

Dhananjayrao Gadgil Library



GIPE-PUNE-007268

THE PAYMENT OF WAGES

THE PAYMENT OF WAGES

A STUDY IN PAYMENT BY RESULTS UNDER
THE WAGE-SYSTEM

By G. D. H. COLE

NEW AND REVISED EDITION

LONDON: GEORGE ALLEN & UNWIN, LTD.
RUSKIN HOUSE, 40 MUSEUM STREET, W.C.1

1928

X : 952 . 3

F8
7268

SINGULARLY little has been published in this country on the questions dealt with in this book. So far as I know, there has been no general book on the question of wage-payment since Mr. D. F. Schloss's *Methods of Industrial Remuneration*, while there has never been a book dealing with the problem from the Trade Union point of view. In this preliminary study I have to acknowledge the very great help which I have received from many prominent Trade Unionists and officials. I may also add that this book was written at the instance of the Labour Research Department, and that the task of writing it would have been impossible without the very valuable collection of Trade Union materials which the Department has accumulated. I have particularly to thank Mr. W. H. Hutchinson of the Executive Council of the Amalgamated Society of Engineers for reading the book through in manuscript, and for making a number of valuable suggestions.

G. D. H. COLE.

June 1918.

ANYONE who compares the list of books appended to the present edition of this book with that of 1918 will see that the position has radically changed since I wrote the above preface. So large is the mass of books now dealing with the question that I have been able to select only a few of the most important.

For the present edition I have, in addition to writing the new chapter which now opens the book, made minor changes and corrections throughout. I have to thank numerous friends for pointing out errors and suggesting ways in which the book could be improved.

G. D. H. C.

OXFORD, January 1928.

CONTENTS

CHAP.		PAGE
	PRELIMINARY CHAPTER TO THE EDITION OF 1928 .	vii
I.	INTRODUCTORY	1
II.	THE POSITION IN CERTAIN INDUSTRIES	8
III.	OUTPUT	21
IV.	THE VARIOUS PIECE-WORK SYSTEMS	32
V.	BONUS SYSTEMS IN GENERAL	43
VI.	THE PREMIUM BONUS SYSTEM	47
VII.	"EFFICIENCY" SYSTEMS	55
VIII.	SCIENTIFIC MANAGEMENT	69
IX.	THE SPHERE OF PRICE LISTS	80
X.	"MUTUALITY" AND COLLECTIVE BARGAINING	89
XI.	WORKSHOP COMMITTEES AND WORKSHOP BARGAINING	93
XII.	COMMISSION SYSTEMS	102
XIII.	PROFIT-SHARING AS A FORM OF PAYMENT BY RESULTS	105
XIV.	PAYMENT BY RESULTS <i>VERSUS</i> TIME-WORK	108
XV.	THE PROBLEM FOR TRADE UNIONISTS	114

APPENDICES

APP.		
A.	THE PIECE-WORK PROVISIONS OF THE ENGINEERING AGREEMENTS	117
B.	PIECE-WORK RULES OF TRADE UNIONS IN THE ENGINEERING, SHIPBUILDING, AND SMALLER METAL TRADES	119

vi THE PAYMENT OF WAGES

APP.	PAGE
C. PIECE-WORK RULES AND AGREEMENTS IN THE WOODWORK- ING AND BUILDING TRADES	128
D. "POOLING" AND COLLECTIVE PIECE-WORK	132
(i.) POOLING OF PIECE-WORK BALANCES	132
(ii.) YORKSHIRE DYEING TRADE AGREEMENT, 1913— PIECE-WORK CLAUSES	133
(iii.) A TYPICAL COLLECTIVE PIECE-WORK ARRANGEMENT IN THE DYEING TRADE	134
E. THE PREMIUM BONUS SYSTEM	136
(i.) AN EXPLANATORY LEAFLET	136
(ii.) THE CARLISLE MEMORANDUM OF 1902	137
(iii.) BARROW-IN-FURNESS LOCAL RULES REGULATING THE PREMIUM BONUS SYSTEM	137
(iv.) BARROW-IN-FURNESS PROCEDURE TO BE ADOPTED IN CONNECTION WITH THE ADJUSTMENT OF PREMIUM BONUS BASIS TIMES	138
F. PRICE LISTS	141
(i.) A SOUTH WALES COLLIERY LIST	141
(ii.) A BOOT AND SHOE TRADE PIECE-WORK STATEMENT	143
(iii.) A LIST OF LISTS	145
G. THE GRADING OF LABOUR AMONG THE BIRMINGHAM BRASS- WORKERS	147
SELECTED BOOK-LIST	151
INDEX	153

PRELIMINARY CHAPTER TO THE EDITION OF 1928

The Payment of Wages was written during the Great War, amid the rapid changes in industrial practice which the war had made inevitable. But now that I come to revise it nine years later, I find something to add, but relatively little to alter. Industrial conditions have changed in many respects; but the fundamental problems of the wage-system remain the same. Indeed, the whole process of change has been a good deal slower than at one time seemed likely. There has been no wholesale shifting over from time-work to "payment by results," and even less a general adoption of "Scientific Management" in any of its various forms. Undoubtedly in certain industries, especially engineering, "payment by results" has made some further encroachments on the time-work system, and the war-time methods of standardisation have been to some extent permanently applied. Undoubtedly, too, the study known as "Industrial Psychology" has made some real headway, not only in the laboratory, but also as a practical contribution to workshop management. But the changes, taken as a whole, are not really extensive; and over most industries work still continues to be done and paid for largely under the conditions which prevailed when this book was written.

In certain respects, indeed, industry is less standardised now than in 1918; for during the latter stages of the war the need for vast supplies of uniform clothing, shells, fuses, and all manner of military equipment combined with the acute shortage of labour to promote the utmost possible use of standardised machinery and methods of mass-production. When the war ended, this great uniform demand ceased, and industries had to go back to an attempt to satisfy the far more diversified needs of the individual consumer. The great bodies of unskilled labour which had been brought together for war-time production were rapidly disbanded; special-purpose machines, unadaptable to the new needs, and even whole factories built up for specialised production of munitions of war, were extensively scrapped; and there was a rapid return in many industries to the productive methods which had been in force before the outbreak of war. Contrary to the general expectation, the Trade Union rules which had been suspended in order to increase

war-time output were for the time restored in most cases with very little friction or reluctance.

This "restoration of pre-war practices" was, however, never quite complete. And, when it had been accomplished, a contrary tendency soon began to assert itself. Big manufacturers began to work out, on the basis of their war-time experience, methods of standardising operations required under the new industrial conditions, and to extend anew the use of semi-skilled labour on "fool-proof" machinery of new types. That this process was relatively slow was due to the fact that the forms of standardisation had to be worked out afresh, and that it was far harder to apply mass-production methods to the more widely diversified output now called for by the conditions of demand.

Indeed, in the industries whose technique was most changed by war-time experience the changes often made little difference in the forms and methods of wage-payment. The iron and steel trades, for example, introduced great economies in the use of fuel, increased the size of the normal industrial unit, and thus reduced their costs of production especially by economising in the amount of labour employed. But these changes hardly affected the system of wage-payment. The tonnage system was applied unaltered to the new conditions of production. The engineering trades used less skilled and more semi-skilled and unskilled labour; but, while this increased the proportion of workers employed under some system of "payment by results," it did not cause any fundamental alteration in the methods of payment applied to the majority of workers in the skilled trades, among whom the time-workers were, even before the war, chiefly found.

Certain other industries, notably the whole range of textile trades, had been hardly affected at all by the war in their methods of production or wage-payment; and in these no great change has occurred even now. They remain predominantly piece-work industries, in which the great majority of the workers are paid wages corresponding exactly with their individual output. Even the building industry, though it has experienced a great standardisation of its products, has not so far changed much in its methods of production or wage-payment. There has been much ado about the "Weir houses," and the application of factory methods of mass-production to the building of workers' dwellings; but this has been mostly talk. The more important practical changes in the building industry centre round the growth of concrete houses, and the increased importance of the constructional engineer in the erection of the larger buildings. And neither of these changes has yet radically affected the methods of wage-payment. Building still remains pre-eminently a time-work industry.

Undoubtedly, the process of change would have been far more rapid but for the great depression which has affected British industry since 1921. The short-lived trade boom of 1919 and 1920 was a

boom of prices and not of production ; and by the time factories were ready to increase their output and begin cutting their costs by the application of new methods the great slump was already on its way. It is obvious, however, that standardisation only pays, in most cases, when the reduction of costs opens up the prospect of a rapidly widening market. The British employer of 1921 and the following years could, as a rule, see no prospect of a sufficient growth of demand for his products to make mass-production a profitable policy. For a time, he was more disposed to use his power, acquired through war-time combination under Government control, for the purpose of restricting output in the hope of maintaining prices at a paying level. Such a policy was inconsistent with any drastic changes in the methods of production, for it would only pay to sink capital in new standardised machinery if a greatly extended market could be secured. The uncertainty of the international situation, the wildly fluctuating currencies of the principal industrial countries, the depressed life-standard of the workers in Germany and elsewhere, made any venture on these lines little better than a gamble, so far as the foreign market was concerned ; while the openness of the home-market to goods produced under the prevailing conditions abroad made any attempt to concentrate on stimulating home demand an exceedingly hazardous enterprise. Consequently, most manufacturers went on producing in the ways to which they had been accustomed ; and the revolution in productive methods, promised as the inevitable result of war-time experience, largely failed to materialise.

The Trade Unions, on their side, weakened by unemployment and with all their efforts concentrated on the struggle against lower wage-rates and the threat of a return to a longer working week, were not in a position to make any advance. The shop stewards' movement broke down abruptly when the conditions which had been the secret of its strength ceased to exist. No longer did "dilution" call for ceaseless changes in workshop practice ; no longer was labour so scarce as to be able largely to dictate its own terms. The active shop steward either lost his job as workers became plentiful, or was driven by prudence and necessity to moderate his activity in face of the changed conditions. The employer, weakened in his contest for profits in the markets of the world, was immensely strengthened in his relations with the workers. The powers of foremen and managers revived ; and the *de facto* control of the workshops, largely established by the skilled craftsmen under war conditions, was rapidly taken away.

If the employers had wished to revolutionise the conditions of production, to make "payment by results" universal, to adopt generally the methods of "Scientific Management," they had certainly a matchless opportunity for doing these things during the earlier years of the great slump. If they did not do them, it was because they did not want to do them—because they had no faith

in their results. We have all been given, during the past few years, a signal example of this unwillingness in the case of the coal industry. The new pits in South Yorkshire and elsewhere are, indeed, worked by methods radically different from those which prevail over the industry as a whole. The differences are so great that a collier migrating from, say, Durham to Doncaster, has practically to learn a new craft when he is confronted with the coal-cutting machinery and the methods of organisation of the new pits. But, despite a whole sequence of Royal Commissions and Committees, the greater part of the coal industry is still working under the technique of pre-war days, and obstinately resisting adaptation even in pits which could be brought under new and more productive methods. Many of the older pits are doubtless incapable of adaptation; but will anyone maintain that the industry as a whole has done its best to bring its methods up to date?

Adoption of new technique is, of course, largely a matter of capital expenditure. It involves the scrapping of existing plants in which capital has been sunk, even when these plants are still capable of working—at a price. It involves the provision of new capital to replace the old; and this in turn involves a belief among masters that the new capital will yield an adequate return. In most industries, this belief has not existed, and therefore the new capital has not been applied. In some, notably in the chemical trades, in the artificial silk industry, and in the production of motor-cars, the belief has been created, the capital has been provided, and the technique of production has been revolutionised. And in these industries we find relatively high profits and wages, and a low rate of unemployment. Elsewhere, stagnation still prevails, especially in the great exporting trades to which we have long been used to look as the main sources of British prosperity.

Under these conditions, it has become fashionable to look for the means of salvation to the United States, where production has been immensely increased, and the standard of life considerably raised, while Great Britain has been standing still. Travellers fare forth to this new land of promise, and bring back word of its abounding prosperity. Everyone wants to master America's "secret," in order that we may imitate its results in our own industries. But different observers find the "secret" of America's advance in different things. One tells us that it is all because American workers impose no restrictions on output; another says it is because American wages are high, and therefore provide a vast and expansible home market; yet another attributes it to America's great natural resources, another to her tariff, and another to the fact that she is the largest free-trade area in the world.

These explanations concern us here only in so far as they have a bearing upon the question of wage-payment. It is often alleged that the American workmen produce more because, among them, "payment by results" is the prevailing system. But is it?

Certainly some of the largest and most successful factories in the United States are run mainly on a basis of time-work. Mr. Henry Ford places far less reliance on piece-work incentives than on setting, by means of standardisation, a factory pace to which the worker has to conform. The worker either does his work at this pace, or he goes, by resignation or dismissal. The "labour turnover" at the Ford factories is notoriously high. Mr. Ford owes his high output, first to the system of factory organisation which he has enforced, and secondly to the fact that his high time-wages constantly attract enough workers prepared to conform even to the killing pace which he sets.

Mr. Ford at least cannot, then, be used as an example for proving the benefits of "payment by results." And, if there are in America not wanting examples of high output obtained under this system, is it not plausible to seek rather an explanation which will cover all the cases than one which his experience seems to contradict?

"Payment by results," regarded as an incentive to higher output, is obviously most likely to succeed where the pace of production is directly under the workers' control. But in some modern forms of "mass-production" this is but little the case. The pace of work is set by the machine, as when the work is built up by a succession of minute and specialised operations performed by different workers as it passes them on a moving platform. At such jobs the worker must either stick the pace or go. It is useless to offer piece-work incentives, which will secure different responses from different workers. What is needed is a high uniform rate of work which all will observe. In order to get men to do this it is necessary to offer them a special inducement; but the appropriate inducement is a high time-rate, and not a piece-work price.

It would not be surprising, therefore, if it were found in this country, as in the United States, that some forms of standardised mass-production lead not to "payment by results," but to high time-rates combined with an exceptionally severe workshop discipline. Such high rates, of course, are relative. The rate need not be high absolutely, provided it is enough higher than the worker can get elsewhere to compensate him for the additional severity and disagreeableness of the conditions. There are already factories in England which are following Ford methods without paying Ford wages. Such a factory, set up in a low-wage area, may pay no more than the ordinary rates current in the great industrial districts, and yet secure all the "speeding up" that its owners can desire. The cheap motor factory, here as in America, is the chosen home of these methods. They are, however, still exceptional, even in the trades into which they have been introduced.

It may be taken as certain that the British employer will not get harder work without, in the long run at least, paying more for it in some form. The workman will not expend more effort except

in return for an increased reward. This may take the form either of higher piece-work or bonus earnings, or of a higher time-rate; but in the one form or the other the additional payment will be successfully demanded. The same condition does not, of course, apply when higher output is secured by means of improvements in technique which do not make the workers' task harder or more unpleasant. Nor, even where the work is much harder, does it follow that the increased reward will be proportionate to the increased output secured. The labour cost of production, it is notorious, often falls in the factories when high wages are given in return for exceptionally hard or unremitting toil.

