

Fabian Tract No. 84.

THE ECONOMICS OF DIRECT EMPLOYMENT.

WITH AN ACCOUNT OF THE FAIR WAGES POLICY.

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The Economics of Direct Employment*

DURING the last twelve years there has gradually been developed, among the various Town and County Councils and other public authorities, a definite economic policy with regard to the employment of labor. This policy, initiated by the School Board for London in January, 1889,† has been adopted, to a greater or lesser degree, by several hundred local governing bodies throughout the United Kingdom. It has, perhaps, been most completely carried out by the London County Council, where it has been successfully maintained for over ten years, and where it has lately been endorsed and confirmed by a decisive majority at the election of 1898.

The Labor Policy of the London County Council.

The Labor Policy of the London County Council has been intelligently criticized, from the point of view of economic science, mainly under three heads. Instead of "buying its labor in the cheapest market," as it was termed, it has, from the first, striven to adopt as its standard the trade union rate of wages, and to assert a "moral minimum" of earnings below which it was inexpedient that any London citizen should be allowed to sink. Moreover, not content with proceeding on these lines as regards the workmen whom it directly employs, it has sought throughout to secure that all contractors executing its work should adopt the same principle. Finally, it has endeavored, wherever possible, to dispense with the middleman *entrepreneur*, and to substitute salaried supervision and management directly under public control.

The Fair Wages Movement.

Let us take first what is known as the Fair Wages Movement. After prolonged discussions, repeated at intervals during nine years, it has become the settled policy, (a) to pay, in each trade, the recognized standard rate of wages, (b) to give no adult male workman less than 6d. per hour, and no adult woman less than 18s. per week.‡ Those

* Most of this tract has already been published under the title "The Economic Heresies of the London County Council: a paper read before the Economic Section of the British Association for the Advancement of Science, Oxford, 13th August, 1894, by Sidney Webb, L.C.C."

† The London School Board was, in January, 1889, the first public body to adopt the principle of insisting that not less than the recognized standard rates of wages should be paid. See *The History of Trade Unionism*, and also *Industrial Democracy*, by Sidney and Beatrice Webb.

‡ "The Standing Orders of the L.C.C.," containing the Fair Wages Clauses, is sold at 1s. by P. S. King & Son, Great Smith Street, Westminster. For other places see House of Commons Return, "Urban Sanitary Districts (Conditions of Contracts)," No. 47, 11th February, 1898; 2½d. (P. S. King & Son.)

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unfamiliar with the actual practice of industrial life at first imagined that the trade union rate of wages meant just whatever rate the trade unions might choose to claim. As a matter of fact the trade union rate of wages is, in every organized trade, a well-understood expression, denoting the actual rate which has been agreed to, more or less explicitly, by representative employers and the trade union executives. What the Council has done has been merely to insert in its own standard list of wages the rate proved, on enquiry, to be actually recognized and adopted by the leading employers in the particular trade within the London district. In the whole of the building trades, for instance, which include seven-eighths of the work done for the Council, the trade union rate of wages has been solemnly agreed to in a formal treaty between the London Building Trades Federation and the London Master Builders' Association. So far as the organized skilled trades are concerned, the Council has not attempted to do more than place itself on a line with the common average of decent employers.

With regard to unskilled labor the case is more difficult. Here, in most cases, no generally recognized trade union rate exists. The Council has accordingly taken the position that it is undesirable, whatever the competition, that any of its employees should receive less than the minimum required for efficient and decent existence. Seeing that Mr. Charles Booth places the actual "poverty line" in London at regular earnings of 21s. per week, it cannot be said that the Council's "moral minimum" of 24s. for men and 18s. for women errs on the side of luxury or extravagance. But, unlike the Council's wage for skilled workmen, it is more than is actually paid by many conscientious employers; and it is undoubtedly above the rate at which the Council could obtain such laborers, if it chose to disregard all other considerations.

