

gineering departments. I cannot help but feel that if we should expect of a planning department all that is contained in this paper, then we have very few planning departments.

A case in question is an industry in close proximity to Syracuse where two of the most prominent industrial engineering firms in America installed a production and cost control system; and the statistical division is under the auditor, while the design of equipment, standardizations of tools, etc., is under the engineering department.

I believe that I am throwing the light on the true state of affairs when I say that if you sent out a questionnaire to all those responsible for the operation of industries (I mean those thoroughly trained in scientific management), and asked them to define what a planning department should consist of, 90 per cent of them would tie it up with the ordinarily accepted duties of scheduling, dispatching, timekeeping, storeskeeping, time study, and the balance of those duties that are absolutely necessary for scheduling and routing production through a plant.

I am sure that if we questioned further we should find that these questionnaires would prove that the cost records, statistical department, and payroll analysis, would be lodged in the accounting division, and that preparing designs, specifications and bills of materials, and standardizing machines and tools, would be in the engineering department.

If this is true does it mean that this presentation of a planning department is wrong? It does not. It does prove, however, that if this is the true planning department then it is a much more complete and active controller of all routine and standardized procedure than has heretofore been recognized.

On the other hand if the generally accepted idea of a planning department is correct, then this planning department described by Mr. Hall represents some larger unit and should we be wrong in naming it the department of industrial engineering or of scientific management. I do not wish to be misunderstood, therefore I reiterate, I do not contend that Mr. Hall is wrong, I merely ask that if he is right isn't it high time we accepted it as a fact. Perhaps you will say, "We do accept it" and I'll then say to you, "Name me the industrial engineers in this country who have taught this creed." "By their works ye shall know them" is no idle saying.

If we are to discuss the planning department as an instrument of executive control, would it not be well to discuss it on a common ground, and if that common

ground is the one given, as in this paper, there are few of us who can speak with authority born of actual experience such as Hr. Hall has had.

We have been told what a planning department of this type will do, and to refute the facts is not to deny their existence, as this is a planning department in actual operation.

Suppose we should ask, "What is there that a planning department will not do." Well, at the outset I believe it is well to state that *under no circumstances is a planning department a substitute for executive ability.* At times it seems as if we were placing too much faith in organization and these highly centralized units; necessary though they be, they have tended to mitigate individual creative ability. This is not as it should be, but nevertheless it is a fact.

In talking with the general manager of a large plant where an engineering organization has recently installed the Taylor system of organized production and cost control, he said; "Why, it is appalling the way everybody seems to think that this system will run itself. At least once a week I have to get all the executives together and tell them that the system is useless without real executive ability, and that it isn't an automatic control." Who is to blame for this condition? I say that the engineers who made the installation are to blame. Too long have we heaped the blame for the wrong attitude on the management. Surely the system cannot be blamed for it is a lifeless thing without the cooperation of the persons who make it. We realize that many are called but few chosen. We have had too much grafting on of so-called scientific management, and not enough of building up. We recognize the fact that the principles are always the same but their application is a different process in most every case.

Does the sales department sell what the factory produces or does the factory produce what the sales department sells? This policy alone will often decide the fate of the planning division.

Does the industry manufacture a standard product such as a typewriter, or does it produce thousands of items each greatly different from the other? Do they manufacture for stock or for customer's order? Are the parts interchangeable or are they all special? Is the unit complete when first assembled or does it have to be completely assembled, tested, torn down, shipped and re-assembled at a distant point, such as the problem we find in the building of a Diesel Engine?

Do we want a job cost, a process operation cost, or an average complete cost? What kind of labor do we

have; of high intelligence, average intelligence or low intelligence? Are we dealing with organized labor or unorganized labor?

Perhaps you say, "What difference does it make?" Well, it makes all the difference in the world, for it doesn't make any difference how much the captain on the bridge understands his job, if the engineer in the hole doesn't know his signals they are useless.

Often we have seen what appeared to be a very efficient executive control completely fail because those in charge didn't know what it was all about. How many times have we heard an engineer remark that management is woefully inefficient and unable to appreciate scientific management. If that is true the engineers are to blame, for though many of them are capable technicians, they are mighty poor salesmen. *The control will merely be efficient in direct proportion to what the executives expect it will produce and how well they operate it.*

I am glad that this paper emphasized the fact that industry cannot close its eyes to its social obligations. If systems fail it may be due to the fact that we have paid little or no attention to the personnel that manage them.

Every man is a victim of some fear, and in the case of the shop worker it is the fear that he will lose his job. Next to his wife and kiddies the great hope is that he will be steadily employed. If industry would think less of bonus systems, profit sharing systems and such like, and more about steady, and uninterrupted employment for its employees, we would have less so-called labor trouble. I care not what your system is for rewarding your workers, if they are steadily employed throughout the year about 90 per cent of your much-talked-of labor trouble will disappear. This is the most vital thing in industry, and if for no other reason than this, scientific management should have long ago found its place in industry.

This paper raises the question of the planning department's authority, and its author answers by saying that the question of authority should never be a matter of controversy; but the fact remains that we suffer more from this one thing than anything in industry. Men high up still cling to the old idea that they should have a finger in everybody's pie, and if a group of executives in any industry do have this viewpoint, and think that everytime one of their duties is transferred where it may be done more efficiently because of the better functioning of all the factors that someone is stealing their job, your planning department may just

as well be scrapped, for it is doomed to death. Talk about shop men being afraid to teach anybody anything! We can start a good deal closer home and find the same condition. Before you expect any executive control to function you must not only make sure that all the executives understand it as you understand it, but you must make sure they believe in it, are willing to work for it and with it, as you do. If you fail to obtain this viewpoint, spend your good time figuring out how many times your employees have to stop to blow their noses and compute the time lost thereby, for it will mean just as much as a planning division operating in an industry that is befogged with tradition.

To me the outstanding point in this paper is the one brought out so clearly at the end; that engineers cannot remain aloof from actual participation in industrial activities. We do need some consultants who will come to us when the patient is either dying, needs resuscitation, or just a consultation at his bedside; but we need many more general practitioners who are with the patient all of the time. Far better for us to forget we are anything, roll up our sleeves and go into industry willing to do anything until we can build a proper foundation for the scientific control, than to walk in tomorrow morning with a Heaven-be-praised attitude, a few dozen copies of shop management, and think we are going to get anywhere. It has failed in the past, it is failing now, and it will fail in the future.

Industry as a whole, and of course this particularly applies to scientific planning control, is suffering from too much installation and not enough operation; too much polticing and not enough surgery; too much of what I call spiritual cocaine.

The great danger now is that this thing we call scientific management will be looked upon as a cure-all, a sort of spring tonic for a business emerging from a long winter. If we allow industry to go at this ideal in any such half-baked manner as a portion of it grabbed industrial democracy, profit sharing, welfare work and an industrial relation policy, we had better bury it right now and leave the patient to die a natural death rather than to commit scientific suicide.

What we must realize is that after all what business needs more than anything else is religion; a policy of live and let live instead of, "He hit me first." Until we thoroughly imbue our organization with the idea that each is aiding the other in making his job not only more desirable but more efficient, we had better go easy, for business is literally covered with the wrecks of so-called scientific control systems installed by individuals who,