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NEW SERIES.

Self-Acting Carder Feeder.

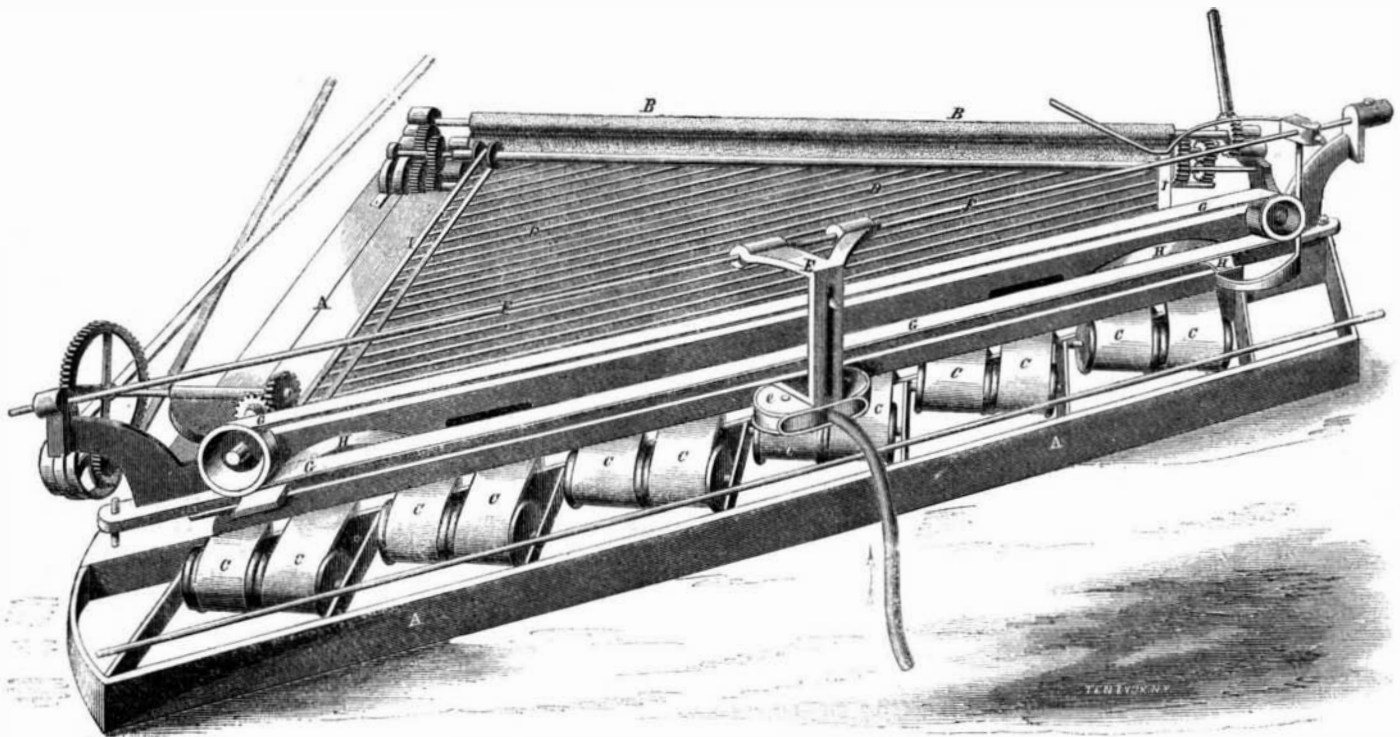
The woolen trade is every year increasing in importance and extent, and has already become the leading manufacturing interest of the country. Under the present highly protective tariff there is little doubt that the rate of increase will be greater than ever before, and even now, in the depressed condition of many other branches of trade, there are indications of vigor in this department, and new fac-

tories are springing up on every hand. It is, however, of the utmost importance that our manufacturers should keep pace with Europe in every improvement, and we present them with the accompanying engraving of Apperly's Patent Self-acting Carder Feeder, which has already gone into use in England, France and Germany. This is considered by the leading woolen manufacturers of Europe to be one of the greatest improvements of the age, and those American manufacturers who have fairly tested the machine, fully coincide with the opinion; in testimony of which we refer our readers to our advertising columns.

takes place between the second braker and finisher, and the whole of this has hitherto been done by hand. It is the object of this carder feeder to do all this work between the second braker and finisher and between the first and second braker; and it is done much better than it could be done by hand. It has, by the old plan, taken six or eight hours to obtain roping from the finisher ready to spin, but by this

in card clothing, as all parts of the card work equally, the wool being spread evenly all over the card. The machine is exceedingly simple, and is not at all liable to get out of order.

This invention is the subject of a patent in England and the United States; Letters Patent having been granted to James Apperly and Wm. Clissold. It is also in operation at the World's Fair in London, both in the English and French departments.



APPERLY'S SELF-ACTING CARDER FEEDER.

Wool is carded or prepared for spinning woolen yarn by passing through three carding machines, called technically the first braker, the second braker and the finisher. The wool is spread evenly by hand upon an endless apron, which forms a table in front of the first braker, and is thus carried into the first carding machine. Having passed through to the doffer of the machine, it comes off in the form of a thick cord or roll of wool, called the drawing or sliver, which is wound on a large spool, and as soon as one spool is filled it is replaced by another. A number of these spools are then put upon a spool stand, which is placed in front of the second braker, the end of the drawing from each spool is placed between the feed rolls, and the machine gradually unwinds and empties all these spools, to be at once replaced with other full ones. This same operation

feeder it is obtained in fifteen or twenty minutes.

The feeder is attached to the carding machines called the second brakers and the finishers, and its operation will be understood by an examination of the engravings.

A A is the frame of the carder feeder, which rests on the frame of the carding machine; B B are the feed rolls, corresponding with the ordinary feed rolls of the carding machine; C C are endless bands which form together an English apron, upon which the bed of sliver, D D, is placed by a traverser, E E, which takes the roping or sliver as delivered from the first or second braker machine, and, passing it between two rollers, e e, at the foot of the traverser, E E, travels with it back and forth upon the shaft, F F. The traverser, E, is carried by an endless belt, G G, and lays the sliver across the machine, delivering it at either end to a latch, H H, which holds the sliver properly extended until the apron carries it forward to the spiked straps, I I, which carry on the bed of sliver till it is passed to the feed rolls, and thence into the machine. The work is fed into the first braker as usual, by hand; it then passes without delay, untouched, through the cards until it is condensed into roping.

The principal advantages of using the machine are, a considerable saving of labor and waste, making the yarn more even than is possible by the old method, by the diagonal mode of feeding the staple of the wool is protected, and, finally, a considerable saving

Full information in regard to the purchase of machines, &c., may be had by addressing George S. Harwood or G. H. Quincy, No. 8 Bromfield street, Boston, Mass. [An advertisement will be found in another column.]

Photographers' Silver Waste.

It is computed that not more than two parts of the silver salt, out of every ten parts used, is actually taken up to form the picture. In order to save the other eight parts, now wasted, the following economical process is suggested:—All the washings and waste water from the photograph sink should be made to flow into a barrel, into which is placed some protosulphate of iron in large crystals, and some lumps of rock salt. Any silver salt in the waste water flowing over these is decomposed, and the silver deposited as a grey mud may be collected from time to time and sold. Old scrap iron will also answer as well as the salts. It should be contrived that the inward stream enters the bottom of the barrel, and the outward one for real waste water at the top.

The manufacture of paper from the leaves of Indian corn is becoming extensive in Austria. The paper is said to be tougher than any ordinary paper made from rags, while it is almost wholly free from silica, which makes paper produced from straw so brittle.