The labor policy of the London County Council, whether with regard to skilled or to unskilled labor, may be explained as the deliberate choice of that form of competition which secures the greatest possible efficiency, as compared with the form which secures the greatest apparent cheapness. Public offices may be filled in one of two ways. We may, on the one hand, practically put the places up to auction, taking those candidates who offer to do the work for the lowest wages. Or, on the other hand, we may first fix the emoluments, and then pick the best of the candidates coming forward on those terms. When we want brain-workers of any kind, everyone agrees that the latter policy is the only safe one. We do not appoint as a judge the lawyer who offers to take the place at the lowest rate. No one would think of inviting competitive tenders from clergymen as to the price at which they would fill a vacant bishopric. And a Town or County Council which bought its engineer or its medical officer in the cheapest market would, by common consent, make a very bad bargain. In all these cases we have learnt, by long and painful experience, that there is so much difference between competence and incompetence that we do not dream of seeking to save money by taking the candidate who offers

his services at the lowest rate. Unfortunately, many worthy people who realize this aspect of brainwork, because they belong themselves to the brainworking class, are unconscious that it applies no less forcibly to mechanical labor. They will pay any price for a good architect, but are apt to regard bricklayers and masons as all equally "common workmen." The consequence is that, owing to the extraordinary ignorance of the middle and upper class about the actual life of the handicraft trades, it has gradually become accepted as good business that, though you must take all possible trouble in choosing your manager, it is safe and right to buy wage-labor at the lowest market rates. But, as a matter of fact, there is as great a relative difference between one painter or plasterer and another, as there is between one architect or manager and another. If the pressure of competition is shifted from the plane of quality to the plane of cheapness, all economic experience tells us that the result is incompetency, scamped work, the steady demoralization of the craftsman, and all the degradation of sweating. When a man engages a coachman or a gardener he understands this well enough, and never for a moment thinks of hiring the cheapest who presents himself. Even the sharpest-pressed employer does not entrust expensive machinery to the mechanic who offers to take the least wages. The London County Council, realizing it more vividly than some bodies less in touch with the actual facts of industrial life, applies the principle all round. Whether the post to be filled be that of an architect or a carpenter, the wage to be paid is first fixed at a rate sufficient to attract the best class of men in the particular occupation. Then the most competent candidate that can be found is chosen. Competition among the candidates works no less keenly than before; but it is competition tending not to reduce the price, thereby lowering the standard of life throughout the nation, but to enhance efficiency, and thus really to reduce the cost of production.

With regard to the lowlier grades of labor a further consideration enters in. It may be economically permissible, under the present organization of industry, for a private employer to pay wages upon which, as he perfectly well knows, it is impossible for the worker to maintain himself or herself in efficiency. But when a Board of Poor Law Guardians finds itself rescuing from starvation, out of the poor rate, women actually employed by one of its own contractors to make up workhouse clothing, at wages insufficient to keep body and soul together, even the most rigorous economist would admit that something was wrong.* The London County Council, responsible as it is for the health of the people of London, declines to use its position as an employer deliberately to degrade that health by paying wages obviously and flagrantly insufficient for maintenance, even if competition drives down wages to that pitch. The economic heretics, in fact, are not the Council, but those who, in flat defiance of Adam

* The Chelsea Board of Guardians was, in 1894, paying its scrubbers 1s. 6d. a day, without food, which amounts to a weekly wage of 9s. A day's illness is sufficient to force such a worker to seek relief from the rates, and the Board then finds itself rescuing from starvation its own underpaid workpeople.

"Six in a room" - engaged to consult a doctor, who attributed their illness to the crowded and uncomfortable room.

Smith, McCulloch, Mill, and Marshall alike, persist in assuming that there is some obligatory "law" that the pressure of competition ought, without interference from man, to be allowed so to act as to degrade the standard of life of the whole community.

The Moralization of the Contractor.

Some critics, however, who do not object to the Council, like a prudent housekeeper or an experienced employer, fixing the wages of its servants at an adequate sum, demur to any interference with the freedom of contractors, and denounce as economically heretical the Council's standing order confining the Council's work to such firms as adopt the standard rate of wages. It is, say such critics, no concern of the Council how a contractor manages his business; and if he can get his workmen at less than the ordinary price of the best men, so much the better for him, and, in the long run, for his customers. The very object of industrial competition, they would add, is to keep the cost of production down to the lowest possible point, and any interference with the contractor's freedom to do his business in his own way tends to increase that cost.

