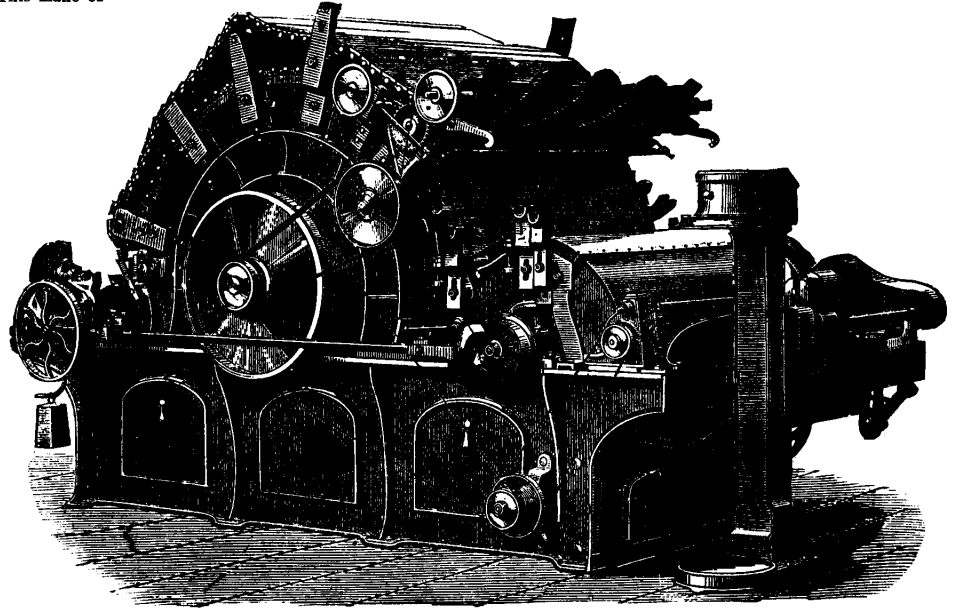


Card'ing Ma-chine'. The revolving, or traveling-flat carding machine, exhibited by Dobson & Barlow, of Bolton, Britain, at the Centennial, has a cylinder 50" in diameter, 40" wide on the wire; doffer 24" diameter, takers in 9" diameter, also 70 iron flats 2" broad, which have been tested by an apparatus which insures perfect accuracy.

The flats travel over the cylinder supported on a flexible iron bend which has 5 adjusting screws, and by this means the flats can always be accurately set at the proper working distance from the cylinder. The machine has fixings for grinding the flats while the card is at work; also for grinding the cylinder and doffer separately. No less than 27 flats are always at work on the cylinder at any time.

The machine has a taker-in with inserted wire, and containing eight separate coils in every inch. This make of

Fig. 544



Dobson & Barlow's Carding Machine.

taker-in is preferred on account of its not being so liable to choke as the ordinary wire, but is always clean, and requires no grinding. This card is also arranged for stripping out the cylinder by power, and has an angular bar casing under the cylinder only, with adjustable plate to and from the doffer, adjustable knife under taker-in, and sheet-iron division between the cylinder and the taker-in, to keep the waste from each separated.

The advantages of this card are, that the flats can be ground on the machine. The fixings for supporting the flats, knives, etc., are fitted on planed surfaces cast with the bends, so that they are not liable to be moved from their proper positions. All the flats are well borne up when not working on the cylinder, so that the person setting them may be able to test their accuracy without difficulty.

The cylinder and doffer can be ground separately at one time, if required.

The composite carding machine of Dobson & Barlow, of Bolton, England, has a cylinder 45" in diameter, 40" wide on the wire; doffer 22" diameter, taker-in 9" diameter, two rollers 6" diameter, two clearers 4" diameter, and 16 flats 2 1/2" wide, stripped in three different ways. The six flats at back nearest the feed roller are stripped three times, the five center ones twice, and the five at front once, thus stripping those flats most charged with waste more frequently than the flats nearest the doffer which are least charged.

This stripper is so arranged that a quick motion is given during the time the flat is being stripped, in order to prevent any collection of fly in its absence from the cylinder. The flat stripper is also cleaned by a top stripper, thus allowing the flat stripper to pass underneath the flat perfectly clean, and without the necessity of touching the wire, except in one direction, and that when stripping the flat.

See also, French carding machine; Figs. 1324-1326, article "Laines," Laboulaye's "Dictionnaire des Arts et Manufactures," tome ii., ed. 1877.

In Platt Bros. (Oldham, Britain) carding machine, the oiling apparatus for wool is applied under the first burring (steam) cylinder, the oil being supplied to a trough in which a smooth roller works; above this roller, and in contact with it, is another roller covered with cloth, which is also in contact with the burr roller. The oil is taken from the smooth roller by the covered roller, and from the covered roller to the teeth of the burr roller, by which it is imparted to the wool as it passes over the same. The oil is fed regularly to the trough from a cistern by means of a siphon.

In the triple burr roller arrangement the wire on the first roller is of the coarsest pitch, that on the second of an intermediate pitch, and that on the third roller of a finer pitch; the large burrs, etc., are thrown out by the first guard roller, the intermediate burrs are thrown out by the second guard roller, and the finest burrs by the third guard roller.