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## THE ECONOMICS OF BOY LABOUR

THERE has been in the last few years a remarkable concentration of attention upon the circumstances surrounding the entry of youths into industrial life, and a disposition to see in them one of the causes of the prevalence of adult unemployment. Such a view is, of course, not a new one. It was urged by several witnesses before the Labour Commission of 1894; it was given considerable emphasis in the Report of the Royal Commission on the Depression of Trade in the eighties of last century; it has for a century been a fruitful source of the complaint of "overstocking the trade with boys" on the part of Trade Unionists; and in a more general sense a somewhat similar doctrine may, among others, be said to have lain at the root of those National and Municipal Regulations as to apprenticeship which were finally swept away in 1813 and 1835. But it has recently been developed at much greater length, and made the basis of a definite policy with regard to employment in the two Reports of the Royal Commission on the Poor Laws and the Relief of Distress, and in a Report on attendance at continuation schools, issued last August by the Consultative Committee of the Board of Education. Both the Poor Law Commission and the Consultative Committee took a large amount of evidence as to the conditions of employment among youths under twenty-one, and there is a striking unanimity of opinion between the three Reports. The Majority state that "the results of the large employment of boys in occupations which offer no opportunity of promotion to employment as men are disastrous. The boy, thrown out at 16, 17, or 18 or 20 years of age, drifts into the low-skilled labour market or the army of unemployables." The Minority, after explaining that "they regard the perpetual recruitment of the unemployables by tens of thousands of boys, who, through neglect to provide them with suitable industrial training, may almost be said to graduate into unemployment as a matter of course, as perhaps the gravest of all grave facts which the Commission has laid bare . . ." go on

to allege as their final conclusion that "the mass of unemployment is continually being recruited by a stream of young men from industries which rely upon unskilled boy labour, and turn it adrift at manhood without any general or special industrial qualification." The Consultative Committee, whose report, though primarily an educational document, is of the greatest economic interest, draw an analogy between the danger of the child worker in the early nineteenth century and the dangers of the adolescent to-day, and sum up their own conclusions by saying (Vol. I., p. 219) that "it is clear to the Committee that the lack of continued educational care through the years of adolescence is one of the deeper causes of national unemployment." In the light of these weighty declarations it seems worth while to review briefly the economic characteristics and conditions of adolescent labour with a view to ascertaining how far the connection between it and unemployment, which they all assert to exist, can be established. The materials used in this article for such a review are derived partly from the evidence placed before the Consultative Committee and the Poor Law Commission, especially the valuable report on boy labour made to the latter by Mr. Cyril Jackson, but mainly from an inquiry, conducted in Glasgow by the writer and Mr. William Kennedy, in the year 1907. It is not my purpose here to propound a policy. That must wait until there is more general agreement as to the nature of the problems to be handled.

#### THE ENTRY INTO INDUSTRY : EXISTING CONDITIONS.

Before any opinion can be expressed as to the validity of the conclusions of the Poor Law Commission and the Consultative Committee, it is necessary to survey briefly the conditions prevailing among adolescents employed in industry. In doing so it is convenient to observe the time-honoured distinction between (1) learners or apprentices who are employed, not for their immediate commercial utility, but in order to maintain at a future date the supply of adult workmen in the industry (*e.g.*, apprentice masons, joiners, fitters, &c.); and (2) boys who are not being taught any occupations with a view to their practising it as men, but who are employed, to quote the words of an employer, "solely for their immediate commercial utility" upon some simple operation, and who, to distinguish them from boy learners, may be called boy labourers. As will be shown later, the distinction between these two classes of youths has for many years been

undergoing a gradual process of obliteration, and from its obliteration flow some of the problems with which the Poor Law Commission and the Consultative Committee were concerned. Nevertheless, it is convenient to begin by making it, because it corresponds to a real difference in the attitude of employers to the boys whom they employ. Class (1) is obtaining such instruction as the industry affords, whether that instruction is good or bad. Most employers in most trades where apprenticeship exists, look far enough ahead to be desirous of maintaining a supply (large or small) of trained adults, and therefore are usually at some pains to give their learners as good a training as the circumstances of the trade at any given moment afford, though they constantly fail to realise to how little that training may amount. Class (2) is normally obtaining in the workshop no training at all, good or bad, such as will qualify the boys in it for future employment when they leave their present positions to seek work elsewhere.

### (1) THE POSITION OF LEARNERS OR APPRENTICES.

The characteristic of the training by means of apprenticeship, which has been traditional in this country since the Middle Ages, is that the boy is at once learning and earning. He gets his education by being allowed to execute operations which have a market value. The obvious advantage of such a system from the point of view of the employer is that the boys receive a training which is practical, and that they learn the valuable lesson that a thing is no good unless it will sell. The advantage from the point of view of the boy is that while he is earning his living, he is also preparing for the future. This is the theory of the system, and it is on the supposition that this theory corresponds to the facts that the extension of apprenticeship as a preparation for a future career so frequently finds advocates at the present day. In reality, however, almost all the latest evidence drawn from the actual relations of industrial life goes to show that *even in those trades where apprenticeship nominally survives* there is little reason to regard it as a satisfactory method of industrial training. On the contrary, inquiry shows that several tendencies are at work to assimilate the position of the boy who is nominally an apprentice or learner to the position of the boy who is employed simply as a labourer. The most important of these tendencies may be summed up under the following heads :—(a) The gap between the school and the trade ; (b) the

breaking-up of processes; (c) the difficulty of control; (d) the instability of industry. It is not necessary to say that they vary in importance from district to district and trade to trade.

