

THE SCIENCE OF BUSINESS

How Modern Methods affect Employer and Employee

HINTS ON SCIENTIFIC MANAGEMENT OF BUSINESS TO INCREASE PROFITS.

(Mr. James Dodge has been very successful in introducing methods of scientific management in the business of the Link Belt Company of Philadelphia, and was one of the most effective witnesses called by Mr. Louis D. Brandeis, counsel for the seaboard shippers in the recent rate hearings before the Interstate Commerce Commission.)

Five or six years ago, I was proud of the fact that I was the head of a concern which was so well managed that it would have been an insult for anyone to suggest that we could improve our methods even in the minutest particular.

But one rainy day I went down to the extreme corner of our grounds and found two men in a shed breaking up coal with a piece of joist. A year before, when the blacksmiths had been much driven and their helpers did not have time to bring in the coal and break it up for them, they had asked the boss laborer for two men to break coal. At the end of twelve months they were still at work and might still be if I hadn't found it out. This case, extreme as it was, showed how our magnificent management failed for we manufacture and sell machines for crushing coal.

"After a while Mr. Frederick W. Taylor told me that he was turning steel, cutting steel, at Bethlehem at a rate which to me was beyond credence. I went and saw him do what he said he was doing but I couldn't even believe the evidence of my own eyes, it was so remarkable. Mr. Taylor's tools which were made to work the hardest steel at first failed on cast iron but after repeated improvements he produced some that did wonderful work on the softer material. Then we found that we could sometimes do work, so far as the actual cutting was concerned, ten times as fast as before. We did not turn out ten times as much product, because a great deal of the time was occupied in getting the steel or cast iron ready, and the time of preparation also had to be counted in. With modern guns we can shoot ten or twenty or thirty or forty bullets about as fast as we could shoot one with the gun which in the old days took five minutes to load. So Mr. Taylor did with his steel.

"It became apparent to us that if we were going to turn out work twice or three times as fast as we had done before, we must make a change in our scale of pay. Our rate was fixed and it didn't make much difference whether a man made one or two tools a day or one an hour. But if he were going to make ten in an hour and so multiply our output by five, it was apparent that we needed some rudimentary accounting to make our pay harmonize with the increased speed at which Mr. Taylor made us do our work.

"At first the question came up as to whether the workmen would work at this increased rate of speed. We simply had to get men who would permit their tools to do the work at the new rate. A few of the old men left us because after seeing their lathes turn around at a low speed for twenty or thirty or forty years it proved too great nervous strain on them when the rate was increased so greatly. It kept them too intent upon their lathe expecting a disaster. But the younger men were fascinated and the large majority are still with us. The men in shops under scientific management are well satisfied. A sympathetic strike was called to aid the trolley car motormen and conductors in Philadelphia in 1910 that effected workmen in all sorts of enterprises. A certain factory running under scientific management was surrounded by four other establishments. Three of the four lost about one-half of their men through the sympathetic strike and in the fourth all went out. In the shop running under scientific management just one man quit work.

"Now this was no accident but is because the very best friends that the workmen have under scientific management are their employers. Formerly we would tell a man we would give him ten cents for a certain piece of work. Then if he reduced his time so that he could make two, we would reduce the rate to five cents because we thought the man was making too much money. But we were getting twice as much work for the same money while the men had not been getting any more pay whereas we ought to have congratulated the man on what he made and both be happy.

"We adopted a new rule which was that a rate once set must not be reduced unless the shape of the piece or the tool or method by which it is made was changed and that a man should be paid when he did his work. It was a hard dose to swallow for sometimes men made twice or three times the wage they would have worked for gladly by the day. Once in a while when I went among them, a man would call out, "Well, I got you going to-day." "How?" "I made eighteen dollars to-day." "Good, you might take me to the theatre to-night." "All right, boss, I will."

All this time we were getting from a given floor space, from a fixed investment in light, heat and power, insurance, taxes, all overhead expenses and so on two or three times the product that had been obtained before. Only the men's wages had increased, everything else stood the same. Every item in the aggregate was steadily going down.