It will, however, be obvious to the economist that these criticisms confuse cost of production with expenses of production. What the community has at heart is a reduction of the cost of production—that is, of the efforts and sacrifices involved in getting the object desired. This is of no concern to the contractor. What he wants is to diminish the expenses of production to himself—that is, the sum which he has to pay for materials and labor. This object he may effect in one of two ways. He may, by skilful management, ingenious invention, or adroit manipulation of business, get the work accomplished with less effort and sacrifice on the part of those concerned, allowing of a reduction of the out-of-pocket payments by himself; or he may, on the other hand, without diminishing the effort and sacrifices, induce those concerned to accept a smaller remuneration for their labor. Either way will equally serve his profit, but either way will not equally serve the community. In the first case, a real economy in the cost of production has been effected, to the gain of all concerned. In the second case, no economy in the cost of production has taken place; but the pressure of competition has been used to depress the standard of life of some of the workers. The one result is a real and permanent advantage to the community; the other is a serious economic calamity bringing far-reaching secondary evils in its train.

Now, many large fortunes have been made by contractors pursuing each of these methods, and the "good business man" doubtless resorts to both of them as opportunity serves. Unfortunately it is much more difficult and toilsome to be perpetually making new inventions, devising fresh labor-saving expedients, or discovering unsuspected economies, than to pare down wages, even at the risk of producing a slight falling-off in quality, provided that the deterioration is not so gross as to cause the actual rejection of the work. It is so hard to spend laborious nights and days in improving

processes. It is so easy to find workmen eager for a job at 10 per cent. below the standard rate. "Mankind," says Emerson, "is as lazy as it dares to be," and contractors are no exception. It is safe to say that the more you leave it open to a contractor to make a profit, by reducing the expenses of production, the less he will trouble about lowering the cost. So much is this the case that, under a prolonged *régime* of free and unrestricted competition, the very existence of the alternative has often been forgotten. "Profits," said one capitalist, "are the shavings of wages."

It was in order to put a stop to the constant tendency of contractors to nibble at the current standard wages that the London County Council inserted its celebrated fair wages clauses. These clauses it will be observed, leave open to contractors every chance of profit which comes from reduction of the cost of production. By concentrating the contractor's energy and attention on this point they presumably increase the fierceness of that part of the competitive struggle which promotes the public good. But, just as the Factory Acts, the Mines Regulation Acts, and the Education Acts, "rule out" of industrial competition the cheapness brought about by the overwork of women and children, or the neglect of sanitary precautions, so the London County Council, representing the people of London, declines to take advantage of any cheapness that is got by merely beating down the standard of life of particular sections of the wage-earners. Here, the key-note of the Council's policy is, not the abolition of competition, but the shifting of its plane from mere cheapness to that of industrial efficiency. The speeding up of machinery, the better organization of labor, the greater competency of manager, clerk, or craftsman, are all stimulated and encouraged by the deliberate closing up to the contractor of other means of making profit.*

And just as the Factory Acts have won their way to economic approval, not merely on humanitarian grounds, but as positively conducive to industrial efficiency, so, too, it may confidently be predicted, will the now widely adopted fair wages clauses.†

Municipal Industry.

We come to an altogether different range of criticism when we consider the Council's determination to dispense, wherever possible, with the contractor, and execute its works by engaging a staff of workmen under the supervision of its own salaried officers. This has been fiercely attacked as being palpably and obviously opposed

* The economist will recall the analagous effect which labor legislation and strong trade unions have had in increasing the efficiency of the Lancashire cotton industry. Compare, too, Mr. Mather's testimony to the beneficial effect upon employers of trade union action in the engineering trade (see *Contemporary Review*, Vol. LXII., 1892, and S. and B. Webb's *Industrial Democracy*).

† Many local governing bodies have adopted some kind of fair wages clause in their contracts. Particulars of regulations in 218 places are given in Parliamentary Return H. C. 47 of 11 Feb. 1898, "Urban Sanitary Districts (Conditions of Contracts)", 2^d ed. Compare also the House of Commons' unanimous resolutions of 13 Feb. 1891, and 6 March 1893, imposing the principle for Government contracts.

to political economy and business experience. It is worth while to place on record the facts.

