, as merely auxiliary material for the instruments of labour.⁴¹

No other branch of industry in England has preserved up to the present day a method of production as archaic, as pre-Christian (as we see from the poets of the Roman Empire) as baking has. (We shall disregard the practice of making bread by machinery, which has only recently begun to make its way here.) But capital, as we said earlier, is at first indifferent towards the technical character of the labour process it seizes control of. At the outset, it takes it as it finds it.

The incredible adulteration of bread, especially in London, was first revealed by the Committee of the House of Commons 'on the adulteration of articles of food' (1855-6), and by Dr Hassall's work *Adulterations Detected*.⁴² The consequence of these revelations was the Act of 6 August 1860, 'for preventing the adulteration of articles of food and drink', an inoperative law, as it naturally shows the tenderest consideration for every 'freetrader' who decides 'to turn an honest penny' by buying and selling adulterated commodities.⁴³ The Committee itself more or less naively formulated its conviction that free trade essentially meant trade with adulterated, or as the English ingeniously put it, 'sophisticated' goods. In fact, this kind of 'sophistry' understands and better than Protagoras how to make white black, and black white, eyes that everything real is merely apparent.⁴⁴

41. *Children's Employment Commission, First Report, etc.*, 1863, Appendix pp. 123-5, 140, and lxiv.

42. Alum, either finely powdered or mixed with salt, is a normal article of commerce bearing the significant name of 'baker's stuff'.

43. Soot is a very active form of carbon, and provides a manure sold by capitalist chimney-sweeps to English farmers. Now, in 1862 the British 'judge' had to decide in a law-suit whether soot with which, unknown to the buyer, 90 per cent of dust and sand are mixed, is 'genuine' soot in the 'commercial' sense or 'adulterated' soot in the 'legal' sense. The 'friends of commerce' decided it was 'genuine' commercial soot, and rejected the suit of the plaintiff, a farmer, who had in addition to pay the costs of the proceedings.
44. The French chemist, Chevallier, in his treatise on the 'sophistications'

*The Eleatics were Greek philosophers of the sixth and fifth centuries B.C., who held that Being alone was true, and that everything outside the One fixed Being was merely apparent.

At all events the Committee had directed the attention of the public to its 'daily bread', and therefore to the baking trade. At the same time the cry of the London journeymen bakers against their over-work rose in public meetings and petitions to Parliament. The cry was so urgent that Mr H. S. Tremenhoe, also a member of the above-mentioned Commission of 1863, was appointed a Royal Commissioner of Inquiry. His report,⁴⁵ together with the evidence given, moved the public not in its heart but in its stomach. Englishmen, with their good command of the Bible, knew well enough that man, unless by elective grace a capitalist, or a landlord, or the holder of a sinecure, is destined to eat his bread in the sweat of his brow, but they did not know that he had to eat daily in his bread a certain quantity of human perspiration mixed with the discharge of abscesses, cobwebs, dead cockroaches and putrid German yeast, not to mention alum, sand and other agreeable mineral ingredients. Without any regard for His Holiness 'Free Trade', the hitherto 'free' baking trade was therefore placed under the supervision of state-appointed inspectors (at the close of the Parliamentary session of 1863), and by the same Act of Parliament from 9 in the evening to 5 in the morning was forbidden for journeymen bakers under 18. The last clause speaks volumes as to the over-work in this old-fashioned, homely line of business.

'The work of a London journeyman baker begins, as a rule, at about eleven at night. At that hour he "makes the dough" — a laborious process, which lasts from half an hour to three quarters of an hour, according to the size of the batch or the labour bestowed upon it. He then lies down upon the kneading-board, which is also the covering of the trough in which the dough is

of commodities, * enumerates, for many of the 600 or more articles he passes in review, 10, 20, 30 different methods of adulteration. He adds that he does not know all the methods, and does not mention all that he knows. He gives 6 kinds of adulteration of sugar, 9 of olive oil, 10 of butter, 12 of salt, 19 of milk, 20 of bread, 23 of brandy, 24 of meal, 28 of chocolate, 30 of wine, 32 of coffee, etc. Even God Almighty does not escape this fate. See Rouard de Card, *De la falsification des substances sacramentelles*, Paris, 1856.

45. *Report, etc., Relative to the Grievances Complaind of by the Journey-men Bakers, etc.*, London, 1862, and *Second Report, etc.*, London, 1863.

*Jean Baptiste Alphonse Chevallier (1793-1879) was a chemist who wrote extensively on adulterations. His main work is *Dictionnaire des altérations et falsifications des substances alimentaires, médicamenteuses et commerciales, avec l'indication des moyens de les reconnaître* (Paris, 1850-52, 2 vols).

"made"; and with a sack under him, and another rolled up as a pillow, he sleeps for about a couple of hours. He is then engaged in a rapid and continuous labour for about five hours — throwing out the dough, "scaling it off", moulding it, putting it into the oven, preparing and baking rolls and fancy bread, taking the batch bread out of the oven, and up into the shop, etc., etc. The temperature of a bakehouse ranges from about 75 to upwards of 90 degrees, and in the smaller bakehouses approximates usually to the higher rather than to the lower degree of heat. When the business of making the bread, rolls, etc., is over, that of its distribution begins, and a considerable proportion of the journeymen in the trade, after working hard in the manner described during the night, are upon their legs for many hours during the day, carrying baskets, or wheeling hand-carts, and sometimes again in the bakehouse, leaving off work at various hours between 1 and 6 p.m. according to the season of the year, or the amount and nature of their master's business; while others are again engaged in the bakehouse in "bringing out" more batches until late in the afternoon.⁴⁶ ... 'During what is called "the London season", the operatives belonging to the "full-priced" bakers at the West End of the town generally begin work at 11 p.m., and are engaged in making the bread, with one or two short (sometimes very short) intervals of rest, up to 8 o'clock the next morning. They are then engaged all day long, up to 4, 5, 6, and as late as 7 o'clock in the evening carrying out bread, or sometimes in the afternoon in the bakehouse again, assisting in the biscuit-baking. They may have, after they have done their work, sometimes 5 or 6, sometimes only four or five hours' sleep before they begin again. On Fridays they always begin sooner, some about 10 o'clock, and continue in some cases, at work, either in making or delivering the bread up to 8 p.m. on Saturday night, but more generally up to 4 or 5 o'clock, Sunday morning. On Sundays the men must attend twice or three times during the day for an hour or two to make preparations for the next day's bread ... The men employed by the underselling masters (who sell their bread under the "full price", and who, as already pointed out, comprise three-fourths of the London bakers) have not only to work on the average longer hours, but their work is almost entirely confined to the bakehouse. The underselling masters generally sell their bread ... in the shop. If they send it out, which is not common, except as supplying

46. *First Report, etc.*, pp. vi-viii.

chandlers' shops, they usually employ other hands for that purpose. It is not their practice to deliver bread from house to house. Towards the end of the week ... the men begin on Thursday night at 10 o'clock, and continue on with only slight intermission until late on Saturday evening.⁴⁷

Even the bourgeois, from his standpoint, grasps the position of the 'underselling masters': 'The unpaid labour of the men was made the source whereby the competition was carried on.'⁴⁸ And the 'full-priced baker' denounces his 'underselling' competitors to the Commission of Inquiry as thieves of other people's labour and adulterators of the product. 'They only exist now by first defrauding the public, and next getting 18 hours' work out of their men for 12 hours' wages.'⁴⁹

The adulteration of bread, and the formation of a class of bakers who sell bread for less than its full price, are developments which have taken place in England since the beginning of the eighteenth century, i.e. as soon as the corporate character of the trade was lost, and the capitalist stepped behind the nominal master baker in the shape of a miller or a flour factor.⁵⁰ This laid the foundation for capitalist production in this trade, for the unlimited extension of the working day, and for night work, although the last-mentioned has secured a real foothold only since 1824, even in London.⁵¹

After what has just been said, it will be understood that the Commission's report classes journeymen bakers among the short-lived workers, who, having by good luck escaped the normal declination of the children of the working class, rarely reach the age of 42. Nevertheless, the baking trade is always overwhelmed with applicants. The sources for the supply of these 'labour-powers' to London are Scotland, the agricultural districts of the West of England, and — Germany.

47. *Ibid.*, p. lxii.

48. George Read, *The History of Baking*, London, 1848, p. 16.

49. *First Report, etc.* Evidence of the 'full-priced baker' Cheeseman, p. 108.

50. George Read, *op. cit.* At the end of the seventeenth and the beginning of the eighteenth century the factors (i.e. agents) who crowded into every possible trade were still denounced as 'public nuisances'. For example, the Grand Jury at the quarter session of the Justices of the Peace for the County of Somerset addressed a 'presentation' to the House of Commons which states, among other things, 'that these factors of Blackwell Hall are a Public Nuisance and Prejudice to the Clothing Trade, and ought to be put down as a Nuisance' (*The Case of our English Wool, etc.*, London, 1685, pp. 6, 7).

51. *First Report, etc.*, p. viii.

In the years 1858–60 the journeymen bakers of Ireland organized, at their own expense, huge meetings to agitate against night work and Sunday work. The public – for example at the Dublin meeting of May 1860 – supported them with typically Irish warmth. As a result of this movement, a rule of exclusive day-labour was successfully established in Wexford, Kilkenny, Clonmel, Waterford, etc. In Limerick, where the grievances of the journeymen are demonstrated to be excessive, the movement has been defeated by the opposition of the master bakers, the miller bakers being the greatest opponents. The example of Limerick led to a retrogression in Ennis and Tipperary. In Cork, where the strongest possible demonstration of feeling took place, the masters, by exercising their power of turning the men out of employment, have defeated the movement. In Dublin, the master bakers have offered the most determined opposition to the movement, and by discountenancing as much as possible the journeymen promoting work and night work, contrary to the convictions of the men.⁵²

The Committee of the English government, a government which, in Ireland, is armed to the teeth, merely remonstrates, in funeral tones it is true, against the implacable master bakers of Dublin, Limerick, Cork, etc.: 'The Committee believe that the hours of labour are limited by natural laws, which cannot be violated with impunity. That for master bakers to induce their workmen, by the fear of losing employment, to violate their religious convictions and their better feelings, to disobey the laws of the land, and to disregard public opinion' (this all refers to Sunday labour) 'is calculated to provoke ill-feeling between workmen and masters . . . and affords an example dangerous to religion, morality, and social order . . . The Committee believe that any constant work beyond 12 hours a day encroaches on the domestic and private life of the working man, and so leads to disastrous moral results, interfering with each man's home, and the discharge of his family duties as a son, a brother, a husband, a father. That work beyond 12 hours has a tendency to undermine the health of the working man, and so leads to premature old age and death, to the great injury of families of working men, thus deprived of the care and support of the head of the family when most required.'⁵³

52. *Report of the Committee on the Baking Trade in Ireland for 1861*, 53. *ibid.*

We have just been in Ireland. On the other side of the channel, in Scotland, the agricultural labourer, the man of the plough, is protesting against his 13 to 14 hours' work in a very severe climate, with 4 hours' additional work on Sunday (in that land of Sabbatarians!).⁵⁴ while simultaneously in London three railwaymen – a guard, an engine-driver, and a signaller – are up before a coroner's jury. A tremendous railway accident has dispatched hundreds of passengers into the next world. The negligence of the railway workers is the cause of the misfortune. They declare with one voice before the jury that ten or twelve years before their labour lasted only 8 hours a day. During the last five or six years, they say, it has been screwed up to 14, 18 and 20 hours, and when the pressure of holiday travellers is especially severe, when excursion trains are put on, their labour often lasts for 40 or 50 hours without a break. They are ordinary men, not Cyclops. At a certain point their labour-power ran out. Torpor seized them. Their brains stopped thinking, their eyes stopped seeing. The thoroughly 'respectable British Jurymen' replied with a verdict that sent them to the Assizes on a charge of manslaughter; in a mild rider to the verdict the jury expressed the pious hope that the capitalist railway magnates would in future be more extravagant in the purchase of the necessary number of 'labour-powers', and more 'abstemious', more 'self-denying', more 'thrifty', in the extortion of paid labour-power.⁵⁵

54. Public meeting of agricultural labourers at Lasswade, near Edinburgh, 5 January 1866. (See *Workmen's Advocate*, 13 January 1866.) The formation since the end of 1865 of a trade union among the agricultural labourers, first of all in Scotland, is a historic event. In one of the most oppressed agricultural districts of England, Buckinghamshire, in March 1867, the labourers carried through a great strike to raise their weekly wage from 9–10 shillings to 12 shillings. (It will be seen from the preceding passage that the movement of the English agricultural proletariat, entirely crushed since the suppression of its violent manifestations after 1830, and especially since the introduction of the new Poor Laws, begins again in the sixties, until it finally becomes epoch-making in 1872. I return to this in Volume 2, and also deal there with the Blue Books which have appeared since 1867 on the position of the English agricultural labourers. – Addendum to the third edition.)⁵⁶

55. *Reynolds' Newspaper*, 21 January 1866. Every week this same paper brings a whole list of fresh railway catastrophes under the sensational headings 'Fearful and fatal accidents', 'Appalling tragedies', etc. This is the answer of a worker on the North Staffordshire Line: 'Everyone knows the consequences

* Marx appears not to have pursued this idea, as nothing on the subject appears either in Volume 2 or Volume 3.

From the motley crowd of workers of all callings, ages and sexes, who throng around us more urgently than did the souls of the slain around Ulysses, on whom we see at a glance the signs of over-work, without referring to the Blue Books under their arms, let us select two more figures, whose striking contrast proves that all men are alike in the face of capital – a milliner and a blacksmith.

In the last week of June 1863, all the London daily papers published a paragraph with the 'sensational' heading, 'Death from simple over-work'. It dealt with the death of the milliner, Mary Anne Walkley, 20 years old, employed in a highly respectable dressmaking establishment, exploited by a lady with the pleasant name of Elise. The old, often-told story was now revealed once again.⁵⁶ These girls work, on an average, 16½ hours without a break, during the season often 30 hours, and the flow of their failing 'labour-power' is maintained by occasional supplies of sherry, port or coffee. It was the height of the season. It was necessary, in the twinkling of an eye, to conjure up magnificent dresses for the noble ladies invited to the ball in honour of the newly imported Princess of Wales. Mary Anne Walkley had worked uninterrupted for 26½ hours, with sixty other girls, thirty in each room. The rooms provided only ½ of the necessary quantity of air, measured in cubic feet. At night the girls slept in pairs in the stifling holes into which a bedroom was divided by

that may occur if the driver and fireman of a locomotive engine are not continually on the look-out. How can that be expected from a man who has been at such work for 29 or 30 hours, exposed to the weather, and without rest? The following is an example which is of very frequent occurrence: One fireman commenced work on the Monday morning at a very early hour. When he had finished what is called a day's work, he had been on duty 14 hours 50 minutes. Before he had time to get his tea, he was again called on for duty. . . . The next time he finished he had been on duty 14 hours 25 minutes, making a total of 29 hours 15 minutes without intermission. The rest of the week's work was made up as follows: Wednesday, 15 hours; Thursday, 15 hours 35 minutes; Friday, 14 hours; Saturday, 14 hours 10 minutes, making a total being paid 64 days for the whole. Thinking it was a mistake, he applied to the time-keeper . . . and inquired what they considered a day's work, and was told 13 hours for a goods man (i.e. 78 hours) . . . He then asked for what he had made over and above the 78 hours per week, but was refused. However, he was at last told they would give him another quarter, i.e. 10d. (ibid., 4 February 1866).

56. Cf. F. Engels, *op. cit.*, pp. 253–4 [English edition, pp. 235–8].

wooden partitions.⁵⁷ And this was one of the better millinery establishments in London. Mary Anne Walkley fell ill on the Friday and died on Sunday, without, to the astonishment of Madame Elise, having finished off the bit of finery she was working on. The doctor, a Mr Keys, called too late to the girl's deathbed, made his deposition to the coroner's jury in plain language: 'Mary Anne Walkley died from long hours of work in an overcrowded work-room, and a too small and badly ventilated bedroom.' In order to give the doctor a lesson in good manners, the coroner's jury thereupon brought in the verdict that 'the deceased had died of apoplexy, but there was reason to fear that her death had been accelerated by over-work in an overcrowded work-room, etc.'