(a) The gap between the school and the trade. In many industries at the present day employers do not take boys as apprentices until they are fifteen or sixteen. This is not the case everywhere or in all trades, but it is the rule in certain important centres of industry. In Glasgow, for example, the industries at which apprentices are taken at fourteen are painting, plumbing, printing (compositors), and iron moulding; the period of training is in these trades seven years. Most other industries take boys for five years and apprentice them nearer to sixteen than fifteen years of age. Since most working-class lads leave school not later than fourteen, the fact that they are not taken as apprentices till about sixteen means that a gap of two years usually intervenes before they settle down to learn a trade. During these two years they are engaged in temporary occupations which are no preparation for their future careers, which impose no responsibility or discipline upon them, and which are often of such a nature as to accustom them in youth to purely casual labour. That this is the case is clearly shown by tables of occupation entered by boys leaving school. Thus out of 250 boys leaving the elementary school in Glasgow, 53·6 per cent. became milk boys or lorry boys, 24·6 became unskilled labourers in one capacity or another, 12 per cent. became apprentices or learners. Out of 485 boys leaving London elementary schools 38·7 became errand boys, shop boys, or van boys, 28 per cent. entered low-skilled occupations, 11·2 per cent. entered "skilled" trades. It will be shown later that some of these occupations are harmful in themselves, apart from the fact that they give no kind of industrial education. But what it is desired to emphasise here is that it is a very serious thing that so many lads, on being released from the discipline of school, should enter occupations which are purposeless in the sense of being no preparation for future life. The existence of this gulf between the elementary school and the beginning of any kind of industrial training, which makes it necessary for them to enter these occupations, is an obstacle at the very outset of their careers; it prevents many from ever beginning to get any adequate training at all, and diverts the less firm of purpose into low-paid, casual, or otherwise undesirable employments. In the words of an engineer who was formerly a teacher, "In the two years between fourteen and sixteen a boy forgets most of what he has learned at school."

(b) The breaking-up of processes. The growing specialisation of processes makes it increasingly difficult for a boy who enters a workshop as an apprentice or learner to obtain a knowledge of the trade which he means to follow sufficiently general to make him a good all-round workman who can adapt himself to different classes of work and the varying needs of different firms. He tends to become unduly specialised at a very early age, with the result that if he is displaced from his particular job, he finds more difficulty in getting another than he would if he knew all sides of his trade. The motive to this further and further specialisation of all kinds of work, including that of boys who are nominally learners, is, of course, cheap production for a wide market. In the words of one employer, "to put an apprentice on a valuable machine is waste of money unless he is specialised to it, and in all trades the longer a boy is kept at the process the sooner does he begin to be economically profitable." The result of it is seen in a diminution of the opportunities for workshop education. Thus one firm states: "Boys are kept as a rule in their own departments. They are not taught; they are made to work." Another: "Boys are specialised from the beginning; to shift a boy proficient in one department to another would not pay." Some firms make a sharp division between boys who are to get a general all-round training and boys who are to be kept to one department of the work. Thus, in a locomotive works employing about 4,000 men, and capable of turning out an engine per diem, there are three classes of apprentices:—(a) Premium apprentices (*i.e.*, lads who wish to occupy the higher positions in industry); these pass through all departments, moulding, pattern shop, and drawing office. (b) Privilege apprentices; these are lads who, either because they are exceptionally clever and keen, or because they are the sons of old employees, are moved from one department to another, and learn fitting and erecting, turning, boiler mounting, and possibly enter the drawing office. (c) The ordinary apprentices, who, of course, form the vast majority. They are apprenticed either as fitters, as erectors, or as turners; for in this firm specialisation is carried so far that fitting and erecting, which are almost always combined, are here separated. On entering the works the lad who is going to be a fitter goes straight to the fitting shop and learns nothing else; a lad who is going to be a turner goes to the machine shop and does not learn fitting. Moreover, within the machine shop, specialisation has proceeded still further. There are a large number of machines which are worked, not by men