Constructive work was not undertaken at first, but labor was hired to clean the bridges* and to repair the Council offices,† at a considerable saving compared with contract prices. The first piece of building work was executed by the Main Drainage Committee at £536 below the lowest tender of £2,188. But the case which finally convinced three out of every four members of the Council of the desirability of executing their own works was the York Road Sewer. The engineer estimated the cost at £7,000, and tenders were invited in the usual manner. Only two were sent in, one for £11,588, and the other for £11,608. The Council determined to do the work itself, with the result that a net saving of £4,477 was made.‡

This remarkable result naturally created a sensation in the contracting world, and attempts were made to impugn the engineer's figures. In his crushing reply he pointed out that the contractors had reckoned out their tenders at absurdly high prices in nearly every detail, charging, for instance, 60s. and 70s. respectively per cubic yard of brickwork and cement, whereas the work was done at 39s. It is clear from the other particulars given, and from facts notorious at the time, that an agreement had been come to among contractors not to compete with one another for this job, in order to induce the Council to abandon its fair wages clause. The Council preferred to abandon the contractor.§

The outcome was the establishment, in the spring of 1893, of a Works Department to execute works required by the other committees in precisely the same manner as a contractor. The Works Department stands to the other committees of the Council exactly in the same relation as if it were an independent contractor. When a committee has any work to execute, the Council's architect and engineer prepare the plans and make an estimate, without any reference to the Works Department. Then the Council decides whether the work shall be done with or without a contractor. Sometimes it decides to put the work up to tender, a course which enables it to see whether the estimates of the architect and engineer are trustworthy guides. The Works Department may say that it is not prepared to do the work, either because it is not satisfied with the specifications and estimates, or because it has no convenience for doing work at that particular site, or of that particular kind. In that case the job is put up to tender and done by a contractor.

The accounts of the Works Department are kept distinct from those of other departments of the Council. The Finance Committee sees that it is debited with the interest and sinking fund on all the capital it uses; that full allowance is made to cover depreciation and renewals; that a complete stocktaking is regularly carried out by independent officers; and that all outgoings and maintenance

* Minutes, October 18th, 1892, pp. 900-1. † Minutes, June 27th, 1893, p. 683,

‡ Minutes, October 17th, 1893.

§ See the fuller particulars in Minutes of October 31st, 1893, pp. 1063-5.

charges are properly spread over the various works done. The accounts are elaborately checked by the Council's Controller, as well as by the Local Government Board's Auditor.

The Works Department has now been at work for over six years, during which it has executed over £1,000,000 worth of work of the most varied character—sewer construction, the making of roads, building houses of every kind, erecting bridges, carrying out of every sort of repairing and decorating jobs, and an innumerable array of miscellaneous operations. Whether, and to what extent, this work has been done cheaper than it would have been done by contractors is a matter of hot controversy.* The Progressives assert that, even with all the disadvantages of starting a new business, and struggling with "wreckers" inside the Council, the whole £1,000,000 worth of work has, taken as a whole, and including the "jobbing work," been executed at just about what the contractors would have charged. The Moderates declare that it has cost more; but even they do not put the excess at more than about 5 per cent. on the whole of the architect's estimate—an excess which any one accustomed to builders' bills will think amazingly low. But no sound judgment on the policy of dispensing with the contractor can be formed on statistics of this kind, extending over so brief a period. We must take a wider sweep, and see what inferences can be drawn from other experience.

It is usually assumed by the Council's critics that its policy of eliminating the contractor is an unparalleled innovation, unknown outside London. A little knowledge of the action of local governing bodies elsewhere would prevent this mistake. It is, of course, unnecessary to remind the reader that Birmingham, dominated by the strictest sect of the Individualists, has municipalized its water and its gas, which are in London still left to private enterprise. What is not so well known is that the Town Council dispenses with the contractor whenever it can, each committee getting much of its own work done by its own directly employed staff. The Public Works Committee, which looks after the thoroughfares, and the Health Committee, which is responsible for sanitation, have not only entirely eliminated the contractor from the cleaning and repairing of the streets and the removal of refuse, but even from the laying down of granite paving and flagging, once a most profitable item of his business. The Gas Committee is not content with employing hundreds of men to make gas, but also keeps its own staff of carpenters, bricklayers, blacksmiths, tinmen, painters, fitters, etc., to execute its numerous works. The Improvements Committee, like the Estates Committee, has its own carpenters, fitters, bricklayers, paperhangers, plasterers and zincworkers,† whilst the Water Committee, besides a regular staff of mechanics of all kinds, is now actually engaged in

* See *The Truth about the Works Department of the London County Council*. (London Reform Union.) The year ended 30th September, 1899, shows a "profit" of £10,365 on completed works estimated at £79,270 (Minutes, November 1899).

† Return of Hours of Labor, Wages, etc. (Appendix to Birmingham General Purposes Committee's Report, July 25th, 1893). See Appendix II., p. 18.