'Our white slaves,' exclaimed the *Morning Star*, the organ of the free-trading gentlemen Cobden and Bright, 'our white slaves, who are toiled into the grave, for the most part silently pine and die.'⁵⁸

57. Dr Letheby, Consulting Physician of the Board of Health, declared: 'The minimum of air for each adult ought to be in a sleeping room 300, and in a dwelling room 500 cubic feet.' Dr Richardson, Senior Physician at one of the London hospitals: 'With needlewomen of all kinds, including milliners, dressmakers, and ordinary sempstresses, there are three miseries – over-work, deficient air, and either deficient food or deficient digestion. . . . Needlework, in the main . . . is infinitely better adapted to women than to men. But the mischiefs of the trade, in the metropolis especially, are that it is monopolised by some twenty-six capitalists, who, under the advantages that spring from capital, can bring in capital to force economy out of labour. This power tells throughout the whole class. If a dressmaker can get a little circle of customers, such is the competition that, in her home, she must work to the death to hold it together, and this same over-work she must of necessity inflict on any who may assist her. If she fail, do not try independently, she must join an establishment, where her labour is not less, but where her money is safe. Placed thus, she becomes a mere slave, tossed about with the variations of society. Now at home, in one room, starving, or near to it, then engaged 15, 16, aye, even 18 hours out of the 24, in an air that is scarcely tolerable, and on food which, even if it be good, cannot be digested in the absence of pure air. On these victims, consumption, which is purely a disease of bad air, feeds' (Dr Richardson, 'Work and Over-Work', in *Social Science Review*, 18 July 1863).

58. *Morning Star*, 23 June 1863. *The Times* used this opportunity to defend the American slave-owners against Bright etc. 'Very many of us think,' says a leading article of 2 July 1863, 'that, while we work our own young women to death, using the scourge of starvation, instead of the crack of the whip, as the instrument of compulsion, we have scarcely a right to hound on fire and slaughter against families who were born slave-owners, and who, at least,

'It is not only in dressmakers' rooms that working to death is the order of the day, but in a thousand other places; in every place I had almost said, where "a thriving business" has to be done . . . We will take the blacksmith as a type. If the poets were true, there is no man so hearty, so merry, as the blacksmith; he rises early and strikes his sparks before the sun; he eats and drinks and sleeps as no other man. Working in moderation, he is, in fact, in one of the best of human positions, physically speaking. But we follow him into the city or town, and we see the stress of work on that strong man, and what then is his position in the death-rate of his country. In Marylebone, blacksmiths die at the rate of 31 per thousand per annum, or 11 above the mean of the male adults of the country in its entirety. The occupation, instinctive almost as a portion of human art, unobjectionable as a branch of human industry, is made by mere excess of work the destroyer of the man. He can strike so many blows per day, walk so many steps, breathe so many breaths, produce so much work, and live an average, say, of fifty years; he is made to strike so many more blows, to walk so many more steps, to breathe so many more breaths per day, and to increase altogether a fourth

feed their slaves well, and work them lightly.' In the same manner, the *Standard*, a Tory paper, delivered a rebuke to the Rev. Newman Hall*: 'The excommunicated the slave owners, but prays with the fine folk who, without remorse, make the omnibus drivers and conductors of London, etc., work 16 hours a day for the wages of a dog' (*Standard*, 15 August 1863). Finally, the oracle spoke, Thomas Carlyle, the man of whom I already wrote in 1850: 'The Genius has gone to the devil; the Cult has remained.'[†] In a short parable, he reduces the one great event of contemporary history, the American Civil War, to this level, that the Peter of the North wants to break the head of the Paul of the South with all his might, because the Peter of the North hires his labour by the day, and the Paul of the South hires his 'for life' (Hias Americans in Nuce', *Macmillan's Magazine*, August 1863). Thus the bubble of Tory sympathy for the urban workers - not, by God, for the rural workers! - has burst at last. The kernel of it is - slavery!

* Rev. Christopher Newman Hall (1816-1902), Congregationalist minister, Liberal in politics, a prominent advocate of the Northern cause during the American Civil War.

[†] Marx refers here to his review of Carlyle's book *Later-Day Pamphlets*, in the *Neue Rheinische Zeitung. Revue*, April 1850. The quotation should run, in full, 'in these pamphlets, the cult of genius, which Carlyle shares with Strauss, has lost what genius it possessed; the cult has remained' (*MENW*, p. 256).

of his life. He meets the effort; the result is, that producing for a limited time a fourth more work, he dies at 37 for 50.'⁵⁹

4. DAY-WORK AND NIGHT-WORK. THE SHIFT-SYSTEM

Constant capital, the means of production, only exist, considered from the standpoint of the process of valorization, in order to absorb labour and, with every drop of labour, a proportional quantity of surplus labour. In so far as the means of production fail to do this, their mere existence forms a loss for the capitalist, in a negative sense, for while they lie fallow they represent a useless advance of capital. This loss becomes a positive one as soon as the interruption of employment necessitates an additional outlay when the work begins again. The prolongation of the working day beyond the limits of the natural day, into the night, only acts as a palliative. It only slightly quenches the vampire thirst for the living blood of labour. Capitalist production therefore drives, by its inherent nature, towards the appropriation of labour throughout the whole of the 24 hours in the day. But since it is physically impossible to exploit the same individual labour-power constantly, during the night as well as the day, capital has to overcome this physical obstacle. An alternation becomes necessary, between the labour-powers used up by day and those used up by night. This can be accomplished in various ways; for instance it may be arranged that part of the working personnel is employed for one week on day-work, and for the next week on night-work. It is well known that this shift-system, this alternation of two sets of workers, predominated in the full-blooded springtime of the English cotton industry, and that at the present time it still flourishes, among other places, in the cotton-spinning factories of the Moscow *gubernia*.^{*} This 24-hour process of production exists today as a system in many of the as yet 'free' branches of industry in Great Britain, in the blast-furnaces, forges, rolling mills and other metallurgical establishments of England, Wales and Scotland. Here the labour process includes a great part of the 24 hours of Sunday, in addition to the 24 hours of the 6 working days. The

59. Dr Richardson, op. cit., pp. 476 ff.

* 'Government': the largest administrative subdivision of the Russian Empire.

workers consist of men and women, adults and children of both sexes. The ages of the children and young persons run through all the intermediate grades, from 8 (in some cases from 6) to 18. In some branches of industry, the girls and women work through the night together with the male personnel.⁶¹

Leaving aside the generally harmful effects of night labour,⁶² the duration of the process of production, unbroken for 24 hours, offers very welcome opportunities for exceeding the limits of the normal working day, for example in the branches of industry already mentioned, which are themselves very strenuous; the official working day usually comes to 12 hours by night or day for all workers. But the amount of over-work done in excess of

60. *Children's Employment Commission, Third Report*, London, 1864, pp. iv-vi.

61. 'Both in Staffordshire and in South Wales young girls and women are employed on the pit banks and on the coke heaps, not only by day but also by night. This practice has been often noticed in Reports presented to Parliament, as being attended with great and notorious evils. These females employed with the men, hardly distinguished from them in their dress, and begrimed with dirt and smoke, are exposed to the deterioration of character, arising from their loss of self-respect, which can hardly fail to follow from their un feminine occupation' (*ibid.*, pp. 194, xxvi. Cf. *Fourth Report* (1865), 61, p. xlii). It is the same in the glass-works.

62. A steel manufacturer who employs children in night labour remarks: 'It seems but natural that boys who work at night cannot sleep and get proper rest by day, but will be running about' (*Fourth Report*, 63, p. xlii). A doctor has this to say on the importance of sunlight for the maintenance and growth of the body: 'Light also acts upon the tissues of the body directly in hardening them and supporting their elasticity. The muscles of animals, when they are deprived of a proper amount of light, become soft and inelastic, the nervous power loses its tone from defective stimulation, and the elaboration of all growth seems to be perverted. . . . In the case of children, constant access to plenty of light during the day, and to the direct rays of the sun for a plastic blood, and hardens the fibre after it has been laid down. It also acts as a stimulus upon the organs of sight, and by this means brings about more activity in the various cerebral functions.' Dr W. Strange, Senior Physician at the Worcester General Hospital, from whose work on *Health* (1864) this passage is taken, writes in a letter to Mr White, one of the Commissioners: 'I have had opportunities formerly, when in Lancashire, of observing the effects of night-work upon children, and I have no hesitation in saying, contrary to what some employers were fond of asserting, those who were subjected to it soon suffered in their health' (*Children's Employment Commission, Fourth Report*, 284, p. 55). That such a question could provide the material for a serious controversy is the best demonstration of the way capitalist production acts on the mental functions of the capitalists and their retainers.

this limit is in many cases, to use the words of the official English report, 'truly fearful'.⁶³

'It is impossible,' says the report, 'for any mind to realize the amount of work described in the following passages as being performed by boys of from 9 to 12 years of age . . . without coming irresistibly to the conclusion that such abuses of the power of parents and of employers can no longer be allowed to exist.'⁶⁴

'The practice of boys working at all by day and night turns either in the usual course of things, or at pressing times, seems inevitably to open the door to their not infrequently working unduly long hours. These hours are, indeed, in some cases, not only cruelly, but even incredibly long for children. Amongst a number of boys it will, of course, not infrequently happen that one or more are from some cause absent. When this happens, their place is made up by one or more boys, who work in the other turn. That this is a well-understood system is plain . . . from the answer of the manager of some large rolling-mills, who, when I asked him how the place of the boys absent from their turn was made up, "I daresay, sir, you know that as well as I do", and admitted the fact.'⁶⁵

'At a rolling-mill where the proper hours were from 6 a.m. to 5.30 p.m., a boy worked about four nights every week till 8.30 p.m. at least . . . and this for six months. Another, at 9 years old, sometimes made three 12-hour shifts running, and, when 10, has made two days and two nights running.' A third, 'now 10 . . . worked from 6 a.m. till 12 p.m. three nights, and till 9 p.m. the other nights'. Another, now 13, . . . worked from 6 p.m. till 12 noon next day, for a week together, and sometimes for three shifts together, e.g., from Monday morning till Tuesday night. 'Another, now 12, has worked in an iron foundry at Staveley from 6 a.m. till 12 p.m. for a fortnight on end; could not do it any more.' 'George Allinsworth, age 9, came here as cellar-boy last Friday; next morning we had to begin at 3, so I stopped here all night. Live five miles off. Slept on the floor of the furnace, over head, with an apron under me, and a bit of a jacket over me. The two other days I have been here at 6 a.m. Aye! it is hot in here. Before I came here I was nearly a year at the same work at some works in the country. Began there, too, at 3 on Saturday morning - always did, but was very gain (near) home, and could sleep at

63. *ibid.*, 57, p. xii.

64. *ibid.*, 58, p. xii.

65. *ibid.*

home. Other days I began at 6 in the morning, and given over at 6 or 7 in the evening,' etc.⁶⁶

Let us now hear how capital itself regards this 24-hour system. The extreme forms of the system, its abuse in the 'cruel and

66. *ibid.*, p. xiii. The level of education of these 'labour-powers' must naturally be such as appears in the following dialogues with one of the Commissioners: Jeremiah Haynes, age 12 - 'Four times four is eight; four fours are sixteen. A king is him that has all the money and gold. We have a King (told it is a Queen), they call her the Princess Alexandra. A Princess is the Queen's son. The Queen's son is the Princess Alexandra. A Prince married the Queen's son. William Turner, age 12 - 'Don't live in England. Think it is a country, but didn't know before.' John Morris, age 14 - 'Have heard say that God made the world, and that all the people was drowned but one; heard say that one was a little bird.' William Smith, age 15 - 'God made man, man made woman.' Edward Taylor, age 15 - 'Do not know of London.' Henry Matthews, age 17 - 'Had been to chapel, but missed a good many times lately. One name that they preached about was Jesus Christ, but I cannot say any others, and I cannot tell anything about him. He was not killed, but died like other people. He was not the same as other people in some ways, because he was religious in some ways, and others isn't' (*loc. cit.*, p. xv). 'The devil is a good person. I don't know where he lives.' 'Christ was a wicked man.' 'This girl spelt God as dog, and did not know the name of the queen' (*Children's Employment Commission, Fifth Report*, 1866, p. 55, n. 278). The same system obtains in the glass and paper works as in the metallurgical establishments already cited. In the paper factories, where the paper is made by machinery, night-work is the rule for all processes, except rag-sorting. In some cases night-work is carried on incessantly through the whole week, by means of shifts, and thus continues from Sunday night until midnight of the following Saturday. The men on day-work work five days of 12 hours, and one day of 18 hours; those on night-work work five days of 12 hours, and one of 6 hours in each week. In other cases each group works 24 hours consecutively on alternate days, one group working 6 hours on Monday, and 18 on Saturday, to make up the 24 hours. In other cases an intermediate system prevails, by which all those employed on the paper-making machinery work 15 or 16 hours every day in the week. This system, says Commissioner Lord, 'seems to combine all the evils of both the 12 hours' and the 24 hours' relays'. Children under 13, young persons under 18, and women, work under this night system. Sometimes, under the 12-hour system, they are forced to work a double shift of 24 hours, owing to the failure of their counterparts to turn up. The evidence proves that boys and girls very often work overtime, which not infrequently extends to 24 or even 36 hours of uninterrupted toil. In the 'continuous and unvarying' process of glazing there are to be found girls of 12 who work 14 hours a day for the whole month, 'without any regular relief or cessation beyond two, or, at most, three breaks of half an hour each for meals'. In some factories, where regular night-work has been entirely given up, a frightful amount of overtime is put in, 'and that often in the dirtiest, and in the hottest, and in the most monotonous of the various processes' (*Children's Employment Commission, Fourth Report*, 1865, pp. xxxviii and xxxix).

incredible' extension of the working day, are naturally passed over in silence. Capital only speaks of the system in its 'normal' form.

Messrs Naylor and Vickers, steel manufacturers, who employ between 600 and 700 persons, among whom only 10 per cent are under 18, with only twenty boys under 18 working on the night shift, have the following comments to make: 'The boys do not suffer from the heat. The temperature is probably from 86 degrees to 90 degrees... At the forges and in the rolling-mills the hands work night and day, in relays, but all the other parts of the work are day-work, i.e. from 6 a.m. to 6 p.m. In the forge the hours are from 12 to 12. Some of the hands always work in the night, without any alternation of day and night work... We do not find any difference in the health of those who work regularly by night and those who work by day, and probably people can sleep better if they have the same period of rest than if it is changed... About twenty of the boys under the age of 18 work in the night sets... We could not well do without lads under 18 working by night. The objection would be the increase in the cost of production... Skilled hands and the heads in every department are difficult to get, but of lads we could get any number... But from the small proportion of boys that we employ, the subject' (i.e. the subject of restrictions on night-work) 'is of little importance or interest to us.'⁶⁷

Mr J. Ellis, from the firm of Messrs John Brown & Co., steel and iron works, employing about 3,000 men and boys, part of whose operations, namely iron and heavier steel work, goes on night and day in shifts, states 'that in the heavier steel work one or two boys are employed to a score or two men'. Their business employs 500 boys under 18, and of these about a third, or 170, are under the age of 13. With reference to the proposed alteration of the law, Mr Ellis says: 'I do not think it would be very objectionable to require that no person under the age of 18 should work more than 12 hours in the 24. But we do not think that any line could be drawn over the age of 12, at which boys could be dispensed with for night-work. But we would sooner be prevented from employing boys under the age of 13, or even so high as 14, at all, than not be allowed to employ boys that we do have at night. Those boys who work in the day sets must take their turn in the night sets also, because the men could not work in the night sets

67. *Fourth Report, etc.*, 1865, 79, p. xvi.

only; it would ruin their health . . . We think, however, that night-work in alternate weeks is no harm.' (Messrs Naylor & Vickers, on the other hand, in line with the best interests of their business, took the opposite view, that periodic alternations of night and day-labour might well do more harm than continual night-labour.) 'We find the men who do it, as well* as the others who do other work only by day . . . Our objections to not allowing boys under 18 to work at night, would be on account of the increase of expense, but this is the only reason.' (What cynical naïveté!) 'We think that the increase would be more than the trade, with due regard to its being successfully carried out, could fairly bear.' (What mealy-mouthed phraseology!) 'Labour is scarce here, and might fall short if there were such a regulation.' (In other words, Ellis, or Brown & Co., might be subjected to the fatal embarrassment of having to pay labour-power at its full value.)⁶⁸

The 'Cyclops Steel and Iron Works' of Messrs Cammell & Co. is conducted on the same large scale as the works of the above-mentioned John Brown & Co. The managing director had handed in his evidence to the Government Commissioner, Mr White, in writing. Later he found it convenient to suppress the manuscript when it was returned to him for revision. But Mr White has a retentive memory. He recalled quite clearly that for these Cyclopean gentlemen the prohibition of the night-labour of children and young persons 'would be impossible, it would be tantamount to stopping their works', and yet their business employs little more than 6 per cent of boys under 18, and less than 1 per cent under 13.⁶⁹

On the same question, Mr E. F. Sanderson, of the firm of Sanderson Bros. & Co., steel rolling-mills and forges, Attercliffe, says: 'Great difficulty would be caused by preventing boys under 18 from working at night. The chief would be the increase of cost from employing men instead of boys. I cannot say what this would be, but probably it would not be enough to enable the manufacturers to raise the price of steel, and consequently it would fall on them, as of course the men' (how wrong-headed these people are!) 'would refuse to pay it.' Mr Sanderson does not know how much he pays the children, but 'perhaps the younger

68. *Fourth Report, etc.*, 1865, 80, p. xvi. 69. *ibid.*, 82, p. xvii.