This doctrine of the "economy of high wages" has received, of late years, new and unexpected support. It used to be said that it applied only to the worst paid types of workers: that a rise in their case might yield a more than corresponding increase in productivity, but that, once a "living wage" had been secured, the worker would lose his readiness to respond to increasing doses of payment. The American evidence certainly does not seem to square with this view. The factories producing at lowest unit cost are, save perhaps in the textile trades, those which pay the highest wages, and this remains true long after the "living wage," in the common sense of the term, has been considerably exceeded.

It may be answered that this is not because the worker responds to the stimulus of higher wages, but because the factory is organised so as to compel him to produce more. This is largely true; but the American manufacturers have come to realise that the "economy of high wages" has another aspect besides that which is usually considered. The American employer pays more because he cannot get men to work at the pace he wants except by doing so. But, when he has paid his high wage in return for high output, he comes to realise that the high wage is itself the means through which the high output finds a market. This is concealed from the British employer, both because he is not subject to conditions which compel him to pay a high wage, and because his eyes are on the foreign more than on the home market. The "economy of high wages," therefore, has not hitherto appealed to his imagination. He still tries to cut his costs of production mainly, not by increasing output, but by reducing wage-rates and piece-work prices. He has still to realise that high output will not help him unless the workers' wages are high enough to enable them to buy it.

When this book was written, it seemed as if the main battle of the future would be fought between the rival systems of time-work and "payment by results." But now it is necessary to modify this view. The battle will be between those forms of higher production which place an additional strain upon the worker and make him even more than to-day an automaton divorced from all real control of the process on which he is engaged, and those which aim at an increased technical efficiency of a sort which will lighten labour

and, at the least, not add to its monotony or to the rigidity of the discipline under which it is carried on. On the one side, we shall have more and more self-acting mechanisms which compel the worker, willy nilly, to go the pace set by the factory controllers, and thus render mere piece-work incentives obsolete. And on the other we shall have an increasing demand that the job be made to fit the man, instead of the man being crucified to fit the job.

It is in this second connection that the development of Industrial Psychology and Industrial Physiology will prove, in the long run, of the greatest importance. The earlier forms of "Scientific Management" studied men's physique and motives only in order to discover how to extract more out of them. Piece-work and bonus systems were so designed as to appeal to the worker to put forth every available ounce of effort; time-study and motion-study were used so as to provide the management with the means of drilling the reluctant workers into the most productive motions and postures. The object throughout was not to lighten labour, but to speed up the productive process.

Yet even these studies had in them the germ of better things. For, if productive effort was to be increased, it was necessary for wasteful effort to be eliminated. It was necessary to adapt the machine to the man, as well as the man to the machine, and to study the causes as well as the mere phenomena of industrial fatigue. It was essential to take into account the waste and friction which arose from the worker's distaste for his job, as well as the merely physical hindrances to its effective performance. The original motive in all these cases was doubtless to increase output and to lower its cost; and this motive is still predominant. But with it is increasingly mingled, especially in the minds of the scientists who carry on the work of investigation, the desire to make labour less irksome and unhealthy as well as more productive.

This is the good side of Scientific Management, and especially of its later developments in the field of Industrial Psychology and Industrial Physiology. The trouble is that the employer still controls industry, and the scientist, however he may theorise, can as a rule only influence industrial practice as the employer's servant, and subject to his veto. And the employer will usually spend money in carrying out the scientist's recommendations only if he can see in them a direct and immediate prospect of lowering the cost of production. Of indirect benefits, arising from greater mental and physical contentment, and less *malaise*, among his employees, the average employer is still apt to be decidedly sceptical.

Nor, of course, is he without warrant for this attitude. Industrial Psychology is still in its infancy, and a great many very foolish things are still proposed and done in its name. It can hardly advance as yet with safety beyond the simplest applications of common sense. But it is a great step forward that the question, "How do the workers feel about it?" should now be commonly

asked in relation to industrial processes, and some attempt be made, by careful and exact investigation, to discover the answer.

A great deal that passes under the name of "Industrial Psychology" is, of course, in one sense not psychology at all. The expert psychologist who visits a works for the purpose of reporting on its methods is often concerned mainly with problems that are far more physiological than psychological. The way to smoother working may be, in many cases, the removal of an unnecessary physical strain which can be done away with by some simple adaptation of the machine, or by the provision of seats at an appropriate height, or by the institution of rest-pauses. Doubtless, such changes have important mental as well as physical results; but probably in the majority of cases a physical trouble is at the back of the mental *malaise* which the psychologist sets out to remove.

This new profession of "Industrial Psychologist" cannot preserve a strict impartiality above the industrial battle. The psychologist and the efficiency engineer will, as their respective techniques advance, become more and more able to tell how industry ought to be organised in order to achieve a given result. But they cannot give clear or decisive advice unless the desired result is defined in advance. Now, under existing conditions, there is no real agreement as to the result that is to be sought. The employer wants primarily higher output at lower unit cost; the worker wants primarily a reduction in the strain and unpleasantness of labour. To a greater extent than either party is commonly prepared to understand, the two aims can be harmonised; for in many cases the worker will work better and produce more if the conditions of production are made less distasteful. The advanced employer has already found this out; but employers who act on this principle are still few and far between.

Moreover, no complete harmony is attainable on this basis. It is not true that all employers who aim at reducing the unpleasantness of labour will do better than all who, ignoring the humanity of their workers, drive them hard under a relentless factory discipline of the Ford type. There are two rival ways of getting the most out of labour, and neither is inherently and universally superior to the other from a purely profit-making point of view. Indeed, some forms of mass-production go so against the human grain of labour as to be workable at all only on the latter method. It is impossible to look only to the progressively enlightened selfishness of the employer as the means of improving factory conditions.

The desire to get the highest possible output at the lowest cost and the desire to secure decent and, as far as may be, pleasant working conditions are often opposed in fact. Still more often, they seem to be opposed; and in practice it is their seeming that counts. If the industrial psychologist is to intervene in industry merely as the employer's servant, and if the adoption of his pro-

posals is to depend merely on the employer's will, he will inevitably put first, or seem to put first, considerations of output, and relatively disregard, or seem to disregard, the worker's ease and convenience, whenever the two considerations conflict. The moral is obvious. If Industrial Psychology, in the wide sense currently given to the term, is destined to play a rapidly growing part in the determination of workshop conditions, it must be as much at the call of the workers as of the employers.

This is not, in practice, at all an easy result to secure. The Institute of Industrial Psychology does, indeed, aim at impartiality, and follows it to the extent of having seriously offended several big employers who have called upon it for advice. But it cannot escape the consequences of being almost wholly dependent on the employers' money, on the employers' initiative in calling it in, and on the employers' will in accepting or ignoring its recommendations. Though various prominent Trade Unionists are loosely associated with it, hardly a Trade Union yet takes it seriously, or sees the need for any close association with its doings. To no Trade Union has it yet occurred that the retention of an expert staff of its own is a necessary condition of successful collective bargaining under modern conditions, or that mere grumbling at the innovations of advanced managements is no substitute for intelligent criticism of their doings. Trade Unionism is, in most industries, a full generation behind the times in its methods of handling workshop problems. It is still following for the most part the rule of thumb methods which are being rapidly superseded among the more progressive members of the employing class and the managerial staffs of industry.

In the later chapters of this book, the reader will find a plea for some attempt by the Trade Unions at collective control of the problems of wage-payment. The matter has become a good deal more urgent now than it was nine years ago; but next to nothing has been done to deal with it. Nowadays, indeed, the need is wider as well as more urgent. It is obvious that, unless British industry can radically improve its methods of production, the outlook is black for workman as well as for employer. It is no less obvious that the radical changes which will have to be made will deeply affect the whole position of the workers in the industrial system. They may be such as to reduce the operative more than ever to a condition of servitude to the machine, and to deprive him of all prospect of finding in labour anything save an almost intolerable irksomeness and restraint; but they may also be such as to create for him an essentially co-operative relationship with management, and to place him in a position to insist that the conditions of production shall be made consistent with the human needs of the producer. They will certainly not issue in the latter result unless the Trade Unions, his representatives, are prepared to make themselves masters of the problems of industrial technique,

and to play a creative and responsible part in the re-making of industry to meet the new needs.

America, that land of contracts, shows us both forces at work side by side. We are accustomed to believe that American Trade Unionism is half a century behind our own, and that the affairs of Capital and Labour are conducted in the United States in a spirit of barbarism which we civilised peoples have outlived. There is truth in the indictment; but it is only half the truth. While a large body of American employers is still in full cry for the "Open Shop," and American courts of justice are often prepared to gaoil a Trade Union organiser for the mere crime of helping the workers to combine, there are also in the United States examples of Trade Union activity which the British Unions would do well to mark and inwardly digest. For more than one American Trade Union has seen the necessity of equipping itself with a properly trained expert staff, and of endeavouring with expert aid to play its part in the shaping of the policy and technique of industry. The Amalgamated Clothing Workers' Union, the most advanced and successful Trade Union in the United States, has by this means raised the needle industry from a grossly sweated occupation to a status envied by many of the most highly skilled crafts. And, in the locomotive shops of the Baltimore and Ohio Railroad, there has existed since 1922 a scheme of organised co-operation between the Trade Unions and the management which gives the workers, through their Unions, an effective and creative voice in the shaping of industrial policy. The Unions, guided by their own expert staff, take a real share in determining how the railway shops are to be run.

Objection is often taken to schemes of this sort on the ground that they involve the workers in some measure of responsibility for the conduct of industry under the capitalist system. But those who make this objection are in reality only running away from the problem. It is not to the workers' interest that capitalism should be inefficient. The present inefficiency of British industry actually strengthens the British capitalist against the British worker. Trade Unions can do most for their members when industry is booming and labour fully employed. Even revolutions are easier made on full than on empty stomachs. And it will most certainly not suit the British worker at all for British industry to decline. As it declines, wages will fall and unemployment will increase, with the result that the Trade Unions will be less than ever able to defend the interests of their members.

Trade Unionists have, therefore, a direct and personal interest in promoting the reorganisation of British industry, even under private control. If they want it transferred to public ownership, will it not be better transferred in good-going trim than as a bankrupt concern? Their interest is to help in making it more efficient, and, in doing so, to shape its development according to their own needs and ideas. Collaboration on these lines implies no

surrender to capitalism, and no abandonment of the right to strike. It is actually a phase in the workers' struggle for power, and a means of building up a real system of democratic industrial control.

In any such policy as I am here advocating, the problem of wage-payment will occupy an important place. But it will be, far less than when this book was written, isolable from the general problems of factory organisation and industrial technique. "Payment by results" has made its appeal to employers as an incentive to higher output; and it is, as we have seen, already losing some of its appeal as alternative methods of increasing output are devised. At present, the choice of employers is in the main confined to the two alternatives of bribing their workers to produce more by piece-work inducements, or driving them either by strict supervision or by running the machinery at a speed to which they have to conform. These, however, are not the only possible alternatives; for both have been largely based on the assumption—true in the main under present conditions—that the worker is concerned to speed down rather than up. The enlistment of the worker as a co-operative agent in the stimulation of higher production—on terms which would ensure to him both a fairer reward and a productive method less irksome and disregarding of his feelings—would create an entirely new situation.

If, however, the employer desires this result, he must be prepared to pay the price. The workers will not implement, or the Trade Unions approve and forward, a policy of co-operation unless the co-operation is real. Whitleyism, paying lip-service to the idea of joint control, but in fact reserving all power in the employers' hands, will not do. Its failure has been proved already. Nor will those plans do which are based on the "loyalty" of the worker to the firm that employs him, and demand from him, as a condition of co-operation, acceptance of capitalism as a system claiming his allegiance. Worker and employer have a common interest in the promotion of more efficient productive methods; but they can never become allies, because a vital part of the worker's indictment of things as they are is that a large share of the existing inefficiency is traceable to capitalism itself. In co-operating for the increase of workshop efficiency, the worker will not be giving up his desire and intention to replace capitalism by a better system. Indeed, his co-operation will count, in his mind, as a step towards that replacement. In helping the employer to produce better, he will be also learning to do without the employer altogether.

If the Trade Unions are minded to follow the policy here outlined, it is evidently their business to take all industrial knowledge as their province, and above all to make themselves masters of the vital problems of workshop technique. They must be able not only to negotiate scientifically about piece-work prices, the definition of a "fair day's work," the degree of skill and effort required in the performance of the various industrial operations, the problems

of fatigue and monotony in labour, and all the other matters which are now dealt with by industrial psychologists and "efficiency" experts, but also to meet the employers on equal terms in the discussion of improved methods of production, the introduction of new machines and processes, the scientific construction of workshops and factories, the routing of jobs from stage to stage, and all the other vital problems of factory management. The Trade Union must have, for all these things, experts of its own as skilled as those of the employer, and must be prepared, equally with the employer, to retain at need and pay for the services of the skilled consultant.

Unless Trade Unionism can adapt itself to these new needs, I would not give much for its chance of effective survival. It is surely obvious that old-style Trade Union policies are played out. As long as Great Britain could look for an almost automatic increase of wealth through the growth of her foreign trade, the Unions could be sure of getting something for their members merely by watching out for favourable opportunities of bringing pressure to bear upon the employers. But those days are past. Under present conditions, Britain's industrial wealth will increase only through better organisation, a more skilled use of machinery and science, and a more economical application of labour to the processes of production. It is no longer a case of waiting for the employer to get richer, and then claiming some of his riches from him; the wealth of the future will have to be earned by co-operative effort of the whole body of producers.

I still adhere to the view, stated in the following chapters, that in the main the right line of advance is not the progressive substitution of individual "payments by results" for time-work, but rather that of collective for individual systems of payment. The method known as "collective contract" seems to me still the most hopeful method of organising that responsible relationship of the workers to industry which present conditions imperatively require.

In this connection, considerable importance attaches to the undoubted success, within a limited field, of the method of wage-payment known as the "Priestman-Atkinson" system. The basis of this arrangement is the payment to all workers employed in a factory or department of a collective bonus proportionate to any increase in output above a fixed standard. At the outset, this standard is determined in relation to the past experience of the factory. The output is classified into definite groups, and the number of "man-hours" of labour expended is calculated for these groups. In this calculation, all labour is reduced to man-hours of standard labour, an hour of a less skilled man's work being regarded as a fraction of the skilled man's hour, in accordance with their respective wage-rates. By these means, a standard output per standard man-hour is fixed for the factory or department as a whole, the labour of non-productive and indirectly productive

workers, as well as that of direct producers, being included in the total. Staff workers, such as foremen and managers, are, however, usually excluded from the calculation.

The standard being thus fixed, the whole of the workers in the factory or department are paid, over and above their Trade Union wage-rates, which are guaranteed, a bonus proportionate to the amount by which the actual output of the factory or department per "man-hour" exceeds the standard. Thus, if output per "man-hour" rises by twenty per cent, the wages paid to the workers are increased by twenty per cent throughout the factory or department, the firm, of course, making its saving by the reduction of overhead costs. The system is usually, and best, applied in a factory where time-work is the basis of individual payment. It could also be applied in conjunction with individual piece-work, the piece-worker usually receiving the collective bonus on his piece-work earnings as well as on his time-rate. There would, however, be a considerable risk that the co-operative spirit which it is the object of the system to promote would be undermined by giving it this individualistic basis.