"six in a room" was suggested to consult a doctor, who attributed her illness to the crowded conditions of the room.

constructing several huge dams and reservoirs near Rhayader, two tunnels and various water towers and syphons, together with workmen's dwellings to accommodate a thousand people, stables, stores, workshops, a public hall and recreation room, a school, two hospitals, and a public-house—all without the intervention of a contractor. The construction of all the buildings on the works is being carried out by the workmen of the Corporation, under the superintendence of the resident engineer and his assistant. The timber and other material is being purchased by tender. "This method," reports the Water Committee, "of using material supplied by contract, and constructing by the direct employees of the Corporation, the Committee consider, under the circumstances of the case, to be the most economical, as well as calculated to secure the best results." But this is not all. The Water Committee, finding that the village would have beer, has decided also in this matter to dispense with any *entrepreneur*, and has "resolved that a canteen shall be established in the village," out of the capital of the Birmingham citizens, and "that the person managing it shall have no interest whatever in the quantity sold."*

And if we turn to Liverpool we learn that "almost all the city engineer's work is done by men directly employed by the Corporation. . . . The construction of sewers is now done entirely by the Corporation themselves. . . . They had such a cruel experience of doing the work of sewerage by contractors that they have given it up."† It appears that in the old days, when the contractors agreed and charged for two courses of brickwork, no amount of inspection sufficed to prevent them putting in one only. "What happened was this: that whenever the Inspector came round, or the Clerk of Works, to watch the contractors, they found the two rings of brickwork going on very well; as soon as the Inspector went away . . . the second ring of brickwork was left out . . . and so the sewer got weak. . . . You could trace the visits of the Inspector by the double rings" which were found here and there at intervals when the sewers were subsequently uncovered for repairs.‡

This evidence from Liverpool is especially interesting in connection with what has recently been discovered at Manchester. The Auditor's report, published in 1896, exposes a precisely similar fraud in connection with the thirty-five miles of new sewers now under construction. This work was let to thirty-four different contractors, who had already received over £600,000 for their work. The new city surveyor, finding that the work had been scamped, had "street after street taken up at great expense, and such an exposure was made of fraud and deceit as I," writes the auditor, "have never before seen. The men who built these sewers in a tunnel never dreamed that their rascality would be discovered." The chief method adopted, was, as at Liverpool, leaving out one ring of brickwork, except when the Corporation Inspector was signalled as being about to descend the shaft. Then the workmen hastily put on a second row of bricks

* Report of the Birmingham Water Committee, presented February 6th, 1894.

† Evidence of the Deputy Town Clerk of Liverpool before the Unification of London Commission, p. 328 of C—7493-I.

‡ *Ibid.*, p. 328.

at that spot. The frequency of the Inspector's visits to each bit of work were found marked by this extra ring of bricks, here and there, instead of along the whole length of the sewer.*

Nor are these Councils in any way exceptional in their steady progress towards the elimination of the contractor. In the early days of municipal activity practically everything was let out to a contractor. Nowadays every large municipality, even if it does not possess any separate Works Department, has a staff of mechanics and artizans in regular municipal employment, and every day executes many important works and services by its own workmen, which were formerly let by tender to the lowest bidder.

Nor is it in municipal boroughs alone that we see the change in policy. Nothing was more common a few years ago than for highway authorities to get their roads kept in order by contractors. An interesting return obtained in 1892 by the County Surveyors' Society shows that this practice has been almost entirely abandoned in favor of direct employment of labor by the county surveyor. Only in one or two counties out of thirty-five furnishing particulars does the old custom linger. The county surveyor for Gloucestershire indignantly denied an allegation that he favored the contract system. "It does not commend itself to me in any way," he writes, "and encourages a low form of sweating. My own experience of road-contracting is that it does very well for five years, then the roads go to pieces, and you have to spend all your previous savings to put them to rights."†

When we thus find even the County Councils in rural districts giving up the contractor, it ceases to be surprising that the Town Council of Manchester, in the city of Cobden and Bright, now manufactures its own bass-brooms, or even that the ultra-conservative Commissioners of Sewers of the City of London, actually set the County Council an example by manufacturing their own carts.‡ The superiority of direct municipal employment, under salaried supervision, to the system of letting out works to contractors has, in fact, been slowly borne in on the best municipal authorities all over the country by their own administrative experience, quite irrespective of social or political theories.

Integration of Processes.