We next studied Mr. Taylor's idea of the function of machinery and the

application of his rule that every man in the factory should do the kind of work for which he is best fitted and that only. If a man is good at a lathe, let him do that and nothing else. Every man admits it when his attention is called to it but it is only when you prove it to men that they fully realize it. We found, for instance, that it cost us \$53 a week for the men to get drinking water in one of the shops. Nearly all of these men wanted to drink; they didn't leave their work because they wanted to loaf. So we hired a boy at five dollars a week to carry drinking water around the works. It increased a man's facility for doing his work. We hired laborers at twelve dollars a week to help the machinists to get ready for their work and instructors to go around to help the men to do their right thing in the right way. What was the result? We made more money and more product and yet we were paying higher wages.

There are now some 50,000 men working under scientific management and they are engaged in structural work, foundries, cotton mills, printing and lithographing, office work, manufacture of electrical machinery, steel business, machine shop work and the paper business. The employers and owners of all these factories are receiving about twice the product per man and per machine on an average compared with the former situation and the workmen are receiving 30 per cent. higher wages.

Such a Thoughtful Woman.
When the man and woman started down the subway stairs the man felt in his pockets for tickets.

"By George!" he said. "Isn't that a shame? I've got to stop in all this mob and buy tickets."

"Oh, no, you haven't," said the woman. "I have them. When I came downtown I remembered what you said about those people who buy only one ticket at a time making such a nuisance of themselves, so, as I had 15 cents to spare, I bought three tickets. I have two left. We can go right on through."

So the man and the woman drifted along with the pushing crowd to the point where the ticket chopper held them up and demanded tribute. Then the woman looked in her purse for the tickets. Suddenly her face assumed a painful blankness.

"I haven't got them," she faltered. "I was in such a hurry when I came through that I must have dropped all three tickets into the uptown box."—New York Herald.

A Note That Was Paid.

History is constantly repeating itself. Once upon a time a landlady in Washington called on President Andrew Jackson and told of a government clerk who owed her a big bill for board. In those days it was easy to have access to the White House. President Jackson listened to her story and advised her to get a promissory note from the clerk and put it in bank. She replied:

"I've done that twice, general, and he won't pay even then."

"Is that so?" said the president in surprise. "Now you go and get his note and bring it to me. I simply want to see it, and I'm sure that the clerk will pay that note. Go and bring it to me."

The landlady did so, and soon returned with the promissory note. The president turned it over and wrote across the back of it his own endorsement: "A. Jackson."

That note was paid at maturity.—Cincinnati Commercial Tribune.

Waves in Solid Metal.

As illustrating the advances in metallurgy and engineering it has been demonstrated that solid metals may reveal by their structure the vibrations to which they have been subjected.

In explaining this phenomenon experiments have been shown proving that a beautiful wave structure can be imparted to the surface of mercury by the vibrations of a tuning fork, and that even the surface of solid lead which had been subjected to similar vibrations possesses a structure resembling that of a vibrating surface of mercury. Mild steel has been defined as a "solid solution" of iron and carbon, free from cinders. Metallurgists have doubled the strength of steel as it was known in its early days.

Scientific American.

Relieved.
"Where did you get these examples of faultily constructed sentences?" asked Dr. Campbell, the great rhetorician, of a student.

"Out of one of your books, doctor." "What? Where? Out of one of my books?"

"Yes, sir; out of your 'Rhetoric'."

"Out of my 'Rhetoric!'" roared the doctor. "Impossible! Never did I make use of such language. You are mistaken, badly mistaken. But—but where in my 'Rhetoric' did you find such composition?" he demanded angrily.

"In the part, 'Sentences to be Corrected.'"

"O-h-h-h-h! A-h-h-h-h! Yes, yes," said the relieved doctor.—Philadelphia North American.

Too Much For Her.
Calling one day to see an old friend who was visiting her married son, I inquired of the colored maid who answered the bell, "Is Mrs. Smith at home?"

"Yas'm, she home," the girl replied, showing no inclination to invite me in. "She here, all right, but she got a misery in da head."

"Mrs. Smith senior?" I asked with concern.

"Seen me!" she exclaimed suspiciously. "Cose she seen me. Huccome she ain' see me w'en she hire me last night hub own self?" And she indignantly shut the door.

