

exactly how to make the tools for each part; now some other fellow has got to learn it all over again. And look at the delay there will be waiting for parts.

"Besides," he concluded, with emphasis sufficient to indicate that this was his chief grievance, "you've taken all my tool-makers. How do you expect a man to make any suggestions for special tools when the tool-room foreman will get all the credit?"

Brinsmade was confronted by many such complaints. That justice would be done he assured each and persuaded him to work in harmony with his design.

In three months the entire factory was working on the new basis. Impatiently, he waited for a complete list of the new department percentages; he wanted to compare them with those of the old regime.

Each department now contained only the non-productive help absolutely necessary to conduct the one line of work undertaken therein. The ratio between producing and non-producing expense in the sorting room, for example, would now be the true ratio for sorting; in the buffing room, for buffing; likewise in other departments.

When Downs handed him the list of percentages, however, surprise preceded enthusiasm. Comparison with his old records showed how widely his old standard costs had departed from actual costs. Prescott had indeed been correct. Loading the average percentage of non-productive expense in a room where many different classes of work are undertaken on each article produced is dangerous practice. Operations which require little attention from a tool setter bear an unjust share expense of operations requiring constant attention from a tool setter or tool maker. For the same reason, these latter operations escape part of their just burden of expense.

Comparing the old and new percentages, he found variations so wide that for his own information and for the convincing of his department heads, he drew up a table covering some of the more important processes, the old percentages in parallel columns with the new. With this result:

Operations	Former Percentages for Various Rooms		New Percentages Consolidated Rooms	
Assembling....	95%	150%	50%	106%
Blanking.....	50%	95%	70%	153%
Buffing.....	60%	95%		72%
Forming.....	95%	70%	125%	56%
Knurling.....	95%	125%		70%
Painting.....	30%	95%	50%	30%
Piercing.....	95%	70%	125%	53%
Setting-up....	95%	125%		53%
Sorting.....	95%	70%	125%	60%
Stamping.....	30%	85%	95%	135%

In some cases the revised percentage was almost an average of the old ones. On all the simpler operations, however, like sorting, setting up and packing, he perceived that the margin of error had been so large that the calculated cost was farther from reality than the wildest guess work, though involving no money loss to the company. While on operations involving tool work, the departure from the real cost had been so wide that losses had attended every contract undertaken. Percentages of 50, 70 and 95 had been employed when the actual figure necessary to insure a profit should have been 153 per cent.

Brinsmade smiled grimly as he finished his analysis. To have used three such divergent prices for the same operation was inexcusable; but that all should have involved serious losses on every job turned out made his management seem farcical.

Resolutely he folded the scribbled sheet, tore it across, again and again, then flung the fragments into his waste basket.

"That's done," he said aloud, "spilt milk churns no butter." Then, into the telephone as the sales manager answered:

"O Parker, come in. I want to talk to you about the Whibley and the Gross and the Taylor jobs. We've got the factory where we can go after that business again—and quote prices that will land it."

The Mission of the Catalogue*

The Catalogue Must be Your Personal Representative, Duly Accredited,
Backed Up by Your Word, and Vested With the Authority of Knowledge

BY CHARLES W. BEAVER

It has been said that "Men are like stone pitchers—you may lug them when you like by their ears." The main trouble, however, is, that this is a short-eared generation.

Now, one of the uses of a catalogue is to get a man's ear. Its written words must take on life and color to bear the significance of a spoken message.

There's a current understanding that the world learns very, very slowly by argument, but quickly indeed by experience. Now the mission of the true catalogue is not so much one of argument, as one of experience—what things will do; not always why.

This is an age of try and buy—satisfaction or your money back. While the catalogue is a listing of classes and kinds and prices with the necessary description and technical data, it can be a great deal more.

* Extracts from an Address by Chas. W. Beaver, before the New York Advertising League. Reprint from "Brains."

A catalogue can be a monument to the stability of a house. A record of its achievements, its willingness to put into irrevocable print, purposes and claims of merit. It must go further, however. It must be an educator.

When a government is established, ministers and representatives are appointed to the various nations throughout the world.

Any business is a government on a small scale. Mr. Manufacturer must secure the service of an ambassadorial staff to represent him to the public at large.

Now right here is where the catalogue comes in. Not a mere price book, but a catalogue. It may be interpreted at the hands of a large travelling sales force, or it may be sent out into the highways and byways alone. In either case, it must be your personal representative duly accredited, backed up by your word, vested with the authority of knowledge, and lacking none of the polish essential to the most profound courtesy.