who have served their time and acquired a general knowledge of machinery (*i.e.*, qualified turners), but by youths who are kept to a single machine, who become capable at that particular kind of work, and who, unless exceptionally clever, do not get a general knowledge of machinery or become competent to work a lathe. These specialised machine-minders form a growing proportion of the total number of mechanics employed in engineering works, owing to the continual invention of simplified machines adapted to the particular class of work done by particular firms; and some employers state that the "engineer" of the future will be a specialised machine-minder at 22s. to 28s. a week, instead of the man who has served his time and who earns 36s. The machine-minder may be either an adult labourer or a boy. At present the society in the trade does not allow lathes to be worked by any but qualified engineers. But on drilling, milling, slotting, punching, band-sawing, and screwing machines it is quite common to employ these specialised machinists who have had a few days' or even a few hours' training, and who are not competent to work any machine save that to which they are specialised. This tendency to narrow down the education of the learner to a single process, and thus to lessen his opportunities of obtaining a general all-round training, is not confined to engineering. The same thing has happened in the case of the boys employed in wood-working industries where much machinery is used. Thus a timber merchant employing sawyers in one department and cabinet-makers in another states: "There is no regular training system; a boy learns incidentally and is only shifted from one machine to another when the shop needs it; there is thus a tendency for boys to become specialised on one machine." This firm gave as an instance of the length to which specialisation had proceeded the fact that one of its employees was the best producer of wooden rings in his town, but could not make a wage at turning a table leg, and adds that "with the exception of a few old men who were trained under the apprenticeship system the foremen are the only men with all-round skill." Again, in the case of bread baking, it is stated that "all-round men are not trained in the town shops," and that the best men come in from the country, where the training is more efficient because the division of labour has not proceeded so far. Master masons say that "country-bred men are the best" on account of the fact that they have had a better all-round training. Finally, in plumbing, painting, and carpentering, it is well known that some employers engage a large number of apprentices by whom

they get work done cheaply and who are only half-trained. Thus, to give an example out of many, some years ago there was a strike of plumbers, caused (as it is stated by an employer) by the fact that certain employers doing a low class of work would send a large number of half-trained youths with only one or two journeymen to execute it, with the result that men were displaced, and that the boys had no chance of learning the trade properly.

(c) The difficulty of control. The apprenticeship system is unsatisfactory, because the control which an employer can exercise over his apprentices is, under modern conditions, so small. In Glasgow the indenture system is not found, as far as can be ascertained, in any trade except building, in which apprentice masons are bound under a signed indenture for a period of five years. Indentures are, however, of very little practical value. Even if a boy who runs away is taken before a magistrate and the magistrate orders him to return, he comes back unwillingly, and is more trouble than he is worth. Thus a large builder and contractor says: "We find the greatest difficulty in getting boys to apply themselves. They stay away frequently in the morning, and run away after two or three years to get employment in country districts. Yet there are plenty of prospects in the trade; we cannot get sufficient competent foremen, though they earn from £3 to £5." No doubt employers are always disposed to look back upon their own youth as a time in which all boys were virtuous; but there is abundant evidence to show that the very small control which is all that can under modern conditions be exercised over apprentices by employers has destroyed a great part of what was valuable in the old system. In the case of shipbuilding, the apprentice riveters are notorious for their bad habits. They are pieceworkers; two apprentice riveters make up a squad with a holder-on and rivet boy. Hence, as a shipyard manager says, "they come and go as they please. They are as bad as the men at staying off and stopping the work of the squad." This is confirmed by a writer in a monthly report of the Boiler-makers' Society, to which riveters belong, who points out how demoralising to the boys is the want of discipline. "From their very entry into the trade most of the bad time-keepers are taught to be casual workers. Taken from the rivet fire irrespective of their character, education, or environment, they are put to the tools to do piecework, given work that is of a casual character on account of its being piecework, allowed to leave the firm whenever work is not ready, having, in fact, five years' training as casual



workers. . . . Would any employer treat his own son in such a manner?" It is interesting to notice that in a letter to *Ship-building*, Mr. Cummings, the late General Secretary of the Boilermakers' Society, has suggested that continuation schools should be made compulsory.

(d) The instability of industry. Even when apprenticeship gives a good training in the trade as it exists at the present day, it is not by itself an adequate preparation for industrial life, for the reason that the methods of production in nearly all industries are liable under modern conditions to be revolutionised by discoveries and technical improvements, such as the introduction of machinery or of different machinery, to contract owing to competition, and to fluctuate under the alternation of commercial prosperity and depression. Now apprenticeship as a system of training was developed when industry was stable, methodical, and regular, and is not suited to an age when it is unstable, changing, and irregular. A boy undertakes to serve seven years or five years in order to acquire a trade. But after his skill has been laboriously acquired, it may at any moment be rendered entirely unnecessary by changes in the organisation of industry. The greater his skill in one particular class of work the less easy does he find it to take to another. What is required in addition to manual dexterity is *general industrial knowledge and intelligence*, which will enable him to adapt himself to changing industrial conditions. But such general adaptability is not given by apprenticeship. Hence apprenticeship, even when satisfactory in other respects, is apt to be a risky investment, and not to repay the sacrifice of time and money which it involves.

