## The Quest for the Leak in Factory Costs

An Elusive Factory Error Resulting from a Failure to Classify the Machinery and Labor. The Trouble was Duplicating of Operations in Several Departments which Resulted in Different Charges for the Same Operation

BY C. H. STLEON IN SYSTEM

"Well, Downs, what do you make of it?" Brinsmade put the question impatiently. He and the chief accountant had just completed an exhaustive audit of the shop accounts for two years; the latter had footed up the last column. He handed the balance-sheet to his superior, whose eager eye instantly grasped the significance of the totals.

"Forty thousand dollars!" Brinsmade whispered, frowning with astonishment.

"Yes," the other assented. "As you suggested, I figured the profit we should have made on last year's shipments, assuming regular prices and deducting for all cuts. You have the results in these three columns," indicating their position on the sheet with a thin forefinger. "Here, in this column, you have the actual profits."

"I see, I see," muttered the manager, visibly dis-

Downs at his elbow, he went over again the discouraging figures before him. As the minutes passed, perplexity deepened the lines on his brow.

For two years he had directed all his energy towards developing a perfectly organized factory. So marked had been his success that a fortnight before increased dividends had seemed assured. Very little room for improvement in the organization he had built up was left, he felt. He had done his best—and his best was good!

Then came the hint, from Downs that the ledgers, on balancing up for inventory, indicated a serious deficit. "Your books are wrong!" he had protested. "We'll

go over them together and find the mistake."

He did so, in the week that followed. He walked the factory from end to end in eager search for the treacherous spot, the loop-hole through which the dollars were slipping away. To no avail. And now, the final survey of the books proved that elusive leaks threatened the life of the business.

From this analysis, he turned at last heavy-browed with determination. Pride was in the dust; the manager was uppermost; personal feelings were subjected to the welfare of the company.

"Downs"—his chagrin was evident—"I'll have to give it up. The trouble's in the factory, but I don't seem able to find it. We must have expert help from outside."

## TT.

"Where do you think we're wrong" Prescott, the smart junior of a firm of production engineers, smiled at the manager's anxious question.

"I'm here to learn, Mr. Brinsmade," he parried. "If we could have made a long range diagnosis of your trouble, you would have saved three-quarters of our fee. Give me a week and I think I'll have the answer."

"However,"—the manager's face had lengthened— "from what you wrote us and from what you've told me here, I'm quite sure that it's not slighting of details that has caused your losses. More likely"—he paused, but went on quietly—"it has been disregard of some basic principle of production or organization."

Brinsmade flushed as he met the other's eye. The

suggestion that he lacked complete knowledge of the essentials of management was not pleasant. After a moment's silence, however, he smiled at Prescott.

"I almost resented that statement," he acknowledged, rising and taking his hat from its hook. "Let me show

you over the plant."

In the walk through the shops, Brinsmade pointed out with pride each detail of the organization which he had wrought from confusion with such care and personal interest.

An hour or so later found them seated elbow to elbow at the manager's desk, Prescott listening with knit brow and thoughtful eye to the other's rapid and comprehensive description of the cost and order systems used in the shop.

"You have a splendid organization," Prescott said at last. "But I'll need to spend a few days looking about, before I can say definitely where the trouble lies."

## III

For five days Prescott haunted by turns the offices and the factory. No fault was to be found with the accounting. Each shop and department had a separate account under which was recorded weekly the total of productive and non-productive wages; and all expenditures for maintenance and repair.

The strictly non-producing departments had their separate accounts as well, which allowed an accurate calculation of the ratio between general expense and legitimate production expense. No item escaped, no expense

fatled of proper recording.

In the factory, the general shop conditions were excellent. Economy in the use of floor-space was everywhere apparent. Individual motors in each sub-department pointed to efficient power transmission. Modern coal-handling equipment in the power house eliminated all chance of losses in power generation.

The atmosphere of good feeling and contentment among the workmen, easily recognized by Prescott as he passed through the departments, assured good workmanship and generous production; while a careful inspection force made certain a fixed standard for finished product.

Ordinarily, in such investigations as this, Prescott was able to pick out, at once, a number of weak spots contributing to the general loss. But here he found an efficient accounting system, and, at first glance, an admirably organized factory. It was hard to believe that disease existed anywhere in such an organization.

In a quandary, he turned to the records of actual and estimated costs. Here he found enough to convince him that he was on the right track. Further comparison of estimates and actual outlays gave proof that he had, at last, discovered the subtle cause of the year's losses. This new development in mind, a swift survey of the various departments confirmed his decision.

Brinsmade had failed to classify his work and machinery.

## IV

At once he sought the manager's office, stopping for Downs on the way. Together they entered the office. "I have found the trouble," Prescott announced to Brins-