In its pure form, this system has, of all the existing systems of "payment by results," the most to recommend it. It does not set man against man, but treats the whole of the workers in the factory or department as an essentially co-operative group. It does away with the need for rate-fixing, and with most of the grounds that are constantly arising over the pricing or timing of jobs under the piece-work or premium bonus systems. It gives the workers a collective interest in improving the efficiency of production, and in removing causes of workshop friction. And it provides a basis on which the collective intervention of the workers in the problems of industrial technique and workshop control can be readily organised.

At the same time, too much is claimed for the system by some of its advocates. It does not, as some of them are inclined to assert, do away with the need for collective bargaining in the workshop. The fixing of the standard output per "man-hour" is a highly intricate business, on which the workers need expert advice and representation. Moreover, when the basis has been fixed, occasion is bound to arise for varying it. The type of product and the methods of manufacture, as well as the types of labour employed on various jobs, are bound to change over long periods at any rate; and each change will demand some readjustment of the standards on which the scheme is based. Here again, then, will be need for collective bargaining, and for the presence on the workers' side of experts able to meet those of the employers on equal terms.

While, however, it is no more true of the "Priestman-Atkinson" system than of the Taylor system that it removes the need for collective bargaining and strong Trade Union organisation in the

workshop, there seems little doubt that, for many industries, the former method does supply both the best chance of securing increased output at lower cost and the easiest means for the workers of extending their control over industry in precisely those things which they are best equipped to control.

Of course, any such system as that described above implies—what is by no means always the case—that increased output is actually desired. The employer, however, under present conditions, is often no less eager to restrict output than to increase it. He wants the worker to increase his output per “man-hour,” in order that the cost of production may be lowered; but he is often in some sort of ring or combine with other employers to “regulate” the total output of his industry, and bound down by the ring to a fixed quota which he is not allowed to exceed. In such cases, if the workers under the “Priestman-Atkinson” or any similar system increase their output per “man-hour,” the employer will have to meet the situation either by dismissing some of the workers or by putting the works as a whole on short time. Now, it needs no argument to show that a body of workers, faced with this result of increasing their output, will be most unlikely and unwilling to do so, whatever incentives may be offered to them. It follows that the system of restriction of total output by rings of employers, while it may sometimes be effective in maintaining prices, inevitably makes against efficient production. It does this both because it disposes the worker to speed down, and also because it often does not pay to install the most up-to-date and productive machinery save with a view to a considerable expansion of output. The rapid growth in recent years of this form of restriction has undoubtedly been one of the most serious obstacles to the improvement both of industrial technique and of the productive efficiency of labour.

This serves to give point to my final contention—that above all the problem of wage-payment is a human problem. The essential characteristics of a satisfactory system of remuneration—for as long as we continue to think in terms of remuneration at all—are, first, that it shall put men in a mood to give of their best; secondly, that it shall not set one man's hand against another's, and thirdly, that it shall be, as far as possible, consistent with the sense of justice of those employed under it. But in none of these respects can the methods of wage-payment be considered, in practice, apart from the general systems of factory organisation and from the policies which inspire the owners and managers of the factories. The best system may fail if it is badly administered, or if the policy of the management engenders a bad state of feeling among the workers. Men labouring under a grievance will not work well, even if the payment is fair and fairly computed. Men will not produce more if the result is to be the throwing out of work of their friends and neighbours. Men will not strive to be more efficient for a management which wrecks the results of their work

by bad administration, or for foremen who constantly antagonise them by their bullying and hostility. Above all, the employer who sets himself up against the Trade Union as a focus for the workers' loyalty, and seeks to establish in his works an oasis of patriarchal contentment, must expect to find his efforts constantly thwarted by the counter-pull of Trade Union loyalty. There is no reason why he should not work with the Trade Union, and co-operate with it in trying to establish good conditions and productive efficiency. If he will not do this, he has only himself to blame when matters go wrong.

It will be seen that, while I am keenly critical of many of the present developments of Scientific Management and Industrial Psychology, I have none the less great hopes of them for the future. Rightly handled, they are capable of doing an infinite deal both to increase production, and so raise the standard of life, and to lighten labour and make it go less against the grain, and so sweeten the temper and increase the happiness of the ordinary man. But these results depend on the great new powers which the application of science to industrial management promises to confer upon the world being used in the right way. They will not be rightly used if the main motive behind their application is the increase of private profit. They must be applied also, and even primarily, for the lessening of the "disvalue" of factory labour. It is above all for this reason that it is urgent for the organised workers to obtain a command and an understanding of the new forces, if only, for the time, in order to counteract their wrong use by employers intent only on private gain. And, as it is largely round the problems of wage-payment that the controversy will centre, it is on this point that the Trade Unions should in the first instance focus a good deal of their attention. At this point they must seek "control," and in order to seek control they must first of all seek more abundant and scientific knowledge.

APPENDIX A

PIECE-WORK PROVISIONS OF ENGINEERING AGREEMENTS

THE following are the provisions (see next page) regarding piece-work in the three engineering agreements of 1897 (following the great engineering lock-out), 1901, and 1907. The 1907 agreement was terminated in 1914 by the Amalgamated Society of Engineers. It will be noted that the three agreements showed a progressive evolution of safeguards for piece-work, and that further improvements were secured in the special Piece-work Agreement of 1919.

PIECE-WORK AGREEMENT, 1919

Where, by reason of the introduction of the 47-hour week,¹ a workman is not able to earn on piece-work his previous remuneration on the same job, the employers will undertake to recommend that suitable adjustments shall be made on the piece-work price for that job.

It is agreed that piece-work prices should be such as will enable a workman of average ability to earn at least 33½ per cent over present time rates (excluding war bonuses). Piece-work prices once established shall not be altered unless the means or method of manufacture is changed.

Meantime, it is agreed that when prices are such that on account of the reduction in hours the workman of average ability is unable to earn 33½ per cent, the necessary adjustment should be made.

¹ Introduced in 1919.

[TABLE

ENGINEERING AGREEMENTS
PROVISIONS REGARDING PIECE-WORK

118

THE PAYMENT OF WAGES

1907.	1901.	1897.
Employers and their workmen are entitled to work piece-work, provided : (a) The prices to be paid shall be fixed by mutual arrangement between the employer and the workman or workmen who perform the work. (b) Each workman's day-rate to be guaranteed irrespectively of his piece-work earnings. (c) Overtime and nightshift to be paid in addition to piece-work prices, on the same conditions as already prevail in each workshop for <u>time-work</u>. All balances and wages to be paid through the office.	Employers and their workmen have the right to work piece-work. The prices to be paid for piece-work shall be fixed by mutual arrangement between the employer and the workman or workmen who perform the work, and the employers guarantee that they shall be such as will allow a workman of average efficiency to earn at least his time-rate of wages, with increased earnings for increased production due to additional exertion on his part. The Federation will discountenance any arrangement or rearrangement of prices which will not allow a workman to obtain increased earnings in respect of increased production due to such additional exertion, and the Trade Unions will discountenance any restriction of output. The Federation agree to recommend that all wages and balances should be paid through the office. A mutual arrangement as to piece-work rates between employer and workman in no way interferes with the Trade Unions arranging with their own members the rates and conditions under which they shall work.	The right to work piece-work at present exercised by many of the Federated Employers shall be extended to all members of the Federation and to all their Union workmen. The prices to be paid for piece-work shall be fixed by mutual arrangement between the employer and the workman or workmen who perform the work. The Federation will not countenance any piece-work conditions which will not allow a workman of average efficiency to earn at least the wage at which he is rated. The Federation recommend that all wages and balances shall be paid through the office. <i>Notes.</i>—These are just the conditions that have been for long in force in various shops. Individual workmen are much benefited by piece-work. A mutual arrangement as to piece-work rates between employer and workman in no way interferes with the functions of the Unions in arranging with their own members the rates and conditions under which they shall work.

APPENDIX B

PIECE-WORK RULES OF TRADE UNIONS IN THE ENGINEERING, SHIPBUILDING, AND SMALLER METAL TRADES

THE following extracts from the Rule Books of selected Trade Unions in the engineering and kindred industries illustrate very clearly the lack of systematic regulation or of uniform systems. At the same time, they serve to bring out the fact that a good deal of rudimentary collective bargaining exists, and that, in some of the smaller metal trades especially, the method of the piece-work list has been adopted in a more or less developed form. It will be seen that, in the majority of cases, the Rules are designed to discourage piece-work, and that the impossibility of dispensing with it altogether is often recognised with reluctance. It should also be noted that some of the Rules have developed by a process of gradual amendment out of Rules originally designed to combat sub-contracting.

PIECE-WORK RULES

AMALGAMATED SOCIETY OF ENGINEERS. Rule 39.¹

1. Any member asking for or taking work by contract or piece-work contrary to conditions here following, in any firm or factory where piece or contract work does not at present exist, and the same being proved to the satisfaction of the District Committee, shall for the first offence be fined 20s., for the second 40s., and for the third be expelled from the Society. Piece-work, however, may be worked subject to conditions here following, and providing that the minimum rate of wages of the district be fully guaranteed by the firm introducing it.

2. All members engaged on piece-work shall, as far as possible, make it imperative that they be paid through the pay office, and not by a piece-master. Where this is not possible they shall, upon the request of their Branch or the District Committee, produce their pay sheet. District Committees shall see that members have a proper rated wage guaranteed, apart altogether from piece prices, and in cases where members are working piece-work, the District Committee shall draw up rules by which it shall be governed, so as to protect our members against the action of employers who seek to interfere with the minimum wages of the district.

3. Any member taking work by the piece or contract, and not sharing equally in proportion to his wages any surplus made over and above the weekly wages paid to members and other persons working on such job, shall be summoned before his Branch or Branch Committee, and if he does not comply with the above regulation he shall be fined in the first instance 20s., second 40s., and in the third instance be excluded, subject to the approval of the Council.

4. Any member found to be using his influence to discharge, or cause to be discharged or suspended, men working on any piece or contract job, who

¹ The corresponding rule of the Amalgamated Engineering Union (1926), into which the A.S.E. has been absorbed, reads as follows, and may serve as typical of changes in the engineering position since this book was written:

"(a) No member shall ask for or take work by any system of payment by results or contract in any firm or factory where such system of payment does not exist without the approval of and in conformity with the conditions as laid down by the District Committee.

"(b) Piece-work shall only be accepted on the basis of the district rate of wages being guaranteed, and prices shall be such as will enable a workman of average ability to earn at least 33½ per cent over day rates, and where a reduction in the hours of working takes suitable adjustments shall be made in the piece-work prices. All members engaged on piece-work shall make it imperative that they be paid through the pay office.

"(c) [Repeats the provisions of 3 and 3, above.]

"(d) [Repeats the provisions of 4, above.] "

THE PAYMENT OF WAGES

are in receipt of the ordinary rates or wages of the district, and substituting boy labour or cheaper labour in their place for the purpose of making surpluses over and above the rate of the day wages of the district, shall be for the first offence fined 40s., for the second 60s., and for the third excluded; such penalties, with the reason thereof, to be posted in a conspicuous place in all the club-rooms of the district; the District Committee secretary to furnish each branch secretary with the necessary information.

5. Any member working for or under any piece-master, and not receiving an equal share of any surplus in proportion that may be made over and above his weekly wages shall be summoned before the Branch, Branch Committee, or District Committee; and, on his refusing to leave such employment he shall be fined for the first offence 20s., for the second offence 40s., and for the third offence excluded, subject to the approval of the Council.

STEAM-ENGINE MAKERS' SOCIETY. Rule 46.

This rule is identical in substance with that of the A.S.E.

AMALGAMATED TOOLMAKERS. Rule 55, Section 1.

1. In no case shall members of this Society work on any job at less price than that paid previously, unless such wage was above the minimum rate of the district for that class of work. Any member unknowingly commencing to work in contravention of the above shall, as soon as he becomes aware of it (unless at once paid the proper price) immediately give notice to leave, and acquaint his committee with the circumstances, upon which he will be entitled to donation as per rule. In case of any member breaking this section his conduct shall be brought before his Branch Committee, and he shall be fined a sum not exceeding £1, or expelled the society.

UNITED MACHINE WORKERS' ASSOCIATION. Rule 26.

1. In the event of any of our members being called upon to work piece-work or Premium Bonus System, day-rates must be guaranteed, and any member asking for or introducing piece-work into shops where not already introduced (on the same being proven to the satisfaction of his Branch) shall be fined for the first offence £1, on the second excluded, and all members working in boiler shops and shipyards shall be governed by the conditions existing in those departments.

ELECTRICAL TRADES UNION. Rule 37.

420. Members are not to consider that because the following penalties are attached to members working piece-work, the Union looks upon the system with the slightest degree of favour, but, on the contrary, the Union considers it one of the greatest evils it has to contend with, and it therefore becomes the duty of every member permanently to dispense with piece-work whenever an opportunity presents itself, and certainly to prevent its introduction into any shop or district where it does not exist.

421. Any member asking for or taking work by contract or piece-work in any shop where contract or piece-work does not at present exist, the same being proved to the satisfaction of his Branch or Branch Committee, shall for the first offence be fined 20s., and for the second be excluded, subject to the approval of the Executive Council. All District Committees and Branches are to see that all members have a proper rated wage, apart altogether from piece-work prices, and they must exert themselves to make it a condition that all those engaged upon piece-work shall be paid their fair share of the surplus through the pay-office, instead of through the piece-master. Should it be proved that members have connived at the introduction of piece-work, by not

making it known at the first Branch meeting after it has been stated that members are working by the piece, they shall be subject to such fine, not exceeding £2, as the Branch or Committee consider the case deserves, or to exclusion.

**THE UNITED JOURNEYMEN BRASSFOUNDERS, TURNERS, FITTERS,
AND FINISHERS. Rule 16.**

If piece-work or premium bonus is introduced by employers into shops which have hitherto worked day-work, and the members are discharged for refusing to work by piece, or premium bonus, they shall be entitled to association benefit. Members must consult the officers of their Branch before taking any definite action. If in a shop engaged in a dispute of this nature, there be two-thirds voting in favour of accepting piece-work, with the consent of their Branch, the same shall be considered binding on all members working in said shop. In Branches or shops where piece-work is established, the members must ascertain the prices of jobs before starting; the prices of all work to be generally made known to the members in the shop.

BRISTOL BRASSFOUNDERS' AND FINISHERS' TRADE SOCIETY. Rule 44.

In any piece-work shop a list of prices paid shall be kept by all the men, and no member shall be allowed to work below such price.

No member or members shall either give a price for new work, or a new price for work already catalogued, without first obtaining the consent of the majority of the society men working in the same shop.

The penalty for breach of this rule shall be a fine or exclusion from this Society, as may be decided at a summoned meeting.

LONDON SOCIETY OF AMALGAMATED BRASSWORKERS. Rule 28.

Any member asking for or taking work by contract or piece in any shop where the same does not at present exist, and the same being proved to the satisfaction of the Executive Committee, shall be fined £1 for the first offence, and for the second be expelled.

**NATIONAL SOCIETY OF COPPERSMITHS, BRAZIER, AND METALWORKERS.
Rule 33.**

In all cases where employers seek to introduce conditions other than day-work, members must at once report same, with conditions proposed, to the Executive Council, whose consent must be obtained previous to accepting such work.