## (2) BOY LABOURERS.

The second class of boys in industry consists of those who are not apprentices or learners, but who are being employed solely with a view to the present utility of their labour. It is difficult to say what proportion these boys form of the total number employed in industry. Attempts have been made in the past to obtain an estimate by ascertaining the occupations which boys enter on leaving school. Thus a return of the House of Commons procured in 1899 showed that in London "40 per cent. of the boys leaving the schools became errand boys and van boys, 14 per cent. shop boys, 8 per cent. office boys and junior clerks, while some 18 per cent. entered the building, metal work, clothing, and printing trades," and similar statistics of more or less

completeness have been published for other towns. In reality, however, they are of little value for the purpose for which these figures are usually used, namely, to show that an undesirably large number of youths enter what are called (very ambiguously) "unskilled" employments. As was pointed out above, it is a very general practice for boys who want to be apprenticed to a trade to spend a few weeks or months as messenger boys until an opening is available, and returns as to the occupations entered by boys leaving school do not, therefore, justify us in taking them as anything like a complete account of the proportions in which boys finally enter different industries, though they do, of course, illustrate the point mentioned above as to the gap existing between the elementary school and the trade. How rarely, as a matter of fact, boys remain in the same occupation may be illustrated from the following table as to the previous occupation of 150 labourers at the time when they left school, and again at the age of sixteen :—

	On leaving school.	At 16.
Country workers ... ..	7	4
Seamen ... ..	4	5
Apprentices or learners ... ..	8	20
Message boys and milk boys ..	55	13
Van boys ... ..	17	6
Van men ... ..	—	9
Boys or labourers in factories or		
works ... ..	40	49
General labourers ... ..	9	30
Miscellaneous (office, workrooms,		
&c.) ... ..	10	14

Leaving aside the attempt to make any statistical estimate of the proportion of boys engaged as learners to those engaged as labourers, for which the materials are inadequate, we may select for special emphasis three characteristics in the employment of these adolescent "boy labourers." *First*, the work which they perform is usually entirely non-educational, and gives no kind of industrial training, either general or special, such as to enable the worker to find a fresh situation when he leaves it. This is obviously true of the messenger, the milk boy, and the van boy. It is also true to an extent which is rarely realised of the boys who are employed in some kind of labouring capacity in factories and works. Among boys whom the writer has found to be engaged in almost entirely non-educational employments may be included general labourers in foundries, in sawmills, in the building trade, or at the docks; loom boys, doffers, or shifters in textile factories; oven boys in bakeries, rivet boys in boiler shops,

drawers-off in sawmills, packers in soap works, machine-minders in furniture factories, labellers in mineral-water factories; a host of others occupying similar positions are mentioned in Mr. Cyril Jackson's Report to the Poor Law Commission. From the point of view of the boys themselves these occupations are not an avenue into a future career: they are a blind alley leading nowhere. From the point of view of the employers the class of work done is a species of light, unskilled labour which does not require either the intelligence asked from a boy who is learning the trade, or the strength demanded from an adult unskilled workman, and which can therefore be done by a sort of boy labourer. Thus the work of a loom boy consists in assisting men at the loom, seeing that the supply of yarn does not run short, giving in broken ends, cleaning looms, and generally waiting on the weaver. In some carpet-weaving factories no men labourers are employed, and the boys then do all the unskilled work; they do not obtain any knowledge which would enable them to do weaving, for which a formal apprenticeship is necessary, nor are they fitted for anything else. In a similar position to this, large numbers of boys are employed in soap works, packing, wrapping, and filling soap-powder packets. Again, the boys tending machines in the biscuit department of a bakery are neither apprentices nor learners, and though they may acquire a certain rough handiness in dealing with machinery, it is only of the most rudimentary kind. A large number of boys are employed in sawmills as what are known as "drawers-off," whose duty it is to carry wood to and from a machine which is worked by a man, and generally act as labourers. Much the same is true of cloth-finishing works, where a great many boys are employed taking cloth to and from the drying machines, and watching machines under the supervision of a competent man. All these different instances, which could probably be multiplied indefinitely were an extensive inquiry made, are cases in which the boy's work is simply a specialised compartment which gives no kind of qualification for future employment outside it.

Secondly, not only are the boys in these occupations receiving no industrial training, either general or special, but a large number of them will be dismissed at manhood, or whenever they begin to ask for an adult's wages. This is not because they are inefficient workers, or for any other personal or accidental reason. It follows regularly and inevitably from the way in which the work is distributed between boys and men. The absolute impos-

sibility of their being absorbed as men in the occupations in which they started as boys is shown clearly by the following figures of the number of boys and men employed in certain businesses.

(1) A weaving factory—men 120, apprentices 6, loom boys 120. (2) Soap works—men 98, boys 114. (3) Bakery : bread-making—men 96, boys 8 ; pastry—men 60, boys 7 ; biscuits—men 12, boys 41. (4) Contractor : lorries—men 148, boys 50 ; tracing—boys 9 ; vans—boys 10. (5) Sawmills : machine shop—men 78, boys 64 ; turning—men 30, boys 4 ; chair shop—men 38, boys 14. (6) Finishing company : store mills—men 40, boys 40 ; drying—men 28, boys 26 ; raising—men 10, boys 18 ; pressing—men 96, boys 10 ; odd hands—men 18, boys 2.