* That is, as healthy.

boys get from 4s. to 5s. a week . . . The boys' work is of a kind for which the strength of boys is generally' ('generally', but of course not always 'in particular') 'quite sufficient, and consequently there would be no gain in the greater strength of the men to counterbalance the loss, or it would be only in the few cases in which the metal is heavy. The men would not like so well not to have boys under them, as men would be less obedient. Besides, boys must begin young to learn the trade. Leaving day-work alone open to boys would not answer the purpose.'

And why not? Why could the boys not learn their craft in the daytime? Your reason? 'Owing to the men working days and nights in alternate weeks, the men would be separated half the time from their boys, and would lose half the profit which they make from them. The training which they give to an apprentice is considered as part of the return for the boys' labour, and thus enables the men to get it at a cheaper rate. Each man would want half of this profit.' In other words, Messrs Sanderson would have to pay part of the wages of the adult men out of their own pockets instead of by the night-work of the boys. Messrs Sanderson's profit would thus fall to some extent, and this is the good Sandersonian reason why boys cannot learn their craft by day.⁷⁰ Apart from this, it would throw night-work on the men alone, who are at present relieved by the boys, and they would not be able to stand it. In short, the difficulties would be so great as to lead in all likelihood to the total suppression of night-work. 'As far as the work itself is concerned,' says E. F. Sanderson, 'this would suit as well, but —' But Messrs Sanderson have something else to make besides steel. Steel-making is simply a pretext for profit-making. The steel furnaces, rolling-mills, etc., the buildings, machinery, iron, coal, etc., have something more to do than transform themselves into steel. They are there to absorb surplus labour, and they naturally absorb more in 24 hours than in 12. In fact, both by the sanction of the law and the grace of God, they give to the Sandersons a draft on the labour-time of a certain number of hands for all the 24 hours of the day, and as soon as there is an interruption in their function of absorbing labour they

70. 'In a time so rich in reflection and so devoted to *raisonnement* as our own, he must be a poor creature who cannot advance a good ground for everything, even for what is worst and most depraved. Everything in the world that has become corrupt, has had good ground for its corruption' (Hegel, *op. cit.*, p. 249) [*Logic*, para. 121, Addition. English translation, p. 178].

lose their character as capital, and are therefore a pure loss for the Sandersons. 'But then there would be the loss from so much expensive machinery, lying idle half the time, and to get through the amount of work which we are able to do on the present system, we should have to double our premises and plant, which would double the outlay.' But why should these Sandersons pretend to a privilege not enjoyed by the other capitalists who only work during the day, and whose buildings, machinery, raw material, therefore lie 'idle' during the night? E. F. Sanderson answers in the name of all the Sandersons: 'It is true that there is this loss from machinery lying idle in those manufacturing in which work only goes on by day. But the use of furnaces would involve a further loss in our case. If they were kept up these would be a waste of fuel' (instead of the present waste of the living substance of the workers) 'and if they were not, there would be loss of time in laying the fires and getting the heat up' (whereas a loss of sleeping time, even that of 8-year-olds, is a gain of working time for the Sanderson clan), 'and the furnaces themselves would suffer from the changes of temperature' (whereas those same furnaces suffer nothing from the alternation of day-work and night-work).⁷¹

71. *Children's Employment Commission, Fourth Report, 1865*, 85, p. xvii. Commissioner White has an answer to similar tender scruples of the glass manufacturers, who maintain that 'regular meal-times' for the children are impossible because this would lead to a 'pure loss' or a 'waste' of a certain quantity of heat, radiated by the furnaces. His answer is quite unlike that of Ure, Senior etc., and their puny German imitators, like Roscher, who are moved by the 'abstinence', the 'self-denial' and the 'saving' of the capitalists in the expenditure of their money, and by their Timarlane-like 'prodigality' in human lives! 'A certain amount of heat beyond what is usual at present seems likely not equal in money-value to the waste of animal power now going on in glass-houses throughout the kingdom from growing boys not having enough quiet time to eat their meals at ease, with a little rest afterwards for digestion' (*ibid.*, p. xlv). And this in 1865, 'the year of progress'! Without considering the strength expended in lifting and carrying, these children, in the sheds where bottle and flint glass are made, walk 15 to 20 miles in every 6 hours, performing their work continuously. And it often lasts for 14 or 15 hours! In many of these glass works, as in the Moscow spinning mills, the 6-hour shift system is in force. 'During the working part of the week six hours is the utmost unbroken period ever attained at any one time for rest and out of this has to come the time spent in coming and going to and from work, washing, dressing, and meals, leaving a very short period indeed for rest, and none for fresh air and play, unless at the expense of the sleep necessary for young boys, especially at such hot and fatiguing work... Even the short sleep is obviously liable to be broken by a boy having to wake himself

5. THE STRUGGLE FOR A NORMAL WORKING DAY. LAWS FOR THE COMPULSORY EXTENSION OF THE WORKING DAY, FROM THE MIDDLE OF THE FOURTEENTH TO THE END OF THE SEVENTEENTH CENTURY

'What is a working day? What is the length of time during which capital may consume the labour-power whose daily value it has paid for? How far may the working day be extended beyond the amount of labour-time necessary for the reproduction of labour-power itself? We have seen that capital's reply to these questions is this: the working day contains the full 24 hours, with the deduction of the few hours of rest without which labour-power is absolutely incapable of renewing its services. Hence it is self-evident that the worker is nothing other than labour-power for the duration of his whole life, and that therefore all his disposable time is by nature and by right labour-time, to be devoted to the self-valorization of capital. Time for education, for intellectual development, for the fulfilment of social functions, for social intercourse, for the free play of the vital forces of his body and his mind, even the rest time of Sunday (and that in a country of Sabbatarians!)⁷² - what foolishness! But in its blind and measureless drive, its insatiable appetite for surplus labour, capital oversteps not only the moral but even the merely physical limits of the working day. It usurps the time for growth, development and healthy maintenance of the body. It steals

if it is night, or by the noise, if it is day.' Mr White gives cases where a boy worked for 36 consecutive hours, and others where boys of 12 drudged on until 2 in the morning, and then slept in the works till 5 a.m. (3 hours!) only to resume their work. 'The amount of work,' say Temmeheere and Tufnell, who drafted the general report, 'done by boys, youths, girls, and women, in the course of their daily or nightly spell of labour, is certainly extraordinary' (*ibid.*, pp. xliii and xlv). Meanwhile, late at night perhaps, Mr Glass-Capital, stuffed full with abstinence, and primed with port wine, reels home from his club, drooping out idiotically. 'Britons never, never shall be slaves!'

72. In England even now in rural districts a labourer is occasionally condemned to imprisonment for desecrating the Sabbath by working in his front garden. The same man would be punished for breach of contract if he remained away from his metal, paper or glass works on Sunday, even on account of some religious fable. The orthodox Parliament will entertain no complaint of Sabbath-breaking if it occurs in the 'process of valorization' of capital. A petition of August 1863 in which the London day-labourers in fish and poultry shops asked for the abolition of Sunday labour states that their work lasts an average of 16 hours a day for the first 6 days of the week, 8 to 10 hours on Sunday. We also learn from this petition that the delicate gourmands among

the time required for the consumption of fresh air and sunlight. It haggles over the meal-times, where possible incorporating them into the production process itself, so that food is added to the worker as to a mere means of production, as coal is supplied to the boiler, and grease and oil to the machinery. It reduces the sound sleep needed for the restoration, renewal and refreshment of the vital forces to the exact amount of torpor essential to the revival of an absolutely exhausted organism. It is not the normal maintenance of labour-power which determines the limits of the working day here, but rather the greatest possible daily expenditure of labour-power, no matter how diseased, compulsory and painful it may be, which determines the limits of the workers' period of rest. Capital asks no questions about the length of life of labour-power. What interests it is purely and simply the maximum of labour-power that can be set in motion in a working day. It attains this objective by shortening the life of labour-power, in the same way as a greedy farmer snatches more produce from the soil by robbing it of its fertility.

By extending the working day, therefore, capitalist production, which is essentially the production of surplus-value, the absorption of surplus labour, not only produces a deterioration of human labour-power by robbing it of its normal moral and physical conditions of development and activity, but also produces the premature exhaustion and death of this labour-power itself.⁷³ It

the aristocratic hypocrites of Exeter Hall* particularly encourage this 'Sunday labour'. These 'saints', so zealous in *cure curanda*,† show they are Christians by the humility with which they bear the over-work, the deprivation and the hunger of others. *Obssequium ventris istis* (the workers') *periculosus est* ‡

73. 'We have given in our previous reports the statements of several experienced manufacturers to the effect that over-hours ... certainly tend prematurely to exhaust the working power of the men' (op. cit., 64, p. xiii).

* A large hall on the north side of the Strand, built in 1831, and pulled down in 1907. It was used throughout its existence for meetings by religious bodies of various kinds, but especially by the Church Missionary Society. 'Exeter Hall' was in Marx's time a shorthand expression for that tendency among the English ruling classes which stood for the extension of English power in Africa with the aim of converting the 'natives' to Christianity, and at the same time stamping out the slave trade. It is associated with the name of Wilberforce.

† 'In attending to their bodily pleasures' (Horace, *Epistles*, I, 2, 29).

‡ Horace's actual words were: '*obssequium ventris mihi periculosus est cur?*' ('why is gluttony more ruinous to my stomach?'). Hence, here, 'gluttony is more ruinous to their (the workers') stomachs'. (Horace, *Satires*, Bk II, Satire 7, line 104.)

extends the worker's production-time within a given period by shortening his life.

But the value of labour-power includes the value of the commodities necessary for the reproduction of the worker, for continuing the existence of the working class. If then the unnatural extension of the working day, which capital necessarily strives for in its unmeasured drive for self-valorization, shortens the life of the individual worker, and therefore the duration of his labour-power, the forces used up have to be replaced more rapidly, and it will be more expensive to reproduce labour-power, just as in the case of a machine, where the part of its value that has to be reproduced daily grows greater the more rapidly the machine is worn out. It would seem therefore that the interest of capital itself points in the direction of a normal working day.

The slave-owner buys his worker in the same way as he buys his horse. If he loses his slave, he loses a piece of capital, which he must replace by fresh expenditure on the slave-market. But take note of this: 'The rice-grounds of Georgia, or the swamps of the Mississippi, may be fatally injurious to the human constitution; but the waste of human life which the cultivation of these districts necessitates, is not so great that it cannot be repaired from the teeming preserves of Virginia and Kentucky. Considerations of economy, moreover, which, under a natural system, afford some security for humane treatment by identifying the master's interest with the slave's preservation, when once trading in slaves is practised, become reasons for racking to the uttermost the toil of the slave; for, when his place can at once be supplied from foreign preserves, the duration of his life becomes a matter of less moment than its productiveness while it lasts. It is accordingly a maxim of slave management, in slave-importing countries, that the most effective economy is that which takes out of the human chattel in the shortest space of time the utmost amount of exertion it is capable of putting forth. It is in tropical culture, where annual profits often equal the whole capital of plantations, that negro life is most recklessly sacrificed. It is the agriculture of the West Indies, which has been for centuries prolific of fabulous wealth, that has engulphed millions of the African race. It is in Cuba, at this day, whose revenues are reckoned by millions, and whose planters are princes, that we see in the servile class, the coarsest fare, the most exhausting and unremitting toil, and even the absolute destruction of a portion of its numbers every year.'⁷⁴

74. Cairnes, op. cit., pp. 110-11.

*Mutatio nomine de te fabula narratur.** For slave trade, read labour-market, for Kentucky and Virginia, Ireland and the agricultural districts of England, Scotland and Wales, for Africa, Germany. We have heard how over-work has thinned the ranks of the bakers in London. Nevertheless, the London labour-market is always over-stocked with German and other candidates for death in the bakeries. Pottery, as we saw, is one of the branches of industry with the lowest life-expectancy. Does this lead to any shortage of potters? Josiah Wedgwood, the inventor of modern pottery, and himself an ordinary worker by origin, said in 1785 before the House of Commons that the whole trade employed from 15,000 to 20,000 people.⁷⁵ In 1861 the population of the urban centres alone of this industry in Great Britain numbered 101,302. 'The cotton trade has existed for ninety years... It has existed for three generations of the English race, and I believe I may safely say that during that period it has destroyed nine generations of factory operatives.'⁷⁶

Admittedly the labour-market shows significant gaps in certain epochs of feverish expansion. In 1834 for example. But then the manufacturers proposed to the Poor Law Commissioners that they should send the 'surplus population' of the agricultural districts to the north, with the explanation 'that the manufacturers would absorb and use it up'.⁷⁷ Agents were appointed with the consent of the Poor Law Commissioners... An office was set up in Manchester, to which lists were sent of those workpeople in the agricultural districts wanting employment, and their names were registered in books. The manufacturers attended at these offices, and selected such persons as they chose; when they had selected such persons as their "wants required", they gave instructions to have them forwarded to Manchester, and they were sent, ticketed like bales of goods, by canals, or with carriers, others tramping on the road, and many of them were found on the way lost and half-starved. This system had grown up into a regular trade. This House will hardly

75. John Ward, *The Borough of Stoke-upon-Trent*, London, 1843, p. 42.

76. Ferrand's speech in the House of Commons, 27 April 1863.

77. 'Those were the very words used by the cotton manufacturers' (op. cit.).
*William Busfield Ferrand, of Keighley in Yorkshire (1809-89). An 'Oastlerite' Tory, who agitated against the Poor Law of 1834 and in favour of the Factory Acts. He played an important part in passing the 1847 Factory Act. M.P. between 1841 and 1847, and between 1863 and 1866.

*'The name is changed, but the tale is told of you!' (Horace, *Satires*, Bk I, Satire 1).

believe it, but I tell them, that this traffic in human flesh was as well kept up, they were in effect as regularly sold to these manufacturers as slaves are sold to the cotton-grower in the United States... In 1860, the cotton trade was at its zenith... The manufacturers again found that they were short of hands... They applied to the "flesh agents", as they are called. Those agents sent to the southern downs of England, to the pastures of Dorsetshire, to the glades of Devonshire, to the people tending kine in Wiltshire, but they sought in vain. The surplus population was "absorbed".

The *Bury Guardian* lamented that, after the conclusion of the Anglo-French commercial treaty, *'10,000 additional hands could be absorbed by Lancashire, and that 30,000 or 40,000 will be needed'. After the 'flesh agents and sub-agents' had vainly combed through the agricultural districts 'a deputation came up to London, and waited on the right hon. gentleman (Mr Villiers, President of the Poor Law Board) with a view of obtaining poor children from certain union houses for the mills of Lancashire'.⁷⁸

78. op. cit. Mr Villiers, despite the best of intentions on his part, was 'legally' obliged to refuse the requests of the manufacturers. These gentlemen nevertheless achieved their aims owing to the complaisance of the local poor law boards. Mr A. Redgrave, inspector of factories, assures us that this time the system under which orphans and the children of paupers were treated 'legally' as apprentices 'was not accompanied with the old abuses' (on these 'abuses' see Engels, op. cit.), although in one case there certainly was 'abuse of this system in respect to a number of girls and young women brought from the agricultural districts of Scotland into Lancashire and Cheshire'. Under this 'system' the manufacturer entered into a contract with the workhouse authorities for a certain period. He fed, clothed and lodged the children, and gave them a small allowance of money. The following remark by Mr Redgrave sounds very peculiar, especially if we consider that the year 1860 was quite unparalleled, even among the years of prosperity of the English cotton trade, and that, apart from this, wages were exceptionally high. For this extraordinary demand for labour had to contend with the depopulation of Ireland, with unequalled emigration from the English and Scottish agricultural districts to Australia and America, and with an actual fall in the population of some of the English agricultural districts, resulting partly from a collapse of the workers' powers of reproduction, which was deliberately aimed at and successfully attained, and partly from the already completed dispersal of the disposable population by the dealers in human flesh. Despite all this, Mr Redgrave says: 'This kind of labour however' (i.e. the labour of the poor-house children) 'would only be sought after when none other could be procured, for it is a high-priced labour. The ordinary wages of a boy of 13

*The Anglo-French Treaty of Commerce of 1860, by which tariff barriers between Britain and France were lowered on both sides.