Whenever practicable piece-work, etc., shall be worked and shared collectively, the balance to be apportioned in the office, if possible, to each individual concerned on time worked and wages paid.

Any member being offered a job on piece-work, the bonus system, or any method of payment other than by the hour, day, or week; or should he be asked to quote a price or prices, or time limit for work to be done, shall, before taking the job or quoting prices, etc., consult the men working in the shop with the object of taking or giving, amending or rejecting such prices or time limit as will meet with their general approval. In all cases day-work rates must be guaranteed, and each job to stand by itself.

Any member starting or working in any shop or place where these conditions are not enforced or maintained, shall immediately inform the secretary in writing of same, and any member neglecting to do so, or working contrary to these conditions, shall be liable to a fine not exceeding £5; any member so fined to be suspended from all benefits until such fine is paid, and if not paid within three months the offending member shall be summoned before the

THE PAYMENT OF WAGES

Executive Council to show cause why such fine should not be paid, and should no satisfactory explanation be given, he shall be expelled and not allowed to rejoin until such fine is paid.

ASSOCIATED BLACKSMITHS' AND IRON WORKERS' SOCIETY. Rule 24.

1. The members of the Society shall not encourage the working of overtime or piece-work; but where piece-work is established, and it is not possible to do away with it, a list of prices mutually agreed upon shall be fixed in each shop and known to all the members. It shall be the duty of every member to acquaint the shop delegate and the members generally with the prevailing price of piece-work being done, and to give any information which may be required for protecting such prices. Any member failing to comply with this Rule shall be fined in the sum of 5s. for each offence, or otherwise dealt with as the nature of the case may deserve.

2. It is laid down as a clear and distinct principle for the guidance of members on piece-work, that no member shall under any circumstances be permitted to sign a contract for any piece-work. Any member discovered acting in violation of this instruction will for the first offence be liable to be fined in any sum not exceeding £5 sterling, and for the second offence shall be liable to be expelled from this Society, forfeiting all claims upon its funds, or otherwise dealt with as the nature of the case deserves.

3. No member of the Society shall work more than one fire. Any member violating this instruction shall be fined £1 for the first offence, and for the second offence shall be liable to be expelled from the Society, or otherwise dealt with as the nature of the case deserves. Any members working piece-work in company must share out equally the money earned. No heating fire shall be used by any company of smiths, and no hammermen will be permitted to do heating work. Any member endeavouring directly or indirectly to injure any of his brethren, so as to reduce the value of their labour, or act in any way to injure the trade, he shall immediately be brought to account by the Branch, and be dealt with as the nature of the case deserves.

U.K. SOCIETY OF AMALGAMATED SMITHS AND STRIKERS. Rule 46.

1. It is not to the interests of this Society for members to look with favour on the piece-work system, neither is this rule to be considered as fostering the system in the slightest degree, but, on the contrary, the Society considers it to be a duty to check, as far as possible, the evils arising from the inequalities of the system whereby it becomes injurious to the members, and to prevent its introduction into any shop or district where it does not at present exist. It therefore becomes a duty for every member, as far as possible, to insist upon having a proper rate of wages guaranteed altogether apart from piece-work prices.

2. Any member asking for, or taking work by contract in any shop where piece-work does not previously exist, or any member taking work by contract and not sharing equally in proportion to his wages any surplus or balance earned over and above the weekly wages paid to members and other persons working on such job, on the same being proved to the satisfaction of the Branch, or District Committee, he shall be fined 10s. for the first offence, £1 for the second offence, and for the third offence be expelled from the Society, subject to the approval of the Executive Council.

3. Any Branch Committee (or in districts where there are two or more branches in close proximity to each other, District Committees) where piece-work is already established, shall be allowed to frame bye-laws to regulate their prices, and also to fix the amount members shall be allowed to earn over and above their rate of wages; such bye-laws, after having received the sanction of the Executive Council, shall render members eligible to Dispute Benefit under Rule 41; but in all cases of dispute each separate dispute must

receive the sanction of the Executive Council before members are entitled to receive Dispute Benefit.

4. Any member taking work by contract below the price fixed by the Branch or District Committees, thereby tending to bring about a reduction in the prices paid, shall be fined 10s. for the first offence, £1 for the second offence, and for the third offence shall be expelled from the Society, subject to the approval of the Executive Council.

5. Any member found to be using his influence to discharge, or cause to be discharged or suspended from his employment any man or men working on piece or contract jobs, who are in receipt of the ordinary rate of wages of the district, and substituting boy labour or cheaper labour in their places, for the purpose of making surpluses over and above the rate of wages of the district, shall be fined 10s. for the first offence, £1 for the second offence, and for the third offence shall be expelled from the Society. Branch Secretaries, where necessary, to supply the District Secretary with the facts of each case. Any member who is asked to accept a job on piece-work in the shop he is already employed in, at a reduced rate, without having received notice from the foreman of such reduction, shall be allowed to receive Dispute Benefit should he be discharged for refusing, provided he gives satisfactory reasons to his Branch Committee for such refusal.

FRIENDLY SOCIETY OF IRONFOUNDERS OF ENGLAND, IRELAND, AND WALES. Rule 35.

1. In the interests of the Society it is highly undesirable that our members should encourage any form of piece-work or bonus system; but where our members, with the consent of the Council, are working piece-work, they must strictly observe the following conditions.

2. Branches where piece-work or bonus system is done shall be allowed to frame bye-laws to protect their prices, which, when sanctioned by the Council, will be strictly binding on all the members working in the Branch.

3. Any member soliciting piece-work, or accepting same without the sanction of the Council, in any foundry where piece-work or bonus system did not previously exist, shall, upon the case being proved to the satisfaction of his Branch, be fined for the first offence the sum of 20s., for the second 40s., and for the third shall be expelled.

4. Any member accepting piece-work or bonus system below the usual price, or contrary to the Branch bye-laws, without sanction of the Council, shall be fined 20s. for the first offence, 40s. for the second, and for the third shall be expelled.

5. Any member taking piece-work or bonus system and not sharing equally with all the men engaged on the job any surplus of price, shall be fined 20s. for the first offence, 40s. for the second, and for the third shall be expelled.

6. All cases of dispute arising under this rule must be sanctioned by the Council before the members are entitled to Dispute Benefit.

ASSOCIATED IRONMOULDERS OF SCOTLAND. Rule 40.

1. No member or members shall be allowed, either directly or indirectly, to encourage the establishment of piece-work; but, where it has already been established, they shall, by every legitimate means, endeavour to have it abolished.

2. Any member employed by the day and ordered to go on by the piece, must oppose such order as far as lies in his power; should he require to leave his employment, or be discharged through this cause, he shall receive benefit if otherwise entitled.

3. Members commencing to work by the piece, and finding, after a fair trial, the price given will not enable them to earn an average day's pay, will receive benefit if leaving on this account, with the sanction of the shop and

Committee, should they be otherwise entitled ; and no member can commence afterwards to said job without the sanction of District Committee, who shall alone have the power to open or shut said job, or to grant or decline benefit in any case.

4. The members employed in piece-work shops shall draw up a code of bye-laws for the regulation of prices, a copy of which must be left with the secretary of the district for reference in cases of reduction in prices, or any dispute about the quantity of work done ; and any alteration in prices, either in the form of an advance or reduction, must be promptly reported to the secretary by shop delegate—who in turn will report to Central Office—under a penalty of 1s.

5. Members working by the piece and commencing on a new job, are strictly enjoined to have the price fixed within three days after commencing ; and, failing to obtain a satisfactory agreement within that time, will receive benefit on leaving if otherwise entitled to it. Any member out on a disputed job to have the first chance to return to the job.

6. Members are strictly enjoined to dispense with the employment of assistants altogether. No member of this Society to have more than one assistant or apprentice, and then only when absolutely necessary.

7. Apprentices are instructed to refuse or encourage any form of piece-work ; and in refusing to work any job by the piece he shall, if discharged, be entitled to receive benefit as per Apprentice Rule. No apprentice can take a job by piece which has been refused by a former apprentice, under a penalty of 5s.

AMALGAMATED SOCIETY OF COREMAKERS. Rule 54.

1. It is essential in the interest of our members in general that piece-work should be discouraged in any form whatever. But cases do arise where our members are compelled by force of circumstances to work under a system of piece-work. It is therefore necessary that the following Rules should be observed.

2. In branches where our members are working piece-work the Committee shall formulate a set of bye-laws to govern and protect the prices paid to our members, such bye-laws to be submitted to the Council, and when sanctioned by them they will be strictly binding on all our members working in the branch.

3. Any member asking for or taking work by piece or contract in any shop or foundry where such a system has not previously been in vogue (unless by sanction of the Council) shall, on the same being proved to the satisfaction of the Council, be fined a sum not exceeding 20s. for the first offence, 40s. for the second offence, and should the member again commit himself he will be excluded.

4. It shall be imperative on all members working piece-work that they shall be paid through the office of the firm, and that each member shall be guaranteed apart altogether from piece prices the minimum wage of the district. Violation of this Rule will subject the offending member to a fine not exceeding £1 at the discretion of the Branch Committee.

5. Any member found to be using his influence to obtain the discharge or suspension of any other member working piece-work with an idea of substituting boy or other cheap labour in his place so as to increase the surplus over the minimum rate of wage for the remainder, such member shall be fined £1 for the first offence, £2 for the second, and for the third expelled.

6. Should any member receive an intimation from his foreman or employer that it is their intention to place him on piece-work, he shall inform the Branch Secretary of the fact within 24 hours or be fined 5s. The Secretary to call the Committee together to consider the matter. They shall take such steps as they in their judgment consider best, first to prevent, if possible, the introduction of piece-work in any form, and failing to do so, they shall see that a fair price is fixed for the work to be done that will enable our members to earn

a fair wage without injury to themselves. The terms to be submitted to the Council for approval before being accepted.

7. Should any member commence work under any system of piece-work without first receiving the consent of the Council through his Branch he will incur a fine of 20s. and 5s. per day for every day he may work previous to the sanction of the Council being given.

8. Any member taking a job at a less price than has previously been paid, or taking a job and not sharing equally with all our members engaged on the same work, he will be fined 20s. for the first offence, 40s. for the second, and for the third offence he shall be expelled.

9. Should it be proved to the satisfaction of the Branch Committee that any member has directly or indirectly encouraged or solicited or induced any other member to solicit the introduction of piece-work of any kind, the said member will incur a penalty of 20s. for the first offence, 40s. for the second, and for the third he will be excluded.

10. Branch Committees are empowered to withdraw any member of the Branch under these Rules and grant them donation according to Rule.

ASSOCIATED IRON, STEEL, AND BRASS DRESSERS OF SCOTLAND. Rule 64.

No member of this Association shall have power to establish piece-work directly or indirectly, but shall, so far as may be in his power, endeavour to get it abolished. Any member violating this clause shall be expelled. But where piece-work is unfortunately established, members are at liberty to work in said shops, and they may also compete for the position of piece-master in said shops. But in no case can a piece-master become or remain a member of this Association while employed in the shop in which he has established piece-work.

GENERAL IRON FITTERS' ASSOCIATION. Rule 17, Section 2.

2. Any member being discharged through refusing to take a job below the price set on it by the men working in the same shop, or work below the established day wage of the district, or withdrawn by a decision of the Executive Council, shall be entitled to receive support.

Rule 18, Section 2.

2. A member or members knowingly taking a job at a lower rate than that fixed by the members working in the same shop, accepting, or offering to accept, piece-work which has been done on day's time without the consent of the Executive Council, or work at a rate under the established day's wage of that district, or working against the advice of the Executive Council, shall be fined any sum the Executive Council may determine, or be expelled from the Union.

UNITED SOCIETY OF BOILERMAKERS AND IRON AND STEEL SHIPBUILDERS. Rule 34.

When members are compelled to work piece-work, and it be proved to the satisfaction of the District Committee and approved of by the Executive Council that the employer or employers are reducing the prices below the usual and reasonable prices, they shall allow the members resisting the reduction the following: 12s. per week for eight weeks. They shall after signing the vacant books three consecutive days be entitled to commence donation on the fourth day. Any member or members leaving their employment under this section must inform the Executive Council, through their secretary, of the same within three days from the time of leaving, or lose the benefit for the time they neglect. All arrears must be deducted before any monies are paid to the members. Members discharged for refusing to submit to a reduction shall receive the benefit of this rule.

THE PAYMENT OF WAGES

SHEET IRON WORKERS' AND LIGHT PLATERS' SOCIETY. Rule 32.

1. No member shall either directly or indirectly encourage the establishment of piece-work, but where it has already been established they shall by every legitimate means endeavour to have it abolished.

2. Any member accepting a piece-work job at a price another member has refused to do it for, or in any other way trying to cut down the prices for piece-work, shall be brought before his Branch, and, if found guilty, shall be fined in a sum not exceeding 15s.

3. Members employed in a shop where piece-work is wrought, shall draw up a code of bye-laws for the regulation of prices, and a copy shall be forwarded to the Branch Secretary by the shop steward.

4. Members are enjoined to dispense altogether with the employment of boys as assistants.

SCOTTISH TINPLATE, BRAZIER, AND SHEET METAL WORKERS' SOCIETY. Rule 29.

That no member shall commence or resume the system of working by the piece on any job without first consulting the office-bearers, who shall bring the case before the Committee, and should any member be allowed to work by the piece and be required to work overtime or on the holidays, he shall charge time-and-half.

BIRMINGHAM OPERATIVE TINPLATE, SHEET METAL WORKERS, AND BRAZIER'S SOCIETY. Rule 27.

Any article introduced into any manufactory, not previously priced, shall be priced by a majority of members working in the shop, or by a committee of members, and no price shall be recognised except in accordance with this Rule. The shop steward shall enter the same in a book (kept by him for that purpose and provided by the Society), failing which he shall be liable to any fine not exceeding 5s. the Executive Committee shall deem fit. The members of the General Committee, working in their respective manufactories, shall see to the carrying out of the same, or be liable to the same penalties as shop stewards.

GALVANISED HOLLOW-WARE, SHEET METAL WORKERS, AND BRAZIER'S ASSOCIATION. Rule 27.

1. Any member of this Association having a new article to make shall, before commencing it, call his shopmates together in the same line of work, who shall put a fair price on the article in question, and it shall be the duty of the men to see that such prices, when they are obtained, are duly entered in the price book by the collector, who shall take charge of the same for the convenience of the men, and forward a copy of the particulars to the General Office for confirmation by the E.C. or otherwise.

2. Should the price agreed upon by the members in the shop be disputed by the employer or manager, no member shall be allowed to make the article *only under protest*, until the E.C. have had an opportunity of considering same and fixing a price. Their decision on such matters to be final.

3. Any member neglecting to call his shopmates together, as specified in this Rule, shall be fined 2s. 6d. for each offence, and any member not attending such meeting when called upon shall be fined 1s.

NATIONAL AMALGAMATED LOCK, LATCH, AND KEYMAKERS' TRADE SOCIETY. Rule 30.