RARE STATUE OF LINCOLN DISCOVERED IN FRANCE

Portrays Great Emancipator as a Boy. Presented to Colonel Watterson.

"Inspired of God. Henry Watterson." Such is the inscription the name of American journalists wrote on a newly cast bronze statue of Abraham Lincoln. The whole story is as interesting as a romance, for no one knew that a statue of the martyr president existed in France. It was hidden away and forgotten in the lumber room of a medieval chateau, and it required the keen eye of a man with artistic tastes to discover it.

Ames Van Wart of New York is a grandnephew of Washington Irving. He is connected with Paris as well as Irvington-on-the-Hudson and Sleepy Hollow. He is also the owner of the fine old Chateau des Grotteaux near the royal town of Blois. He is rich, yet he is a great sculptor. One day when lingering with the ghosts of the old chateau in Touraine the idea struck him of producing a statue of "The Boyhood of Lincoln." Here was the impulse of the divine afflatus, united with the warm glow of patriotism. And the result is a masterpiece in the opinion of those who ought to know.

The statue shows Lincoln as a thoughtful boy of seventeen. He is wearing the play shoes, blue jeans and soft shirt of a backwoods boy. His hair is by his side. He has just raised his eyes from Weems' "Life of Washington." The expression conveys the idea that the backwoods boy has heard a whisper of his terrible destiny.

"I saw him represented frequently in his old age, his work finished," says the sculptor, "but knew of no work representing him in his raff splitting days of struggle and prescient endeavor. I sought to represent him as I felt he was—strong, simple, earnest, sad."

The man who discovered the statue is Verner Z. Reed, a Colorado banker and man of letters. One day his friend Van Wart asked him to come to his chateau to see a cast of a form he had just made. Mr. Reed, catching a glimpse of the statue of Lincoln, said:

"But this is far and away the best thing you have ever done. All Americans will be interested in it, and it must not remain hidden here in a lumber room."

The statue was sent to Paris for reproduction in bronze. Presently Colonel Watterson, the biographer of Lincoln, Van Wart and Reed, went to see the first bronze. The first sight the venerable colonel had of the statue pulled him up sharp. He looked at it intently and removed his hat. He turned to the sculptor and said:

"I do not understand how you have been able to do it. I cannot understand how it was possible for you or any other man. But I know the shape of Abraham Lincoln's head. I remember every lineament of his face, and when he was a boy Lincoln was that."

Mr. Van Wart decided to present the statue to Colonel Watterson. The colonel accepted gratefully, on condition that it should go to the city of Louisville after his death.

FUNERAL OF A DOG.

White Hearse, Silk Lined Coffin and Roses for an Irish Setter.

A funeral more elaborate than those given for many human beings was held at Buffalo for Taunt, an Irish setter, owned by Mr. and Mrs. Robert Cronin.

An expensive coffin, lined with white satin, such as is used for children, held the dog's body. A white hearse drawn by white horses carried it from the hospital to the railroad station, where the funeral party took a train for West Falls. A carriage followed the hearse. Mr. and Mrs. Cronin were accompanied to the place of burial by two neighbors.

The funeral attracted much attention. Before the coffin was taken away many took a last look at the dog, which had been a general favorite in the neighborhood. The body had been embalmed and the head rested upon a satin lace trimmed pillow. Around the dead dog's neck was a huge bow of pink ribbon.

At West Falls Taunt's body was lowered into a grave lined with hemlock boughs. Overhead is a wild cherry tree. Carnations and roses covered the top of the coffin. The grave is on a beautiful hillside overlooking Pike's Creek ravine, on Glen Rose farm. A simple granite shaft with the lettering "Sacred to the Memory of Taunt" has been ordered for the grave.

The Cronins have no children, and Taunt from his puppy days has received the care and attention usually bestowed upon a baby, being brought up on a bottle. At night the dog slept on a feather bed. Latterly Taunt had been accustomed to drinking a couple of bottles of Bass ale before going to sleep.

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Rare Colonial Flag.