What experience generally shows to the capitalist is a constant excess of population, i.e. an excess in relation to capital's need for valorization at a given moment, although this throng of people is made up of generations of stunted, short-lived and rapidly replaced human beings, plucked, so to speak, before they were ripe.⁷⁹ And indeed, experience shows to the intelligent observer how rapidly and firmly capitalist production has seized the vital forces of the people at their very roots, although historically speaking it hardly dates from yesterday. Experience shows too how the degeneration of the industrial population is retarded only by the constant absorption of primitive and natural elements from the countryside, and how even the agricultural labourers, in spite of the fresh air and the 'principle of natural selection' that works so powerfully amongst them, and permits the survival of only the strongest individuals, are already beginning to die off.⁸⁰ Capital, which has such 'good

would be about 4s. per week, but to lodge, to clothe, to feed, and to provide medical attendance and proper superintendence for 50 or 100 of these boys, and to set aside some remuneration for them, could not be accomplished for 4s. a head per week' (*Reports of the Inspectors of Factories* ... 30 April 1860, p. 27). Mr Redgrave forgets to tell us how the worker himself can do all this for his children out of their 4s. a week wages, when the manufacturer cannot do it for the 50 or 100 children lodged, boarded and superintended all together. To guard against false conclusions from the text, I should add here that the English cotton industry, after being placed under the Factory Act of 1850, with its regulation of working hours etc., must be regarded as England's model industry. The English cotton worker is in every respect better off than the man who shares his fate on the Continent. 'The Prussian factory operative labours at least ten hours per week more than his English competitor, and if employed at his own loom in his own house, his labour is not restricted to even those additional hours' (*Reports of the Inspectors of Factories* ... 31 October 1855, p. 103). After the Industrial Exhibition of 1851 Redgrave travelled on the Continent, particularly in France and Germany, in order to investigate factory conditions there. He says this of the Prussian factory worker: 'He receives a remuneration sufficient to procure the simple fare, and to supply the slender comforts to which he has been accustomed ... he lives upon his coarse fare, and works hard, wherein his position is subordinate to that of the English operative' (*Reports of the Inspectors of Factories* ... 31 October 1853, p. 83).

⁷⁹ The over-worked 'die off with strange rapidity: but the places of those who perish are instantly filled, and a frequent change of persons makes no alteration in the scene' (*England and America*, London, 1833, Vol. 1, p. 55. Author E. G. Wakefield).

⁸⁰ See *Public Health. Sixth Report of the Medical Officer of the Privy Council*, 1863, published in London, 1864. This report deals particularly with the agricultural labourers. 'Sutherland ... is commonly represented as a

reasons' for denying the sufferings of the legions of workers surrounding it, allows its actual movement to be determined as much and as little by the sight of the coming degradation and final depopulation of the human race, as by the probable fall of the earth into the sun. In every stock-jobbing swindle everyone knows that some time or other the crash must come, but everyone hopes that it may fall on the head of his neighbour, after he himself has caught the shower of gold and placed it in secure hands. *Après moi le déluge!* is the watchword of every capitalist and of every capitalist nation. Capital therefore takes no account of the health and the length of life of the worker, unless society forces it to do so.⁸¹ Its answer to the outcry about the physical and mental degradation, the premature death, the torture of over-work, is this: Should that pain trouble us, since it increases our pleasure (profit)? * But looking at these things as a whole, it is evident that this does not depend on the will, either good or bad, of the individual capitalist. Under free competition, the immanent laws of capitalist production confront the individual capitalist as a coercive force external to him.⁸²

highly improved county ... but ... recent inquiry has discovered that even there, in districts once famous for fine men and gallant soldiers, the inhabitants have degenerated into a meagre and stunted race. In the healthiest situations, on hill sides fronting the sea, the faces of their furnished children are as pale as they could be in the foul atmosphere of a London alley' (W. T. Thornton, *Over-Population and its Remedy*, op. cit., pp. 74, 75). They resemble in fact the 30,000 'gallant Highlanders' whom Glasgow herds together with prostitutes and thieves in its wynds and closes.

⁸¹ 'But though the health of a population is so important a fact of the national capital, we are afraid it must be said that the class of employers of labour have not been the most forward to guard and cherish this treasure ... The consideration of the health of the operatives was forced upon the mill-owners' (*The Times*, 5 November 1861). 'The men of the West Riding became the clothiers of mankind ... the health of the workpeople was sacrificed, and the race in a few generations must have degenerated. But a reaction set in. Lord Shaftesbury's Bill limited the hours of children's labour, etc' (*Twenty-Second Annual Report of the Registrar-General*, 1861).

⁸² We therefore find, for example, that at the beginning of 1863 twenty-six firms owning extensive potteries in Staffordshire, including Josiah Wedgwood & Sons, presented a petition for 'some legislative enactment'. The petition with other capitalists, they said, did not allow them to limit the hours worked by children voluntarily, etc. 'Much as we deplore the evils before mentioned, it would not be possible to prevent them by any scheme

* *Sollte jene Qual uns quälen, da sie unsre Lust vernehret?* (Goethe, 'An Suleika', from *West-östlicher Diwan*, Bk VII, 1815).

The establishment of a normal working day is the result of centuries of struggle between the capitalist and the worker. But the history of this struggle displays two opposite tendencies. Compare, for example, the English factory legislation of our time with the English Labour Statutes from the fourteenth century to well into the middle of the eighteenth.⁸³ While the modern Factory Acts compulsorily shorten the working day, the earlier statutes tried forcibly to lengthen it. Of course, the pretensions of capital in its embryonic state, in its state of becoming, when it cannot yet use the sheer force of economic relations to secure its right to absorb a sufficient quantity of surplus labour, but must be aided by the power of the state – its pretensions in this situation appear very modest in comparison with the concessions it has to make, complainingly and unwillingly, in its adult condition. Centuries are required before the 'free' worker, owing to the greater development of the capitalist mode of production, makes a voluntary agreement, i.e. is compelled by social conditions to sell the whole of his active life, his very capacity for labour, in return for the price of his customary means of subsistence, to sell his birthright for a mess of pottage. Hence it is natural that the longer working day which capital tried to impose on adult workers by acts of state power from the middle of the fourteenth to the end of the seventeenth century is approximately of the same length as the shorter working day which, in the second half of the nineteenth century, the state has here and there interposed as a barrier to the transformation of children's blood into capital. What has now been proclaimed, for instance in the State of Mas-

of agreement between the manufacturers . . . Taking all these points into consideration, we have come to the conviction that some legislative enactment is wanted' (*Children's Employment Commission, First Report*, 1863, p. 322). The recent past [1873] offers a much more striking example. The high level of the price of cotton, during a period of feverish activity, induced the manufacturers of Blackburn to shorten the hours worked in their mills for a certain fixed period, by mutual consent. This period expired at around the end of November 1871. Meanwhile, the wealthier manufacturers, who combined spinning with weaving, used the fall in production following this agreement to extend their own business and thus make great profits at the expense of the small employers. Thereupon the latter, in their hour of need, turned to the factory workers, urged them to mount a serious agitation for the 9-hour system, and promised them monetary contributions for the purpose!

83. These Labour Statutes (which had their counterparts in France, the Netherlands, and elsewhere at the same epoch) were first formally repeated in England in 1813, when they had long since been set aside by the relations of production.

sachusetts, until recently the freest state of the North American republic, as the statutory limit of the labour of children under 12, was in England, even in the middle of the seventeenth century, the normal working day of able-bodied artisans, robust ploughmen and gigantic blacksmiths.⁸⁴

The first 'Statute of Labourers' (23 Edward III, 1349) found its immediate pretext (not its cause, for legislation of this kind outlines its pretext by centuries) in the great plague that decimated the population, so that, as a Tory writer says, 'The difficulty of getting men to work on reasonable terms' (i.e. at a price that left their employers a reasonable quantity of surplus labour) 'grew to such a height as to be quite intolerable.'⁸⁵ Reasonable wages were therefore fixed by law as well as the limits of the working day. The latter point, the only one that interests us here, is repeated in the Statute of 1496 (Henry VII). The working day for all craftsmen ('artificers') and field labourers from March to September was supposed to last from 5 in the morning to between 7 and 8 in the evening, although this was never enforced. The meal-times, however, consisted of 1 hour for breakfast, 1½ hours for dinner, and half an hour for 'noon-meate', i.e. exactly twice as much as under the Factory Acts now in force.⁸⁶ In winter, work was to last from 5 in the morning until

84. 'No child under 12 years of age shall be employed in any manufacturing establishment more than 10 hours in one day' (*General Statutes of Massachusetts*, 63, Ch. 12. These statutes were passed between 1836 and 1838.) 'Labour performed during a period of 10 hours in any day in all cotton, woollen, silk, paper, glass, and flax factories, or in manufactories of iron and brass, shall be considered a legal day's labour. And be it enacted, that hereafter no minor engaged in any factory shall be holden or required to work more than 10 hours in any day, or 60 hours in any week; and that hereafter no minor shall be admitted as a worker under the age of 10 years in any factory within this State' (*State of New Jersey, An Act to Limit the Hours of Labour, etc.*, paras. 1 and 2. Law of 18 March 1851). 'No minor who has attained the age of 12 years, and is under the age of 15 years, shall be employed in any manufacturing establishment more than 11 hours in any one day, nor before 5 o'clock in the morning, nor after 7.30 in the evening' (*Revised Statutes of the State of Rhode Island, etc.*, Ch. 139, para. 23, 1 July 1857).

85. [J. B. Byles], *Sophisms of Free Trade*, 7th edn, London, 1850, p. 205, 9th edn, p. 253. This same Tory, moreover, admits that 'Acts of Parliament regulating wages, but against the labourer and in favour of the master, lasted for the long period of 464 years. Population grew. These laws were then found, and really became, unnecessary and burdensome' (op. cit., p. 206).

86. On this statute, J. Wade remarks correctly: 'From the statement above' (i.e. with regard to the Statute of 1496) 'it appears that in 1496 the diet was considered equivalent to one-third of the income of an artificer and

dark, with the same intervals. A statute of Elizabeth of 1562 leaves the length of the working day for all labourers 'hired for daily or weekly wages' untouched, but seeks to limit the intervals to 24 hours in the summer and 2 in the winter. Dinner is to last only 1 hour, and the 'afternoon-sleep of half an hour' is only allowed between the middle of May and the middle of August. For every hour of absence 1d. is to be subtracted from the wage. In practice, however, the conditions were much more favourable to the labourers than in the statute-book. William Petty, the father of political economy, and to some extent the founder of statistics, says in a work he published in the last third of the seventeenth century: 'Labouring men' (the meaning then was 'agricultural labourers') 'work ten hours *per diem*, and make twenty meals per week, viz., three a day for working days, and two on Sundays; whereby it is plain, that if they could fast on Friday nights, and dine in one hour and an half, whereas they take two, from eleven to one; thereby thus working $\frac{1}{10}$ more, and spending $\frac{1}{10}$ less, the above-mentioned tax might be raised.'⁸⁷ Was Dr Andrew Ure not right when he deplored the 'Twelve Hours' Bill of 1833 as a retrogression to the age of darkness? It is true that the regulations contained in the statutes and mentioned by Petty apply also to apprentices. But the situation with respect to child labour, even at the end of the seventeenth century, is shown by the following complaint: 'Our youth, here in England, do absolutely nothing before they come to be apprentices, and then they naturally require a long time - seven years - to be formed into complete craftsmen.'⁸⁸ Germany, on the other hand, is praised, because the children there are educated from their cradle at least to 'something of employment'.⁸⁸

one-half the income of a labourer, which indicates a greater degree of independence among the working-classes than prevails at present; for the board, both of labourers and artificers, would now be reckoned at a much higher proportion of their wages' (J. Wade, *History of the Middle and Working Classes*, pp. 24-5, 577). The opinion that this difference is due to the difference between the relative prices of food and clothing then and now is refuted by the most superficial glance at Bishop Fleetwood's *Chronicon Praeliosum* (1st edn, London, 1707; 2nd edn, London, 1745).

87. W. Petty, *Political Anatomy of Ireland*, 1672, edition of 1691, p. 10. [This page reference is actually to the supplement, *Verbum Sapienti*.]

88. *A Discourse on the Necessity of Encouraging Mechanick Industry*, London, 1690, p. 13. Macaulay, who has falsified English history in the

* This is not strictly a quotation, but a compressed version of the text indicated in n. 88.

Still, during the greater part of the eighteenth century, up to the epoch of large-scale industry, capital in England had not succeeded in gaining control of the worker's whole week by paying the weekly value of his labour-power. (The agricultural labourers, however, formed an exception.) The fact that they could live for a whole week on the wage of four days did not appear to the workers to be a sufficient reason for working for the capitalist for the other two days. One party of English economists, in the service of capital, denounced this obstinacy in the most violent manner, another party defended the workers. Let us listen for example to the polemic between Postlethwayt,^{*} whose Dictionary of Trade then enjoyed the same reputation as similar works by MacCulloch and Mac-

interest of the Whigs and the bourgeoisie, declaims as follows: 'The practice of setting children prematurely to work . . . prevailed in the seventeenth century to an extent which, when compared with the extent of the manufacturing system, seems almost incredible. At Norwich, the chief seat of the clothing trade, a little creature of six years old was thought fit for labour. Several writers of that time, and among them some who were considered as eminently benevolent, mention with exultation the fact that in that single city, boys and girls of very tender age create wealth exceeding what was necessary for their own subsistence by twelve thousand pounds a year. The more carefully we examine the history of the past, the more reason shall we find to dissent from those who imagine that our age has been fruitful of new remedies . . . That which is new is the intelligence and the humanity which reported further that 'extremely well-disposed' friends of commerce in the seventeenth century recount with 'exultation' how in a workhouse in Holland a child of four was employed, and that this example of 'applied virtue' is accepted as adequate evidence in all the writings of humanitarians & la Macaulay, up to the time of Adam Smith. It is true that with the rise of manufacture [*Manufaktur*] as opposed to handicrafts [*Handwerk*],^{*} traces of the exploitation of children begin to appear. This exploitation always existed to a certain extent among the peasants, and was the more developed, the heavier the yoke pressing on the countryman. The tendency of capital is unmistakable; but the facts themselves are as isolated as the phenomenon of a two-headed baby. Hence they were noted with 'exultation' as especially peculiar and remarkable, and recommended as models for their own time and for posterity by the far-seeing 'friends of commerce'. This same Scottish sycophant and fine talker, Macaulay, says: 'We hear today only of retrogression and see only progress.' What eyes, and above all, what ears!

* Marx distinguishes between three forms of industrial organization. In chronological order, these are *Handwerk* (handicrafts), *Manufaktur* (manufacture) and large-scale industry (*die grosse Industrie*).

* Malacly Postlethwayt (1707-67), English economist.

Gregor do today, and the author of the *Essay on Trade and Commerce* cited earlier.⁸⁹

Postlethwayt says among other things: 'We cannot put an end to these few observations, without noticing that trite remark in the mouth of too many; that if the industrious poor can obtain enough to maintain themselves in five days, they will not work the whole six. Whence they infer the necessity of even the necessities of life being made dear by taxes, or any other means, to compel the working artisan and manufacturer to labour the whole six days in the week, without ceasing. I must beg leave to differ in sentiment from those great politicians, who contend for the perpetual slavery of the working people of this kingdom; they forget the vulgar adage, all work and no play. Have not the English boasted of the ingenuity and dexterity of her working artists and manufacturers which have heretofore given credit and reputation to British wares in general? What has this been owing to? To nothing more probably than the relaxation of the working people in their own way. Were they obliged to toil the year round, the whole six days in the week, in a repetition of the same work, might it not blunt their ingenuity, and render them stupid instead of alert and dexterous; and might not our workmen lose their reputation instead of maintaining it by such eternal slavery? . . . And what sort of workmanship could we expect from such hard-driven animals? . . . Many of them will execute as much work in four days as a Frenchman will in five or six. But if Englishmen are to be eternal drudges, 'tis to be feared they will degenerate below the Frenchmen. As our people are famed for

89. The most ferocious of the accusers of the workers is the anonymous author of *An Essay on Trade and Commerce, Containing Observations on Taxes, etc.*, London, 1770, quoted above. He had already touched on the matter in his earlier work, *Considerations on Taxes*, London, 1765. That un-speakable statistical prattler Arthur Young, the Polonius of political economy, is on the same side of the fence. * The foremost of the defenders of the workers are: Jacob Vanderlint, in *Money Answers All Things*, London, 1734; the Rev. Nathaniel Forster, D.D., in *An Enquiry into the Causes of the Present High Price of Provisions*, London, 1767; Dr Price; and in particular Postlethwayt himself, both in a supplement to his *Universal Dictionary of Trade and Commerce* and in his *Great Britain's Commercial Interest Explained and Improved*, 2nd edn, London, 1759. The facts themselves are confirmed by many other writers of the time, including, among others, Josiah Tucker. †

† Josiah Tucker (1712-99), Dean of Gloucester, was a forerunner of Adam Smith in political economy and wrote in favour of American independence and of free-trade.

bravery in war, do we not say that it is owing to good English roast beef and pudding in their bellies, as well as their constitutional spirit of liberty? And why may not the superior ingenuity and dexterity of our artists and manufacturers be owing to that freedom and liberty to direct themselves in their own way, and I hope we shall never have them deprived of such privileges and that good living from whence their ingenuity no less than their courage may proceed.'⁹⁰ To this the author of the *Essay on Trade and Commerce* replies: 'If the making of every seventh day an holiday is supposed to be of divine institution, as it implies the appropriating the other six days to labour' (he means capital, as we shall soon see) 'surely it will not be thought cruel to enforce it . . . That mankind in general, are naturally inclined to ease and indolence, we fatally experience to be true, from the conduct of our manufacturing populace, who do not labour, upon an average, above four days in a week, unless provisions happen to be very dear . . . Put all the necessities of the poor under one denomination; for instance, call them all wheat, or suppose that . . . the bushel of wheat shall cost five shillings and that he' (the worker) 'earns a shilling a day by his labour, he then would be obliged to work five days only in a week. If the bushel of wheat should cost but four shillings, he would be obliged to work but four days; but as wages in this kingdom are much higher in proportion to the price of necessities. . . the manufacturer' [i.e. the manufacturing worker], 'who labours four days, has a surplus of money to live idle with the rest of the week . . . I hope I have said enough to make it appear that the moderate labour of six days in a week is no slavery. Our labouring people' [i.e. the agricultural labourers] 'do this, and to all appearance are the happiest of all our labouring poor,'⁹¹ but the Dutch do this in manufactures, and appear to be a very happy people. The French do so, when holidays do not intervene.⁹² But our populace have adopted a notion, that as Englishmen they enjoy a birthright privilege of being more free and independent than in any country in Europe. Now this idea, as far as it may affect the bravery of our troops, may be of some use; but the less the manufacturing poor have of it, certainly the better for them-

90. Postlethwayt, op. cit., 'First Preliminary Discourse', p. 14.

91. *An Essay, etc.* On p. 96 he himself tells us what the 'happiness' of the English agricultural labourer in 1770 actually consisted in. 'Their powers are always upon the stretch, they cannot live cheaper than they do, nor work harder.'