Business men, not so very long ago, would have argued that this policy of including all kinds of industrial processes under one administration was contrary to the lessons of business experience. The last generation of captains of industry believed in each undertaking sticking closely to its own special trade, and contracting with similarly specialized undertakings for all subsidiary parts of the business. "Never make anything yourself that you can buy elsewhere" was a common industrial maxim. The last thirty years

* Report of the Citizens' Auditor of the City of Manchester for 1895.

† *Particulars of Management of Main Roads in England and Wales*, a report compiled for the County Surveyors' Society, by Mr. Heslop, County Surveyor for Norfolk. See *Builder*, March 19th and 26th, 1892.

‡ Statement of the Commissioners of Sewers, presented to the Royal Commission on London Unification.

"six in a room" was engaged to consult a doctor, who attributed her discomfort as comfortable enough.

have changed it to "Never buy from anyone else what you can manufacture for yourself."

The most familiar instance of this revolution of policy is seen in the English railway companies. Once a railway company was an association for getting a railway made, and running trains on it. An able essay written by Mr. Herbert Spencer forty years ago, protested strongly against any extension of a railway company's scope. Nowadays an up-to-date railway company runs docks, canals, ferries, steamships and hotels of its own, and carries on, besides, innumerable subsidiary businesses, and manufactures every conceivable kind of article, entirely by its own operatives, working under its own salaried staff. The directors of the London and North-Western Railway Company, for instance, with a comprehensiveness that would have staggered George Stephenson, lay it down as an axiom that the company "should be dependent on the outside world for as few as possible of the necessaries of life." The manager at the company's great workshop-town of Crewe, "can think of nothing of importance that is imported in a manufactured state, except copper tubes for locomotive boilers." "As we pass from shop to shop, here may be seen a steel canal boat in process of construction (for the company, it must be remembered, is a great canal proprietor); there, a lattice-work bridge is being fitted together. Further on, hydraulic pumps, cranes, and capstans crowd a huge shed. In another place, chains of all sorts and sizes, from cables to harness traces, are being forged by the ton; close by, coal-scuttles and lamps are being turned out by the hundred. In all the works there is no stranger sight than a corner in the carpenters' shop, where two men are constantly employed making artificial limbs. Some two years back (that is, about 1885) the company embarked on this branch of manufacture, and undertook to supply legs and arms of the most finished workmanship to any man who lost his own in their service."*

Nothing indeed is too small or too great for the North-Western to manufacture for itself. Crewe turns out a new locomotive engine every five days, and you may watch the company's own rails being rolled in its own steel works. At Wolverton, Mr. Acworth recounts how he "came upon a man engaged in etching designs upon the plates of ground glass that were to form the windows of lavatory compartments, and was told that the company had recently found that it could do this work for itself at half the price it had formerly paid" (pp. 60-1). Since 1881 the North-Western has been steadily eliminating the privately owned waggon. For over twenty years the companies have managed their own collection and delivery business. Nearly every company, too, now builds its own carriages. The Midland Railway prints its own tickets; whilst the Great Eastern goes a step further, and executes in its Stratford works nearly the whole of its own printing, including its gorgeous colored posters and pictorial advertisements. "In the printing works the

* *The Railways of England*, by W. M. Acworth. London: 1889, p. 59.

company keeps about 110 persons constantly employed, and is understood to save a good deal of money by doing so."*

But the Midland has tried another experiment. At the great Trent stores are between three and four hundred thousand empty corn sacks, which the company furnishes for the conveyance of the corn from the farmer to the miller. Here, too, the contractor formerly existed and made a profit, until, a few years ago, the business was undertaken by the Company itself.

In every branch of railway management, in short, the elimination of the independent *entrepreneur* or contractor is being rapidly effected. It was impossible that this example, set by undertakings in many respects analogous to municipal departments, should have no influence on the business men who rule our Town Councils.

But although railway directors cannot be supposed to have been bitten by the tarantula of Collectivism, everyone will not be convinced by their remarkable change of policy. They resemble the members of a Town-Council in not working for their own personal profit, and may, it is urged, therefore be indifferent whether their ambitious excursions into manufacturing industry actually pay their way. It is, therefore, interesting to find exactly the same revolution of business policy in large private undertakings. No better instance could be adduced than the history of a certain world-renowned firm of shipbuilders, whose rapid and continued expansion is one of the marvels of modern industry.