Any member of this Society, pricing any work in question, shall call a committee of his shopmates in the same line of work, who shall put a fair price

on the work in question, and it shall be the duty of the shop secretary to see that such prices, when they are obtained, are duly entered in the price book, to be kept by him for the convenience of the men. Any member neglecting to call a committee, as specified in this Rule, if necessary, shall be brought before a Branch Committee for investigation, and if any member makes such new articles, and the price, put on it by the Committee, is disputed by the master or foreman, the member shall not make it or draw money upon such said work in dispute, but shall state the case before the officers of the Society, who shall be empowered to lend him money from the trade funds until such work in dispute is amicably settled, and as soon as he receives the money for the said work, he must refund it to the Society.

CHAIN MAKERS' AND STRIKERS' ASSOCIATION. Rule 22.

If a member is more than 6s. in arrears, or leaves the chain trade, or should he go to work in any factory or shop in the trade where this Association is inoperative, he shall cease to be a member, but he shall be allowed to re-enter the Association by obtaining the consent of the Executive Council, after returning to work in any factory or shop where this Association is in operation. Further, no member of this Association shall sign a contract or agreement to work for an employer any stipulated length of time that is contrary to the custom of the trade; neither shall he agree to work for any list of prices not recognised as the standard prices of the trade, without first getting the consent of the Executive Council. Any member doing so, or acting contrary to this Rule, will be expelled and forfeit all claims on this Association.

AMALGAMATED ANVIL AND VICE MAKERS' ASSOCIATION. Rule 28.

Any workman or workmen desirous of raising the question of prices for special work may bring their case before the Executive Council, through their delegates, who shall have power to decide in every case. In the event of a dispute between members and their employer, all members must have the sanction of the Executive Council before giving notice to leave their situations. Only those who have been on strike six clear working days shall receive strike pay. The Executive Council shall have power to make grants should they think the circumstances of sufficient importance to do so.

**NATIONAL UNION OF OPERATIVE HEATING AND DOMESTIC ENGINEERS.
Rule 18.**

1. No member shall be allowed to enter into any contract with his employer or any person to carry on work by the piece, nor shall he be a party to cultivate the system in any shop where the same has never existed. In the event of any member starting to work in a firm where the system has been carried on, and called upon to work by the piece, he shall be remunerated in accordance with the local conditions.

2. No member shall be permitted to take work at a lower rate than the prices previously acknowledged in the shop or job unless with the full knowledge and consent of the Branch.

3. The penalty for infringement of any of these sections shall be :

For the first offence, not to exceed £1.

For the second offence, not to exceed £5.

For third offence, suspension from all benefits for two years.

APPENDIX C

PIECE-WORK RULES AND AGREEMENTS IN THE WOOD- WORKING AND BUILDING TRADES

THE following are a few selected rules and agreements applying to the wood-working and building trades. The Societies in these trades are in almost all cases strongly opposed to all forms of payment by results, and it should be noted that, even where piece-work agreements exist, there are, as a rule, very few members working under the system, at least in organised districts. The vast majority of woodworking and building workers are time-workers.

WOODWORKING TRADES

AMALGAMATED SOCIETY OF CARPENTERS AND JOINERS. Rule 48, Clause 1.

It shall be competent for any M.C., D.C., B.C., or Branch at a special or quarterly meeting, to fine or expel any member from the Society upon satisfactory proof being given that such member has refused to comply with their decision, or by his conduct brought the Society into discredit, wilfully violated the recognised trade rules of the district in which he is working, or working on a co-partnership system, when such system makes provision for the operatives holding only a minority of the shares in the concern, taking a sub-contract or piece-work, or working for either of these classes of employers (sub-contractor or piece-worker being defined as a person taking the labour of a job only, and not supplying the material), or fixing, using, or finishing work which has been made under unfair conditions, either in the United Kingdom or abroad, or contrary to the recognised trade rules of the district in which it has been prepared, or has fraudulently received or misapplied the funds of the Society, or the moneys of any member or candidate entrusted to him for payment to the Society.

GENERAL UNION OF OPERATIVE CARPENTERS AND JOINERS. Rule 31.

Any member proved to the satisfaction of the E.C., District Committee, or Lodge to be working against the interests of the Society by working on the Premium Bonus System, or taking piece-work, or sub-contracting (sub-contracting and piece-work, being defined as taking the labour of a job and not supplying the material), or working for either class of employer, or fixing or using work which has been made under unfair conditions or contrary to the recognised trade rules of the district in which it has been made, may be fined or expelled as the E.C., District Committee, or Lodge may determine. Should any member be fined under this or any other Rule where no fine is fixed, such fine not to exceed £1.

NATIONAL AMALGAMATED FURNISHING TRADES' ASSOCIATION.
Rule 44 (Clause B).

A member knowingly taking a job at a lower price than that fixed by the members working in the same shop, accepting, or offering to accept piece or lump work in an established and exclusive day-work shop, or working under the established day wages of that town, or going to work in a shop where the men have been withdrawn by the advice of the Executive Committee, shall, on its being proved, be fined such sum not exceeding £2, or be expelled, as the members at the next meeting of his Branch shall decide, subject to an appeal to a summoned meeting of his Branch. If dissatisfied with the decision of the summoned meeting, he may appeal to the Executive Committee, but must give notice to the General Secretary within one week.

GLASGOW AND DISTRICT FURNITURE TRADES' FEDERATION

Conditions of Settlement I. Rules 1 and 2.

Conditions of Settlement mutually adjusted and agreed upon between the Scottish Furniture Manufacturers' Association and the United Furniture Trades' Association, January 1899, revised June 30, 1914.

1. *Piece-work.*—It shall be in the option of the employers to adopt the system of piece-work on repeat work or time-work as they prefer. It must be clearly understood that by repeat work is meant ordinary stock jobs or catalogue work, or patterns or designs commonly and repeatedly made in the workshop, or any new work after it has been made three times on day wages by the average man. The employer or his representatives, in conjunction with the workmen employed by him in the particular department of the workshop affected, shall mutually arrange the prices.

The Scottish Furniture Manufacturers' Association will not permit any of its members to impose any piece-work conditions which will not allow a workman of average efficiency to earn at least the wage at which he is rated.

It shall also be in the discretion of the employers and the workmen to arrange prices for repeat work upon which any alteration of a minor character may be made.

Employers will be held responsible for any inefficient work which may be done by any person other than the workman who has taken out the job by the piece, or for bad material or any time lost waiting for material, and shall pay the workman thus affected for all time lost, over and above the fixed price of the said job. The condition of the material must be at once intimated to the employer or his representatives. In the event of a piece job being required by the employer in less than the usual average time taken for such a job, and thus necessitating the employment of extra workmen on the said job, the employer will be held responsible for any extra cost resulting therefrom, thus ensuring that the workman who has taken out the job shall not lose thereby. Provided always that the employer, for the causes stated, or for any other cause, requiring to put additional men on the piece-work job, the value of the work done on said job shall then be assessed by the employer or his representatives and the workmen in the particular department, and the job shall then be completed on day wages. All fitting up to be done on day wages unless otherwise stipulated.

2. *Restriction.*—There shall be no restriction or undue pressure imposed on the time output of the workmen, nor shall the skill of any man be hampered in any way by either party.

THE PAYMENT OF WAGES

HIGH WYCOMBE AND DISTRICT FURNISHING TRADES' ASSOCIATION.
Working Rules 5 and 6.

5. *Piece-work*.—The price of piece-work jobs shall be adjusted upon the basis of the standard rates of wages paid to fully qualified journeymen mechanics.

6. Employers reserve to themselves the right to employ any employee on piece or day work in any department.

BIRMINGHAM FURNISHING TRADES' AGREEMENT. Clauses (3) and (4).

(3) In shops where the piece-work system obtains price lists to be advanced to make it possible for an average man to earn eightpence halfpenny (8½d.) per hour up to a limit of 10 per cent (10%) advance.

(4) In all shops an advance of 5 per cent (5%) shall be paid on existing price lists.

LONDON JOINT COMMITTEE OF COACHMAKERS, WHEELWRIGHTS, AND
MOTOR BUILDERS. Rule 6.

In all cases when employers seek to introduce piece-work conditions, where hitherto such conditions have not been established, members must at once report same, with conditions proposed, to the officers of their Union who shall report to this Committee, whose consent must be obtained before members be allowed to accept piece-work.

(a) In all cases day-work rates must be guaranteed, irrespective of piece-work prices.

(b) Piece-work shall be worked collectively, balances to be apportioned and paid to each individual by the office on time worked and wages paid.

UNITED KINGDOM SOCIETY OF COACHMAKERS. Rule 65.

Section 3.—Any pieceman not sharing balance with his workmen, according to their wages, shall be fined a sum not exceeding 20s. at the discretion of the Committee.

Section 4.—No pieceman shall employ any man under the standard wages of the pieceman's shop, which must not be less than the standard rate of wages of town, he shall produce his book when required by Town Committee, or be fined not exceeding 20s. All wages and balances to be paid through the office.

Section 6.—Bodymakers working piece-work shall claim the right to deface, or obliterate their cantboards after using, if they think fit, providing it is made in their own time and they have not been paid for it.

OTHER BUILDING TRADES

LIVERPOOL AND BIRKENHEAD OPERATIVE SHIP AND HOUSE, PAINTERS'
BENEFIT ASSOCIATION. Rule 22.

That no member of this Association shall be allowed to undertake any sub-contracts from any employers engaged in the trade (except masts and yards), to the exclusion of other members being employed in the usual way by the day, under a penalty of 20s. for each day he may be engaged on such sub-contract, or be expelled from the Association as the Committee may determine. Any member knowingly working with a sub-contractor shall be fined any sum not exceeding 20s., as the Committee may think fit to inflict.

APPENDIX

131

SOCIETY OF OPERATIVE STONEMASONS OF ENGLAND AND WALES.

Rule 12, Section 2.

Lodges harassed by piece-work or sub-contracting may apply at a reasonable time for a grant to abolish it. Where sub-contracting or piece-work is abolished, such is binding with the Society.

SCOTTISH ASSOCIATION PAVIORS' FEDERAL UNION. Rule 7.

No foreman or pavior can be a member of this Society who will make any engagement or private agreement with any corporation, company, or paving contractor, or take sub-contracts from them directly or indirectly, under no less a penalty than the members of the Branch to which he belongs may see proper to inflict.

APPENDIX D

"POOLING" AND COLLECTIVE PIECE-WORK

THE first of the following documents is a typical scheme, drawn up by the employers for a large engineering works and providing for the pooling of piece-work balances. It illustrates the working of a limited system of "pooling," in which the "pool" is confined to a particular trade.

The second document contains the piece-work provisions of the 1913 Agreement between the Unions in the Yorkshire dyeing trade and the Bradford Dyers' Association; while the third document is a specimen agreement for collective piece-work on a "squad" basis, taken from the dyeing trade of Yorkshire.

Both documents illustrate Chapter II.

I

POOLING OF PIECE-WORK BALANCES

Rules

1. That members shall pool all balances of piece-work, viz. : fitters with fitters, planers with planers, drillers with drillers, and turners and universal grinders will pool together in each department.

2. That one workman shall be appointed in each department, whose duty it shall be to control the pooling, and each week every man must produce his wage ticket, and state the number of hours he has worked in that week, to the man in charge of the pool.

3. No workman shall be entitled to pool until he has worked in the works four weeks.

4. That one workman shall be elected from each department of the works to form the Works Committee, and when formed they shall elect a Chairman and Secretary.

5. That each workman shall contribute one penny per month, the same to cover expenses incurred by the Works Committee.

6. That a GENERAL SHOPS MEETING shall be held every six months, at which the Committee and a Treasurer shall be elected, the same to hold office during the following six months. In the event of a vacancy taking place on the Committee, or in the Treasurership, the Committee shall have power to call an interim General Meeting to fill the vacancy, or appoint a workman to fill the position *pro tempore*.

7. That a Minute Book shall be obtained, in which shall be entered a correct record of the proceedings of each meeting.

8. That each workman is expected to possess a copy of these Rules, which will be supplied on the payment of one penny per copy.

9. That no worker shall be allowed to attend the shops meetings who is under 18 years of age.

10. Any workman having a grievance must inform the shop steward of his department, who will submit it to the Committee at their next meeting.

11. All Members not attending a shops meeting when notified of same, shall be fined the sum of sixpence unless a satisfactory reason can be given. Any Member violating these Rules shall be dealt with in the first instance by the WORKSHOP COMMITTEE, and in the event of the member still refusing to comply with these Rules, the Workshop Committee shall then remit the case, stating full particulars to the Branch or District Committee of the Society to which the workman belongs.

CLAUSES FROM THE AGREEMENT BETWEEN THE BRADFORD DYERS' ASSOCIATION, LTD., AND THE NATIONAL SOCIETY OF DYERS, THE AMALGAMATED SOCIETY OF DYERS, AND THE GAS WORKERS' AND GENERAL LABOURERS' UNION.

Collective Piece-work.

6. The Association may at any Branch introduce payment by piece-work rates. All piece-work shall be based on collective work and collective payment. By collective piece-work is meant work performed by sets or groups of employees.

7. The fixing of rates and the arrangement of sets shall be mutually agreed upon in writing by representatives of the Association and the Unions. Such rates shall be so fixed as to enable a full-rated man to earn not less than 7d. per hour. At any branch introducing piece-work, it shall be a condition of the introduction that every employee (including females) engaged on productive work shall be paid on a piece-work basis within one month from the commencement of the trial.

8. No rate or set shall be altered without the consent in writing of the Association and the Union or Unions to which the employees affected belong.

9. Trials of three calendar months' duration shall precede the final settlement of rates.

10. During the three months' trial the remuneration of those engaged on the trial shall not be less than the day rates payable under this agreement.

11. If after twelve calendar months from the establishment of the final rates for collective piece-work, the employees at any Branch so decide they shall have the right, upon giving three calendar months' notice in writing, to revert to payment of wages on hourly rates.

12. The rates of employees who on February 20, 1913, were engaged on piece-work shall as from that date be increased where necessary, so as to enable a full-rated man to earn not less than 7d. per hour.

13. In addition to the rates of payment fixed upon for piece-workers, each employee shall, when engaged on night turn, receive 1s. 6d. per night extra, but no other allowance.

14. There shall, as based on the census of January 1, 1913, be no material displacement of adult labour consequent on or due to the introduction of piece-work, but the Association shall have full liberty subject to Clauses 7 and 8, to transfer labour between its various branches, and in the meantime any displacement of labour shall so far as possible be that of boys, to help to meet which the engagement of boy labour shall be temporarily stopped. After the adjustment so provided the Association shall be entitled to reinstate boy and other labour on the same basis as hitherto.

15. From and after the 1st July 1913, no employee shall, unless by mutual agreement between the Union to which he belongs and the Association, be required to work after 12 noon on Saturdays, and an employee on night turn not, unless by mutual agreement between the Association and the Union to which he belongs, work more than five nights in any week, and he shall cease

THE PAYMENT OF WAGES

work not later than 6 A.M. each day, except where work on a continuous process is continued because the day employees are late.

16. Clause 15 shall not apply to cleaning up or to processes necessary to putting the goods into a condition of safety, *e.g.* drying, which may be carried on until 3 o'clock P.M. on Saturdays. Piece-workers shall be entitled to extra payment at the rate of 3½d. per hour after 6 P.M., and 12 noon on Saturdays.