92. Protestantism, by changing almost all the traditional holidays into working days, played an important part in the genesis of capital.

selves and for the State. The labouring people should never think themselves independent of their superiors . . . It is extremely dangerous to encourage mobs in a commercial state like ours, where, perhaps, seven parts out of eight of the whole, are people with little or no property. The cure will not be perfect, till our manufacturing poor are contented to labour six days for the same sum which they now earn in four days.⁹³ To this end, and for 'extirpating idleness, debauchery and excess', promoting a spirit of industry, 'lowering the price of labour in our manufactures, and easing the lands of the heavy burden of poor's rates', our 'faithful Eckart' of capital proposes the well-tryed method of locking up workers who become dependent on public support (in one word, paupers) in 'an ideal workhouse'. Such an ideal workhouse must be made a 'House of Terror'; and not an asylum for the poor 'where they are to be plentifully fed, warmly and decently clothed, and where they do but little work'.⁹⁴ In this 'House of Terror', this 'ideal workhouse, the poor shall work 14 hours in a day, allowing proper time for meals, in such manner that there shall remain 12 hours of neat labour.'⁹⁵

Twelve working hours a day in the 'Ideal Workhouse', the 'House of Terror' of 1770! 63 years later, in 1833, when the English Parliament reduced the working day for children of 13 to 18 years to 12 full hours, in four branches of industry, the Day of Judgement seemed to have dawned for English industry! In 1852, when Louis Bonaparte sought to secure his position with the bourgeoisie by tampering with the legal working day, the people of France cried out with one voice 'the law that limits the working day to 12 hours is the one good that has remained to us of the legislation of the Republic'.⁹⁶ At Zurich the work of children over 10 is limited to

93. *An Essay, etc.*, pp. 15, 41, 96, 97, 55, 57, 69. Jacob Vanderlint declared as early as 1734 that the secret of the capitalists' complaints about the laziness of the working people was simply this, that they claimed six days' labour instead of four for the same wages.

94. *Ibid.*, pp. 242-3.

95. *Ibid.*, p. 260. 'The French', he says, 'laugh at our enthusiastic ideas of liberty' (*ibid.*, p. 78).

96. They especially objected to work beyond the 12 hours per day, because the law which fixed those hours, is the only good which remains to them of the legislation of the Republic' (*Reports of the Inspectors of Factories . . . 31 October 1835*, p. 80). 'The French Twelve Hours' Bill of 5 September 1850, a bourgeois edition of the Provisional Government's decree of 2 March 1848, holds in all workshops without exception. Before this law, the working day in France was without a definite limit. It lasted 14, 15 or more hours in the

12 hours; in Aargau in 1862, the work of children between 13 and 16 was reduced from 12½ to 12 hours; in Austria in 1860, for children between 14 and 16, the same reduction was made.⁹⁷ 'What progress since 1770,' Macaulay might shout 'with exultation'.

The 'House of Terror' for paupers, only dreamed of by the capitalist mind in 1770, was brought into being a few years later in the shape of a gigantic 'workhouse' for the industrial worker himself. It was called the factory. And this time the ideal was a pale shadow compared with the reality.

6. THE STRUGGLE FOR A NORMAL WORKING DAY. LAWS FOR THE COMPULSORY LIMITATION OF WORKING HOURS. THE ENGLISH FACTORY LEGISLATION OF 1833-64

After capital had taken centuries to extend the working day to its normal maximum limit, and then beyond this to the limit of the natural day of 12 hours,⁹⁸ there followed, with the birth of large-

factories. See *Des classes ouvrières en France, pendant l'année 1848*, by Monsieur Blanqui. M. Blanqui, the economist, not the revolutionary, had been given the task of inquiring into the condition of the working class by the government.

97. Belgium has proved itself to be the model bourgeois state in regard to the regulation of the working day. Lord Howard de Walden, English Plenipotentiary at Brussels, * reported to the Foreign Office on 12 May 1862: 'M. Rogier, the minister, informed me that children's labour is limited neither by a general law nor by any local regulations; that the Government, during the last three years, intended in every session to propose a bill on the subject, but always found an insuperable obstacle in the jealous opposition which was made to any legislation in contradiction with the principle of complete freedom of labour.'

98. 'It is certainly much to be regretted that any class of persons should toil 12 hours a day, which, including the time for their meals and for going to and returning from their work, amounts, in fact, to 14 of the 24 hours . . . Without entering into the question of health, no one will hesitate, I think, to admit that, in a moral point of view, so entire an absorption of the time of the working classes, without intermission, from the early age of 13, and in trades not subject to restriction, much younger, must be extremely prejudicial, and is an evil greatly to be deplored . . . For the sake, therefore, of public morals, and of bringing up an orderly population, and of giving the great body of the people a reasonable enjoyment of life, it is much to be desired that in all trades some portion of every working day should be reserved for rest and leisure' (Leonard Horner, in *Reports of the Inspectors of Factories, . . . 31 December 1841*).

* Charles Augustus Ellis, Lord Howard de Walden and Seaford (1799-1868), diplomat. Minister Plenipotentiary at Brussels from 1846 to 1868.

scale industry in the last third of the eighteenth century, an avalanche of violent and unmeasured encroachments. Every boundary set by morality and nature, age and sex, day and night, was broken down. Even the ideas of day and night, which in the old statutes were of peasant simplicity, became so confused that an English judge, as late as 1860, needed the penetration of an interpreter of the Talmud to explain 'judicially' what was day and what was night.⁹⁹ Capital was celebrating its orgies.

As soon as the working class, stunned at first by the noise and turmoil of the new system of production, had recovered its senses to some extent, it began to offer resistance, first of all in England, the native land of large-scale industry. For three decades, however, the concessions wrung from industry by the working class remained purely nominal. Parliament passed five Labour Laws between 1802 and 1833, but was shrewd enough not to vote a penny for their compulsory implementation, for the necessary official personnel, etc.¹ They remained a dead letter. 'The fact is, that prior to the Act of 1833, young persons and children were worked all night, all day, or both *ad libitum*.'²

A normal working day for modern industry dates only from the Factory Act of 1833, which included cotton, wool, flax and silk factories. Nothing characterizes the spirit of capital better than the history of English factory legislation from 1833 to 1864.

The Act of 1833 lays down that the ordinary factory working day should begin at 5.30 in the morning and end at 8.30 in the evening, and within these limits, a period of 15 hours, it is lawful to employ young persons (i.e. persons between 13 and 18 years of age), at any time of the day, provided that no one individual young person works

⁹⁹ See *Judgment of Mr J. H. Orway, Belfast, Hilary Sessions, County Antrim, 1860.*

1. It is very characteristic of the regime of Louis Philippe, the bourgeois king, that the one Factory Act passed during his reign, that of 22 March 1841, was never put into force. And this law only dealt with child-labour. It fixed 8 hours a day for children between 8 and 12, 12 hours for children between 12 and 16, etc., with many exceptions which allow night-work even for children of 8 years. The supervision and enforcement of this law, in a country where even the mice are administered by the police, is left to the goodwill of the 'friends of commerce'. Only since 1853, and in one single department - the Nord - has a paid government inspector been appointed. Not less characteristic of the development of French society in general is the fact that until the Revolution of 1848 Louis Philippe's law stood alone amid the all-embracing network of French legislation.

² *Reports of the Inspectors of Factories . . . 30 April 1860, p. 50.*

more than 12 hours in any one day, except in certain cases especially provided for. The sixth chapter of the Act provided: 'That there shall be allowed in the course of every day not less than one and a half hours for meals to every such person restricted as hereinbefore provided.' The employment of children under 9, with exceptions mentioned later, was forbidden; the work of children between 9 and 13 was limited to 8 hours a day; night-work, i.e. according to this Act, work between 8.30 p.m. and 5.30 a.m., was forbidden for all persons between 9 and 18.

The law-makers were so far from wishing to interfere with the freedom of capital to exploit adult labour-power, or, as they called it, 'the freedom of labour', that they created a special system in order to prevent the Factory Acts from having such a frightful consequence.

'The great evil of the factory system as at present conducted,' says the first report of the Central Board of the Commission, on 28 June 1833, 'has appeared to us to be that it entails the necessity of continuing the labour of children to the utmost length of that of the adults. The only remedy for this evil, short of the limitation of the labour of adults, which would, in our opinion, create an evil greater than that which is sought to be remedied, appears to be the plan of working double sets of children.* Under the name of the 'system of relays' ('relay' means, in English as also in French, the changing of the post-horses at each different halting-place), this 'plan' was therefore carried out, so that, for example, one set of children of between 9 and 13 years were put into harness from 5.30 a.m. until 1.30 p.m., another set from 1.30 p.m. until 8.30 p.m., and so on.

In order to reward the manufacturers for having, in the most impudent way, ignored all the Acts relating to child labour passed during the previous twenty-two years, the pill was yet further gilded for them. Parliament decreed that after 1 March 1834 no child under 11, after 1 March 1835 no child under 12, and after 1 March 1836 no child under 13 was to work more than 8 hours in a factory. This 'liberalism', so full of consideration for 'capital', was the more noteworthy in that Dr Farre, Sir A. Carlisle, Sir B. Brodie, Sir C. Bell, Mr Guthrie etc., in a word, the most distinguished physicians and surgeons in London, had declared in their evidence

* *Factories Inquiry Commission. First Report of the Central Board of His Majesty's Commissioners. Ordered by the House of Commons to be printed, 28 June 1833, p. 53.*

before the House of Commons that there was danger in delay. Dr Farre was still blunter: 'Legislation is necessary for the prevention of death, in any form in which it can be prematurely inflicted, and certainly this' (the factory method) 'must be viewed as a most cruel mode of inflicting it.'³

The same 'reformed' Parliament which in its delicate consideration for the manufacturers condemned children under 13, for years to come, to the hell of 72 hours of factory labour every week, this same Parliament, in the Emancipation Act (which also administered freedom drop by drop), forbade the planters, from the very beginning, to work any Negro slave for more than 45 hours a week.

But capital was by no means soothed; it now began a noisy and long-lasting agitation. This turned on the age-limit of the category of human beings who, under the name 'children', were restricted to 8 hours of work and were subject to a certain amount of compulsory education. According to the anthropology of the capitalists, the age of childhood ended at 10, or, at the outside, 11. The nearer the deadline approached for the full implementation of the Factory Act, the fatal year 1836, the wilder became the rage of the mob of manufacturers. They managed in fact to intimidate the government to such an extent that in 1835 it proposed to lower the limit of the age of childhood from 13 to 12. But now the 'pressure from without' became more threatening. The House of Commons lost its nerve. It refused to throw children of 13 under the Juggernaut wheels of capital for more than 8 hours a day, and the Act of 1833 came into full operation. It remained unaltered till June 1844.

During the decade in which it regulated factory work, at first in part, and then entirely, the official reports of the factory inspectors teem with complaints about the impossibility of enforcing it. The point of time within the 15 hours from 5.30 a.m. to 8.30 p.m. at which each 'young person' and each 'child' was to begin, break off, resume, or end his 12 or 8 hours of labour was left by the Act of 1833 to the free decision of the lords of capital; similarly, the Act also permitted them to assign different meal-times to different persons. Thanks to this provision, the capitalists soon discovered a new 'system of relays', by which the work-horses were not changed at fixed stations, but were always re-harnessed at different stations.

* *Report from the Committee on the Bill to Regulate the Labour of Children in the Mills and Factories of the United Kingdom: with the Minutes of Evidence.* Ordered by the House of Commons to be printed, 8 August 1832. Evidence of Dr J. R. Farre, pp. 598-602.

We shall not pause here to reflect on the beauty of this system, as we shall have to return to it later. But this much is clear at first glance: it annulled the whole Factory Act, not only in the spirit, but in the letter. How could the factory inspectors, with this complex book-keeping in respect of each individual child or young person, enforce the legally determined hours of work, and compel the employers to grant the legal meal-times? In many of the factories, the old and scandalous brutalities soon blossomed again unpunished. In an interview with the Home Secretary (1844), the factory inspectors demonstrated the impossibility of any control under the newly invented relay system.³ In the meantime, however, circumstances had greatly changed. The factory workers, especially since 1838, had made the Ten Hours' Bill their economic, as they had made the Charter* their political, election cry. Some of the manufacturers, even, who had run their factories in conformity with the Act of 1833, overwhelmed Parliament with representations on the immoral 'competition' of their 'false brethren', who were able to break the law because of their greater impudence or their more fortunate local circumstances. Moreover, however much the individual manufacturer might like to give free rein to his old lust for gain, the spokesmen and political leaders of the manufacturing class ordered a change in attitude and in language towards the workers. They had started their campaign to repeal the Corn Laws, and they needed the workers to help them to victory! They promised, therefore, not only that the loaf of bread would be twice its size, but also that the Ten Hours' Bill would be enacted in the free trade millennium.⁴ Thus they were even less inclined, and less able, to oppose a measure intended only to make the law of 1833 a reality. And finally, the Tories, threatened in their most sacred interest, the rent of land, thundered with philanthropic indignation against the 'nefarious practices'⁵ of their foes.

This was the origin of the additional Factory Act of 7 June 1844,

³ *Reports of the Inspectors of Factories* . . . 31 October 1849, p. 6.

⁴ *Reports of the Inspectors of Factories* . . . 31 October 1848, p. 98.

⁵ Let us note in passing that Leonard Horner makes use of this expression in his official reports. (*Reports of the Inspectors of Factories* . . . 31 October 1859, p. 7.)

* Better known as the 'People's Charter', the manifesto issued in May 1838 by a number of groups, including the London Working Men's Association, which called for universal male suffrage and various related electoral reforms. Hence 'Chartism'.

which came into effect on 10 September 1844. It placed under protection a new category of workers, namely women over 18. They were placed in every respect on the same footing as young persons, their working hours limited to 12, and night-work forbidden to them. For the first time it was found necessary for the labour of adults to be controlled directly and officially by legislation. The Factory Report of 1844-5 states ironically: 'No instances have come to my knowledge of adult women having expressed any regret at their rights being thus far interfered with.'⁶ The working hours of children under 13 were reduced to 6½, and in certain circumstances to 7.⁷

To get rid of the abuses of the spurious 'system of relays', the law established among other things the following important regulations: 'The hours of work of children and young persons shall be reckoned from the time when any child or young person shall begin to work in the morning.' So that if A, for example, begins work at 8 in the morning, and B at 10, B's working day must nevertheless end at the same hour as A's. 'The time shall be regulated by a public clock,' for example the nearest railway clock, by which the factory clock is to be set. The manufacturer has to hang up a 'legible' printed notice stating the hours for the beginning and ending of work and the pauses allowed for meals. Children beginning work before 12 noon may not be again employed after 1 p.m. The afternoon shift must therefore consist of other children than those employed in the morning. Of the hour and a half for meal-times, 'one hour thereof at the least shall be given before three of the clock in the afternoon . . . and at the same period of the day. No child or young person shall be employed more than five hours before 1 p.m. without an interval for meal-time of at least 30 minutes. No child or young person (or female) shall be employed or allowed to remain in any room in which any manufacturing process is then' (i.e. at meal-times) 'carried on.'

It has been seen that these highly detailed specifications, which regulate, with military uniformity, the times, the limits and the pauses of work by the stroke of the clock, were by no means a product of the fantasy of Members of Parliament. They developed gradually out of circumstances as natural laws of the modern mode

6. *Reports of the Inspectors of Factories* . . . 30 September 1844, p. 15.

