

as the government, nor does the ultimate consumer, the court of last resort, have as much confidence in the associations' figures. The government has little bias. The main aim of the commissioners is to give out as broad a cross-section of business information as possible.

On the Federal Trade Commission we were as keen as crusaders about the work of fact finding and presentation that was started during the War. But a coal association stopped us with an injunction. We were trying to get out current reports on production, shipments in transit, costs, etc. We thought these would be of the greatest value in preventing overproduction such as the industry was suffering from in 1920. There are in the federal files today at least 1500 letters approving of what we were doing. These came from producers in the Middle West, rather than the East, and stated that we were giving them a national picture of the industry such as they had never had before. We started at the instance of the Shipping Board to trace the cost of coal in West Virginia and found that the coal that cost \$4.00 at the mouth of the mine in West Virginia was costing the government itself \$24.00 a ton by the time it reached Norfolk. When we got that far we were taken into court and enjoined because, forsooth, being federal officials, we had no right to ask for the cost of mining coal within a state. If we had been able to give these figures out to the public and the coal industry and to trace the cost from the mine to the consumer, the industry would not be as sick today as it is.

If we are going to keep the channels of trade open and prevent the economic destruction that is the result of this concentration, I believe we must take another step. Suppose a bill were introduced into Congress requiring every corporation about to sell stock or bonds through interstate channels to file certain facts with the federal government, such as the bonuses paid for the promotion and sale of stock and the amount going back into capital. Suppose the corporations were required to inform the public where these facts could be obtained, and to carry a digest of this information in their advertisements. Do you think we should have had such a wild stock panic as we have passed through? Would this be called bureaucracy? I should call it prophylactic.

Perhaps it would be asking too much of the

bankers and brokers of this country, but that is what is required in Great Britain, and in every civilized country of which I know except the United States.

Every time we have tried to put a bill of that sort through Congress the investment banker has stopped us. I cannot understand it. It seems to me that it would give the honest house a tremendous advantage to be able to put a stock or bond on the market with that statement behind it. No house would be prevented from issuing any stock. There would simply be a reversal of the old phrase "Let the buyer beware," to "Let the seller beware." We have reached the stage in civilization and business congestion in this country, where this must be the attitude. If the facts about stocks and bonds sold on the legitimate market by legitimate houses had been known two years ago, I am sure that many would not have been buyers and therefore not in trouble today.

A third needed provision seems to me to be a revision of our patent laws. The great corporations today can purchase and suppress thousands of patents, thereby blocking the channels of trade. In England and Canada a corporation can purchase as many patents as it wishes, but it can keep them for only a limited period of years without using them. After that period any qualified person can apply for a license and the same may be granted by the courts which fix the royalty fee. Such a method prevents concentration and congestion. If we had had such a law before the War it would have stood us in good stead, as Germany possessed in this country many chemical patents which she did not use. In order to hold her English patents she had to put up plants and manufacture. When the War came along England seized the plants and manufactured chemicals in the German-built plants. We were caught without any chemical knowledge as related to munitions. It seems to me that this provision would expedite rather than slow up business.

There is a final provision that I have advocated many times during the last six months, and that is a world trade tribunal. Trade combines in this and other countries, with their holding companies all over the world, are no longer national but international affairs. The tariff also is international in its effect. Officials of one nation cannot get a true perspective of the effect of a tariff on the rest

of the world. There must be an international body to do this.

There will, of course, be the objection that such a tribunal would destroy national sovereignty, but that can be overcome by making the international body a fact-finding and information-distributing organization rather than an enforcing body. The information gathered by it and forwarded to the nations of the world would prevent the sort of log rolling we now have in Washington in our tariff-making and at the same time maintain our sovereignty.

These are some of the things which it is necessary to do if we are to clear the channels of trade. If American business men would make Woodrow Wilson's declaration that "economic concentration is death" their motto we should be starting back toward the road to prosperity and happiness. I do not yet despair.

A Case of Production Planning in a Very Small Organization¹

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Introduction
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IT WILL give you an idea of the size of the plant that is to be described when I tell you that, had Mr. Dowd himself come to deliver this paper, his entire selling force would have been absent from the plant; if Mr. Nourse had come, one-tenth of the entire production force would have been away. The day I visited the plant it had taken from 7:30 in the morning until 3:00 in the afternoon to set up a printing press for an order of 10,000 boxes. It took only the remainder of the afternoon to turn out this small job, and the man who had set up the machine did the actual printing. The principles of scientific management work in any sized plant; it is not necessary to have a man for every function or operation, but it is necessary to define the functions and to have adequate training in all of them.

When I asked Mr. Dowd some time ago how he happened to be manufacturing boxes, he told

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me the following story. As you all know, he was originally associated with Mr. Taylor, Mr. Hathaway and other leaders in the scientific management movement. He left the consulting field because a young man whose father was a box manufacturer suggested that Mr. Dowd supply the capital and managerial ability for a box-manufacturing venture. The young man claimed to have the necessary knowledge of the box-making industry. He had had ample opportunity to know it, but after investing \$15,000 in equipment Mr. Dowd found that he knew nothing at all about the business. With a box-manufacturing plant on his hands Mr. Dowd decided that the application of scientific management principles would enable him to carry on successfully while he was acquiring the specific techniques of box manufacture. His nine years of experience have proved him right.

When I visited Mr. Dowd's plant he pointed a young man out to me. He stated that this young man had originally been assigned to operate a complicated machine but had found it impossible to master the operations. Instead of firing the young man he transferred him to other work which he is performing very well. It is Mr. Dowd's belief that there is a place for everyone and that it is the management's job to find the proper place for everyone who is a part of its organization.

I asked Mr. Dowd how frequently he had requests for increases in wages. He turned to his planning clerk and said, "Arthur, how long is it since we have had a request for an increase?" The young man scratched his head awhile and then said, "I have been here three years and I can't remember such a request." Mr. Dowd believes that it pays to anticipate such things and to pay a little more than similar organizations. The saving in labor turnover justifies the extra expense.

One of the important operations in this plant is the folding of boxes. Originally the operator folded about four hundred boxes an hour. Mr. Dowd and Mr. Nourse realized that this was a low figure but did not see how they could increase the production. They time-studied the operation as it was and got about the same figure. After they had set a standard and put in a bonus of several cents, however, there was a very appreciable increase in production. The result for the operators was a sizable increase in pay. Mr. Dowd points to this as an example of the utility of time study as a basis for