

tage, as a great deal of waste may be made at this point. Each stroke of the beater blade should take the cotton off clear and straight. If it is "dragged" off by the blade the staple of the cotton is being injured, and broken staple causes waste. Also see that the fibre is not being drawn into the dust flue by the fans, which should not be run at an excessive speed. Periodical visits to the dust chamber to examine the quality of the flue dust should be made. Particular attention should be bestowed on the way the cotton is blown on the cages of these machines, and if it is not evenly distributed all across the cage there is something wrong; possibly there is an accumulation of cotton causing an obstruction, or the casing at the ends of the cages may be defective, causing the cotton to "drag" and the draught to get diverted, which will make an uneven lap.

The more perfect the laps from these machines, the less waste there will be in the succeeding processes, as unevenness in the laps is never entirely eliminated, causing more or less waste all the time, owing to breakages in the sliver, roving and yarn.

Close attention to the proper setting of the feed plates, mote knife, and lick-in of card will prevent waste. Also see that the teeth of lick-in are in good condition. Light carding and systematic stripping will assist in reducing the quantity of waste on these machines.

The amount of waste made up to this point—the carding engine head—on cotton grading strict good middling averages 8 per cent. As the loss on the next three processes—drawing, slubbing, and roving—is infinitesimal, owing to the class of waste made being suitable for re-working, a percentage of 1 per cent. amply covers the loss, with a further 1 per cent. made in spinning, winding, reeling and making-up. The sweepings off the floor must be carefully picked and no clean cotton allowed to pass, and the winders' reellers' and beamers' waste should be weighed and examined every day, to keep it down to the lowest possible point, without hampering the help.

The difference in loss in waste between 10 and 15 per cent. does not appear a very serious drawback, but looked at from another standpoint it is 50 per cent. in excess of what it can be reduced to. Calculated on this basis the loss becomes startling. Take for example a mill using 100,000 pounds of cotton per week.

100,000 lbs. cotton, less 10 % waste—	
90,000 lbs. yarn at 25c per lb.—	\$22,500
100,000 lbs. cotton, less 15% waste—	
85,000 lbs. yarn at 25c per lb.—	21,250

Per year, \$65,000; or weekly \$ 1,250

Nothing should be allowed from this calculation for the value of the extra amount of waste made, namely, 5,000 pounds weekly, as this is more than balanced by the loss of 8 per cent. cellarage on this 5,000 pounds, and the decreased value of the yarn produced. Where there is excess of waste there is irregularity in the yarn, consequently deterioration in quality. A reduction in the price of the yarn of one-fourth of a cent along with the aforementioned loss, amounts to considerably more than the value received for the extra 5,000 pounds waste made weekly.

From this statement the importance of particular attention to prevent excess waste

(in whatever proportion) in cotton mills is apparent, and it is well worth due consideration. In times of "close margins" such attention will convert what would otherwise be a loss into a profit, which is the goal to be aimed at.

Foundry Floors of Brick.

By G. Krause.

Brick is frequently used as a foundry floor, especially in light work iron foundries or in brass and bronze foundries. For this purpose a good high grade vitrified brick should be selected.

The ordinary paving brick is not satisfactory on account of its round corners, as when intended for foundry floors it must have square corners and be of uniform size. The brick should be laid on a two-inch bed of sand, a floor laid in this way being sufficiently elastic under the feet so that it does not affect the men as in the case with concrete floors.

For melting rooms where the casting is done, the semi-vitrified bricks are said to be better than the vitrified.

Inattention.

From Machinery.

The writer has just returned from an auction sale of tickets where large signs were displayed stating that, in every case, bids were a premium to be paid in addition to the basic price of tickets. To make assurance doubly sure, the fact was announced and explained from the platform. In the face of all this, no less than three persons bid in seats, and prepared to pay for them only the specified amount of the premium. Such experiences are repeated everywhere and every day, in the shop, the office, the school. They seem to be almost chronic. It is hard to define the cause. Is it due to mere inattention, or heedlessness, or to real lack of comprehension, or what? At all events, its results are disastrous to the prospects of many a young man whose mind is not upon his work.

Attention to business is the first sound law of success. The boy who does not have to be told twice, who carries "the message to Garcia," and brings back what he was sent to get, is the one who counts. It would be interesting, though saddening, to discover the aggregate annual loss in the average shop through inattention: The things done over because the first attempt was wrong; the things done wrong because the workman was not attentive enough to learn how to do them right; the piece spoiled because the feed was jammed in too deep; the drawings ruined because of miscalculation or error in layout. It would be a sorry exhibit. We are all looking for the boy who thinks; for him there is a prospect, but he is scarce in these days of the multitude who seem to think that the world owes them a living. If our education is to accomplish anything of which we can boast, it must create a feeling of personal responsibility and an attitude of careful attention.

The Ingersoll Foundry Co. will enlarge and extend their plant.

The Man and His Job.

By Herbert J. Harwood.

Initiative coupled with judgment is a requisite truly necessary to personal success. A man with the one and without the other is like an automobile with a good four-cylinder engine and a deficient steering gear. It can make lots of headway, but is very apt to knock down some one or run into an iron fence. Seldom we find a man possessing both the disposition to go ahead and the ability to decide in matters of import.

It is easy enough to do any old thing at the right time, but the man who can do the right thing at the right time is most useful to his employer. Some people can see what is to be done and have the power to do it. But when it comes to an expression of opinion their judgment is worse than that of a country baseball umpire.

On the other hand, good judgment without the ability to go ahead is worse than useless.

A jackass was once stationed at a point equally distant between two bundles of hay. There was all he wanted to eat on one side, and all he wanted to eat on the other. Ordinarily, even a jackass would have possessed reason enough to take the bundle lying nearest to him. What could he do, however, when one was as far off as the other? That question was too tremendous for the jackass. He tried to use his judgment, and stood there with hay piled up on both sides of him. He lacked initiative, however, and as the story goes, starved to death before he could come to a decision.

Some one advises young men "Take time to consider, but decide definitely." Always pays to take time, but it never pays to take all the time in forming a suitable judgment. The man who is all day making up his mind, is no better than the jackass between two bundles of hay.

Sum up the facts in the case, formulate your opinion with dispatch, and then go ahead. Say to yourself, "Fiat!" which ordinary parlance means, "Let it be!"

Employ judgment in your every-day affairs, but take initiative as its inevitable co-worker.

E. M. Ellicott & Co., Montreal, are installing a Parkin elevator for the Imperial Sugar Co., in their new premises, 29 Vite St. Montreal.

The L. E. Waterman Co. of Canada Limited, will build a three story factory, 40x150 feet, at St. Lambert, P.Q. Work will commence at once. Hutchison & W. are the architects.

Building permits at Edmonton since the first of 1908 have totalled \$1,423,350 compared with about \$700,000 in the same period last year.

W. P. Tierney & Co., Nelson, B.C., have been awarded the contract by the Canadian Pacific Railway for filling and replacing several large bridges on the line between Castlegar and Cascade; also a new span and change of grade at the Mother Lodge near Greenwood, B.C.

The Galetta Electric Light & Milling Co. of Ottawa, have ordered a 7-ton hand travelling crane from the Smart-Turner Machine Co., Hamilton.