7. The Act allows children to be employed for 10 hours if they do not work day after day, but only on alternate days. In the main, this clause remained inoperative.

of production. Their formulation, official recognition and proclamation by the state were the result of a long class struggle. One of their first consequences was that in practice the working day of adult males in factories became subject to the same limitations, since in most processes of production the co-operation of children, young persons and women is indispensable. On the whole, therefore, during the period from 1844 to 1847, the 12 hours' working day became universal and uniform in all branches of industry under the Factory Act.

The manufacturers, however, did not allow this 'progress' without a compensating 'retrogression'. At their instigation the House of Commons reduced the minimum age for exploitable children from 9 to 8, in order to ensure that 'additional supply of factory children'⁸ which is owed to the capitalists, according to divine and human law.

The years 1846 to 1847 are epoch-making in the economic history of England. The Corn Laws were repealed; the duties on cotton and other raw materials were removed; free trade was proclaimed as the guiding star of legislation; in short, the millennium had arrived. On the other hand, in the same years the Chartist movement and the ten hours' agitation reached their highest point. They found allies in the Tories, who were panting for revenge. Despite the fanatical opposition of the army of perjured Free traders, headed by Bright and Cobden, the Ten Hours' Bill, so long struggled for, made its way through Parliament.

The new Factory Act of 8 June 1847 enacted that on 1 July 1847 there should be a preliminary reduction of the working day for 'young persons' (from 13 to 18) and all females to 11 hours, but that on 1 May 1848 there should be a definite limitation of the working day to 10 hours. For the rest, the Act was only an emendatory supplement to the Acts of 1833 and 1844.

Capital now undertook a preliminary campaign to prevent the Act from coming into full force on 1 May 1848. And the workers themselves, under the pretence that they had been taught by experience, were to help in the destruction of their own work. The moment was cleverly chosen. 'It must be remembered, too, that there has been more than two years of great suffering (in consequence of

8. 'As a reduction in their hours of work would cause a larger number' (of children) 'to be employed, it was thought that the additional supply of children from 8 to 9 years of age would meet the increased demand' (ibid., p. 13).

the terrible crisis of 1846-7) among the factory operatives, from many mills having worked short time, and many being altogether closed. A considerable number of the operatives must therefore be in very narrow circumstances; many, it is to be feared, in debt; so that it might fairly have been presumed that at the present time they would prefer working the longer time, in order to make up for past losses, perhaps to pay off debts, or get their furniture out of pawn, or replace that sold, or to get a new supply of clothes for themselves and their families.⁹

The manufacturers tried to aggravate the natural impact of these circumstances by a general 10 per cent reduction in wages. This was done in order, as it were, to celebrate the inauguration of the new free-trade era. Then followed a further reduction of 8½ per cent as soon as the working day was shortened to 11 hours, and a reduction of twice that amount as soon as it was finally shortened to 10. Therefore, wherever circumstances permitted, a reduction in wages of at least 25 per cent took place.¹⁰ Under these favourably prepared conditions the agitation among the factory workers for the repeal of the Act of 1847 was begun. No method of deceit, seduction or intimidation was left unused; but all in vain. In relation to the half-dozen petitions in which the workers were made to complain of 'their oppression by the Act', the petitioners themselves declared under oral examination that their signatures had been extorted. They felt themselves oppressed, but by something different from the Factory Act.¹¹ But if the manufacturers did not succeed in getting the workers to speak as they wished, they themselves shrieked all the louder in the press and in Parliament in the name of the workers. They denounced the factory inspector in the name of the revolutionary commissioner reminiscent of the Convention,* who would ruthlessly sacrifice the unfortunate factory workers to his

9. *Reports of the Inspectors of Factories . . . 31 October 1848*, p. 16.

10. 'I found that men who had been getting 10s. a week, had had 1s. taken off for a reduction in the rate of 10 per cent, and 1s. 6d. off the remaining 9s. for the reduction in time, together 2s. 6d., and notwithstanding this, many of them said they would rather work 10 hours' (*ibid.*).

11. "'Though I signed it' (the petition) 'I said at the time I was putting my hand to a wrong thing.' 'Then why did you put your hand to it?' 'Because I should have been turned off if I had refused.' Whence it would appear that this petitioner felt himself "oppressed", but not exactly by the Factory Act' (*ibid.*, p. 102).

* The French revolutionary assembly of 1792 to 1795, which presided over the Terror.

mania for improving the world. This manoeuvre also failed. Leonard Horner, himself a factory inspector, conducted many examinations of witnesses in the factories of Lancashire, both personally and through sub-inspectors. About 70 per cent of the workers examined declared in favour of 10 hours, a much smaller percentage in favour of 11, and an altogether insignificant minority for the old 12 hours.¹²

Another 'friendly' dodge was to make the adult males work 12 to 15 hours, and then to declare that this fact was a fine demonstration of what the proletariat really wanted. But the 'ruthless' factory inspector Leonard Horner was again on the spot. The majority of the 'overtimers' declared: 'They would much prefer working 10 hours for less wages, but they had no choice; so many were out of employment (so many spinners getting very low wages by having to work as piecers, being unable to do better), that if they refused to work the longer time, others would immediately get their places, so that it was a question with them of agreeing to work the longer time, or of being thrown out of employment altogether.'¹³

The preliminary campaign of capital thus came to grief, and the Ten Hours' Act came into force on 1 May 1848. Meanwhile, however, the fiasco of the Chartist party, whose leaders had been imprisoned and whose organization dismembered, had shattered the self-confidence of the English working class. Soon after this the June insurrection in Paris and its bloody suppression united, in England as on the Continent, all fractions of the ruling classes, land-owners and capitalists, stock-exchange sharks and small-time shopkeepers, Protectionists and Free-traders, government and opposition, priests and free-thinkers, young whores and old nuns, under the common slogan of the salvation of property, religion, the family and society. Everywhere the working class was outlawed, anatomized, placed under the '*loi des suspects*'.* The manu-

12. *ibid.*, p. 17. In Mr Horner's district 10,270 adult male labourers were examined in 181 factories. Their evidence is to be found in the appendix to the Factory Reports for the half-year ending October 1848. These examinations provide material which is valuable in other connections as well.

13. *ibid.* See the statements collected by Leonard Horner himself, Nos. 69, 70, 71, 72, 92, 93, and those collected by Sub-inspector A, Nos. 51, 52, 58, 59, 62, 70, of the Appendix. A manufacturer, too, told the plain unvarnished truth in one instance. See No. 14, after No. 265 (*ibid.*).

* The law against all those suspected of assisting the counter-revolution, passed on 17 September 1793 by the Convention. It formed the legal basis

facturers no longer needed to restrain themselves. They broke out in open revolt, not only against the Ten Hours' Act, but against all the legislation since 1833 that had aimed at restricting to some extent the 'free' exploitation of labour-power. It was a pro-slavery rebellion* in miniature, carried on for over two years with a cynical recklessness and a terrorist energy which were so much the easier to achieve in that the rebel capitalist risked nothing but the skin of his workers.

To understand what follows, we must remember that all three Factory Acts, those of 1833, 1844 and 1847, were in force, in so far as the one did not amend the others; that not one of these limited the working day of the male worker of over 18; and that since 1833 the 15 hours from 5.30 a.m. until 8.30 p.m. had remained the legal 'day', within the limits of which the 12 hours, and later the 10 hours, of labour by young persons and women had to be performed under the prescribed conditions.

The manufacturers began by here and there dismissing a number of the young persons and women they employed, in many cases half of them, and then, for the adult males, restoring night-work, which had almost disappeared. The Ten Hours' Act, they cried, leaves us no other alternative.¹⁴

The second step they took related to the legal pauses for meals. Let us listen to the factory inspectors. 'Since the restriction of the hours of work to ten, the factory occupiers maintain, although they have not yet practically gone the whole length, that supposing the hours of work to be from 9 a.m. to 7 p.m. they fulfil the provisions of the statutes by allowing an hour before 9 a.m. and half an hour after 7 p.m. (for meals). In some cases they now allow an hour, or half an hour for dinner, insisting at the same time, that they are not bound to allow any part of the hour and a half in the course of the factory working-day.'¹⁵ Thus the manufacturers maintained that the scrupulously strict provisions of the Act of 1844 with regard to meal-times only gave the workers permission to eat and drink before coming into the factory, and after leaving it — i.e. at home! And why indeed should the workers not eat their dinner before 9 o'clock in

14. *Reports of the Inspectors of Factories* . . . 31 October 1848, pp. 133-4.
15. *Reports of the Inspectors of Factories* . . . 30 April 1848, p. 47.

for the Terror. As applied here, however, the expression refers to repressive laws passed in various countries after 1848.

*This is Marx's usual term for the American Civil War of 1861 to 1865.

the morning? The crown lawyers, however, decided that the prescribed meal-times 'must be in the interval during the working-hours, and that it will not be lawful to work for 10 hours continuously, from 9 a.m. to 7 p.m., without any interval'.¹⁶

After these pleasant demonstrations, capital commenced its real revolt by taking a step which agreed with the letter of the law of 1844, and was therefore legal.

The Act of 1844 certainly prohibited the employment after 1 p.m. of children aged from 8 to 13 who had been employed before noon. But it did not regulate in any way the 6½ hours' work of the children whose working day began at 12 midday or later. Children of 8 might, if they began work at noon, be employed from 12 till 1 (1 hour); from 2 till 4 in the afternoon (2 hours); and from 5 till 8.30 in the evening (3½ hours). Taken together, this made up a legal 6½ hours! But they could do even better. In order to make the children's work coincide with that of the adult male labourers up to 8.30 p.m., the manufacturers only had to give them no work till 2 in the afternoon; they could then keep them in the factory until 8.30 in the evening without intermission. 'And it is now expressly admitted that the practice exists in England from the desire of mill-owners to have their machinery at work for more than 10 hours a day, to keep the children at work with male adults after all the young persons and women have left, and until 8.30 p.m. if the factory-owners choose.'¹⁷ Workers and factory inspectors protested on hygienic and moral grounds, but Capital answered:

'My deeds upon my head! I crave the law,
The penalty and forfeit of my bond.'¹⁸

In fact, according to statistics laid before the House of Commons on 26 July 1850, 3,742 children were still being subjected to this 'practice' in 257 factories on 15 July 1850, despite all the protests.¹⁸ But this was not enough. Lynx-eyed capital discovered that although the Act of 1844 did not allow 5 hours' work before midday without a pause of at least 30 minutes for refreshment, it prescribed nothing like this for afternoon work. Hence capital demanded and ob-

16. *Reports of the Inspectors of Factories* . . . 31 October 1848, p. 130.
17. *ibid.*, p. 142.

18. *Reports of the Inspectors of Factories* . . . 31 October 1850, pp. 5-6.

*This quotation, and the one following, are from *The Merchant of Venice*, Act 4, Scene 1 (Shylock's speech).

tained the satisfaction not only of making children of 8 drudge without any interval from 2 to 8.30 p.m., but also of letting them go hungry.

'Ay, his breast,
So says the bond.'¹⁹

This Shylock-like clinging to the letter of the law of 1844, in so far as it regulated child-labour, was, however, only a way of introducing an open revolt against the same law, in so far as it regulated the labour of 'young persons and women'. It will be remembered that the abolition of the 'false relay system' was the main aim of that law, and formed its main content. The manufacturers began their revolt simply by declaring that the sections of the Act of 1844 which prohibited the unrestricted use of young persons and women in such short fractions of the day of 15 hours as the employer chose had been 'comparatively harmless' as long as working hours were limited to 12 hours, but that under the Ten Hours' Act they were a 'grievous hardship'.²⁰ They informed the inspectors very coolly that they would set themselves above the letter of the law, and re-

19. The nature of capital remains the same in its developed as it is in its undeveloped forms. In the code of law which was imposed on the Territory of Mexico under the influence of the slave-owners, shortly before the outbreak of the American Civil War, it is asserted that the worker 'is his' (the capitalist's) 'money' since the capitalist has bought his labour-power. The same view was current among the Roman patricians. The money they advanced to the plebeian debtor became transformed, through his consumption of the means of subsistence, into his flesh and blood. This 'flesh and blood' was therefore 'their money'. Hence the law of the Ten Tables,* which is worthy of Shylock. Linguet's theory† that the patrician creditors from time to time prepared banquets of debtors' flesh on the other side of the Tiber remains as doubtful as Daumer's theory about the Lord's Supper.‡

* *Reports of the Inspectors of Factories* . . . 31 October 1848, p. 133.

† The Law of the Twelve Tables (ten tables plus two supplementary ones) is the earliest Roman code of laws, drawn up in 450 B.C. Table III.6 states: 'On the third market day the creditors shall cut shares. If they have cut more or less than their shares it shall be without prejudice. All the writers of classical antiquity who dealt with this passage interpreted it to mean an actual division of the debtor's body, not his property, and Marx follows them here (as did Hegel).

‡ Linguet stated his theory in the book *Théorie des lois civiles, ou principes fondamentaux de la société*, London, 1767, Vol. 2, Bk 5, Ch. 20.

§ G. F. Daumer (1800-1875), writer on religious history, had a theory, put forward in *Die Geheimnisse des christlichen Aleriums* (2 vols., Hamburg, 1847), that the early Christians consumed human flesh when they celebrated the Lord's Supper.

introduce the old system on their own account.²¹ This would, they said, be in the interests of the ill-advised operatives themselves, 'as it would allow them to pay higher wages'. 'This was the only possible plan by which to maintain, under the Ten Hours' Act, the industrial supremacy of Great Britain.' 'Perhaps it may be a little difficult to detect irregularities under the relay system; but what of that? Is the great manufacturing interest of this country to be treated as a secondary matter in order to save some little trouble to Inspectors and Sub-Inspectors of Factories?'²²

All these dodges were of course of no avail. The factory inspectors appealed to the courts. But the Home Secretary, Sir George Grey, was soon so overwhelmed by the clouds of dust arising from the manufacturers' petitions that in a circular of 5 August 1848 he recommended the inspectors not 'to lay information against mill-owners for a breach of the letter of the Act, or for employment of young persons by relays in cases in which there is no reason to believe that such young persons have been actually employed for a longer period than that sanctioned by law'. At this, Factory Inspector J. Stuart allowed the so-called relay system for the 15-hour period of the factory day to be restored throughout Scotland, where it soon flourished again as of old. The English factory inspectors, on the other hand, declared that the Home Secretary had no dictatorial powers enabling him to suspend the laws, and continued their legal proceedings against the 'pro-slavery rebellion'.

But what was the point of summoning the manufacturers to appear before the courts when the courts, in this case the county magistrates,²³ acquitted them? In these tribunals the manufacturers sat in judgement on themselves. An example. A certain Eskridge, a cotton-spinner, of the firm of Kershaw, Leese & Co., had laid before the factory inspector of his district the details of a relay system intended for his mill. Receiving a refusal, he at first kept quiet. A few months later, an individual named Robinson, also a cotton-spinner, and if not Eskridge's Man Friday at

21. Thus, among others, the philanthropist Ashworth, in a letter to Leonard Horner which is repulsive in its Quaker manner. (*Reports of the Inspectors of Factories* . . . 30 April 1849, p. 4.)

22. *Reports of the Inspectors of Factories* . . . 30 April 1849, pp. 138, 140.

23. These 'county magistrates', the 'Great Unpaid' as William Cobbett described them, are unpaid judges chosen from the most eminent people in each county. They constitute in fact the patrimonial jurisdiction of the ruling classes.

least his relative, appeared before the borough magistrates of Stockport on a charge of introducing the very plan of relays Eskridge had devised. The bench consisted of four Justices, three of them cotton-spinners, and was headed by this same inevitable Eskridge. Eskridge acquitted Robinson, and now decided that what was right for Robinson was fair for Eskridge. Supported by his own legal decision, he at once introduced the new relay system into his own factory.²⁴ Of course, the composition of this tribunal was in itself a blatant violation of the law.²⁵ 'These judicial farces,' exclaims Inspector Howell, 'urgently call for a remedy - either that the law should be so altered as to be made to conform to these decisions, or that it should be administered by a less fallible tribunal, whose decisions would conform to the law... when these cases are brought forward. I long for a stipendiary magistrate.'²⁶

The Crown lawyers declared that the manufacturers' interpretation of the Act of 1848 was absurd. But the saviours of society would not allow themselves to be turned from their purpose. Leonard Horner reports: 'Having endeavoured to enforce the Act... by ten prosecutions in seven magisterial divisions, and having been supported by the magistrates in one case only... I considered it useless to prosecute more for this evasion of the law. That part of the Act of 1848 which was framed for securing uniformity in the hours of work... is thus no longer in force in my district (Lancashire). Neither have the sub-inspectors or myself any means of satisfying ourselves, when we inspect a mill working by shifts, that the young persons and women are not working more than 10 hours a day... In a return of the 30 April... of mill-owners working by shifts, the number amounts to 114, and has been for some time rapidly increasing. In general, the time of working the mill is extended to 13½ hours, from 6 a.m. to 7½ p.m.,... in some instances it amounts to 15 hours, from 5½ a.m. to 8½ p.m.'²⁷ Leonard Horner already possessed by December 1848 a list of 65 manufacturers and 29 factory overseers who

24. *Reports of the Inspectors of Factories*... 30 April 1849, pp. 21-2. Cf. similar examples in *ibid.*, pp. 4, 5.

