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BUSH TERMINAL BUILDING
130 WEST 42nd STREET, NEW YORK

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INDIRECT LABOR¹

Perhaps there is no other single item watched as carefully by a manufacturer as is labor. In many plants it is the largest single item; also in many cases it is the item least standardized. Its quality is not uniform, varying greatly from time to time and place to place, depending on the condition of the labor market; so that a day's work does not by any means represent the same thing at all times. Any means, therefore, by which a manufacturer can bring labor more fully under his administrative control is to be welcomed and tested for its merits.

Of all the labor control problems that a manager must face in his plant, perhaps that of adequate control of his indirect labor is the most perplexing. It appears from a general view of the situation as we find it in many manufacturing plants that one of the first things that is necessary is to get the problem out into the light where we can get a square look at it, and then to study its fundamentals with a view to discovering what we can of the general principles that may be applied. After that comes the specific, and not by any means always the easiest, part of the task, namely, that of applying these general principles to the actual complex of conditions that are to be found in the given case.

MEANING OF INDIRECT LABOR

Perhaps, however, we should attempt to define just what we mean by the terms direct labor and indirect labor. There are two bases for making the distinction between the terms. The first is what may be called the physical basis. That is, direct labor is that which is applied physically directly to the product itself either by hand or through the operation of a machine which is being used on the product. Indirect labor then becomes all that labor in a factory which is not physically applied directly to the product. This includes superintendents, foremen, clerical assistants, sweepers in productive departments, and all help of whatever sort in the auxiliary or service departments.

However, it is soon found that for cost purposes the above distinction is not wholly adequate, since there is much labor directly applied to the product, even in plants working on the order system, which, however, cannot be practically so charged. Instances of this sort are labor directly performed on several short or small

¹ This article is based on an address delivered before the Twin Cities Chapter of the National Association of Cost Accountants.

jobs, tasks requiring only a touch on each job on the part of the laborer, operations where the handling of the work is such that orders need not be identified as the work is performed. Here, though the labor may be physically direct, it becomes expedient to charge it indirectly. Hence there is the second basis for distinction between direct and indirect labor, namely, this: direct labor is that which is directly *charged* against specific lots or units of the product, while indirect labor is that which is not directly so charged. It will be perceived, therefore, that this is the only definition that is practicable for costing purposes since the other, important as it may be as a managerial distinction, cannot be expressed fully and practically in terms of costs. It remains to be stated, however, that the proportion of physically direct labor in any one plant that cannot be directly charged is probably usually small and of such a nature that its disposition will not be deeply hidden from view.

It is also understood that in this article we are dealing, unless mention is made to the contrary, only with indirect labor as carried on in connection with the productive functions of a business and excluding administrative and selling labor.

INDIRECT LABOR SHOULD NOT BE UNPRODUCTIVE

We can now make one other statement concerning terminology. Sometimes direct and indirect labor are called respectively productive and non-productive labor; and in the minds of some the latter term has come to mean unproductive. So far as this use of terms may have led to erroneous concepts, it is unfortunate. But if the statements made earlier are true, namely that the development of industrial technique has led to a larger proportion of indirect labor in industry, then it would appear that indirect labor is perhaps really not so unproductive after all. In fact the increased use of machinery and the new administrative tools of management have resulted in making the net productiveness of the labor force, direct and indirect together, greater than when the percentage of direct labor was higher than it is now. Many a concern has found its net productivity per laborer increased as a result of no other change than the addition of some more indirect labor in the form of store-keeper, a planning department, cost clerks, internal transportation help, and others that might be mentioned, thus facilitating the work of the direct laborers or leaving them free to apply all of their time to their immediate tasks and relieving them of such other tasks as keeping their own time, looking after their own tools, getting their own supplies, and the like.

