

not compete with others of a cheaper grade, which might have for the time quite as good an appearance, but whose inferiority would only be evident after the goods had been more or less in use.

First, now, in steaming a worsted, it may be run into a vat of boiling water, where it is completely wet up through and through. It is then wrapped on the perforated cylinder and covered with a canvas sheet, which is securely tied. When this is done, from five to eight minutes of steam is given until the goods are thoroughly steamed through. After this steaming the goods may be scoured, and, if need be, dyed. When the dyeing is over the goods are put through the rest of the finishing. Now, in the whole operation of steaming the important point is, that the cloth shall be under the influence of the water and steam long enough to get permanent effects, and yet not so long as to overdo the matter and destroy the whole thing. The old operation of boiling the goods in a closed tub had very good results, and the process of steaming only carries out the same plan in a different way.

Next to great care in scouring, boiling and steaming, the pressing comes in for a great share of attention. A worsted, to be finished properly, cannot be treated any better than by means of the old plate pressing. However, this plan has gone much out of style. There is a press made at present which works in much the same way, but it does not give the same results because the cloth passes through it so much more quickly, and is under the influence of the pressure for so short a time. However, the plate press, by which great pressure is brought to bear perpendicularly on the face of the goods, instead of by the rolling motion of the cylinder press, is much more effective in giving a good finish to the cloth.

We consider that if the American worsted is inferior to the English, it is mainly due to the very few points we have mentioned—the stock and the steaming and pressing. Any innovation in the treatment of these goods which hurries the process, is sure to lead to imperfect and unsatisfactory results. The only way to get a permanent finish on a worsted is to take plenty of time for these important processes. Steaming at the brush follows pressing, when the goods are ready for the market.

ELECTRICAL LOOMS

A continental textile publication calls attention to an interesting experiment lately tried with considerable success at the weaving factory of C. G. Hoffmann, at Neugersdorf. About eighty looms are driven by electricity, which is furnished by steam driven dynamos, each loom having its own electric motor. A number of doubling and twisting machines are also worked in the same way. The construction of the loom is in no way altered. Only instead of the fast and loose pulleys hitherto requisite for the strap arrangements, only one fast pulley is necessary, the diameter of which must be adapted to the number of beats of the lathe. The

electro-motor is so stationed beside the loom that its pulley stands vertically under the pulley of the loom. The strap driving the loom is consequently very short—so short, indeed, that it could not drive the loom were it not constructed in a peculiar manner, in accordance with a patent by the firm of Siemens & Halske. The result, however, is a simplicity previously unknown. A weaving establishment fitted up according to this system comprises the boiler, the steam-driven dynamo, the other electric apparatus and conductors, and the electrically propelled looms and other machinery. All shafting is dispensed with, and there is nothing above the looms but the roof of the building or the ceiling in the room. In no case are there vertical shafts—hitherto often used to the sorrow of all concerned. The place of these is taken by a few wires, which can be carried from one story to another along a wall or in a corner. That this method of transmitting power thus seems to be essentially more economical than that hitherto effected by means of shafts, ropes and straps, needs no demonstration. Another advantage of this new arrangement, which will come out more clearly as experience increases, is the uniformity of working of each loom, on account of its having its own motor, and being therefore no longer liable to variations through irregularities in the movements of the straps or the shafts.

As for the cost of this new method, it is admitted that it is too great to be readily applied to existing establishments, and that even new buildings cannot be fitted up without increased expenditure, although cases may occur in which the new plan costs less than the older one. It is also urged that the additional cost may in the case of a new factory be met by diminution of the building expenses, consequent on the absence of shafting, which the builder has not taken into account. It is also claimed that the electric motor costs less in the working. This last claim, however, will need a good deal of proving.

REVIEW OF TRADE.

The dry goods trade during the past month has been decidedly flat, and there are few houses which can show an improvement on the same period last year, either as regards volume of trade done or payments received from customers. *The Provinces of Ontario and Manitoba* are perhaps more depressed than any other section of the Dominion, and a number of good substantial houses have succumbed during the past three weeks. Quebec City and Province have held their own perhaps better than any quarter of the Dominion. There has been an impression for the past twelve months that business was very good in the Maritime Provinces, but this impression has attracted the notice of wholesale houses and manufacturers, and in consequence the Maritime Provinces have been almost drummed to death, until trade is almost as bad there as in other sections.