25. By Section 10 of I. and II. William IV, c. 24, known as Sir John Hobhouse's Factory Act, it was forbidden to any owner of a cotton-spinning or weaving mill, or the father, son or brother of such an owner, to act as Justice

26. *Reports of the Inspectors of Factories*... 30 April 1849, p. 22.

27. *Reports of the Inspectors of Factories*... 30 April 1849, p. 5.

unanimously declared that no system of supervision could, under this relay system, prevent the most extensive amount of over-work.²⁸ Sometimes the same children and young persons were shifted from the spinning-room to the weaving-room, sometimes, in the course of 15 hours, they were shifted from one factory to another.²⁹ How was it possible to control a system which 'under the guise of relays, is some one of the many plans for stuffing "the hands"' about in endless variety, and shifting the hours of work and of rest for different individuals throughout the day, so that you may never have one complete set of hands working together in the same room at the same time?³⁰

But even if we entirely leave aside actual over-work, this so-called relay system was an offspring of capital's imagination never surpassed even by Fourier in his humorous sketches of the 'coursées séantes',* except that the 'attraction of labour' is here transformed into the attraction of capital. Look, for example, at those schemes praised by the 'respectable press' as models of 'what a reasonable degree of care and method can accomplish'. The working personnel was sometimes divided into from twelve to fifteen categories, and these categories themselves constantly underwent changes in their composition. During the 15 hours of the factory day, capital dragged in the worker now for 30 minutes, now for an hour, and then pushed him out again, to drag him into the factory and thrust him out afresh, hounding him hither and thither, in scattered shreds of time, without ever letting go until the full 10 hours of work was done. As on the stage, the same persons had to appear in turn in the different scenes of the different acts. And just as an actor is committed to the stage throughout the whole course of the play, so the workers were committed to the factory for the whole 15 hours, without reckoning the time taken in coming and going. Thus the hours of rest were turned into hours of enforced idleness, which drove the young men to the taverns and the young girls to the brothels.

28. *Reports of the Inspectors of Factories*... 31 October 1849, p. 6.

29. *Reports of the Inspectors of Factories*... 30 April 1849, p. 21.

30. *Reports of the Inspectors of Factories*... 31 October 1848, p. 95.

*'Short sessions', the brief periods of labour Fourier envisaged for his ideal society. They corresponded to the eleventh human passion, the passion for variety, and without them labour would not be 'attractive'. Cf. *Le Nouveau Monde industriel et sociétaire*, 2nd edn, Paris, 1845, p. 67.

Every new trick the capitalist hit upon from day to day for keeping his machinery going for 12 or 15 hours without increasing the number of the personnel meant that the worker had to gulp down his meals in a different fragment of time. During the 10 hours' agitation, the manufacturers cried out that the mob of workers were petitioning in the hope of obtaining 12 hours' wages for 10 hours' work. Now they reversed the medal. They paid 10 hours' wages for 12 or 15 hours' disposition over the workers' labour-power.³¹ This was the heart of the matter, this was the manufacturers' edition of the ten hours' law! These were the same unctuous Free traders, dripping with the milk of human kindness, who for ten whole years, during the agitation against the Corn Laws, had demonstrated to the workers, by making precise calculations in pounds, shillings and pence, that with corn freely imported 10 hours of labour would be quite sufficient, given the existing means of English industry, to enrich the capitalists.³²

This revolt of capital was after two years finally crowned with victory by a decision handed down by one of the four highest courts in England, the Court of Exchequer, which, in a case brought before it on 8 February 1850, decided that the manufacturers were certainly acting against the sense of the Act of 1844, but that this Act itself contained certain words that rendered it meaningless. 'This verdict was tantamount to an abrogation of the Ten Hours' Bill.'³³ A great number of manufacturers, who

31. See *Reports of the Inspectors of Factories* . . . 30 April 1849, p. 6, and the detailed explanation of the 'shifting system' given by Factory Inspectors Howell and Saunders in the *Reports of the Inspectors of Factories* . . . 31 October 1848. See also the petition to the Queen from the clergy of Ashton* and vicinity, in the spring of 1849, against the 'shift system'.

32. Cf. for example R. H. Greg, *The Factory Question and the Ten Hours' Bill*, London, 1837.

33. F. Engels' 'Die englische Zehnstundenbill', in the *Neue Rheinische Zeitung. Politisch-ökonomische Revue*, edited by myself, p. 13 of the issue for April 1850 [English translation: Marx and Engels, *Articles on Britain*, London, 1971, p. 105]. During the American Civil War the same 'High' Court of Justice discovered a verbal twist which exactly reversed the meaning of the law against the arming of pirate ships.†

*Ashton-under-Lyne, in Lancashire. A cotton town, and a main centre of the agitation which had led up to the Factory Act of 1847.

†This law was the Foreign Enlistment Act of 1819 (59 George III, c. 69). It forbade the fitting-out of vessels to engage in military operations against states with which Britain was not at war. In November 1863 the Court of Exchequer held that the British government had no justification under the Act for its seizure of the *Alexandra*, a ship intended for the Confederate States.

until then had been afraid to use the shift system for young persons and women, now seized on it enthusiastically.³⁴

But this apparently decisive victory of capital was immediately followed by a counter-stroke. So far, the workers had offered a resistance which was passive, though inflexible and unceasing. They now protested in Lancashire and Yorkshire in threatening meetings. The so-called Ten Hours' Act, they said, was thus mere humbug, a parliamentary fraud. It had never existed! The factory inspectors urgently warned the government that class antagonisms had reached an unheard-of degree of tension. Some of the manufacturers themselves grumbled: 'On account of the contradictory decisions of the magistrates, a condition of things altogether abnormal and anarchical obtains. One law holds in Yorkshire, another in Lancashire; one law in one parish of Lancashire, another in its immediate neighbourhood. The manufacturer in large towns could evade the law, the manufacturer in country districts could not find the people necessary for the relay system, still less for the shifting of hands from one factory to another, etc.' And the most fundamental right under the law of capital is the equal exploitation of labour-power by all capitalists.

Under these circumstances, it came to a compromise between manufacturers and men, given the seal of parliamentary approval in the supplementary Factory Act of 5 August 1850. The working day for 'young persons and women' was lengthened from 10 to 10½ hours for the first five days of the week, and shortened to 7½ hours on Saturdays. The work had to take place between 6 a.m. and 6 p.m.,³⁵ with pauses of not less than 1½ hours for meal-times, these meal-times to be allowed at exactly the same time for all, and in accordance with the regulations laid down in 1844. By this the relay system was ended once and for all.³⁶ For child labour, the Act of 1844 remained in force.

One set of manufacturers secured to themselves special signorial rights over the children of the proletariat, just as they had done before. These were the silk manufacturers. In 1833 they had

34. *Reports of the Inspectors of Factories* . . . 30 April 1850.

35. In winter the period from 7 a.m. to 7 p.m. can be substituted for this.

36. 'The present law' (of 1850) 'was a compromise whereby the employed surrendered the benefit of the Ten Hours' Act for the advantage of one uniform period for the commencement and termination of the labour of those whose labour is restricted' (*Reports of the Inspectors of Factories* . . . 30 April 1852, p. 14).

howled threateningly that 'if the liberty of working children of any age for 10 hours a day were taken away, it would stop their works'.³⁷ It would be impossible for them to buy a sufficient number of children over 13. They extorted the privilege they desired. Subsequent investigation showed that the pretext was a deliberate lie. This did not, however, prevent them, throughout the following decade, from spinning silk for 10 hours a day out of the blood of little children who had to be put on stools to perform their work.³⁸ The Act of 1844 certainly 'robbed' the silk manufacturers of the 'liberty' of employing children under 11 for longer than 6½ hours each day. But as against this, it secured them the privilege of working children between 11 and 13 for 10 hours a day, and annulling in their case the education which had been made compulsory for all other factory children. This time the pretext was 'the delicate texture of the fabric in which they were employed, requiring a lightness of touch, only to be acquired by their early introduction to these factories'.³⁹ The children were quite simply slaughtered for the sake of their delicate fingers, just as horned cattle are slaughtered in southern Russia for their hides and their fat. Finally, in 1850, the privilege granted in 1844 was limited to the departments of silk-twisting and silk-winding. But here, in order to compensate capital for the loss of its 'liberty', the hours of labour for children aged from 11 to 13 were increased from 10 to 10½. Pretext: 'Labour in silk mills was lighter than in mills for other fabrics, and less likely in other respects also to be prejudicial to health.'⁴⁰ Official medical inquiries proved afterwards that, on the contrary, 'the average death-rate is exceedingly high in the silk districts, and amongst the female part of the population is higher even than it is in the cotton districts of Lancashire'.⁴¹ Despite the protests of the factory inspectors,

37. *Reports of the Inspectors of Factories . . . 30 September 1844*, p. 13, 38. *ibid.*

39. *Reports of the Inspectors of Factories . . . 31 October 1846*, p. 20.

40. *Reports of the Inspectors of Factories . . . 31 October 1861*, p. 26.

41. *ibid.*, p. 27. In general, the working population has greatly improved physically under the regime of the Factory Act. All medical testimony agrees on this point, and my own personal observation on various occasions has convinced me this is true. Nevertheless, and leaving aside the terrible death-rate of children in the first years of their life, the official reports of Dr Greenhow show the unfavourable health conditions of the manufacturing districts as compared with 'agricultural districts of normal health'. As evidence, take the following table from his 1861 report:

repeated every 6 months, this evil has lasted to the present day.⁴² The Act of 1850 replaced the 15-hour period from 6 a.m. to 8.30 p.m. by a 12-hour period from 6 a.m. to 6 p.m., but only for 'young persons and women'. It did not therefore affect children, who could always be employed for half an hour before this period, and 2½ hours after it, provided the total duration of their labour did not exceed 6½ hours. While the bill was under discussion, the factory inspectors laid before Parliament statistics relating to the infamous abuses which had arisen from this anomaly. But in vain. In the background lurked the intention of using the children to force the working day of adult males up to 15 hours, in years of prosperity. The experience of the three years which followed demonstrated that such an attempt was bound to fail in face of

Percentage of adult males engaged in manufactures	Death-rate from pulmonary affections per 100,000 males	Name of District	Death-rate from pulmonary affections per 100,000 females	Percentage of adult females engaged in manufactures	Kind of female occupation
14.9	598	Wigan	644	18.0	Cotton
42.6	708	Blackburn	734	34.9	Ditto
37.3	547	Halifax	564	20.4	Worsted
41.9	611	Bradford	603	30.0	Ditto
31.0	691	Macclesfield	804	26.0	Silk
14.9	588	Leek	705	17.2	Ditto
36.6	721	Stoke-upon-Trent	665	19.3	Earthenware
30.4	726	Woolstanton	727	13.9	Ditto
	305	Eight healthy agricultural districts	340		

42. The reluctance with which the English 'Free traders' gave up the protective duty on silk manufacture is well known. The absence of protection for English factory children now serves in place of protection against French imports.

the resistance of the adult male workers.⁴³ The Act of 1850 was therefore finally completed in 1853 by the prohibition of the employment of children in the morning before and in the evening after young persons and women.⁴⁴ Henceforth, with few exceptions, the Factory Act of 1850 regulated the working day of all workers in the branches of industry subject to it.⁴⁵ By then, half a century had elapsed since the passing of the first Factory Act.⁴⁵

Factory legislation went beyond its original sphere of application for the first time in the Printworks Act of 1845. The unwillingness with which capital accepted this new 'extravagance' speaks through every line of the Act. It limits the working day for children from 8 to 13, and for women, to 16 hours between 6 a.m. and 10 p.m. without any legal pause for meal-times. It allows males over 13 to be worked at will day and night.⁴⁶ It is a parliamentary abortion.⁴⁷

Nevertheless, the principle had triumphed with its victory in those great branches of industry which form the most characteristic creation of the modern mode of production. Their wonderful development from 1853 to 1860, hand-in-hand with the physical and moral regeneration of the factory workers, was visible to the weakest eyes. The very manufacturers from whom the legal

43. *Reports of the Inspectors of Factories* . . . 30 April 1853, p. 30.

44. During the years 1859 and 1860, when the English cotton industry was at its zenith, the manufacturers tried to reconcile the adult male workers to an extension of the working day by using the bait of higher wages for overtime. The hand-mule spinners and self-actor minders put an end to the experiment by sending a petition to their employers, in which they said: 'Plainly speaking, our lives are to us a burthen; and, while we are confined to the mills nearly two days a week' (20 hours) 'more than the other operatives of the country, we feel like helots in the land, and that we are perpetuating a system injurious to ourselves and future generations . . . This, therefore, is to give you most respectful notice that when we commence work again after the Christmas and New Year holidays, we shall work 60 hours per week, and no more, or from six to six, with one hour and a half out' (*Reports of the Inspectors of Factories* . . . 30 April 1860, p. 30).

45. On the means provided by the wording of this Act for its own violation, see the Parliamentary Return *Factories Regulation Acts* (6 August 1859), and in it Leonard Horner's 'Suggestions for Amending the Factory Acts to Enable the Inspectors to Prevent Illegal Working, Now Become Very Prevalent'.

46. 'Children of the age of 8 years and upwards, have, indeed, been employed from 6 a.m. to 9 p.m. during the last half year in my district' (*Reports of the Inspectors of Factories* . . . 31 October 1857, p. 39).

47. 'The Printworks Act is admitted to be a failure, both with reference to its educational and protective provisions' (*Reports of the Inspectors of Factories* . . . 31 October 1862, p. 52).

limitation and regulation of the working day had been wrung step by step in the course of a civil war lasting half a century now pointed boastfully to the contrast with the areas of exploitation which were still 'free'.⁴⁸ The Pharisees of 'political economy' now proclaimed that their newly won insight into the necessity for a legally regulated working day was a characteristic achievement of their 'science'.⁴⁹ It will easily be understood that after the factory magnates had resigned themselves and submitted to the inevitable, capital's power of resistance gradually weakened, while at the same time the working class's power of attack grew with the number of its allies in those social layers not directly interested in the question. Hence the comparatively rapid progress since 1860.

Dye-works and bleach-works were brought under the Factory Act of 1850 in 1860,⁵⁰ lace and stocking factories in 1861. As a result of the first report of the Commission on the Employment of Children (1863) the same fate was shared by the manufacturers of all earthenware products (not just the potteries), matches,

48. Thus E. Potter, for example, in a letter of 24 March 1863 to *The Times*. *The Times* reminded him of the manufacturers' revolt against the Ten Hours Bill.

49. Thus, among others, Mr W. Newmarch, collaborator and editor of Tooke's *History of Prices*. Is it a scientific advance to make cowardly concessions to public opinion?