17. The Association may at any time not less than one month after the commencement of a piece-work trial elect to demonstrate as to the sufficiency of any rate or rates to enable the men without excessive physical strain to earn not less than 7d. per hour. The demonstration shall be conducted by the workmen engaged on the machine to which the demonstration is to apply, and during such demonstration the employees shall work in the manner directed by the Association. If after such demonstration agreement is not arrived at in regard to the piece-work rate or rates, the matter shall be referred to the Reference Board as provided in Clause 18 of this Agreement.

18. If the Association fail to satisfy the representatives of the Union of the sufficiency of any rate or of the fairness of the conditions the question shall be referred to the Reference Board for decision, and if the Association fails to demonstrate that the rate is sufficient or that the conditions are fair (as the case may be), then the Association shall forthwith increase the rate or alter the conditions as the case may require.

MEMORANDUM OF ARRANGEMENT GOVERNING THE INTRODUCTION
OF COLLECTIVE PIECE-WORK AT A DYE WORKS

1. That all piece-work shall be based on collective work and collective payment.

2. By collective piece-work is meant payment for work performed by groups of employees.

3. The fixing of rates and the agreements of sets shall be mutually agreed upon by representatives of the firm and the workmen.

4. That no rate or set once agreed upon shall be altered without the consent in writing of both parties to the arrangement.

5. That it shall be a condition of the introduction of piece-work that every employee, including females, engaged on productive work shall be paid on a piece-work basis within three months from the date of commencement of the trial.

6. That no workman on piece-work shall, unless by mutual consent between the Union and the firm, be required to work after 12 noon on Saturdays, and that workmen employed on night turn shall not, unless by mutual agreement between the Union and the firm, work more than five nights in any week, and they shall cease work not later than 6 A.M. each day.

7. That an undertaking be required from the firm that they will guarantee that not less than day-rates are earned during the trial and until the settlement of the piece-rates.

8. That all existing extra payments and allowances for night work shall be abolished, and in lieu thereof, each worker commencing on a piece-work trial shall be paid 1s. 6d. per night extra.

9. That for all time worked after the usual stopping time, whether day or night, overtime rates shall be paid at the rate of an additional payment of 3½d. per hour.

10. *Broad and Narrow Work.* Narrow goods shall be regarded as goods under 40 inches, and broad goods shall be regarded as goods of 40 inches and over.

FACTORY AND WORKSHOP ACT : PARTICULARS OF PIECE-WORK

WET STENTERING POOLED WITH CALENDERING, BELT-STRETCHING, FOLDING,
MAKING-UP, AND WAREHOUSE

The duties of the employees in these sets are to keep all machinery clean and well oiled and the belts in good order, all duties in connection with the producing of the goods to be done in a satisfactory manner. The Department to be kept clean and orderly.

The Rates of Pay will be as follows :

Wet Stentering	3s. 10½d. per 100 pieces of 30 yards
Calendering and Belt-Stretching	9d. " " "
Folding	7d. " " "
Warehouse	5½d. " " "

The ordinary sets will consist of the following persons and their hour rates :

Men : 1 at 4½d. ; 4 at 4½d. ; 16 at 5d.

Boys : 1 at 2½d.

Women and Girls : 12 at 2½d. ; 6 at 2½d. ; 11 at 2½d. ; 5 at 1½d.

Production.—The production for the wet stentering will be taken from recorders, and for the calendering, folding, and warehouse, from pieces folded off folding machine.

The amount earned will be pooled and divided among the sets in proportion to their hour rates and the hours worked.

Any assistance required by the sets must be paid for by the sets.

A piece-work trial for eight weeks, in accordance with the above details, will commence on Wednesday December 18, 1912, and during this trial the firm guarantee that no one will draw less than their hour rate of wages.

APPENDIX E

THE PREMIUM BONUS SYSTEM

THE following four documents illustrate the working of the Premium Bonus System in this country. The first is a copy of a short explanatory leaflet circulated in an important works on the introduction of the scheme. The second is the Carlisle Memorandum, agreed upon by the Engineering Employers' Federation and the Amalgamated Society of Engineers in 1902, which is still the only national agreement regulating the system. The third document contains the rules for the working of the system drawn up by the Barrow-in-Furness engineers in 1909, while the fourth is a copy of the agreement under which disputes are now dealt with in Barrow, where the system is in almost general operation.

I

PREMIUM BONUS SYSTEM

This system has been introduced in America with great success as the only solution of the twofold problem to reduce cost of production concurrently with increasing the wage of the worker.

It is considered that in introducing this system at the Linotype Factory, Broadheath, it will do away with the abuses of the present Piece-work System, and be satisfactory to all concerned.

The principle on which it is worked is as follows :

A basis time will be established for every job in the shop, and this time will be so fixed that any man of average skill will be easily able to accomplish the job within it.

The time for the job once having been fixed will never be changed unless the job, or method of executing it, or the machine on which it is done, is changed.

When the job is done in less than this basis time, he will be paid for the time saved at half his time-rate.

It is quite clear that, if an average man can execute the job within the basis time when first starting the work, with practice he will soon be able to lessen that time considerably, and as the example below shows, his weekly wage can be very considerably increased. In any case, every man will receive his *time wage as a minimum*, and as it is intended to fix the *basis times* on a *liberal scale*, it is expected that it will be exceptional if any one working on a job on which the time has been fixed does not make a considerable premium. It will be to the firm's interest as well as to the man's interest that every man shall earn a premium ; for, as the time is reduced, the cost of the job to the firm is diminished ; and it is for this reason that a *basis time* can be fixed that shall *never be altered*, except under conditions mentioned in a previous paragraph.

Below is an example of how the System will work in practice :

Let us suppose the basis time for a job be fixed at one hour. Suppose a man to be employed at 36s. per week—roughly, his pay comes out at 8d. per hour. As the man becomes familiar with the work, supposing that he takes—instead of one hour—thirty-five minutes, he would be paid for thirty-five minutes at his time-rate, *i.e.* at 8d. per hour, and for twenty-five minutes (the time saved) at 4d. per hour. He would therefore receive for thirty-five minutes' work, pay at the rate of 10-855d. per hour. In a week occupied with this job, or a series of similar jobs, he would have raised his pay from 36s. per week to 48s. ; and, *as there is no limit to the increased pay that he may draw, there is no reason why (with increased experience in the work) his pay should not far exceed even this amount.*

In factories in America where this system has been introduced, it is by no means unusual for the men to draw premiums amounting to an increase of 60 per cent on their wages.

II

THE PREMIUM BONUS SYSTEM

MEMORANDUM OF DECISION in Central Conference between the EXECUTIVE of the ENGINEERING EMPLOYERS' FEDERATION and the EXECUTIVE COUNCIL of the AMALGAMATED SOCIETY OF ENGINEERS, held at Carlisle, August 19 and 20, 1902.

1. That the employers' representatives should convey the terms of the following memorandum to the members of the Federation ; and
2. That the representatives of the A.S.E. should, on the other hand, remove all restrictions to the working of a bonus system in federated workshops.

MEMORANDUM REFERRED TO

The employers' representatives have not the power to settle the conditions which should be observed in connection with the working of a bonus system, without having previously obtained authority from the Federation in proper form.

They are, however, prepared to advise all employers who wish to establish such a system in the meantime to adopt the following suggestions :

1. The time-rate of wages (for each job) should in all cases be paid.
2. Overtime and nightshifts to be paid on the same conditions as already prevail in each workshop.
3. A time limit, after it has been established, should only be changed if the method or means of manufacture are changed.
4. No firm should establish the bonus system without intending to adhere to it.

On behalf of the Engineering Employers' Federation,

(Signed) ALEX. SIEMENS—Chairman.

On behalf of the Amalgamated Society of Engineers,

(Signed) ALFRED SELICKES—Chairman.

GEORGE N. BARNES—Secretary.

August 20, 1902.

III

LOCAL RULES REGULATING THE PREMIUM BONUS SYSTEM

A.S.E., S.E.M., U.M.W.A., BARROW-IN-FURNESS, JANUARY 1909.

It has now been deemed advisable that some bye-laws should be drawn up for the guidance of members working under the Premium Bonus System

THE PAYMENT OF WAGES

in this district. The clauses contained in this memorandum are the accepted terms.

1. The time-rate of wages (for each job) should in all cases be paid.
2. Overtime and nightshift to be paid on the same conditions as already prevail in each workshop for time-work.
3. A time limit, after it has been established, should only be changed if the method or means of manufacture are changed.
4. No firm should establish the Bonus System without intending to adhere to it.

The only clause that has or is likely to be prolific of dispute is the third clause. It is open to abuse from employer and employee alike.

Recording Time.

We consider it absolutely necessary for all members to keep a record of the details and time given for each operation.

Each operation should be confined to its own merits on the time given.

Alteration of Time Basis.

1. Any alteration of time through alteration of method must in all cases be reported by members to their secretary, and transferred from him to joint secretary for reference.

2. No alteration in time can be considered just which does not increase or decrease in equitable proportion to the labour or time required for such operation in comparison with the original basis.

Transfer of Work.

1. In the event of work being transferred from one department to another, we consider it a duty incumbent on members of the joint Societies to supply all information to each other concerning the same.

2. This can reasonably be done without trespass in any way on employer's time.

General.

As the system is intended to confer benefits to employer and employed, there can be no reason for secrecy on either side, if the system is to be regarded as just and impartial.

The mere change of drawings or order number of any job does not warrant reduction in established basis, but should be conducted in conformity with clauses bearing on alterations in this circular.

Unless the conditions herein expressed are strictly complied with, and all changes made in harmony with established times, members will be held in future as acting against the principles guiding the joint Unions in the working of the system.

IV

BARROW JOINT ENGINEERING TRADES

PROCEDURE TO BE OBSERVED IN CONNECTION WITH THE ADJUSTMENT OF PREMIUM BONUS BASIS TIMES

Clause 1.—Where the job to be performed is the same as on previous occasions, and the means or method of production has not been changed, the basis time allowed shall be the recognised time for the job. Recognised times shall not be reduced unless the means or method of production has been changed.

Clause 2.—Where the work to be performed is not the same or where the means or method of production has been changed, or where the job is one which has not previously been performed on Premium Bonus System, or one where there is no recognised basis time for the job, the rate-fixer, having seen the job and taken out an estimate of the time to be occupied on the job, will, as soon as possible after the job has been given out, see the workman or workmen who are to perform the work, and give any explanations that may be desired regarding the time allowed. The intention is that the least possible time should be occupied in putting the workman in the position of knowing what his basis time is for the job he is undertaking. The firm agree to make the necessary arrangements to ensure this.

Clause 3.—Basis times for new jobs shall be fixed having regard to the capacity of a workman of average ability. It is recognised that in the case of a new job the workman may be unable to carry out the work as expeditiously as on repeat jobs. To meet this, the firm agree, on the first job, an allowance may be made to the workman should the necessities of the case require this. Such allowance shall be based on the average earnings of the workman concerned for the previous month.

Clause 4.—In the event of the workman taking exception to the time allowed, the rate-fixer shall endeavour to convince him of the sufficiency of the time. Should he not succeed, he shall refer the matter to the chief rate-fixer for his opinion, and thereafter again see the workman in accordance therewith.

Clause 5.—Failing settlement between the rate-fixers and the workman, the question shall be referred by the rate-fixer to the Appeals Section of the Rate-fixing Department. In order that the claim of the workman may be considered, a form will be supplied to the workman on which he shall state his claim, and hand the form to the representatives to be appointed under Clause 7 hereof, who shall thereafter submit the claim to the Appeals Section in accordance with this procedure. Meantime the job shall be proceeded with. Settlements regarding basis times shall be retrospective to the commencement of the job on which the question is raised, and shall be final and binding on all concerned.

Clause 6.—Complaints shall be dealt with by the Appeals Section in their order of priority.

Clause 7.—For the purpose of discussion of appeals lodged, two representatives shall be chosen from their own number by each trade in each main department of the works, who shall be authorised by the workman to confer with the Appeals Section of the Rate-fixing Department (composed of two officials of the firm) on questions affecting the trade and department they represent. For example, on a turning question in the Howitzer Department, two turners from that department would confer with the Appeals Section, and similarly in fitting questions two fitters would confer with the Appeals Section. The representative appointed in the terms of this Clause shall be given facilities, if desired, for examining cards and records relating to any question referred to them.

Clause 8.—The rate-fixer and the workman concerned may, if desired, be called upon to give evidence.

Clause 9.—Failing settlement being arrived at in the proceedings before the Appeals Section, the question may be referred, without further argument, to the Directors for decision.

Clause 10.—The foregoing procedure shall be followed in the case of claims for allowance over or above the basis time stated on the job card, and also in cases where in the execution of the job it is necessary to make further estimates of the work to be done.

Clause 11.—A portion of the job card containing the principal particulars relating to the job and the basis time shall be detachable and may be retained by the workman, if desired.

Clause 12. DETAILED PAY-LINES.—Pay-lines shall be given on which

THE PAYMENT OF WAGES

shall be inserted particulars of the total time worked, the bonus earned, and the allowances and deductions applicable to the pay to which the pay-line refers. A copy of the pay-line shall be given to each workman along with his pay, and shall be retained by him.

Workmen shall be paid on time check, but the firm on failure to return cards and after warning the workmen concerned, shall be entitled, pending return of the card, to withhold payment of wages due.

APPENDIX F

PRICE LISTS

I HAVE before me a number of typical piece-work price lists. Two short lists are reproduced in full as an indication of their general character. These are, first, a colliery list for Number 4 Seam at an important South Wales colliery, where most of the work is done piece-work, and secondly, a recent list from the boot and shoe industry "for lasting and finishing the British Army ankle boot." Short as these lists are, in comparison with the more complicated lists in many trades, they will serve to indicate the general character of piece-work "statements" agreed to between employers and Trade Unions. A list of a few of the other lists before me is appended with a view to giving some indication of the variety in existence.

I

SCHEDULE OF PRICES PAYABLE FOR DEAD AND OTHER WORK WHEN PROPERLY AND SATISFACTORILY PERFORMED IN THE WORKING OF NO. 4 SEAM, STANDARD 1915.

	<i>Description of Work.</i>	<i>Rate.</i>
		s. d.
CUTTING	Cutting Large Clean Coal	2 4 per ton
	<i>Note.</i> —The price paid for Large Coal covers the price of any small sent out in the trams with the Large Coal.	
BARRY OR NOTTINGHAM SYSTEM	When this system is adopted the payment is in respect of all work performed in shifting the partings and the roads in the face, standing all props and flats set in the face, and gobbing and walling in gob all rubbish made in the face where there is room for it in the gob, at . . .	0 3 per ton
	When the total thickness of the seam, including the rashes underneath the seam, is below from 5 ft. to 4 ft. 10 in., the Barry System is considered to become impracticable, and the Still System will have to be adopted, but only when the change in thickness takes place over considerable areas.	