W. T. Denniston of Spokane cherishes an American flag which has been in the Denniston family for 121 years. The flag, which is of bunting and all hand sewed, was made in 1790. It is a flag of the Revolution, having thirteen stars and thirteen stripes.

Gold Production Statistics.

The gold production of Natal and Zululand for the year ended Dec. 31, 1910, was 4,184 fine ounces, valued at \$60,487, and there was also an estimated 112 ounces of fine silver, worth about \$50, contained in the gold bullion.

CANDIDATE FOR PROTHONOTARY



To the Republicans of Wayne Co.: I take this means of announcing myself as a candidate for the nomination of Prothonotary at the primaries, Sept. 30, 1911.

To most of you I am known personally. During my seventeen years of service as a clerk in the Honesdale postoffice my efforts have been to perform my duties faithfully and courteously to the patrons of the office and the public generally.

To the voters with whom I am not personally acquainted I would say that, since a severe injury sustained by my father a few years before his accidental death when I was sixteen years old I have tried to make an honest living. My birthplace was in Texas township, district No. 4, Wayne county. My school days were limited to the district school and the Honesdale High school. As a boy of eleven years I spent my summers slate picking on the Delaware & Hudson dock and attended school during the winter. I also spent several summers working on a farm in Cherry Ridge.

After school I entered the office of the Honesdale Iron Works, known now as the Guerne Electric Elevator Co., where I stayed a number of years and later entered the Honesdale postoffice serving two years under William F. Briggs. I then went to the Carbondale Lumber company as a bookkeeper, remaining with them until the appointment as postmaster of Miss Mary E. Gerety, who later became the wife of Hon. C. A. McCarty. In June 1896, I returned to the Honesdale postoffice where I have been employed ever since. In coming before the people and asking their assistance and vote at the coming primaries, let me say that I am no tool of any boss or bosses. I simply desire to common with every American citizen to better my condition. Your support will be appreciated and if nominated and elected I will devote all my time and attention to the duties of the office to which I aspire.

Most cordially yours,

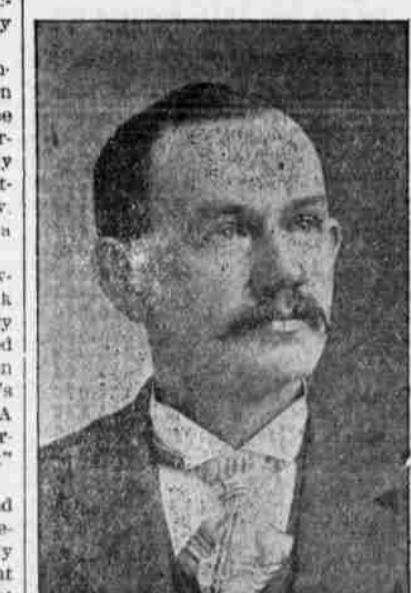
JOHN N. SHARPSTEEN.

L. G. SIMONS,
Sterling, Pa.



REPUBLICAN CANDIDATE FOR COUNTY COMMISSIONER.

CANDIDATE FOR SHERIFF



T. Y. BOYD.

I wish to announce to the Republican voters of Wayne county that I am a candidate for the nomination at the coming primaries for the office of Sheriff. Your vote and your support in my behalf will be greatly appreciated.

T. Y. BOYD,
Boyd's Mills.

**A. O. BLAKE
AUCTIONEER & CATTLE DEALER**

YOU WILL MAKE MONEY BY HAVING ME

Bell Phone 9-U BETHANY, PA.

Roll of Honor

Attention is called to the STRENGTH of the

Wayne County Savings Bank

Stands 38th in the United States

Stands 10th in Pennsylvania.

Stands FIRST in Wayne County.

Capital, Surplus, \$527,342.88

Total ASSETS, \$2,951,048.26

Honesdale, Pa., December 1, 1911.

DIGNITY and CONFIDENCE

It is wonderful what an amount of dignity and confidence one gets from the fact that he has a growing bank account. The possession of money you have earned and saved yourself makes you independent mentally as well as in regard to material things.

Become a regular depositor in a good, strong, growing institution like the

Honesdale Dime Bank

We will help you with three per cent. interest. Each new depositor is presented with a useful, as well as ornamental house-hold bank