50. The Act passed in 1860 laid down for dye-works and bleach-works that the working day should be provisionally fixed, on 1 August 1861, at 12 hours, and definitively fixed, on 1 August 1862, at 10 hours, i.e. at 10½ hours for ordinary days and 7½ for Saturday. Now when the fatal year arrived, in 1862, the old farce was repeated. The manufacturers petitioned Parliament to allow the employment of young persons and women for 12 hours a day for yet one more year. 'In the existing condition of the trade' (at the time of the cotton famine) 'it was greatly to the advantage of the operatives to work 12 hours per day, and make wages when they could.' A bill to this effect was brought in, and it was mainly due to the action of the operative bleachers in Scotland that the bill was abandoned' (*Reports of the Inspectors of Factories* . . . 31 October 1862, pp. 14, 15). Defeated in this way by the very workers in whose name it pretended to speak, capital discovered, with the help of the judicial magnifying-glass, that the Act of 1860, drawn up in equivocal phrases, like all the Acts of Parliament for the 'protection of labour', provided them with a pretext for excluding from its operation the 'caldenders' and the 'finishers', English jurisprudence, always the faithful servant of capital, sanctioned this piece of pettifoggery in the Court of Common Pleas. 'The operatives have been greatly disappointed . . . they have complained of over-work, and it is greatly to be regretted that the clear intention of the legislature should have failed by reason of a faulty definition' (*ibid.*, p. 18).

percussion-caps, cartridges, carpets and fustian cuttings, and the employers of people engaged in the many processes included under the name of 'finishing'. In the year 1863 bleaching in the open air⁵¹ and baking were placed under special Acts by which, in the former

51. The 'open-air bleachers' had evaded the law of 1860 with the lie that no women worked at bleaching during the night. This lie was exposed by the factory inspectors, and at the same time Parliament was robbed of its illusions as to the pleasant atmosphere of fields and meadows in which the open-air bleaching was supposed to take place by petitions from the workers themselves. In this serial bleaching, drying-rooms with temperatures of from 90° to 100° Fahrenheit were used, and the work there was mainly done by girls. 'Cooling' is the technical expression for their occasional escape from the drying-rooms into the fresh air. Fifteen girls in stoves. Heat from 80° to 90° for linens, and 100° and upwards for cambrics. Twelve girls ironing and doing-up in a small room about 10 feet square, in the centre of which is a close stove. The girls stand round the stove, which throws out a terrific heat, and dries the cambrics rapidly for the ironers. The hours of work for these hands are unlimited. If busy, they work till 9 or 12 at night for successive nights' (*Reports of the Inspectors of Factories* . . . 31 October 1862, p. 56). A medical man states: 'No special hours are allowed for cooling, but if the temperature gets too high, or the workers' hands get soiled from perspiration, they are allowed to go out for a few minutes . . . My experience, which is considerable, in treating the diseases of stove workers, compels me to express the opinion that their sanitary condition is by no means so high as that of the operatives in a spinning factory' (and capital, in its representations to Parliament, had painted them as rubicund and healthy, in the manner of Rubens!). 'The diseases most observable amongst them are phthisis, bronchitis, irregularity of uterine functions, hysteria in its most aggravated forms, and rheumatism. All of these, I believe, are either directly or indirectly induced by the impure, overheated air of the apartments in which the hands are employed, and the want of sufficient comfortable clothing to protect them from the cold, damp atmosphere, in winter, when going to their homes' (*Ibid.*, pp. 56-7). The factory inspectors remark, on the subject of the law of 1863, 'extracted subsequently from these jovial 'open-air bleachers' [i.e. the employers], 'The Act has not only failed to afford that protection to the workers which it appears to offer, but contains a clause . . . apparently so worded that, unless persons are detected working after 8 o'clock at night, they appear to come under no protective provisions at all, and if they do so work, the mode of proof is so doubtful that a conviction can scarcely follow' (*Ibid.*, p. 52). 'To all intents and purposes, therefore, as an Act for any benevolent or educational purpose, it is a failure; since it can scarcely be called benevolent to permit, which is tantamount to compelling, women and children to work 14 hours a day with or without meals, as the case may be, and perhaps for longer hours than these, without limit as to age, without reference to sex, and without regard to the social habits of the families of the neighbourhood, in which such works (bleaching and dyeing) are situated' (*Reports of the Inspectors of Factories* . . . 30 April 1863, p. 40).

*The law Marx refers to here is in fact the Open Air Bleach-works Act of April 1862, which came into force on 1 January 1863.

case, the labour of young persons and women at night was forbidden (from 8 in the evening to 6 in the morning), and in the latter, the employment of journeymen bakers under 18 between 9 in the evening and 5 in the morning. We shall return to the later proposals of the same Commission, which threaten to deprive all the important branches of English industry of their 'freedom', with the exception of agriculture, mining and transport.⁵²

7. THE STRUGGLE FOR A NORMAL WORKING DAY. IMPACT OF THE ENGLISH FACTORY LEGISLATION ON OTHER COUNTRIES

The reader will recall that the production of surplus-value, or the extraction of surplus labour, forms the specific content and purpose of capitalist production, quite apart from any reconstruction of the mode of production itself which may arise from the subordination of labour to capital. He will remember that, from the standpoint so far developed here, it is only the independent worker, a man who is thus legally qualified to act for himself, who enters into a contract with the capitalist as the seller of a commodity. So if our historical sketch has shown the prominent part played by modern industry on the one hand, and the labour of those who are physically and legally minors on the other, the former is still for us only a particular department of the exploitation of labour, and the latter only a particularly striking example of it. Without anticipating subsequent developments, the following points can be derived merely by connecting together the historical facts:

First Capital's drive towards a boundless and ruthless extension of the working day is satisfied first in those industries which were first to be revolutionized by water-power, steam and machinery, in those earliest creations of the modern mode of production, the spinning and weaving of cotton, wool, flax and silk. The changed material mode of production, and the correspondingly changed social relations of the producers,⁵³ first gave rise to outrages without measure, and then called forth, in opposition to

52. Since 1866, when I wrote the above passages, a reaction has set in once again.

53. 'The conduct of each of these classes' (capitalists and workers) 'has been the result of the relative situation in which they have been placed' (*Reports of the Inspectors of Factories* . . . 31 October 1848, p. 113).

this, social control, which legally limits, regulates and makes uniform the working day and its pauses. During the first half of the nineteenth century, this control therefore appears simply as legislation for exceptions.⁵⁴ As soon as the Factory Acts had conquered the original domain of the new mode of production, it was found that in the meantime many other branches of production had made their entry into the factory system properly so-called, that manufactures* with more or less obsolete methods, such as potteries, glass-making etc., that old-fashioned handicrafts like baking, and finally that even the scattered so-called domestic industries, such as nail-making,⁵⁵ had long since fallen as completely under capitalist exploitation as the factories themselves. Factory legislation was therefore compelled gradually to strip itself of its exceptional character, or to declare that any house in which work was done was a factory, as in England, where the law proceeds in the manner of the Roman Casuists.^{56†}

Second. The history of the regulation of the working day in certain branches of production, and the struggle still going on in others over this regulation, prove conclusively that the isolated worker, the worker as 'free' seller of his labour-power, succumbs without resistance once capitalist production has reached a certain stage of maturity. The establishment of a normal working day is therefore the product of a protracted and more or less concealed civil war between the capitalist class and the working

54. 'The employments, placed under restriction, were connected with the manufacture of textile fabrics by the aid of steam or water-power. There were two conditions to which an employment must be subject to cause it to be inspected, viz., the use of steam or water-power, and the manufacture of certain specified fibres' (*Reports of the Inspectors of Factories . . . 31 October 1864*, p. 8).

55. The latest reports of the Children's Employment Commission contain especially valuable material on the situation in this so-called domestic industry. 56. 'The Acts of last Session (1864) . . . embrace a diversity of occupations, the customs in which differ greatly, and the use of mechanical power to give motion to machinery is no longer one of the elements necessary, as formerly, to constitute, in legal phrase, a "Factory"' (*Reports of the Inspectors of Factories . . . 31 October 1864*, p. 8).

*More idiomatic would be 'industries', but these are industries with obsolete methods, and they belong to the age of 'manufacture'.

†The Roman Catholic Casuists of the seventeenth century, especially the Jesuits, were famed for using refined and tortuous arguments so as to preserve intact the formal framework of inconvenient doctrines while abolishing them in substance.

class. Since the contest takes place in the arena of modern industry, it is fought out first of all in the homeland of that industry — England.⁵⁷ The English factory workers were the champions, not only of the English working class, but of the modern working class in general, just as their theorists were the first to throw down the gauntlet to the theory of the capitalists.⁵⁸ Hence the philosopher of the factory, Ure, considers it a mark of inextinguishable disgrace on the part of the English working class that they wrote 'the slavery of the Factory Acts' on their banners, as opposed to capital, which was striving manfully for the 'perfect freedom of labour'.⁵⁹

France limps slowly behind England. The French twelve hours' law needed the February revolution to bring it into the world,⁶⁰

57. Belgium, the paradise of Continental liberalism, shows no trace of this movement. Even in the coal and metal mines, workers of both sexes and all ages are consumed, in perfect 'freedom', at any period, and through any length of time. Out of every 1,000 persons employed there, 733 are men, 88 women, 135 boys and 44 girls under 16; in the blast-furnaces, etc., out of 1,000 employed, 668 are men, 149 women, 98 boys and 85 girls under 16. Add to this the low wages paid in return for the enormous exploitation of mature and immature labour-power. 'The average daily pay for a man is 2s. 8d., for a woman 1s. 8d., for a boy, 1s. 2½d. As a result, Belgium nearly doubled the amount and the value of its exports of coal, iron, etc. between 1850 and 1863.

58. Robert Owen, soon after 1810, not only maintained the necessity of a limitation of the working day in theory, but actually introduced the 10-hour day into his factory at New Lanark. This was laughed at as a communist utopia; so was his 'combination of children's education with productive labour', as well as the workers' co-operative societies he was the first to set up. Today, the first utopia is a Factory Act, the second figures as an official phrase in all Factory Acts, and the third is already being used as a cloak for reactionary swindles.

59. Ure (French translation), *Philosophie des manufactures*, Paris, 1836, Vol. 2, pp. 39–40, 67, 77, etc.

60. We read in the *Compte Rendu* of the International Statistical Congress held in Paris in 1855: 'The French law, which limits the length of daily labour in factories and workshops to 12 hours, does not confine this work to definite fixed hours. For children's labour only the working time is prescribed as between 5 a.m. and 9 p.m. Therefore, some of the manufacturers use the right which this fatal silence gives them to keep their works going without intermission, day in, day out, with the possible exception of Sunday. For this purpose they use two different sets of workers, of whom neither is in the workshop more than 12 hours at a time, but the work of the establishment lasts day and night. The law is satisfied, but is humanity? Besides 'the destructive influence of night-labour on the human organism', stress is also laid upon 'the fatal influence of the association of the two sexes by night in the same badly lighted workshops'.

and it has far more loopholes than its English model. Nevertheless, the French revolutionary method has its own peculiar advantages. At one stroke it dictates the same limits to the working day in all shops and factories without distinction, whereas the English legislation yields reluctantly to the pressure of circumstances, now on this point, now on that, and is well on the way to creating an inextricable tangle of contradictory enactments.⁶¹ Moreover, the French law proclaims as a principle what in England was only won in the name of children, minors and women, and has only recently been claimed, for the first time, as a universal right.⁶²

In the United States of America, every independent workers' movement was paralysed as long as slavery disfigured a part of the republic. Labour in a white skin cannot emancipate itself where it is branded in a black skin. However, a new life immediately arose from the death of slavery. The first fruit of the American Civil War was the eight hours' agitation, which ran from the Atlantic to the Pacific, from New England to California, with the seven-league boots of the locomotive. The General Congress of Labour held at Baltimore in August 1866 declared: 'The first and great necessity of the present, to free the labour of this country from capitalistic slavery, is the passing of a law by which eight hours shall be the normal working day in all States of the American Union. We are resolved to put forth all our strength until this glorious result is attained.'⁶³ At the same time (the beginning of

61. 'For instance, there is within my district one occupier who, within the same curtilage, is at the same time a bleacher and dyer under the Bleaching and Dyeing Works Act, a printer under the Print Works Act, and a finisher under the Factory Act' (Report of Mr Baker, in *Reports of the Inspectors of Factories* . . . 31 October 1861, p. 20). After enumerating the different provisions of these Acts, and the complications arising from them, Mr Baker says: 'It will hence appear that it must be very difficult to secure the execution of these three Acts of Parliament where the occupier chooses to evade the law.' But one thing is secured by this means: law-suits for the gentlemen of the law.

62. Thus the factory inspectors at last venture to say: 'These objections' (objections of capital to the legal limitation of the working day) 'must succumb before the broad principle of the rights of labour . . . There is a time when the master's right in his workman's labour ceases, and his time becomes his own, even if there were no exhaustion in the question' (*Reports of the Inspectors of Factories* . . . 31 October 1862, p. 54).

63. 'We, the workers of Dunkirk, declare that the length of time of labour required under the present system is too great, and that, far from leaving the worker time for rest and education, it plunges him into a condition of servitude but little better than slavery. That is why we decide that eight hours are

September 1866), the Congress of the International Working Men's Association, held at Geneva, passed the following resolution, proposed by the London General Council: 'We declare that the limitation of the working day is a preliminary condition without which all further attempts at improvement and emancipation must prove abortive . . . the Congress proposes eight hours as the legal limit of the working day.'⁶⁴

Thus the working-class movement on both sides of the Atlantic, which had grown instinctively out of the relations of production themselves, set its seal on the words of the English factory inspector, R. J. Saunders; 'Further steps towards a reformation of society can never be carried out with any hope of success, unless the hours of labour be limited, and the prescribed limit strictly enforced.'⁶⁵

It must be acknowledged that our worker emerges from the process of production looking different from when he entered it. In the market, as owner of the commodity 'labour-power', he stood face to face with other owners of commodities, one owner against another owner. The contract by which he sold his labour-power to the capitalist proved in black and white, so to speak, that he was free to dispose of himself. But when the transaction was concluded, it was discovered that he was no 'free agent'; that the period of time for which he is free to sell his labour-power is the period of time for which he is forced to sell it,⁶⁵ that

enough for a working day, and ought to be legally recognized as enough; why we call to our help that powerful lever, the press; . . . and why we shall consider all those that refuse us this help as enemies of the reform of labour and of the rights of the labourer' (Resolution of the Working Men of Dunkirk, State of New York, 1866).

64. *Reports of the Inspectors of Factories* . . . 31 October 1849, p. 112.
65. 'The proceedings' (the manoeuvres of capital, for instance from 1848 to 1850) 'have afforded, moreover, incontrovertible proof of the fallacy of the assertion so often advanced, that operatives need no protection, but may be considered as free agents in the disposal of the only property which they possess - the labour of their hands and the sweat of their brows' (*Reports of the Inspectors of Factories* . . . 30 April 1850, p. 45). 'Free labour (if so it may be termed) even in a free country, requires the strong arm of the law to protect it' (*Reports of the Inspectors of Factories* . . . 31 October 1864, p. 34). 'To permit, which is tantamount to compelling . . . to work 14 hours a day without means etc.' (*Reports of the Inspectors of Factories* . . . 30 April 1863, p. 40).

* This resolution was drafted by Marx himself. (See 'Instructions for Delegates to the Geneva Conference', printed in *The First International and After*, Pelican Marx Library, 1973, p. 87.)

in fact the vampire will not let go 'while there remains a single muscle, sinew or drop of blood to be exploited'.⁶⁶ For 'protection' against the serpent of their agonies, the workers have to put their heads together and, as a class, compel the passing of a law, an all-powerful social barrier by which they can be prevented from selling themselves and their families into slavery and death by voluntary contract with capital.⁶⁷ In the place of the pompous catalogue of the 'inalienable rights of man' there steps the modest Magna Carta of the legally limited working day, which at last makes clear 'when the time which the worker sells is ended, and when his own begins'.⁶⁸ *Quantum mutatus ab illo!**

66. F. Engels, 'Die englische Zehnstundenbill', op. cit., p. 5 [English translation, p. 97].

67. The Ten Hours' Act, in the branches of industry subject to it, has 'put an end to the premature decrepitude of the former long-hour workers' (*Reports of the Inspectors of Factories... 31 October 1859*, p. 47). 'Capital' (in factories) 'can never be employed in keeping the machinery in motion beyond a limited time, without certain injury to the health and morals of the labourers employed; and they are not in a position to protect themselves' (*ibid.*, p. 8).

68. 'A still greater boon is the distinction at last made clear between the worker's own time and his master's. The worker knows now when that which he sells is ended, and when his own begins; and by possessing a sure fore-knowledge of this, is enabled to pre-arrange his own minutes for his own purposes' (*ibid.*, p. 52). 'By making them masters of their own time' (the Factory Acts) '... have given them a moral energy which is directing them to and using very cautious expressions, the factory inspectors hint that the eventual possession of political power' (*ibid.*, p. 47). With suppressed irony, present Ten Hours' Act also frees the capitalist from some of the brutality natural to a man who is merely an embodiment of capital, and that it has given him time for a little 'culture'. 'Formerly the master had no time for anything but money; the servant had no time for anything but labour' (*ibid.*, p. 48).

* 'What a great change from that time' (Virgil, *Aeneid*, Bk 2, line 274).

Chapter 11: The Rate and Mass of Surplus-Value

In this chapter, as hitherto, the value of labour-power, and therefore the part of the working day necessary for the reproduction or maintenance of that labour-power, is assumed to be a given, constant magnitude.

With this presupposition, the rate of surplus-value directly gives us the mass of surplus-value furnished to the capitalist by the worker within a definite period of time. If, for example, the necessary labour amounts to 6 hours a day, expressed in a quantity of gold equal to 3 shillings, then 3 shillings is the daily value of one labour-power, or the value of the capital advanced to buy one labour-power. If, further, the rate of surplus-value is 100 per cent, this variable capital of 3 shillings produces a mass of surplus-value of 3 shillings, in other words, the worker supplies every day a mass of surplus labour of 6 hours.

But the variable capital is the monetary expression for the total value of all the labour-powers the capitalist employs simultaneously. Its value is therefore equal to the average value of one labour-power multiplied by the number of labour-powers employed. With a given value of labour-power, therefore, the magnitude of the variable capital varies directly with the number of workers employed simultaneously. If the daily value of one labour-power is 3 shillings, then a capital of 300 shillings must be advanced in order to exploit 100 labour-powers every day, and a capital of $n \times 3$ shillings must be advanced in order to exploit n labour-powers every day.

In the same way, if a variable capital of 3 shillings, being the daily value of one labour-power, produces a daily surplus-value of 3 shillings, a variable capital of 300 shillings will produce a daily surplus-value of 300 shillings, and one of $n \times 3$ shillings will produce a daily surplus-value of $n \times 3$ shillings. The mass of surplus-value produced is therefore equal to the surplus-value