The supply man knew that. He threw the burden of failure, not upon the engineers, but upon the manufacturers. That design was precisely what the engineers ought to expect to have built to specifications in an ideal industrial world, he told them. But unfortunately, you see, it was too far advanced beyond current manufacturing conditions. So the engineers handsomely made allowance for imperfect manufacturing conditions and drew new specifications embodying larger wires. Thus, in a perfectly agreeable way, the company got a monster switchboard that would be efficient in operation and cause very little trouble through breakdowns, while both the manufacturers and the engineers took credit to themselves. As for the supply man, if he had any notion that the credit was due him he said nothing about it.

The Economy of Looking Ahead.

By a common-sense technical knowledge of both engineering and manufacturing conditions, and a wide acquaintance among the many departments of his own company, this purchasing agent has worked important economies. Almost his last resource in saving the company money, however, is that of close manœuvring for low prices on the first cost of supplies. What he has always in mind is service and low cost of repairs.

One year a parsimonious director complained of the constantly increasing cost of certain supplies, showing by statistics that the price per pound, per foot, per unit, had steadily advanced during several years. The purchasing agent's explanation of that might have been a table of contrasting figures, proving that there had been general market advance on such supplies. But, instead, he submitted a statement showing steady reductions in cost of repairs—savings that doubly offset the larger outlay in good materials.

Other important economies were brought about by a little pressure on the company's departments to make them look ahead and anticipate their needs in supplies. It had been the custom to run pretty much by rule-of-thumb. The construction gangs strung wire zealously, perhaps, drawing on stock as though some invisible connection existed between their storeroom and a big wire factory. Suddenly the wire ran out. In came a requisition for more marked, "Rush! Rush!! RUSH!!!" That threw the supply man into the market for wire under unfavorable conditions. He might have to purchase doubtful quality to get immediate deliveries. As soon as his order was placed the construction department began to say, "Rush! Rush!" to the manufacturer of its own accord, causing confusion. Frequently the construction department took a little shopping tour of its own in search of wire, and got deliveries of small quantities. The bills for these independent purchases then came into the supply department and were returned to the seller unpaid. The supply department knew nothing of the transaction.

In the end, all this trouble was done away with by a system of daily supply reports in each department, showing what stock was on hand every night, and the rate at which material was being used up, and about when the supply man ought to go into the market for more.

These daily reports accomplish something else. They enable the various departments not only to have adequate stocks on hand at all times, but also to run on a moderate stock. That diminishes supplies necessary to have on hand, and affects great economies through the whole organization. For supplies piled in warehouses, waiting to be used, represent, with a company of this magnitude, large amounts of capital tied up, loss of interest, loss through depreciation, cost of storing, handling and insurance.

Moreover, the company is to-day so large that its stocks of supplies are carried in several branch storerooms, each complete in itself. From one of these branches comes to-day, to the supply department, a requisition for material worth twelve to fifteen thousand dollars. A report from another branch shows that sufficient of that material to fill these requirements has lately been taken out of service in reconstruction work, and has been put back in stock. So no purchase is necessary. There are supply departments run so loosely, though, that such a purchase would be made for one department, and the material on hand sold for junk by another.

These daily reports might, in many lines of business, serve as a valuable market guide to the purchasing agent—as in a manufacturing industry where quantities of raw material were being made up into goods for sale. With an accurate daily gauge on needs, the purchasing agent could sometimes buy on favorable fluctuations of the market.

This supply man has found by experience, however, that playing the market in the purchase of his own class material is only a hazard. If persisted in as a policy it results in about an equal balance of losses and gains. So his contracts for materials subject to fluctuations are made on basic prices, with an arrangement whereby variations can be adjusted between himself and the manufacturers as the market rises or falls during the life of the contract. This plan has two marked advantages. First, the purchaser gets his supplies at the market price, whatever the variations. Second, the seller cannot lose the profit on his contract through an unforseen rise in the cost of his own materials. Thus, if prices go up the manufacturer will not be tempted to delay delivery of goods while he runs his plant on more profitable orders; nor, on the other hand, will he slacken manufacturing in hope that a drop in materials may give him a larger profit than he anticipated.

What One Buyer Accomplished.

There came a time in the development of the supply department when its chief found it advisable to become a manufacturer himself in a small way. Much of the apparatus in every-day use came in for minor repairs—adjustments, new attachments, cleaning, replacement of missing parts. Until then it had been permitted to accumulate for shipment in lots to the manufacturer, who made repairs and shipped it back. A small repair department in the storeroom, however, saved delays, and shipping charges, aided the construction men, and affected other economies. To-day each branch storeroom has its repair department.

About that time, too, the supply men became a salesman. As the company's business grew, and improvements in plant were introduced, much old apparatus had to be discarded for better types. It was by no means worn out or obsolete. Most of it could be used by smaller companies throughout the country. So the detail of selling it was given in charge of a subordinate, who sought the best markets through advertising in electrical journals and correspondence. What was formerly disposed of as junk now brings in several hundred thousand dollars yearly.

From the original little old storeroom, run by Uncle Bill, this supply man has built a department with nearly three hundred people under him—assistant buyers, storekeepers, repair men, clerks, messengers, inspectors. As the department has grown, each new man added to the actual purchasing staff which now numbers half a dozen assistant buyers, has been a man valuable not for shrewdness or trickery in his dealing, but a man with technical knowledge, able to estimate with the manufacturers and to