Twenty years ago this firm constructed in their own yard little more than the hulls of the vessels, contracting for all the thousand and one articles of equipment with numerous other manufacturing firms which specialized in these directions. Nowadays, this same shipbuilding firm manufactures every one of these articles—from triple-expansion engines down to the brass handles of the cabin lockers—in its own works; and turns out its vessels from keel to topmast entirely of its own construction. Instead of employing only shipwrights and platers, that firm now engages men of several hundred separate trades, who work under the salaried management of different heads of departments.

The following letter gives some of the dates and particulars of this industrial evolution:—

Letter from an eminent Shipbuilding Firm as to dates of Progressive Absorption of Subsidiary Processes.

I have yours of 11th inst., and have much pleasure in giving you the information you ask for respecting certain subsidiary work previously done for us by sub-contractors but now carried out within our own works.

In 1879 we began to rig the ships built by us.

In the same year we began to build lifeboats.

In 1880 we commenced plumbing work on board our ships, and to make our own sails.

In 1881 we opened an upholstery department to carry out that branch of work ourselves.

In 1882 we opened an electric light department.

It was in 1880 that we started our engine works, all the engines for vessels constructed by us up till then having been made in outside engine works. And even

* *The Railways of England*, by W. M. Acworth, p. 416.

"six in a room" was suggested to consult a doctor, who attributed her discomfort as comfortable enough.

after we opened the engine works certain subsidiary machinery was obtained from outside which we now construct ourselves.

For instance, in 1885, we first built crank shafts for main engines. In 1887 we began to manufacture manganese bronze propeller blades. In 1890 we began to make circulating pumps and engines, duplex pumps, steam steering engines, and brass sidelights for ships, and in the same year our smith work gradually merged into general forge work.

The history of great engineering establishments shows the same tendency. The progress of the largest firm in the United Kingdom shows how, during the present generation, business has been added to business, until the firm has become one of the largest in the world, mining its own ore, making its own pig-iron, smelting its own steel, building its own ships, erecting its own engines, constructing its own tools, and executing innumerable subsidiary works in every direction.

And, turning to quite another industry, we may cite the experience of a Birmingham manufacturer of metal goods, whose business has distanced all his rivals, and is now the largest and most prosperous in the trade. Thirty years ago he was completely under the dominion of the then prevalent idea of specialization. Everything required in his business which did not come strictly within the limited sphere of his own specialties he obtained by contract from other firms. Gradually his ideas changed, more and more of the subsidiary work was done in his own factory. He began to make his own tools and machines. He commenced to repair, and then to construct his own engines. When additions to his works were required, he picked his own clerk of the works, bought his own bricks, and engaged his own artizans. Year by year he has found himself becoming less and less dependent on outside contractors, until the other day he started making in his own essentially metal factory even the wooden hogsheads and paper boxes in which his goods were packed. And he himself attributes the continued profitableness of his business, and its very rapid expansion during times when his competitors have often been working at a loss, mainly to this progressive elimination of the contractor and subsidiary *entrepreneur*. The following memorandum describes these changes in his business:—

Memorandum by a Hardware Manufacturer, describing the Subsidiary Operations now undertaken by his firm.

I find that some time at the latter end of 1870 we first began to manufacture goods that we had previously bought from other manufacturers. These goods were chiefly unfinished work that was required to complete the various articles that we sold. In some cases I made the change because I thought I could make a better article, and possibly a cheaper one. But the important advantage was in obtaining quick deliveries, and, therefore, prompt execution of orders. Since that date we have bought less and less outside, and at the present time we make almost everything that we require.

About 1868 we began to do all our own repairs to machinery, plant, and buildings, and employed carpenters, fitters, machinemen, bricklayers, slaters, and painters.

In 1879 we began to make and design all the machinery that we required, and to erect new buildings. For some eight years earlier than this I had designed all machinery, and had it made either in Birmingham or Manchester. This alteration was made chiefly because the machines were special, and I did not want them used by competitors in my trade.

In 1884 we built large carpenters' fitting and erecting shops, to enable us to equip ourselves a large factory we were then putting up. These shops employed some 100 hands, who for the last ten years have been fully employed.

In 1886 we began to make all the hogsheads (used for packing), packing cases, paper boxes, and everything that is required for the delivery of goods to our customers. We even make what is called wood wool, a substitute for straw. This department is a very large one, and uses up small forests of timber. This development has greatly facilitated the quick delivery of our goods, and has prevented a great waste caused by breakage in transit.