It will be seen that in the first two cases the number of boys actually exceeds the number of men employed. A workman employed in the weaving factory estimates that 5 per cent. of the boys employed stay with the firm as men, and that of those who leave 75 per cent. do so because it is impossible to find work for them at men's wages. He insists on the irreparable damage that is done to the boy's future, and says he would dissuade any boy he knew from undertaking the work. That is in no way the fault of the employer concerned ; on the contrary, he is well known to go to trouble and expense to increase the comfort of his employees. It is simply because the work is of a character which can be done by boys, and therefore boys, being cheaper than adult labourers, are employed to do it. This particular class of boys, loom boys, doffers, or shifters, is to be found in large numbers in Dundee ; it may therefore not be inappropriate to quote the remarks on this subject contained in the report of the Dundee Social Union, which confirms strikingly the opinion here expressed as to the effect upon unemployment of the type of unprogressive boy labour : "The demand for men's labour would have to be three times as great to provide work for all these lads (*i.e.*, who are in the jute industry), and a number whose parents have sent them to mill or factory as children are turned adrift at the age of seventeen or eighteen. A few of them become skilled workmen in other trades. But even if a boy is not too old to become an apprentice to some trade, he may earn half, or less than half, his accustomed wage. Some boys become labourers in other trades, others enter the Army . . . a number leave the town to seek work elsewhere, while others live from hand to mouth as casual labourers,<sup>1</sup> or join the ranks of the permanently

<sup>1</sup> For a similar account of the fate of boys formerly employed in "laying on" and "taking off" paper in London printing houses, see *Toynbee Record*, "Report

unemployed." The evil is, of course, aggravated in Dundee by the fact that most of the adult workers are women, with the result that there are fewer places for adult men. But the cases quoted above are sufficient to show that it exists in very many different kinds of business. Take, for example, the case of the soap works (2). In these the boys actually exceed the men, and they work in different departments; there is no movement from one to the other, because a strong, full-grown man is needed to do the man's work. None of the boys, the manager states, stay beyond twenty. In the case of the sawmills (5) and the cloth finishing company (6) the boys do not actually exceed the men in number. But it is plain that even were there absolutely complete mobility between all the departments a large number of the boys employed would have to leave the trade at manhood. As a matter of fact, 80 per cent. are estimated to leave at manhood in the one case and 95 per cent. in the other. Finally, one may quote the remarks of the recent Committee on partial exemption in reference to certain branches of the Woollen Trade. "Between fifteen and eighteen the greater part of the boys leave the trade—having acquired some preliminary knowledge of a trade which cannot find them employment in a district which is peculiarly deficient in well-paid male occupations. . . . We are informed that it has been ascertained that over 40 per cent. of the boys who had been half-timers, and subsequently remained in the mills as full-timers, drift into the unskilled labour market."

A general application may be given to the examples quoted above, if one considers for a moment what are the causes determining the demand for boys in different occupations, and in particular how the demand for boy learners differs from that for boy labourers. The considerations which determine the number of boys taken on by, say,<sup>1</sup> the fitting department of an engineering firm, or by the bread-baking department of the bakery described above (3), are fundamentally different

on Boy Labour." These printers' boys were stated to enter the Army and take to the docks; a large number of printers' labourers were found in the Whitechapel Casual Ward in the course of an investigation made into the previous employment of the men there. See also figures as to boy messengers quoted by Mr. Cyril Jackson, "Report on Boy Labour," in the passage referring to the Consultative Committee.

<sup>1</sup> An excellent example of the different prospects of the boy "learner" and the boy "labourer" is given by comparing the bread-baking and biscuit departments of the bakery mentioned above. Eight apprentices (five years' apprenticeship) are held, with the approval of the employer, to be sufficient to recruit ninety-six journeymen bread-bakers, yet in biscuit-making forty-one boys to twelve journeymen are employed. Some of these boys recruit the eight apprentices: of the remainder, it is said, "some go to other trades, the rest drift into casual employment."

from those which settle the number of loom boys, rivet boys, or boys in the biscuit department of the same bakery. In industries requiring much dexterity or intelligence the number of boys entering the trade is determined, not by the demand for such work as they could do if they were immediately set to a single specialised operation, but by the estimated future demand for journeymen. Even where no formal agreement exists as to the proper proportion of apprentices to journeymen, as it does in the case of bread-baking, this is the criterion to which both employers and workmen habitually appeal when the former are claiming that the number of apprentices shall be increased, and the latter that it shall be diminished. *Real* learners are always an expense, and as long as boys are taken on with a view to teaching them so that they may recruit the trade, there is no temptation for employers to take on more than are required for this purpose. Hence a boy who enters, for example, a machine-making or bread-making establishment will, if he is moderately intelligent and fortunate, find a place in it at a man's wage. If he leaves, he leaves because the trade does not suit him personally, not because it is unable to absorb all those who enter it as boys. But when there is no need to recruit a supply of thoroughly trained journeymen, or where many departments of the work are such as can be done by the relatively cheap boy instead of the relatively expensive man, there is always a force at work tending to increase the employment of boys without any reference to the openings in the industry which there will be for them when they reach manhood. To put it concretely, the number of lorry boys or loom boys in a town bears no relation to the number required for recruiting lorry men or weavers, or to anything more remote than the number of cart-tails and looms now in existence, and the number of boys who can be induced to sit on the one and serve the other. In the words of an employer, "boys are employed for their *present commercial utility*." That "utility," which is to be found in the fact that the wage of an adult labourer in Glasgow is 16s. to 20s., while that of a boy (*e.g.*, loom boy) is 8s. to 12s., ceases at manhood, and with its cessation employment ceases as well. But, as has already been pointed out, he has learned nothing which will qualify him to do any other kind of work. What, then, can he do? He can do nothing but fall back on the possession of two arms and two legs, and either enter the Army (*vide* the report of the Dundee Social Union) or increase the supply of labourers, which is already excessive, and which, because excessive, is