It is interesting to note that as the technique of production has been developed through the last century, indirect labor has come to play an increasingly important part in manufacture. The simpler methods of production in the past consisted almost entirely of labor applied directly to the product, while as machinery has come to play a more predominant part in industry, more and more

of the former direct workers have been called upon to perform the various services that are necessary in order to facilitate the work of those who are directly employed upon the product. Furthermore, as a plant becomes more and more highly organized and specialization develops among its workers, the more necessary are the services of auxiliary departments for the maintenance of plant, handling of stores, accounting for time and production, inspection, and the like.

NORMAL RATIOS TEND TO DEVELOP

It is true, however, that in any particular plant in which routines and methods have been pretty well established, there is a tendency for normal proportions to be established between direct labor and indirect labor. This observed fact has led many manufacturers to place a great deal of emphasis on the maintenance of the ratio, any departure, especially in the way of increased indirect labor being regarded as unfavorable. But this significance should not be over emphasized as an indicator by itself. An increase in the proportion of indirect labor cost may be altogether favorable; especially is this true if in the case of direct labor working under a bonus system, the efficiency should be increased, when of course the added bonus would appear, under accounting methods used by most concerns, as an addition to the indirect labor cost. Then also as pointed out above any substantial improvement in processes or methods is likely to change the ratio by increasing indirect labor relatively. In other words, the fact that there is a change in the ratio of indirect labor to direct labor means very little if anything until the cause for that ratio be shown to determine whether the change is detrimental or beneficial.

On the other hand it is also true that under some conditions an increase in this ratio may represent a situation that should be remedied if possible. Particularly is this true when a plant is running below normal capacity. Direct labor is frequently the easiest to drop. Service departments have to be run anyway. Most of the clerical force and practically all of the supervision must be kept even under low capacity operation. All of this tends to increase the ratio of indirect labor to direct labor and it may in such cases become a fairly reliable index of inefficiency due to low capacity operation.

INDIRECT LABOR NEEDS CAREFUL SCRUTINY

There are several reasons, however, why indirect labor should be given special attention by the plant manager. In the first place it does not stand out alone in the final reports as a separate item but appears as a part of that complex composite known as burden. Even when it does have a place in the departmental expense and burden reports, the item for each department frequently so lacks the element of homogeneity as to impair greatly its use as an index of efficient control.

In the second place indirect labor is largely unstandardized.

That is to say in most cases there is no means of saying just what performance ought to be since often it is difficult to measure performance at all. An example of this is repair and maintenance labor working at odd jobs about the plant,—perhaps no two jobs alike or performed under like conditions.

Growing out of these circumstances of lack of standardization and complexity of treatment there has resulted a condition for which management is largely to blame, namely, that almost the only attention given to indirect labor in many shops is to the aggregate rather than to the types of service it performs. Consequently, many indirect departments are woefully inefficient, in spite of the fact that management is trying to “hold down the percentage.”

FORMS THAT INDIRECT LABOR MAY TAKE

Any service that the cost department can render in the control of indirect labor must be based upon the proper analysis of it and upon a recognition of the vast variety of different forms that it may take. Accepting the definition that indirect labor includes all labor that is not charged directly to individual units or lots of the product, we may include nearly all indirect labor in one of the following groups, some of which have already been incidentally mentioned.

There are two general forms of indirect labor charges. The first is where all the pay of the laborer for the given period is made an indirect labor charge, and the second is where the worker's pay for a given time is divided between direct and indirect costs.

Taking the first general class of indirect charges we have first foremen, time and dispatch clerks, sweepers, and other workers in manufacturing departments whose efforts are not applied directly to the product.

There is also labor applied directly to the product but applied in such a way as to make its direct charging impracticable, such as work on a series of small lots, or in departments where various lots or orders cannot profitably be distinguished as might happen in the dipping room of a paint shop where identity of orders makes little difference so long as the parts are dipped in the right tank. The same is true later while the goods are handled in the drying or baking ovens.

Then there is all labor in the various service or auxiliary departments of a plant, such as power, store room, planning department, general factory office and others.