Space forbids any further multiplication of instances, or we might recount how one of the leading London publishers has lately become his own bookbinder, whilst another well-known firm combines in a single undertaking every stage of book-production, from the hiring of the author at fixed wages down to the sale of the volume by travelling pedlars. Or we might cite the colossal manufacturer of boots, buying his own hides in America, or his own gutta-percha in Borneo, and vending his wares, on the other hand, in his own retail shops all over the kingdom.

Economic criticism of the London County Council has perhaps suffered by the fact that this integration of processes, or union, under a single management, of many separate businesses, has hitherto scarcely attracted economic attention. It is, of course, by no means the same as the oft-described elimination of the small business in competition with the large. The tendency, in fact, is frequently the other way—a large specialized business becomes superseded because its customers begin to do the work for themselves, each of them in a much smaller way than the single separate factory. Thus an old-established firm of "finishers" of certain textile manufactures have described how, during the past thirty years, they have one by one lost their best customers, not to any rivals in the "finishing" trade, but because the manufacturers were steadily tending to do their own "finishing." The essential feature of the change is the substitution of salaried work and management for the *entrepreneur* laboring for his own profit. Business men have apparently discovered, contrary to ordinary economic opinion, that the economically most advantageous form of industrial organization is that in which the stimulus and temptation of profit is confined to as few of the actual workers as possible. So far is it, indeed, from being true that the hope of profit-making is the best or the chief stimulus to industrial efficiency that, from the mediæval master craftsman down to the modern captain of industry, the proportion of the population who work for profit has been steadily diminishing. The remarkable growth in the numbers of men directly employed by municipalities and other public bodies is, in fact, paralleled by an exactly similar growth in the numbers of men directly employed at salaries and wages by private establishments. The elimination of the contractor or subsidiary *entrepreneur* is the dominant fact in modern industry.

It is also to be noticed that the tendency is to shift the direction of industry from the producer to the consumer. The manufacturer whose business requires a steady supply of raw

"six in a room" was thought to be comfortable enough.

material, particular kinds of tools, engines and buildings adapted to his processes, or packages ready at the very moment his wares are finished, finds that it is more convenient, less liable to mistake or delay, and, in the truest sense, more economical for him, as the consumer, to obtain all these things by his own directly employed staff, than to rely upon the competition of producing *entrepreneurs* or specialized firms. And thus, as the manufacturer absorbs the separate producers of the wares he consumes, he must not be surprised when the public, the ultimate consumers of the wares he produces, themselves apply the lesson, and, through their elected representatives, finally absorb him.*

Why is the elimination of the subsidiary *entrepreneur* more practical now than it was in the last generation? It would take too long to examine the fundamental causes and conditions of this change in industrial organization. Most changes in social structure depend, in the long run, upon individual character; possibly there has been a growth in the number of men who can be trusted to work efficiently and honestly as salaried managers instead of for their own personal profit. Possibly, too, as industrial organization becomes more complex, the advantage to the consumer in directly controlling the production of every article he requires, becomes more apparent. All improvements in social organization, too—steam, telegraph, the free use of the printing press, and now the telephone—facilitate the massing of workmen under single generals of industry, able efficiently to control larger and more heterogeneous and more complex industrial armies than could be managed by the captains of the past generation. Finally, as regards the substitution of the collective for the individual management of industry, it is evident that this will have been rendered increasingly practicable by the perfecting of democratic organization.

All these and other influences are but fragmentary suggestions towards the explanation of a change in industry of which the policy of public authorities in getting rid of the contractor is but one out of many manifestations. Formerly the best business management was that which itself managed least. Nowadays the best business management is that which can safely and efficiently administer most. The integration of productive processes under direct control of the consumers may or may not be economic heresy; the business history of England for the past thirty years indicates that it is industrial orthodoxy.

* Compare the steady expansion of co-operation by associations of consumers—see *The Co-Operative Movement in Great Britain*. By Beatrice Potter (London, 1891). The substitution, as the director of industry, of the consumer for the producer usually implies a clear economic gain in saving one of the processes of checking or examining. Mr. Herbert Spencer has himself described how the Admiralty was driven to set up its own flour mills, because it cost too much to maintain the necessary scrutiny of every sack of flour delivered by the contractors. The London County Council found that it involved no more of the time and attention of their architect and engineer actually to supervise work done by the Council's own foreman and mechanics than to keep the necessary close watch upon the contractor and his manager, who were anxious, not to make their men build well, but only quickly.

