

We give them information of the peak load periods, because we may not have to tune up to meet the peak load if it can be foreseen and properly planned. An instance is found in the manufacture of flashlight batteries. A battery itself is of comparatively short life after it is assembled. But you can make components the year around and store them, and then it becomes a question of balancing the investment in machinery against the investment in inventory to find out how far you need to equip.

We notify them of probable expansion of demand because on their shoulders rests the expansion of any of the shops. We notify them, of course, of the market reactions toward the product. In other words, we play very closely with them. We try to be eyes and ears and legs for them because we get out in contact with the public and with the dealers and they rarely do. We can perform for them a very important service.

We have had a great deal of advertising. One result of that is that we are flooded with suggestions of products that we ought to make, coming from other concerns and a host of inventors; and the sales engineers—I should almost like to say unfortunately—digest that material and pass upon it,—and usually reject it.

The sales engineers and the manufacturing organization do not come quite so closely in contact because the manufacturing engineers really do all the preparation work and all the planning for the factory, and any changes that may come about will usually come about through the manufacturing engineers and not through the manufacturing organization. But we do give to the manufacturing organization copies of all reports which can be of interest or instruction to them. We search sometimes for outside sources of manufacturing information, and we are particularly lenient in making approval of changes in designs or processes which will help to overcome manufacturing difficulties. And that is where we have one of the prettiest jobs of coordination, because the sales production crew say, "The thing must absolutely be thus and so." The manufacturing engineers think sometimes that they can make it "thus and so." But when it comes down to a matter of taking it out of the laboratory and putting it into the shops, something comes up which prevents its being made precisely as was planned.

We frequently have to hold a joint conference with the manufacturing executives and the sales executives

and hold a sort of League of Nations affair while we try to modify the opinions of both until we have arrived at a working program; in the process of time this is becoming a very easy thing to do, and some of the time now both organizations are leaving decisions to our discretion. We have the final approval on products, but we try to carry through that same spirit of cooperation in satisfying both parties.

We give them, of course, the specific reports on marking of products. If any of you ever engage in manufacture such as ours, and have a conception of how pretty it is to have everything etched, and you find out how long it takes and how many tribulations there are, you will be apt to agree that the study of the marking, whether the thing shall be etched or stamped, is a matter of major moment to the factory and of not such great moment to the sales end as at first it seems. There is a lot of coordination to be done there.

We have a very little contact with purchasing. We occasionally do some field work for them to find out where certain vendors of components can be found. We occasionally try to find out where a competitor is getting raw materials. That is only because a flexible field staff has been established in our organization and most of these organizations do not have one.

We have contact with general scheduling. General scheduling makes possible the coordination of all parts in any project. We particularly give them advice on priority of projects. We have some very large charts that cover a good deal of space on the wall. They are the schedules which show every needed operation and the proper sequence of engineering and production and which set up when production shall begin and be completed on various items of each line, and show the accumulative curve of production; and this goes to every part of the organization and if necessary, executive pressure is brought to bear to see that this schedule is maintained, or that very definite reasons are given why the schedule should be broken and a new schedule established.

We also undertake to give everyone concerned certain charts which show the peak load upon any line that we make. That has to be studied more than you would think. We divide our dealers into four classes; towns under 5,000; 5,000 to 15,000; 15,000 to 50,000; and over 50,000. You might say: "Why this close probing?" I happen to have here our schedule on paring knives. In the larger stores in a city

the paring knife peak is not particularly high and the load is fairly well distributed. But when you get down to the town under 5,000 you have a peak very sharp and high and not very wide, because in the country towns they do a vast amount of canning and it comes right in the Fall of the year. Paring knives sell like hot cakes at that particular time. They don't sell hardly at all during the Winter months. So you can see that after all there is some real technique in this job of being a coordinator.

Now, I shall close because I am over-running my time a little. I think I have given you enough to think about, but I will just summarize a bit what I have been over.

In the first place, we instituted sales engineering because in our thinking there was a precise parallel between sales and production in the need of setting engineering up as a separate organization, as manufacturing engineers are set up. We therefore separate sales into sales engineering and sales production. We undertake to employ men or assign personnel to these tasks based upon some study of their psychological and temperamental makeup.

I want to point out that there is an essential difference between sales planning from the viewpoint of sales interest and sales training alone, and from the viewpoint of training and interest in sales, production and finance. Our experience has shown us this; that the men who come out from the field of straight sales work rarely make good sales engineers. Some of the men who have developed best as sales engineers have come straight out from factory work; men who have been desirous of getting over into sales work and have been doing some studying and some reading, or, in other words, have trained themselves somewhat but have not had the sales experience; because we find that the knowledge and the contact with the factory is peculiarly vital and that the salesman is very, very slow in accumulating any experience that helps him to establish those contacts.

The results of our setting up a sales engineering organization are briefly these: That we have, as I say, in a comparatively short space of time introduced several major lines of products and are undertaking to do in three or four years what most of our competitors have spent from one to three or four generations in doing. We have no traditions, no precedents, no alliances to tie us down; and that has helped us to work into the problems of standardization as few have ever attempted; and the other people are

following in our footsteps. We have these lines and products, a good many of them, well into production now, and with two exceptions we have not had occasion to reject a single one of the things determined upon in the beginning, showing how careful and how thorough has been our work.

And we have succeeded in building up a bridge between sales and factory in an organization fifty years or more old, where the factory prior to the advent to these new products was the dominant power in establishing policies because the product was of such a nature and the sales end had been so long and so thoroughly established, that there was almost no new sales planning necessary.

Therefore, policies came from the factory representing the factory thinking and due to the comparatively narrow limitations of the field and a very remarkable good will that had been built up, this course was eminently successful. It would not apply in any factory newly organized, and to all intents and purposes all of our work on new products is a setting up of absolutely new factories.

I trust that I have given you something to think about, and I have tried to give you something concrete rather than general because I think you can have a lot of fun trying to pick our program to pieces this afternoon.

III. CONTROL OF SELLING OPERATIONS BASED ON ANALYSIS OF THE SALESMAN'S JOB

BY

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IT sometimes seems to me that if a man could detach himself from his business, especially the man in charge of the sales end of the business, and take the view of an outsider and ask himself a few questions about the business that an intelligent outsider would ask, it would be a great thing for that business; and I suggest that you get one of your friends who is a good business man but who has absolutely no knowledge of your particular line, and ask him to prove to you your excuse for existence. His effort might be illuminating. The answer to that question is at the basis of sales policies. There are so few people who know why they exist in business.

I do not think you can plan a sales campaign, that

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