casually employed. When 20,000 builders' labourers are in the market, and only 10,000 are wanted, it is certain that either 10,000 will be unemployed altogether, or (what actually happens) that the whole 20,000 will be employed with varying degrees of irregularity.

A third point which is worth noticing is the extreme mobility among these boys to whom we have given the name of boy labourers. This is a point on which it is difficult to get evidence. But such as there is seems to establish the following tendencies. The mobility of the boy labourer is, as would be expected, considerably greater than that of the learner, whether formally apprenticed or not. Between the period of leaving school and the age of sixteen it is customary for both those boys who intend to become learners and those who do not to move from one place to another with great freedom. After the age of sixteen it is rare for the apprentice to move, while the boy who is not a learner is continually shifting from place to place with extraordinary rapidity. This fact was brought out very clearly by comparing the information obtained from 100 tradesmen in Glasgow as to their career between sixteen and twenty-one with that obtained from 150 labourers. After sixteen the narrative of the former comes to an abrupt end, because they have begun to serve their time. After sixteen the boy labourer shifts from place to place, and continues shifting until he is twenty-one. The forms returned show that it is rare for a boy to pass through less than six places between fourteen and twenty-one, common for him to pass through twelve, while in some cases he passes through twenty or thirty. In one instance a young man of twenty-four was able to give the names and addresses of fifty employers with whom he had worked since leaving school. Moreover, the mobility of the boy labourer tends to be different in object and character from that of the boy who is learning a trade. The latter sometimes moves in order to go to a shop where a different branch of the trade is carried on, with the intention of widening his experience, though in practice he usually defers doing this till he is an "improver." He may move within the trade, but he rarely moves outside it. In the case of the latter the information given by them shows the main incentive to movement (apart from dismissal by the employer) is immediately higher wages, and, further, that the occupations through which they pass have frequently no connection with each other. A single instance taken from about 150 will illustrate what is meant. "M. A., a biscuit cutter and son of a plumber,

twenty-three years old, left school at fourteen. He gave the following particulars of his employments: (a) messenger boy, 5s., two months—left to go to biscuit factory; (b) cleaning biscuit pans, 5s. 6d., four months—left to go to G. D.'s for more money; (c) oven boy, 11s., seven months—left to go to L.'s for more money; (d) oven boy, 12s., eighteen months—left for more money; (e) assistant bakersman in bakery, one year, 15s.—left for more money; (f) bakersman, 16s., for four months. After that returned to L.'s; then became a mason's labourer; then worked in quarries for four weeks; then became a crane driver; then went back to L.'s." The boy labourer tends, in short, to be an industrial nomad. It is not necessary to dwell upon the effect which this is likely to have upon his character.

#### BOY LABOUR AND UNEMPLOYMENT.

It remains to be asked how far the Majority or the Minority of the Poor Law Commissioners are right in ascribing part of the problem of unemployment among adult men to the conditions of boy labour. In considering this question one suggestion may at once be ruled out of account. It is that over the whole field of industry men are being replaced by boys. For this statement, which is sometimes made by workpeople who have seen their own trade overrun by cheap juvenile labour, there is no foundation in fact. It is quite true that in certain occupations the proportion of boys to men has increased between 1891 and 1901. But, on the one hand, the census returns for 1901 show a decrease of 12·9 on the number of boys under fifteen employed in 1891, and, on the other hand, the estimate of the Consultative Committee, based on the census returns, gives the proportion of employees between twelve and seventeen to the total number of persons employed as 12·70 in 1891 and 11·06 in 1901. It is, therefore, not correct to speak as though there were a general displacement of the labour of adults by the labour of adolescents. On the contrary, Mr. Cyril Jackson is no doubt right in anticipating (p. 4 of his report to the Royal Commission) that the Education Acts of 1902 and 1903, by stimulating secondary education, will be found to result in a still further diminution. Leaving this suggestion aside, therefore, we may distinguish in the methods of entering a trade and of adolescent employment described above certain tendencies which make for adult unemployment. The first and least important is the excessive specialisation which is described above as being found among certain classes of boys, both learners and