THE PAYMENT OF WAGES

	<i>Description of Work.</i>	<i>Rate.</i> s. d.
THICKNESS CLAUSE.	The minimum thickness of coal in the seam is to be regarded as 4 ft. 6 in. An extra payment of $\frac{1}{4}$ d. per ton for every inch below this thickness is payable.	
CLOD.	In Barry work, clod above coal, and rashes under coal, to be added together and paid for at 0.36d. per ton per inch after the first six inches, which are to be included in the cutting price of the coal. In Stall work, the rashes will be cut in the roads and paid for as bottom. <i>Note.</i> —The first six inches of Top Clod on the road must be paid for as rippings; the remainder to be paid as arranged for in the Schedule.	
CLEANING COAL, ETC.	Cleaning the Coal and shifting and gobbing the stones in the coal up to three inches in thickness $\frac{1}{4}$ d. per ton; when they exceed three inches in thickness, the excess thickness to be paid for on the clod scale. <i>Note.</i> —The $\frac{1}{4}$ d. will be payable under any circumstances.	
CUTTING BOTTOM IN BARRY FACES	When it becomes necessary to cut bottom through the Barry Faces by reason of the thinness of the section, such bottom will become payable per yard forward, at	0 1 $\frac{1}{2}$ per inch
DOUBLE SHIFT IN BARRY ROAD AND STALLS. HEADINGS	On night coal, when instructed by the Management to do so Narrow, single turn Wide, through faces Main Level Headings Double turns in Headings Treble shifts in Headings Barry or Nottingham Roads Temporary Roads, unless exceeding 12 yards in length Temporary Roads, exceeding 12 yards in length to be paid for from the turning All Headings and Barry Roads to be 12 ft. wide.	0 3 per ton 7 1 per yard 4 11 " 4 11 " 2 7.5 " 5 3 " 1 9 " Nil 1 9 " 1 9 "
AIRWAY.	Airway Walling sides of Headings, for each side <i>Note.</i> —A deduction of one yard to be made for each cog.	3 0 " 0 4 " 3 0 "
TIMBER.	Timber 9 ft. Timber 6 $\frac{1}{2}$ ft. Flats Cogs Repairing Posts Props out (unbroken)	2 4 per pair 1 9 " 1 6 " 2 0 each 0 6 " 0 3 "

APPENDIX

143

	<i>Description of Work.</i>	<i>Rate.</i> s. d.
TIMBER—Cont. UNLOADING.	Props out (broken)	0 1.5 each
	Unloading and Walling Rubbish	0 6 per tram
	Filling Rubbish	0 6 "
	Shifting Rubbish	0 6 "
	Filling Water	0 6 per cask
WASTE.	When walled from bottom to top, keeping a clear space of from 3 to 4 ft. between coal and gob	0 9 per yard
	Turning Stall	6 0
	Rib adjoining boundary barrier, or when instructed by the Management, but no Rib to be paid for when Heading price is paid on road	1 6 "
	Ripping top or cutting bottom in headings, levels or Nottingham Road, 7 ft. wide, per inch per yard	0 2.5
	Ripping top or cutting bottom in stalls not less than 5 ft. wide, per inch per yard	0 2.2
	<i>Note.</i> —One flat to be paid for each side of a Barry Road, each shifting of face throughout, when necessary, otherwise two posts each side.	
	When special timbering becomes necessary in the face other than the ordinary flats and posts, such timbering work is to be paid for extra as per list, when set up, and lagged by specific direction of the Management.	
DAYWORK.	Daywork as per 9 ft. List. Customs and practices operating in 6 ft. and 9 ft. seams to apply to this seam.	

II

THE BOARD OF CONCILIATION AND ARBITRATION FOR THE BOOT AND SHOE TRADE OF NORTHAMPTON

STATEMENT FOR LASTING AND FINISHING THE BRITISH ARMY ANKLE BOOT agreed between the Northampton Boot Manufacturers' Association and the No. 1 Northampton Branch of the Boot Operatives' Union, December 2, 1916.

LASTING

	Per doz. prs.
Tacking-up backs, stiffeners properly prepared, one tack	2½d.
Ditto, two tacks	2½d.
Rex pull-over, without toe-puff	3½d.
Ditto, with toe-puff, operator to position puff	3½d.
Joining, after Rex, four places	3d.
Consol lasting, properly jointed, B.U. B-5	8½d.
Ditto, Reg. No. 2	8½d.
Rex pounding-up	3d.
Attaching through-middles, eight places	2½d.

THE PAYMENT OF WAGES

	Per doz. prs.
Cutting string and slipping off, hinge last	2d.
Ditto, block last	2½d.
Loose-nailing	3½d.
Sole attaching, eight tacks	2½d.
Ditto, with piece-sole	3½d.
Stitching, Model M.	3½d.
Ditto, Rapid	5d.
Screwing all round, as per sealed pattern, New Rapid	3d.
Ditto, other	3½d.
Levelling Machine, Hercules	1½d.

All bench work according to shop arrangement.

FINISHING

As to heels, when heel is attached—

	Per doz. prs.
Breasting and clearing, one operation (not less than 80 per cent must be cleared)	1½d.
Breasting only	½d.
Clearing only	1d.
Heel-trimming and randing	1½d.
Ditto, not randed	1½d.

Edge-trimming—

Starting from a minimum of 5½d. per dozen pairs, there shall be an advance of one halfpenny per dozen pairs, with the exception of those houses already paying 7½d. per dozen pairs, and upwards.

Rough and fine heel-scouring	4d.
Seat-wheeling	1½d.
Padding, heels to be coloured	1½d.
Edge-setting, colour own work	7d.
Ditto, not coloured	6d.

All other operations to be left to present shop arrangements.

GENERAL CONDITIONS

1. The Statement is for operatives 18 years of age and upwards.
2. It is decided that the Army Statement shall come into work December 11, and that Shop Statements for civilian work shall be fixed up in each factory to work along with the Army Statement, but as it is anticipated that all factories will not be ready for civilian Shop Statements by that date, workers are asked not to wait for same, as it is agreed that efforts shall be mutually made to fix up all Shop Statements for civilian trade by the end of the year. Any moneys earned above wages received on the basis of such Statement when fixed up, shall be paid from the full week commencing December 11. As, and when Statements are mutually agreed upon at the various factories, employees can commence working to same forthwith.
3. It is agreed that the Statements are to be worked to on the supplementary wage principle, viz. that all workers shall receive not less than their present wages for 52½ hours' work weekly, and all work done in excess of the agreed rates for wages received shall be paid for accordingly.
4. It is agreed that this is a weekly and not a daily Statement. Also, that a worker shall not be penalised for a break-down in machinery if he is kept in the factory.
5. That the War Bonus paid during this period is to be counted as an extra, and not as part of wages in calculating totals and earnings.

III

SOME TYPICAL PRICE LISTS

A. COTTON

The Oldham Spinners' List.
 The Bolton Spinners' List.
 The Blackburn List for Slubbing, Intermediate and Roving.
 The Universal List for Flat Cards (Card-room Operatives).
 The Universal List for Frames (Card-room Operatives).
 The Uniform List for Weaving.
 The Colne Coloured Goods List (Weavers).

B. OTHER TEXTILES

The Huddersfield Woollen Weavers' List.
 The Leicester Hose List.
 The Leicester Shirts, Pants, Dresses, Vests, and Trousers List.
 The Leicester Trimmers' Price List.
 The Nottingham Lace Trade Lists.
 The Macclesfield Silk Trade List.
 The Kidderminster Brussels Carpet List.
 The Leicester Elastic Web List.
 The Bradford and Halifax Slubbing Dyeing List.

C. BOOTS AND SHOES

Northampton Statement for Lasting and Finishing the British Army Ankle Boot.
 Kettering Men's M.S. Lasting Statement.
 Leicester No. 3 (Women's) Statement for Closing.
 Leicester No. 1 Piece-work Statement for Lasting Machines.
 London Uniform Statement.
 Northampton Clickers' Quantity Statement.
 Manchester Hand-sewn Boot Trade Statement.
 Amalgamated Union of Co-operative Employees' National Minimum Statement for Boot Repairers.

D. CLOTHING

London Time Log (Dress and Frock Coats).
 Blackburn Machine Log.
 Denton List of Prices for Fur and Wool Hats.

E. PRINTING

The London Scale of Prices for Compositors' Work (Book, Jobbing, Parliamentary, and News).
 Typographical Association Linotype Machine Rules.
 Typographical Association Monotype Keyboard Rules.
 London Minimum List of Prices for Piece-work Case-making (Bookbinders).

F. TRANSPORT

Coal Trimming and Bunkering Rates (all districts. Transport Workers' Federation.)
 London Timber Porters' List.
 Bristol Grain-Porters' List.
 London Stevedores' List (general cargoes).

THE PAYMENT OF WAGES

G. WOODWORKING

Burton-on-Trent Coopers' List.
Liverpool Coopers' List.

H. GLASS

Yorkshire Glass Bottle Makers' List.

I. MINING

Numerous Pit and Seams Lists from South Wales, Yorkshire, Derbyshire, etc.
Also Lists for Limestone Quarries, etc.

J. IRON AND STEEL

North of England Puddlers' List.
South Wales Tinplate Trade List.

K. SHIPBUILDING

Clyde Riveters' List.
Tyne and Wear Riveters' List.
Belfast Caulkers' List.
Hebburn (Messrs. Hawthorn, Leslie) Drillers' List.
North Shields (Edward Brothers) Hand Drillers' List.

L. MISCELLANEOUS METAL TRADES

South Staffordshire Wrought Nail Trade List.
South Staffordshire Nut and Bolt Trade List.
Chain-makers' Admiralty Chain List.
London Tin and Iron Ware, Baths, etc., List.

M. BRUSHMAKING

London Brushmakers' List.

N. BUILDING

Leicester Slaters' and Tilers' List.

Note.—A long list of piece-work statements and price lists in operation in 1910 is included in the Board of Trade Report on *Collective Agreements* published in that year (Cd. 5366).

APPENDIX G

THE GRADING OF LABOUR

We saw in the first chapter of this book that in certain cases an attempt is made to apply the principle of Labour "grading," *i.e.* to grade the various classes of workers in accordance with their varying degrees of skill. Such a system, we saw, prevails to a slight extent in certain branches of the furnishing trades. It has, however, been developed into a definite and comprehensive system, fully sanctioned by collective agreement, only in one case that has come to my notice. This case is that of the Birmingham brass trades; and it deserves separate exposition if only on account of the importance attached to it by some of those who have had experience of its working. I take the account of it *verbatim* from Mr. W. A. Dalley's *Life Story of W. J. Davis*, which is now out of print:¹

"The workmen are graded into seven classes, these classes being denoted by different coloured adhesive stamps affixed to their membership cards, viz. yellow, green, brown, blue, grey, red, and mauve. The issue of these cards is in the hands of the Executive of the men's Society, and each card must be provided with suitable space for the workman's number at his works and in his Society, and also for his name and signature.

It has been suggested, and indeed it is ultimately hoped, that the issue of the grade cards will, in the near future, be made the joint duty of the Society and the manager of the Municipal Brass Trades School. This, if it can be brought about, will obviously be a most desirable thing, not only for the men but also for the trade. It would link up, as it were, the Technical School with the workshop. Surely a much needed reform not only in the brass trade but in many others.

Set out on following pages are the particulars of the seven grades or classes, together with the qualifications for each grade. It will be seen that the lowest grade (yellow) is for improvers of 21 years of age, and carries with it a minimum wage of 5½d. and a fraction per hour, or 25s. per week. The next grade (green) requires a three years' qualification, and the minimum for this is 6½d., less a fraction, per hour, or 27s. per week. So the men go on from grade to grade, until they reach the 'blue' grade with its 35s. per week, or the 'grey' grade, the minimum of which is 37s. per week. But this is not all, for provision is made for experts, and also for first-class experts. The former, known as the 'red' grade, includes dressers, art bronzers, chasers, patternmakers, burnishers, makers-up, and stampers, and to them is secured a minimum wage of 8½d. per hour, or 39s. per week. The latter grade (mauve), which by the way is confined to polishers, lays down a minimum of 41s. per week.

¹ *The Life Story of W. J. Davis, J.P.* (Birmingham Printers, Ltd., 1914. 3s. 6d.).

QUALIFICATIONS

A.—Yellow.

Improvers of 21 years of age.

Minimum wage, 5½d. and a fraction per hour, or per week 25s.

B.—Green Grade.

21 years of age. Three years' qualification in the trade.

Dressers who turn over plain work and are used to tapping and plate screwing and can file-over at the vice.

Polishers.—Those who have worked at their trade three years and who emery-bob, rough, or mop common work, and finish barrelled work.

Dippers.—Ordinary dippers and bronzers.

Burnishers who burnish tubes and common work at the lathe or vice.

Chasers and repairers who have had three years' continuous experience in the branch.

Semi-skilled makers-up who bend tubes by the block, file and tie on, and braze common and medium class work.

Stampers who run their own forces and stamp ordinary shallow work.

Minimum wage, 6½d. less a fraction per hour, or per week 27s. 6d.

C.—Brown Grade.

21 years of age, with four years' qualification in the trade.

Dressers who turn, screw inside and out, and file flat and true at the vice.

Polishers.—Those who have worked at their trade five years, and who either emery-bob, rough, or mop and finish any common work.

Dippers.—All-round dippers and bronzers.

Burnishers.—Advanced burnishers used to hook and straight burnishing on the vice and shell work on the lathe.

Chasers and repairers who chase and repair better-class work.

Makers-up who bend, file, fit, and solder better-class work.

Stampers who run their own forces and stamp deep shell work.

Minimum wage, 6½d. and a fraction per hour, or per week 31s.

D (1).—Blue Grade.

21 years of age, with six years' qualification in the trade.

Dressers who turn, screw inside and out, plug and seat, file flat and square at the vice, and finish their own work throughout.

Polishers.—Those who are experts in grades above, and do *all* (not any) of the above processes in common work; those who do all the above processes in above grades, and emery-bob, and mop best work.

Dippers who qualify in the preceding grade, and also do art bronzing and colouring, or electro-plating, or have a knowledge of electro-plating and solutions.

Burnishers who are expert hook and straight burnishers at the vice, and satisfactorily burnish deep thin shell work at the lathe.

Chasers and repairers who properly chase and repair best work, and are experts at their trade.

Makers-up who have advanced knowledge and experience of all classes of the trade or branch in which they are employed.

Stampers who undertake all classes of deep or shallow work in all strengths of the metal used.

Minimum wage, 7½d. and a fraction per hour, or per week 35s.

D (2).—Grey.

Polishers only. Those who rough or finish best work.

Minimum wage, 8½d. less a fraction per hour, or per week 37s.

E (1).—Red Grade.

Dressers who have a complete expert knowledge and experience of all classes of lathe and vice work, or work to blue prints or drawings.

Art bronzers who have an expert knowledge of art bronzing or metal colouring, or electro depositing and solutions.

Chasers.

Patternmakers.

Burnishers who are experts in speed and quality in all classes of work.

Makers-up who make up best work throughout.

Stampers who are experts in all classes of work.

Minimum wage, 8½d. and a fraction per hour, or per week 39s.

E (2).—Mauve.

Polishers only.—First-class expert in all processes—in fact, a first-rate workman; or charge-hand, with duty of being responsible for all work, order, etc., in the shop.

