OCTOBER 8, 1892.

Diligence in Business.

In these days of hurry and strife for the firs' places in the race of life it is even more important than in made by one of the readers of the SCIENTIFIC AMERIformer years that a man be diligent in his business and look after its every detail closely.

We see among our greatest business men of to-day those who started in life as poor boys and who have now become the heads of large establishments. How have they come to do this? Was it because they had better chances than are now held out to the average young man? That has not been so in the majority of cases, but they have striven after their high positions and have endured hardships to overcome obstacles. They have been diligent in business, and are now reaping a richly deserved reward.

In some respects it may be harder for a young man, or, in fact, any man in business, to make a great success, because of the amount of competition that has to be met. It needs men who will not give up for anything to battle against this competition.

Close attention must be given to the slightest details, and everything has to be done carefully. The cost must be measured in every transaction. Application is necessary if you would attain the best results.

Look out for the little things. They do not seem to count at the time, but every item helps to count up on either side of the balance sheet. By that it is not meant that one should be close, but he should be careful.

The "tricks of the trade" ought to be let alone. They do not help any in the long run. If a customer finds that he is not being treated fairly, he will leave in an instant. It is fair to say that there is very little underhanded business being done. It does not pay, and business men have come to see it.

Give all you can for the money, and you will hold a customer and gain others. Don't run down another man's stock in order to make a sale. If your neighbor has poor stock, the customer will find it out if he tries. Business men should work together as much as possible and try to make the standard of business principle as high as possible.

Let a man start out with fixed principles and with determination to win by the practice of fairness toward board. The armature lever is attached to a spring, one and one-fourth ounces to four gallons of water. It

all, and he is bound to succeed. He needs to look out for his business and see that those under him are as honorable in every way. A man who does that will find friends both with customers and fellow business men

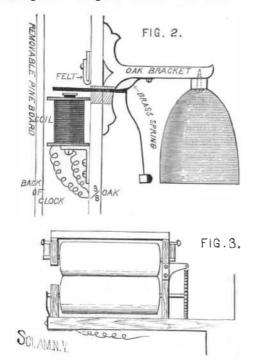
All lines of business must be run systematically in order to attain the best results. It will not do to let one thing after another pile up until one is literally snowed under. It is best to go through with every thing in a systematic manner. Take up each item in its regular order and work while you work. Recreation that is taken when you are conscious that you have done the work of the day faithfully is always sweetest.

Always be on the lookout for chances to improve methods in business and keep up with the times in all lines. There are new articles coming up continually. Some of them possess merit and some do not. It is a study by itself to find out which are the best to handle. Much may be gained or lost in this respect.

There are numerous ways in which business must be watched. One must love the business he is engaged in, and seek to make it all that it should be. The mark of excellency cannot be placed too high. Reward for his labors is sure to come to the diligent man, and that was well known in the time of Solomon, who said : "Seest thou a man diligent in his business? He shall stand before kings; he shall not stand before mean men."-Stopes and Hardware.

CLOCK WITH ELECTRIC CHIMES.

We give an engraving of an electric chime clock CAN, after instructions given in our issue of May 21, 1892, the builder of which informs us that it works well and gives him a great deal of satisfaction.



Figs. 2 AND 3 .- DETAILS OF ELECTRIC CHIME CLOCK.

Owing to the fact that the bells procured by him were too small to receive the electro-magnets, he placed them outside of the bells, in the manner illustrated in Fig. 2, the bells being suspended from brackets attached to a board at the back of the clock, the electromagnets being secured to the rear surface of this

which serves as a pivot, and also retracts the armature after it has made a stroke. A small disk of felt is secured to the pole of the magnet and a loop of felt is attached to the back board. The armature plays between these two pieces of felt, and is, therefore, noiseless in its operation. The upper roller of the pair which moves the perforated paper is supported in an overhanging frame, as shown in Fig. 3, so that an endless piece of music can be slipped between the rollers and played over and over.

The clock movement is an 8-day lever movement. This, being a compact form of clock, affords ample room for the favorable disposition of the bells and machinery. The case is of very neat design, made entirely of quartered oak, well filled and finished. The glass doors and sides are beveled. Taken altogether, it is as fine a piece of hall, dining room, or parlor furniture as one would wish to have.