labourers. In the case of an apprentice in an engine works, for example, it may very well happen that though there is an opening for him as a man in that particular works, yet if he is through one cause or another displaced, he will have the greater difficulty in regaining any position, because he has been specialised to one minute process for the sake of cheap production. This is amply borne out by the evidence of employers and workpeople. Thus the manager of a machine-tool works states: "Few men can now do more than make one special part of the particular class of tool we make. This has caused the work to be produced quicker and cheaper, but *it tends to make the workers in a sense unskilled and very dependent on the fluctuation of that kind of work.*" A district secretary of the Amalgamated Society of Engineers says of a world-famous firm which employs several thousand men making a particular kind of domestic machine: "It is a reception home for young bakers and grocers. Boys go to it from other occupations and are put in the machine shop to do one small part of the machine. . . . *When they leave they are not competent engineers, and find it difficult to get work elsewhere.*" Finally, an official of the Brass Moulders' Union describes the process in greater detail: "In some shops the work is highly specialised, and the boy is kept at a single process; for example, he may learn only to make flanges. The result is that when he comes into a shop where a different class of work is done he does not know how to set about it, and so cannot get work or keep it if he gets it. These untrained workers recruit the unemployed. I know a young man who has for this reason been through seven jobs in six weeks." In short, the over-specialised learner resembles the aged worker in standing on a narrow ledge, from which he is very easily dislodged. If industry were stable and regular, this fact would be of little consequence. Since it is in reality unstable and changing, the lack of capacity for self-adjustment to changing conditions may result in an individual being temporarily or permanently superseded. Much has recently been written, though not too much, about the importance of increasing the mobility of labour by means of Labour Exchanges. It is not always remembered that two kinds of mobility are needed, place-mobility and what may be called trade- or process-mobility. It is as important that the displaced worker should be able to turn rapidly to a new process as it is that he should be able to move rapidly to a fresh centre of industry. As it is, he too often sells his wares in an artificially-narrowed market.

The second and more important line along which a connection may be established between unemployment and the occupations followed by adolescents may be seen by looking at the conditions described above as prevailing among boy labourers. It was pointed out that in certain industries more boys are employed in non-educational occupations than can be employed as men, with the result that many of them are dismissed on asking for an adult's wage. Is it possible to say whether such boys, on being dismissed, tend to become specially exposed to unemployment or casual employment? Directly, it is impossible to prove this; it could only be done by means of immensely more numerous and exhaustive biographies of unemployed men than we at present possess. There is, however, a good deal of more or less indirect evidence to show that this is the case. *First*, we may mention the fact that certain groups of non-educational employments seem to be connected with juvenile crime. Thus the census of 1901 gives the previous occupations of the inmates of local and convict prisons who are under twenty. From this table, which is quoted by Mr. Cyril Jackson on p. 43 of his report, it appears that the occupations the largest percentage of whose members are in prison are the following: general labourers, 0·74 in prison; street sellers, 0·57; dockers, 0·44; tailors, 0·16; carmen, 0·14; bakers, 0·14. If we except tailoring, all these, including baking, are trades in which low-skilled, non-educational labour predominates. The trades which contribute the smallest percentage are carpenters, engineers, miners, builders, and printers. Side by side with these figures may be set some obtained by the writer from the Chief Constable of Glasgow, which show that in the year 1906 87 per cent. of 1,454 youths between fourteen and twenty-one charged with offences inferring dishonesty were drawn from non-educational occupations, viz., messengers, street trades, labourers, van boys, or rivet heaters. The facts as to the effect of street trading have been set forth by the police authorities of most large towns, and are too well known to need description.

*Secondly*, there is a certain amount of evidence to show that the younger among the applicants for relief are drawn preponderantly from occupations employing adolescents in non-educational positions from which they are dismissed at manhood. It is not usually realised how large a proportion of those who apply to distress committees are comparatively young. It is, of course, quite true that the number of applicants per 1,000 living at the same age is highest between the ages of forty-five and sixty, in other words,

that liability to unemployment increases with age. On the other hand, it is also true that the number of applicants for relief under the age of thirty is so large<sup>1</sup> as to suggest that there are peculiar difficulties in the passage from juvenile to adult employment. A table in Mr. Cyril Jackson's report (p. 45), based on returns from London Distress Committees, shows the occupations in which 484 boys and men in distress were at the age of nineteen: 13·5 were apprentices or in skilled trades; general, casual, and unskilled labour accounted for 46·2; 14·5 were carmen; 8·7 errand boys; and 14·6 unemployed. Further, in the careers of the boys between the ages of seventeen and twenty-two we find a striking increase between those ages in the proportion of those unemployed to those in work. Thus, at the age of seventeen between 2 and 3 per cent. of the persons examined were out of work; at the age of eighteen, 10·1 per cent.; at nineteen, 14 per cent.; at twenty, 21 per cent.; at twenty-one, 26 per cent. The figures for the skilled trades are unfortunately not given separately, nor are the records continued beyond twenty-two. What they show is that the proportion of unemployed to those in work rose sharply at the age when boys begin to ask for a man's wages. They are not large enough, of course, to do more than suggest the hypothesis of a connection between unemployment among young men and the displacement of adolescent labour. This suggestion is, however, strikingly confirmed by certain of the reports submitted by distress committees to the Poor Law Commissioners; for example, that of Glasgow, where, according to the Majority of the Commissioners, "nearly 20 per cent. of all the labourers unemployed are under twenty-five, and one-half of them are under thirty-five."