Minimum wage, 9½d. less a fraction per hour, or per week 41s.

It has been seen in a previous chapter that the brass trades are most complex. Indeed, so complex that much difficulty was at first found in being able to enumerate the qualifications of every process or subdivision of the different branches of the industry. It is therefore to be understood that the qualifications set out above must, in some instances, serve only as a basis upon which the workman is graded. Provision in the scheme is therefore made for a workman's general usefulness as a member of the brass trade to receive consideration where and when such usefulness is served apart from his work as a specialist only.

The actual grading, as has already been pointed out, is done by the men's organisation. For this purpose a 'grading committee' of experts is annually appointed by the executive. Employers have the right to challenge the qualifications of the holder of any ticket, and require him to submit himself for examination by the managers of the Municipal Brass Trades School, in conjunction with a representative nominated by the Employers' Association, together with a representative nominated by the men's organisation. Should the decision be against the workman, it shall be at the discretion of the Society to put such workman down one grade; if, on the other hand, it be in favour of the workman, the employer shall pay a fee of 10s. to the Municipal Brass Trades School. In either event, however, the employer shall not be bound to reinstate the challenged workman.

The examination is conducted on practical lines, and includes the various processes in the workman's particular branch of the trade. The result of the challenge is, after the examination, endorsed on the workman's card, and, if three adverse decisions are endorsed, the workman automatically drops back one grade.

Any workman graded by the Society shall have the right to qualify for a higher grade, by submitting himself for examination by the before-mentioned authority, if required to do so by his employer. The same conditions prevail as in the case of an employer challenging the qualifications of a workman, and, should the decision be in favour of the workman, the 10s. fee is paid by the employer to the school. On the other hand, if the decision be adverse to the workman, the fee is paid by his Society, and the workman remains at least six months in the grade he was placed previous to the examination.

The grading committee has done its work well, and up to the present time employers have had to challenge the qualification of very few of their men. Truly an eloquent testimony to the care exercised in grading."

The question has often been raised whether it would be possible or desirable to extend this scheme to other trades. To Mr. W. J. Davis and his biographer, who was at one time Mr. Davis's Assistant Secretary in the National Society of Brassworkers, it stands for a new and important departure in methods of

wage-payment. "If there is anything in industrial organisation," says Mr. Dalley, "more hated by Mr. Davis than the strike, it is probably what is known as the 'standard rate' without regard to individual merit and capacity. To him such a system stifles ambition and stultifies incentive—and, moreover, is bound, sooner or later, to have a disastrous effect on the trade itself, as well as a demoralising effect on the worker."

The "grading system," then, is put forward as an alternative to the standard rate, and as a means of supplying incentive. In this it closely resembles the various systems of payment by results, to which also it may be regarded as a possible alternative.

Such grading by means of collective bargaining is, as we saw, quite a different thing from individual grading of each worker by the employer, such as prevails in weakly organised trades. It is more like the very frequent practice of paying workers an advance on the standard rate for special work, *e.g.* in the tool-room. As long as inequality of remuneration persists at all within a trade, or as long as skilled and unskilled workers are paid at different rates, there would seem to be no objection in principle to further grading, provided that the number of grades remains small, and that the actual grading is carried out by the Unions themselves and fully safeguarded by collective bargaining. It is, however, doubtful whether the system is capable of ready adaptation over wide areas or to complicated trades or industries, though it is quite possible that it may spread in small trades and in individual establishments. It may even, in conjunction with other principles, form an element in the method of fixing and adjusting remuneration in the future even in so complicated an industry as engineering. It would indeed, even in that case, be largely a regularisation and extension of a method which already prevails widely in an unregulated form in the case of special classes of work.

SELECTED BOOK-LIST

A. GENERAL

- COLE, G. D. H. *Workshop Organisation*.
 SCHLOSS, D. F. *Methods of Industrial Remuneration*.
 WEBB, S. AND B. *Industrial Democracy*.
 WEBB, S. *The Works Manager To-day*.
 ATKINSON, H. *A Rational Wages System*.
 ATKINSON, H. *Co-operative Production*.
 CADBURY, G. *Experiments in Industrial Organisation*.
 ASHLEY, W. J. *The Adjustment of Wages*.
 TAWNEY, R. H. *Minimum Rates in the Tailoring Industry*.
 BRASSEY AND CHAPMAN. *Work and Wages*.
The Engineer. The Premium System of Paying Wages.
 W. ROWAN THOMPSON. *The Rowan Premium Bonus System*.
 J. E. PROSSER. *Piece-rate, Premium, and Bonus*.
 F. W. LANCHESTER. *Industrial Engineering*.
 Trades Union Congress. *The Premium Bonus System : Report of an Inquiry*.
 Board of Trade. *Report on Standard Piece-Rates*. (Out of print.)
 Board of Trade. *Report on Collective Agreements*. Cd. 5366. 1910.
 Committee on Industry and Trade. *Report on Industrial Relations*. 1926.
 United States Bureau of Labour Statistics. *Regulation and Restriction of Output*.
 D. A. MCCABE. *The Standard Rate in American Trade Unions*.
 H. B. BUTLER. *Industrial Relations in the United States*. (Geneva, 1927.)
 United States Government. *Report of the Commission on Industrial Relations*. 1915. (Final Report.)

B. SCIENTIFIC MANAGEMENT AND INDUSTRIAL PSYCHOLOGY

- R. F. HOXIE. *Scientific Management and Labour*.
 F. W. TAYLOR. *The Principles of Scientific Management*.
 F. B. COPLEY. *Frederick W. Taylor*.
 C. B. THOMPSON. *Scientific Management*.
 H. B. DRURY. *Scientific Management*.
 HARRINGTON EMERSON. *Efficiency*.
 F. B. GILBRETH. *Motion Study*.
 F. B. GILBRETH. *Primer of Scientific Management*.
 F. B. GILBRETH. *Applied Motion Study*.
 H. L. GANTT. *Work, Wages and Profits*.
 M. AND A. M'KILLOP. *Efficiency Methods*.
 F. WATTS. *An Introduction to the Psychological Problems of Industry*.
 C. S. MYERS. *Mind and Work*.
 C. S. MYERS. *Industrial Psychology in Great Britain*.
 B. MUSCIO. *Lectures in Industrial Psychology*.
 P. S. FLORENCE. *Economics of Fatigue and Unrest*.
 H. M. VERNON. *Industrial Fatigue and Efficiency*.
 O. TEAD. *Instincts in Industry*.
 R. B. WOLF. *Modern Industry and the Individual*.
 S. A. LEWISOHN. *The New Leadership in Industry*.
 Reports of the Health of Munition Workers' Committee and the Industrial Fatigue Research Board.

INDEX

- " Abnormal place," 18, 87
 Agriculture, 10
 " Allowances " on efficiency systems, 65
 Anvil and Vice Makers' Association, 127
 Ashley, Sir W. J., 106
 Bad material, 86, 96
 Barnes, G. N., 48
 Blacksmithing, 11
 Blacksmiths, Associated, 23, 122
 Boilermakers, United Society, 12, 23, 34, 85, 99, 125
 Bookbinding trade, 94
 Boot and Shoe Operatives, National Union, 13, 83
 Boot and shoe trades, 13, 40, 41, 83, 96, 143
 Brassfounders, Bristol, 121
 Brassfounders, United Journeymen, 121
 Brassworkers, 12, 15
 Brassworkers, London Amalgamated, 121
 Building trades, 12
 Butty-man, 16, 32, 112
 " Ca' canny," 23, 109
 Carpenters and Joiners, Amalgamated Society, 23, 32, 128
 Carpenters and Joiners, General Union, 128
 Chain Makers' and Strikers' Association, 127
 Chapel. *See* Printers
 Checkweighman, 98
 Clerical work, 14
 Clothing trades, 13, 96
 Coachmakers, United Kingdom Society, 23, 130
 Coal Mines Minimum Wage Act, 87
 Coal-mining. *See* Mining
 Coal-trimming, 9, 40
 Collective bargaining, 5, 18, 40, 54, 67, 77, 85, 91 f., 98, 110, 132 ff.
 Collective bonus systems, 44
 Collective contract, 35, 100, 110
 Collective piece-work, 33, 87
 Commission Systems, ch. xii.
 Conciliation Boards, 84
 Co-operative and Commercial Employees, Amalgamated Union, 83
 Co-operative Union, 102
 Coppersmiths' Society, 23, 35, 121
 Coremakers, Amalgamated Society, 23, 124
 Coremaking, 11
 Cotton Control Board, 78
 Cotton industry, 13, 39, 81 ff., 88, 95, 112
 Cotton Spinners and Manufacturers, National Federation, 82
 County Average Systems, 84
 Coventry Joint Committee, 97
 Craftsmanship, 109
 Davis, W. J., 15, 147
 Defective machinery, 86, 96
 Differential piece-rate. *See* Efficiency Systems (Taylor)
 Distributive trades, 14, 102
 District Committees, 94, 97
 Dyeing industry (Yorkshire), 33, 132 ff.
 Efficiency Engineer, 72
 Efficiency Systems, 3, ch. vii.
 (Emerson), 61, 72
 (Gantt), 60, 73
 (Taylor), 44, 59, 67, 69, 73
 Electrical Trades Union, 23, 120
 Emerson. *See* Efficiency Systems
 Engineering, 11, 37, 39, 40, 45, 47, 94, 96, 97, 100, 112
 Engineering Agreements, National, 40, 47 ff., 54, 117 ff.
 Engineering Employers' Federation, 47
 Engineers, Amalgamated Society, 11, 23, 35, 47, 54, 92, 117, 118
 Equal pay for equal work, 2
 Expert, place of the, 71
 Experts, Trade Union, 99

- Fellowship piece-work, 34
 Foremen, 73, 77
 Foundry work, 10
 Furnishing trades, 3
 Furnishing Trades, National Amalgamated Association, 129
 Furnishing Trades' Federations, Local, 23, 129, 130

 Galvanised Hollow-Ware, etc., Association, 126
 Gantt. *See* Efficiency Systems
 Glass trades, 13
 Grading of labour, 3, 12, 15, 147 ff.
 Guaranteed time-rate, 38, 46, 73

 Heating Engineers' Society, 23, 127
 Helpers, 34
 Holders-up, 34

 Incremental scales, 2, 14, 103
 Individual bonus systems, 44, 47 ff.
 Individual piece-work, 36 ff.
Industrial Democracy (Webb), 8
 Industrial self-government, 70, 112, 114
 International price lists, 88
 Iron and steel industry, 10, 18, 40
 Iron, Steel, and Brass Dressers' Society, 23, 125
 Ironfitters, General Association, 125
 Ironfounders, Friendly Society, 11, 23, 123
 Ironmoulders of Scotland, Associated, 11, 123

 Job piece-work, 35
 Jobbing work, 74, 76

 L2 Circular, 89
 Labour, National Amalgamated Union of, 85
 Lock, Latch, and Keymakers, National Amalgamated Society, 126
 Lyons, Messrs., 104

 Machine Workers, United Association, 120
Man Power of the Nation, The, 73
 Management, 77
Methods of Industrial Remuneration (Schloss), 102
 Mileage bonuses, 9
 Miners' Federation, 10
 Mining, 10, 18, 40, 83, 87, 98, 112, 141
 Ministry of Munitions, 45
 Motion-study, 57, 63, 74, 77
 Moulding, 11

 Munitions trades, 39, 42, 89
 "Mutuality," 5, 39, 40, 89 ff.

 "Oncost," 18
 Output, ch. iii.
 Overhead charges. *See* Oncost

 Painters, Liverpool and Birkenhead, 130
 Patternmaking, 11
 Pavors, Scottish Federal Union, 131
 Payment by results, arguments for and against, 4, 15 ff., 108 ff.
 Piece-master, 16, 32, 112
 Piece-work rules of Trade Unions, 119 ff.
 Piece-work systems, ch. iv.
 Pooling agreements, 132 ff.
 Post Office, 14
 Pottery trades, 13
 Premium Bonus agreements, 11, 40, 47 ff., 54
 Premium Bonus (Barrow Agreement), 92, 137 ff.
 Premium Bonus (Carlisle Memorandum), 11, 58, 92, 137
 Premium Bonus Systems, 6, ch. v. and vi.
 Premium Bonus Systems (Halsey), 6, 49
 (Rowan), 50
 Price-cutting, 16, 25 ff.
 Price lists, 4, 39, ch. ix., 87, 98, 100, 141 ff.
 "Priestman-Atkinson System," xvii
 Printers' Chapel, 93, 94
 Printing trades, 12
 Profit-sharing, 6, ch. xiii.

 Railways, 9
 Rate-fixing Departments, 40, 98
Rational Wages System, A (Atkinson), 62
 Repetition work, 4, 74, 76, 90, 91, 109
 Restoration of Trade Union rules, 78
 Restriction of output, 21 ff.
 (by employers), 31
 Reward Systems. *See* Efficiency Systems
 Riveting, 34

 Salaried workers, 113
 Scientific Management, 55 ff., ch. viii.
 Semi-skilled and unskilled workers, 90, 91, 97, 108
 Sheet Iron Workers' Society, 126
 Sheet metal trades, 12, 40
 Shipbuilding, 12, 85, 94
 Shipwrights, 85
 Shipwrights' Society, 12

- Shop and Works Committees, 36, 40, 66, 91, ch. xi., 100
- Shop piece-work, 35
- Shop stewards, 94, 95, 96
- Skilled workers, 90, 97, 108
- Sliding scales, 106
- Smiths and Strikers, Amalgamated, 122
- Specialisation of works, 75
- Speeding-up, 29 ff.
- Spinning (cotton), 33, 82
- Squad piece-work, 35
- Standard time-rate, 2, 37, 77
- Standardisation of jobs, 75, 109, 112
- Steam Engine Makers' Society, 120
- Stonemasons, Operative Society, 23, 131
- Sub-contractor, 16, 32
- Sweated trades, 13, 41
- Task-work, 3
- Taylor. *See* Efficiency Systems
- Taxi-drivers, 9
- Textile trades, 13, 40, 81, 88. *See also* Cotton and Wool
- Time-study, 57, 63, 74, 77, 98
- Time-study expert, 40, 72
- Time-work shading into piece-work, 1
- Tinplate and Sheet Metal Workers' Society, Birmingham, 126
- Scottish, 126
- Tips, 9, 104
- Toolmakers, Amalgamated Society, 120
- Tool-room bonuses, 45
- Towards Industrial Democracy* (Paton and Gallacher), 35, 100, 110
- Trade Unions and Shop Stewards, 96
- Trades Union Congress, 49
- Transport, Land, 9, 40
- Tyne and Wear riveting list, 85
- Unemployment, 75, 78
- Upstanding salary scales, 103
- Waterside work, 9
- Weavers, Amalgamated Association, 81
- Weavers, Ashton, 96
- Weaving (cotton), 81
- Webb, Sidney, 48
- Whitley Councils, 107
- Women on Works Committees, 97
- Women Workers, National Federation, 97
- Women's trades, 41
- Woodworking, 12
- Wool Control Board, 78
- Woollen industry, 13, 41, 82, 88
- Works Committees. *See* Shop Committees
- Works Manager To-Day* (Webb), 98
- York Memorandum, 47