We regret that the maker of this creditable piece of work insists upon withholding his name. His reason is that he has found by experience that when he furnishes a popular article to the SCIENTIFIC AMERI-CAN he requires a secretary to reply to the almost endless number of queries which such an article provokes.

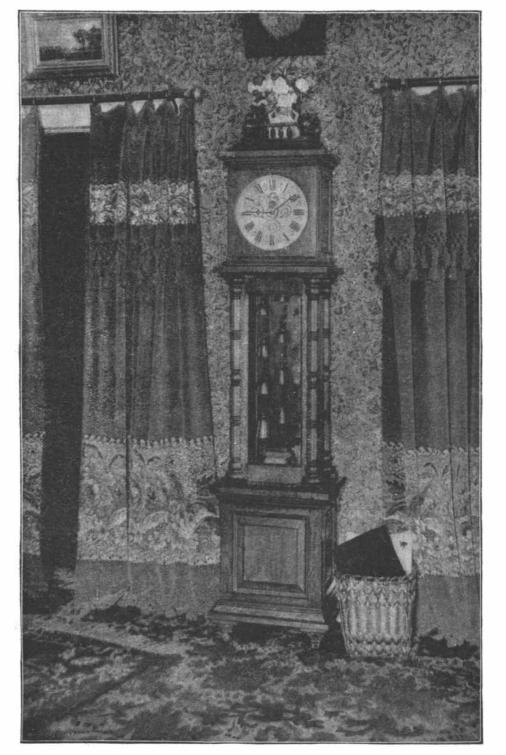
... Saccharin in a New Role.

This new substance is growing in importance in proportion as new uses are being discovered for it, and this is of constant occurrence. The fruit-preserving industry has been hitherto checked by the association with microscopic organisms attached to the skin of some fruits, and which, when brought in contact with cane sugar, is apt to ferment the latter. To prevent this chemical action, fruit bottlers have found it necessary to add an excess of sugar, or to raise the fruit to a high temperature, to kill the germs of fermentation. Both processes are attended with injury to the flavor of the fruit, and it has been recently discovered that this result can be prevented by the use of saccharin. When used alone it is claimed that perfect sterility is secured by simply raising the temperature of the bottled fruit to 180° Fah. for about two hours and a half. The proper proportion of saccharin for this purpose is

is claimed for this process that it preserves the flavor as well as the color and form of the fruit better than the old method of preserving with sugar. This discovery comes to us so well indorsed that we hope those of our readers who are interested in the subject will test it and report results. If it is all that is claimed for it, it is a discovery of no little importance, or, at least, is worth trying.-Confectioners' Journal.

Cold Storage for Salmon.

It is well known that by arrangement among the salmon packers on the Pacific coast the catch of salmon has been restricted to the requirements of the market under existing conditions, says the California Fruit Grower. Better facilities for preserving the fish are now being realized, with the result that this delicious food fish is likely to find a much wider distribution in a fresh state than ever before. Late dispatches from Victoria, B. C., announce that a cold storage system has lately been completed by San Francisco parties for the Cunningham cannery on the Skeena River. Into these refrigerators the fish are placed as soon as taken from the water and subjected to a temperature of 20° below zero. Here they remain six or seven hours, and are then removed to another room with a zero temperature, where they are held some two weeks, and then hermetically sealed in cases for shipment. The general introduction of cold warehouses adjacent to the fishing grounds is destined to effect a notable change in the salmon industry, enabling canners and others to utilize the heaviest runs, instead of being restricted in their catch to the number they are able to use up from day to day. The fish may now be caught in larger quantity and stored in cold rooms for fature treatment in the intervals between large "runs."



BOILS.-Dr. M. Spehn recommends very highly, as far superior to all other treatment, the use of chloral externally in this troublesome class of affections. He directs that the boil be kept covered with a tampon of cotton-wool soaked in the following solution :

B, Chloral hydrat..... 3 iiss. Aqua, Glycerin......aa f 3 v.-M.

-Amer. Med. Mag.

Fig. 1.-ELECTRIC CHIME CLOCK.

An electric flying machine was recently made to rise 70 feet and fly about 400 yards.