

girl for a certain job. Of two applicants turned over to him by the employment department for review he picked out Susie as the girl that he wanted. The tests for their adaptability to that particular kind of a job had said conclusively that Jennie was the girl. The general manager saw his chance to test the value—not conclusive at all—of this foreman's judgment and of the test; so both girls were hired and put to work. In thirty days Jennie, whom the test said was the better adapted, was doing twice the work of the other girl.

They have not compelled the old employees to subject themselves to the tests, but they offer to give them tests with the privilege on the part of the old employee of having the result of the test buried if he wishes it. Forty of these older employees told the management that they would like to be tested to see if they were not round pegs in square holes. Those forty were tested for their adaptability for different kinds of work, since various exacting jobs at the General Electric Company call for different attributes. As a result of these tests each of the forty had his position changed, and without exception each one of the forty increased his earning capacity by quite a little after he had reached his stride in his new job.

These are just indications that the psychologist, while he has not yet scratched the surface of industry, has a real contribution to make to industry in cutting down the percentage of failures, in reducing labor turnover, and in increasing the contentment of the employee by getting him into the job which he can do well.

III. Scientific Management and Selling

During the war the industrial battle line lay with the production man. Now the sales managers have been moved up to the front. Their's is the fight and they have taken up the weapons of the production man. What have been the results of the application of the engineering point of view to sales management? It has meant analytical study of the market as never before. It has meant an analytical study of the products as never before. It has meant a study of trade channels, the development and adaptation of new products for old existing markets, the development of new markets for old products.

In my previous paper I used as an illustration the work that had been done in improving a razor blade by much the same method that Taylor de-

veloped high speed tool steel. It was an indication of the forward looking point of view of that company. Patents on that particular kind of razor ran out last year. This might have been a matter of considerable concern to a good many companies, but for several years previous they had been perfecting an improvement, studying their market and arranging their sales campaign so that when the patent ran out the volume would not be impaired. Their planning was so well done that they not only maintained their old volume, but had to build a new plant to meet the increased volume.

A. The Study of the Product

Frequently some simple idea is the one which capitalizes the best. The other day I was shown rubber overshoes, or galoshes as we call them up in our part of the country, with a fastening that has been for a number of years familiar on tobacco pouches. You pull it down and your shoe is open. A simple thought, a simple application, but what has it meant to an industry in which this year has been especially bad because we haven't had any occasion to wear galoshes? An officer of that concern stated that they have been so overwhelmed with sales prospects that it looked as though they couldn't catch up for three years and the thing has hardly got out on the market.

The leather and shoe business has been particularly bad. We feel it especially in New England. A new sales manager who had no previous experience in the shoe business came into one of our New England shoe concerns a while ago and started in on an analytical, statistical study of the facts of the business. He found that they were spending a lot of money advertising their shoes, that they were operating a lot of retail stores which handled their trade-marked shoes exclusively, but they were dependent still for a large part of their output on shoes without their trade-mark, sold to jobbers on the jobber's specifications—which is the way the shoe business is very largely done. Not being hampered by the traditions of the industry, this sales manager started in to ascertain the facts of the business. He found that there were 150 styles or combinations which they made for jobbers on which they could make a profit. He advocated what seemed to the entire organization the dangerous decision to decline to make anything except those 150 styles and combinations, and to offer those to jobbers with

the retail price and the name of the company, not the jobber, stamped on the bottom. It was hard to convince the organization, but he got his way, and that plan worked out. So far as I know that is the only shoe concern that has gone through this year without decreasing its production and without showing red ink figures. It was a formulation of a sales policy based on securing the facts of the business.

B. The Study of the Market

There has gradually grown a new conception of market problems which is evidenced by the desire to get at the real facts instead of going ahead on hunches. I have forgotten who it was who said that one of the seven deadly sins is the preconceived idea; certainly the experience of all of us in preconceived ideas, both as to management methods and as to selling, has cost us a lot of money. But the last few years have shown many interesting analytical and statistical studies.

I have a letter from the statistician of one of the large and conspicuously successful rubber tire companies. He uses for his sales department many statistics outside his business. From the returns from the Federal Income Tax a while ago he learned how many people receive salaries of \$1,000 a year, how many \$2,000, etc. Then he found out how many automobiles of various prices were owned, and how many were owned by people who kept two automobiles. His figures showed a surprising number of automobiles owned by people who couldn't afford to keep an automobile.

What were the conclusions? Roughly that there was a large part of the purchasing public who had to buy tires, who have automobiles that they can not really afford, hence have to buy a very cheap tire. So this concern started out to make a certain part of its output of those cheap tires which they knew from their statistical evidence were going to be purchased. On account of this sales policy they had just the edge on many other manufacturers.

C. The Evolution of Merchandising

The sales manager today is thinking more and more of merchandising his product. This is a new conception in selling. I was interested in the gradual evolution in the thinking of our own salesmen in one business that I am interested in, as revealed in a sales conference I attended in the Middle West

this year. In all the discussions those salesmen were impressed with the fact that they must not only sell the jobber but also must think how to get the stuff from the jobber to the retailer and how to get it off the retailer's shelves. And they were all thinking in terms of merchandising the product so that it passed right straight through. We have been working for years to get our sales force thinking in those terms and it was extremely interesting to have it come out.

D. The Sales Budget

The outstanding tendencies, as I see it, in sales and distribution of the last few years are the use of statistics and the development of the sales budget. I was interested in an article⁴ describing what the Dennison Company had done after the war in studying their sales problem, with a view particularly of bringing sales and production capacity into a balanced relationship. They are one of the few concerns that came through the war and the aftermath of the war with practically no lessening in sales volume. The Walworth Manufacturing Company has made somewhat similar studies and has tied it up with the business cycle and with the curves of statistical organizations, and has budgeted its sales in advance. An article published in the Taylor Society *Bulletin*⁵ showed that in 1922 the twelve months sales volume was almost exactly what the budget had provided.

I had a personal experience that interested me recently. A year ago in November I had to take over a little business in which a certain community where I lived was interested, which was going to be sold through a receivership sale and might become a nuisance to us all. Not wanting to fuss with that business, I thought the best thing for me to do was to focus any experience and ability we had in industrial management right on that little business, organize it as though it were a little industry, tighten up all the loose ends and then turn the general financial supervision over to my assistant. We spent some time in its reorganization and among other things had made an itemized budget twelve months in advance. In fact this was made out before we got

⁴E. E. Brooks, Master Budgets of Sales and Production, *Bulletin of the Taylor Society*, Vol. VII, No. 6, December, 1922.

⁵Howard Cooley, The Control of an Industry in the Business Cycle, *Bulletin of the Taylor Society*, Vol. VIII, No. 4, August, 1923.