In the case of plants using process systems all the labor is treated as indirect so far as concerns its manner of charging; that is to say, little attempt is made in analyzing departmental costs to distinguish between the different ways in which the labor is used.

Perhaps one of the most important of the indirect labor items to watch in many shops is that of idle time of laborers, direct and indirect. It is not always that work can be planned and expedited

in such a way that no workman will ever have to wait for something to do. Delayed tools or materials, breakdowns, lack of instructions, and many other things frequently cause longer or shorter delays during which workmen, through no fault of their own, have to be idle. If such items are at all considerable, it is evident that they should be charged to a departmental idle time account so that they can be properly watched and analyzed for the purpose of study and possible elimination.

Then there are the numerous cases where a part of the total wage paid direct workers becomes an indirect labor charge. This is generally the situation under various bonus and premium plans of wage payment where it is found expedient to charge the product at a standard rate for labor and to charge the premium to the departmental burden account on the theory that the effect of the bonus is to reduce the burden cost per unit of the product, and that therefore it is properly an offset against this reduction.

Similar to the above is a group bonus paid in cases where it is difficult or impracticable to calculate individual bonuses. Such bonuses frequently apply to the foreman also.

Another element of labor cost chargeable to burden under some circumstances is extra pay for overtime on the part of direct workers. Without attempting to treat this case exhaustively, it may be said that if the overtime work is caused by a general rush of orders and if it is only temporary, the extra overtime pay can properly become a burden charge, whereas if overtime is worked in order to put out a particular rush order, the total cost of direct labor applied can very properly be charged to that order. In any case the final decision as to treatment of the charge would require a consideration of how other burden charges involved are to be treated, but this subject is a little beyond the scope of the present article.

Frequently, it becomes necessary to charge to burden a part of the wages of a worker who has been transferred temporarily from one department or line of work to another in which the rate of pay is lower than that drawn by the worker so transferred. It is frequently a question as to where this differential charge is to be placed, whether in the department whence the help came, the one to which it was transferred, or to the general factory burden. We need not refer to all the possible cases that might arise each requiring its own peculiar solution, any further than to say that under those circumstances where it is simply a matter of keeping laborers employed during a slack period the charge should be made to general overhead. When the transfer is due to a temporary but urgent demand from the department using the help, the charge can well be made to that department's overhead directly, while if the transfer is necessitated by some disorganization in the department where the workers belong, it should itself bear all the burden cost that is occasioned.

Often also a situation arises where new workers who will eventually go on a piece rate are guaranteed a minimum day rate. In

those cases where the output of the worker is not sufficient at the piece rate to cover his guaranteed wage, it is customary to charge the difference to a burden account.

Other instances of indirect labor charges might easily be found, but these are sufficient to illustrate the varied phases of the problem and to indicate how inadequate must be the attempt to control indirect labor as if it were a homogeneous whole.

CONTROL PARAMOUNT TO MERE COSTING

It must be clear by this time that the major problem of the plant manager, so far as his indirect labor is concerned, is that of its adequate control. This problem is paramount to that of mere costing. In fact it is the writer's opinion that if a good control system is established in the plant, reasonably correct unit costs will follow as a natural result, while a system that merely gives unit costs as its primary object does not necessarily provide an adequate means of managerial control.

We are thus confronted with the whole problem of standards of performance and records by means of which to check that performance.

As mentioned before, indirect labor does not readily lend itself to standardization of its performance. It is difficult to express it in terms of output. Examples of this difficulty are manifold. What definite unit standards of output can be assigned to the maintenance department, or to the stores department as to some of the clerical help, or to many foremen? It is next to impossible so far as individuals are concerned, and more particularly is this true in the small plant where division of labor and the consequent standardization of activities usually cannot be carried so far as they may be in the larger plants.