*Thirdly*, that boys who have spent the years of adolescence in certain occupations find it specially hard to get a living at manhood is suggested by the figures as to the previous occupations of recruits entering the Army. According to Mr. Hodgson (quoted by Mr. Cyril Jackson on p. 165 of his report), "The Army recruit is nearer akin to those lads who have come within the range of the distress committees, than to those who have been more successful in life." The figures he gives show that of London boys who entered the Army at the age of seventeen years 47·6 per cent. were classified as "unskilled," 28·2 per cent. under "shop and errands," 13·5 per cent. under "carters and van boys." The classification is unfortunately very rough. But the main fact—

<sup>1</sup> See, for example, the figures published by the Consultative Committee which bear on this point.

that at the age of seventeen or eighteen the boys from certain non-educational occupations find a great difficulty in getting a livelihood—seems again to be established.

#### SUMMARY AND CONCLUSION.

If the above analysis of the conditions prevailing among adolescent workers and of their relation to the problem of unemployment be correct, it would appear to be the case : (1) that among large sections of boys the character of the work done is such as to make it difficult for them to find employment when displaced at manhood, and in some cases such as actually to demoralise them ; (2) that as a matter of fact the influence of these tendencies is visible in the records of juvenile crime and unemployment. To these facts we may add another : (3) that these conditions do not tend to correct themselves. While it is true that the proportion of boys to men over the whole field of industry is decreasing, it seems also to be true that in certain occupations it is increasing. Owing to the fact that the persons employed between fifteen and twenty years of age are not given in the census report separately for each year an adequate test of this is impossible. Among those occupations, however, in which the proportion of boys under fifteen to men increased between 1891 and 1901 were certain occupations which have been shown to exercise a prejudicial influence on the boy's future ; for example, that of messengers, that of carmen, that of costermongers and street sellers, that of boys employed in soap works. Moreover, the increasing subdivision of labour and the progress of invention in certain industries are multiplying the number of posts which can be held by boys working automatic or semi-automatic machines. Thus we find also an increase in the proportion of boys under fifteen to all employed in the trade among tool-makers, and erectors, fitters, and turners, in fact in that very engineering trade which was once supposed to be a stronghold of the apprenticeship system.

The inferences to be drawn from these tendencies seem sufficiently serious to warrant the statement of the Minority of the Poor Law Commissioners above quoted. While it is impossible to say what proportions of all adolescent workers are at any one moment engaged in non-educational occupations from which they will be dismissed at manhood, it is certain that the number is large. Yet a moment's reflection is sufficient to show that the relative eligibility of different occupations must be estimated

with reference to very different considerations in the case of a boy and in the case of an adult man. In the case of the adult the crucial question for the individual is normally the obtaining of the best remuneration in the immediate present, for society the obtaining of the best service for the least real cost. In the case of the adolescent different standards have to be applied. On the one hand the years between fourteen and twenty-one must not only pay for the maintenance of the boy during those years, but must prepare for maintaining him in independence in manhood, and if it were possible to imagine some monstrous economic boy weighing with due deliberation the alternatives open to him on emerging from the seventh standard, he would undoubtedly reflect that to consider the immediate relative advantages of different trades in respect of hours and wages would be as improvident as it would be for a man who had heavy liabilities to meet ten years hence to lay aside nothing against them. On the other hand, the adolescent worker is, from the point of view of society, not only the supplier of present wants, but the sole means of supplying future and possibly more urgent wants; not (like a man) a finished article, but the raw material for other articles. The community which would get the maximum economic satisfaction out of its human material has to take a dynamic and not a static view of adolescent labour. It has to ascertain the point where the future satisfaction to be derived from the development of "productive powers" and the present sacrifice involved in developing them instead of satisfying certain immediate wants balance each other, in just the same way as the community which would get the maximum satisfaction from the annual production of wealth has to balance the future satisfaction made possible by saving against the present sacrifice involved in postponing immediate consumption. It is in theory quite as possible for a miscalculation to be made in the one case as in the other. It is quite possible for a town or a country, by using its boys to satisfy a passion for evening papers and cheap cartage, to court a shortage of (say) steelworkers or bricklayers or good citizens in the future. It is possible for a nation or a city, by employing boys solely with reference to their "immediate commercial utility," to live on its human capital. There is only too much reason to fear that in certain cities, for example, London and Glasgow, that process has already begun. In Glasgow employers in the building, bread-baking, and tailoring trades state that they prefer the rural immigrant on the ground that he has got a better all-round training. In London, say the Majority of the Poor Law Com-

missioners, quoting Mr. Webb, "the investigations of Dr. Wilson Fox showed that various large employers of labour, such as breweries, railway companies, &c., employ predominantly country-born workmen in the proportion of 40, 50, and sometimes even 65 per cent. of the whole. . . . The applicants to London Distress Committees, the inmates of the Salvation Army and Church Army Shelters, and the inhabitants of some large common lodging-houses are to the extent of 86 to 93 per cent. London-born." It is reasonable to say that a city which allows its own youth, for want of training, to drift into overstocked and therefore casual employments, while recruiting its best workers from outside, resembles a company which is continually borrowing fresh capital, while wasting that which it already possesses.

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