

I don't know whether some of you can believe this—I could not when I came into this business for the first time seven years ago—but it is a fact that today the price list on standard cast iron screwed fittings places the so-called straight sizes, the ones which are in the greatest use and greatest demand, on a basis where under normal conditions they are sold at a decided loss. When we made our first careful examination into costs in 1913, we found for instance that we were manufacturing castings which of necessity must be of such close grain as not to blow or leak. We were finishing them very highly, threading them, cleaning them, packing them, and delivering them to our customers and paying the freight, at \$1.85 per hundred pounds. If any of you has ever been in the manufacturing business, at least the business of manufacturing cast iron, you know that at no time was this possible.

Now, in this case the manufacturers in our line have deliberately used this list in the hope of keeping others out of this business. They have deliberately placed this small number of sizes but great poundage on a basis where they believed any small manufacturer who tried to get into the business would fail.

It is the natural thing for the small man to start in making a few sizes that he can sell generally. It was the manufacturers' opinion, and it is the honest opinion of some of them today, that by keeping those sizes on that low price basis they can keep other people out of the business.

Having been a small manufacturer I believe that is absolutely unsound. The man who wants to go into business, makes his investigation with that desire so uppermost in his mind that he always decides it is the thing to do to go into that business. I have been trying now for seven years to get the manufacturers away from that idea and I have not yet succeeded.

I am going to tell you of another case in our line which is even worse, and that is the matter of malleable fittings. We manufacture, I should say, probably some one thousand different sizes and shapes of fittings. No two manufacturers make them alike either in weight, in dimension, in thickness of wall, or in radius of the bend. We manufacture both British thread and American thread. We make them both in galvanized and black. We sell them on a pound basis in this country and on a piece basis for export trade. We sell them to jobbers on the West coast on a pound basis who in turn convert them to a piece basis.

What does that mean to the jobber? It means to

him that if he buys ten pounds of one fitting he may get twenty pieces. If he buys ten pounds of another he may get twenty-five. He does not know whether the fittings of which he buys twenty-five and pays the same price that he has heretofore for the twenty, will properly suit his work, whether they will stand the pressures for which he has been using the heavier fittings. But even worse than that, our list price is on such a basis that under normal conditions we make a profit on galvanized malleable fittings and we lose money on black fittings. And that again is a thing that is done with a knowledge on the part of some manufacturers and with the belief that they are again keeping people out of business who cannot galvanize their own fittings.

From the standpoint of the buyer that has another very serious effect. No producer wants to sell any part of his product consistently at a loss. Therefore, in order to make a consistent profit on malleable fittings we all have to say to our salesmen, "You must not sell more than fifty per cent of your malleables in black; you must sell at least fifty per cent in galvanized, so that we can get our money back and a little more." In certain trades, such as the oil trade, they don't use galvanized fittings. They don't need them because the very use of oil serves to lubricate the fitting and makes a black fitting as serviceable as a galvanized. So we are in the very foolish position of saying to the oil trade, "We don't want your business because it is not profitable, unless you can buy from us some merchandise which you in turn don't want." And as yet the user of that merchandise is not educated to the point where he raises serious objection.

I think the major emphasis in the addresses was laid on the fact that the blame for this rested with the sales department. I cannot say that the merchandiser is not very considerably responsible, but he certainly is not entirely responsible. I think it is true, as was brought out in the first paper, that the desire on the part of the sales department to create business has made them change from one style to another, from one color to another, and possibly forced immediate business to the detriment of the trade itself. In the shoe business at least it makes it necessary to practically scrap a great deal of a perfectly sound product. Now in that way the merchandisers are educating the buyer wrong. They are not looking to the good economics of their business. They are looking to what they think is their immediate advantage.

In our line of business however the engineer, the scientist, is very largely to blame. I presume a great many of you deal with engineers and architects, probably a great many of you are engineers and architects. Up to recently—I say recently because I think a good deal of this was stopped during the war—it was felt by the engineer that he should make a study to find out what specialized valve, what type of bend, he should use without regard to what others used. He has demanded special mixtures. He has demanded special thicknesses of wall. He has demanded special bolting. He has even gone so far as to force us to use non-standard bolts in order to meet his specifications. Now this results again in a tremendous burden on the consumer. The vessel that goes from port to port cannot obtain its replacements except from special sources of supply. If the vessel goes from this country to France or to England it cannot use the local product, because if it was built in our yards its fittings were tipped with the American thread whereas if it was constructed on the other side the British thread had been used.

I think we need to educate our engineers and our scientists to realize that they must help along on this program of standardization. I am very thankful to say that at least the American Society of Mechanical Engineers is taking a very great step in that direction. In standardization as in everything else the remedy is through education. I believe the Taylor Society is primarily an educational instrument. I believe one of its functions should be to study how it can educate not only the producer, not only the merchandiser, not only the scientist, but also the consumer.

I stated some time ago that it is my belief that jobbers as a class know less about their business than any other group. Most of them have no proper inventory records. Most of them have no real knowledge of their profits on various lines. I think it is not too much to say ninety per cent of them know nothing about the trend of their business except by their bank accounts and by their balance sheet at the end of the year.

It seems to me one function of this Society should be the education of the jobber, and I agree heartily with Mr. Smith that that can be done best through the trade associations.

It seems to me that we should teach them the necessity of proper balance of stores records. I know no other way by which they can really learn business. I think we should teach them to study their details of

turnover, which they can get only through a proper balance of stores record. One of the branches of the Walworth Company's business is that of the jobber, and it is a fact that of the merchandise that we carry in our jobbing branches less than one-third turns over three times a year.

I think we should teach the jobber to study his office expense to the point of finding out what part of his cost is given to these slow moving items and what part is given to his real standard product. I think we should help him to realize that his study must go further to see how much of his display room is given over to the show of these items which are not economical either for him or the consumer, and how much of his storage space is given over to that purpose. I venture to say it would be a revelation to him as it is coming to be to us.

The Walworth Company has been greatly concerned about these very problems and we are trying a method by which I believe we can bring this problem of turnover so thoroughly to light that we can readily correct it. We have picked out of our vast line of some twenty-three thousand different finished items six hundred which we consider as "significant." That list of six hundred was worked over by all our departments. Our original thought was that we would pick out five hundred items as a test, but as we found it was absolutely impossible to confine ourselves to five hundred the list was expanded to six hundred. This list was made with the help of all departments of our business,—sales, production and financial. We are using that list as the basis of our sales and production campaign. It is the foundation of our budget system. We are asking each one of our merchandising units to use those six hundred significant items as the basis of their sales estimate for the first quarter of 1921. To do this they must study their own businesses in detail. It gives them an opportunity to really learn their business and has made them realize how few of the many thousand items we carry have an economical turnover.

The sales estimates so arrived at are in turn submitted to the Home Office and after proper revision and consolidation are made the basis on which we predicate our production program and our finance program. That is a detail of the whole greater budget system which we are working out, the one of first finding out our trade requirements, then keying those into our own production ability, basing our financing program on the result, and sometimes finding that it