However, if individual standards cannot be set, sometimes group standards may be. The bases of these group standards may be either scientific, that is built on engineering calculations and time studies, or they may be experimental, that is, they may develop out of the general experience in the plant as indicated by its records compared from time to time. The latter are about the only means of building up standards of indirect expense at the command of the average plant.

FUNCTIONAL CLASSIFICATION DESIRABLE

But any setting of group standards will necessitate the proper sort of grouping or departmentalization. Such grouping, therefore, should be done with the principle in mind of throwing together all sets of homogeneous or like activities and of not combining unlike activities. For instance, in a plant large enough to have several individuals occupied with the internal transportation, this forms a distinct type of activity which for the purpose of adequate control cannot well be split up and put under the several departmental foremen and be made a departmental cost, but which should

be controlled and costed as a group, proper distribution being made to operating departments so far as possible on the basis of service rendered. Other instances are inspection and clerical work such as that of time clerks. While the work may have to be carried out in the operating departments and immediately, in some instances, under the supervision of the departmental foremen, the manner in which the work is done, the forms that are used and the disposition of the records that they construct should be controlled by one department of the factory office, under the comptroller if there is one, and the work should be costed separately to indicate just what this performance means to the management in the way of expense. Unless activities of a similar nature are thus grouped it must be evident that there can be adequate control of certain functions in the plant only with great difficulty. So far as possible departmentalization and costing should conform to the activities within the plant.

The illustrations indicate an attempt at what is generally known as functional classification of activities within the plant and the consequent attempt at a functional classification of accounts. A word of caution, however, is necessary, at this point. Not all plants are large enough to permit of this clear cut classification of activities and consequently various adjustments must be made to keep operating and accounting systems as simple as possible. But in attempting this adaptation in the interests of simplicity at least one general principle ought to be kept in mind—every individual who has the administration of indirect labor under his control should be held fully responsible for its effective use and the records of the plant should show clearly just how well he meets that responsibility. This means that the classification of indirect labor accounts may have to be based upon the responsible supervision under which indirect laborers work rather than purely on the nature of the activities of the indirect laborers. However, there should always be an attempt to so organize the labor force that there will be a proper control of the labor and an adequate and sensible record of its performance.

Another caution might well be mentioned at this point. It often happens that an accountant or industrial engineer in installing a system for a plant keeps in mind more clearly established accounting and organization principles than he does the specific problems of the manufacturer whom he is supposed to serve. This is one of the factors that has resulted in very short life for many otherwise very good systems. They were perfect in isolation but useless in application; in fact many have proved an actual hindrance to efficiency. The point is that in accounting for indirect labor as well as for other burden costs, the classification and procedure should be made to conform to the situation actually prevailing in the plant.

The chart on page 10 is intended merely to suggest a possible means of analyzing, in a functional way, the labor actually

*SUGGESTED TABULAR ANALYSIS FOR
CONTROL OF FACTORY LABOR*

	SERVICE DEPARTMENTS						OPERATING DEPT'S			TOTAL
	Stores	Power	Tool Crb	Paint	Inspection	Factory Office	Dept. A	Dept. B	Dept. C	
<i>Foremen and Assistants</i>										
<i>Time and Dispatch Clerks</i>										
<i>Genl. Deptl. Indirect Labor</i>										
<i>Cleaners, Sweepers, etc.</i>										
<i>Internal Transport</i>										
<i>Inspection</i>										
<i>Idle Time</i>										
<i>Direct Labor Bonus</i>										
<i>Total Indirect Labor</i>										
<i>Direct Labor</i>										
<i>Total Labor</i>										

applied in the several operating and service departments. The totals obtained in the extreme right hand column are usually not necessary for purposes of burden distribution of costing but they may serve a very useful purpose in indicating the labor cost of the several functions in a plant. It is evident that it can readily be modified or expanded to meet the needs of any concern to which it applies at all. Also, it may be pointed out, supplies used can be analyzed in the same way if found expedient.

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