The next question is, "What system is most suited to the industry?" There are many systems in use these days, each of which has been developed to obviate certain evils that have put piecework, as practised years ago, into disrepute. The principal reason for the disrepute of piecework was the practice of rate-cutting, as is well known, and consequent sweat-shop conditions. Piecework can and is, however, worked quite successfully and fairly to-day under modern conditions, because the methods of rate-setting have become a matter of analytical investigation, not a matter based on previous records or past experience or judgment, which has so often proved to be at fault.

Rate-setting, however, is the difficulty that determines which system is most suitable. Rate-setting, done analytically, takes time, and where the operations vary and changes are many the rates cannot accurately be set before the job is started, and this is a most necessary condition in a payment-by-results system. Briefly, under piecework, if a rate is set inaccurately, either up or down, the worker receives more than he is entitled to or else less than he ought—both conditions being wrong and unsatisfactory. If rates are accurately set, with the usual provisions of the Act providing a guaranteed basic day-wage minimum, with the employer's guarantee that rates will not be cut, the employee is assured a fair deal and can earn according to his skill.

This rate-setting difficulty, which is a real one for all employers—and employers have come to realize that discontent in the factory costs them money—has led to the development of so-called premium or bonus system. Unfortunately, in New Zealand these systems appear to be little known, and therein lies an initial difficulty because the workers claim their wages are reduced, without having regard to the fact that they are getting the benefit of a system that is giving them a fair return for their labour.

The principle of premium or bonus systems is that a definite amount of work is assigned a definite time allowance. For every hour the worker can shorten this time a premium or bonus of 50 per cent. of that time at his hourly rate is paid additional to his regular pay. At this point, it might be added, there are many different systems of arranging the bonus payments—some increasing the percentage as the output increases, some with extra bonuses for extra high output, and so on. The difference between all such systems and piecework is that, whereas in piecework the wages cost per piece is the same to the employer, under premium or bonus the cost becomes gradually lower as the output increases, and the rate of earnings to the worker is not so high as under piecework.

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Now, here is the important point. Because of this factor—that the cost is going down and the workers earnings do not so quickly become excessive (by "excessive" is meant excessive on account of the rate being wrongly set)—the employer can set with more confidence his rates, do it quickly, and not be worried by reason of wrongly-set rates.

From every one's point of view, except perhaps the employer himself, it would appear that rates ought to be able to be set accurately; but from actual experience and years of analytical study of all the details it has been proved that neither workers know what they are capable of doing under corrected conditions, nor do employers realize the possibilities of their plant and men and the losses that are daily taken as part of the regular costs.

From the foregoing it is recommended that, whatever system is adopted, analytical rate-setting must first be taken in hand. This entails a detail study of all operations, reduced to elemental details in order to sift the necessary from the unnecessary operations at each stage of the processes. It may be found that once these elemental operations are correctly rated, and where conditions at each machine or point are brought up to a state of efficiency as to be considered right, the piecework systems would be favoured. Rates should not, however, be figured from the cost-books; they may be checked from such as a means of understanding their relative value, but rates should always be set from the operations themselves. Not only is this the only way the worker can measure his output, but it is the only way to get uniformity in rate of work. The development of the office organization to check and pay the bonus earned presents no difficulties, whatever system be adopted.

## APPENDIX D.

METHOD OF APPLICATION OF PAYMENT-BY-RESULTS SYSTEM.

By E. T. Spidy.

Further to my previous report on payment-by-results system: The installation of a payment-by-results system in any factory is a procedure that requires to be done very carefully and according to a definite programme of progress. For the benefit of those that have no experience to guide them in this connection and who contemplate installing such a system, the following steps are suggested as practical lines on which to work:—

1. Decide which system is to be installed—whether piecework or premium.

From my knowledge of the shoe industry in New Zealand, on account of its small orders, I am convinced the premium system is most adaptable. On the other hand, it is only fair to state that piecework, properly applied, can be made to meet the situation; and, additionally, there are established piecework rates in England that have been established by years of experience in their national agreements that are available to New Zealand manufacturers, and that country, being the competitive factor chiefly concerning New Zealand manufacturers, thus provides a valuable comparative set of rates in establishing piecework rates in New Zealand. Under the premium system all rates are in terms of time (so-many minutes per dozen pairs), and under the piecework system all rates are in terms