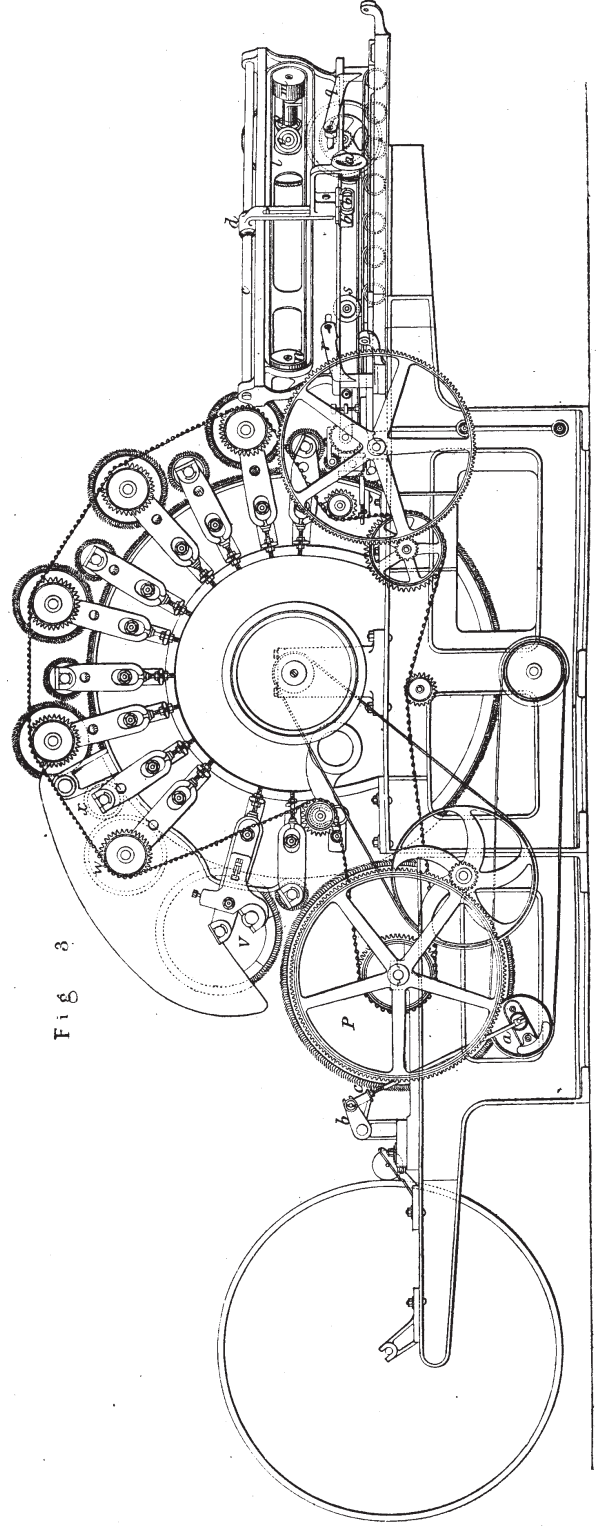
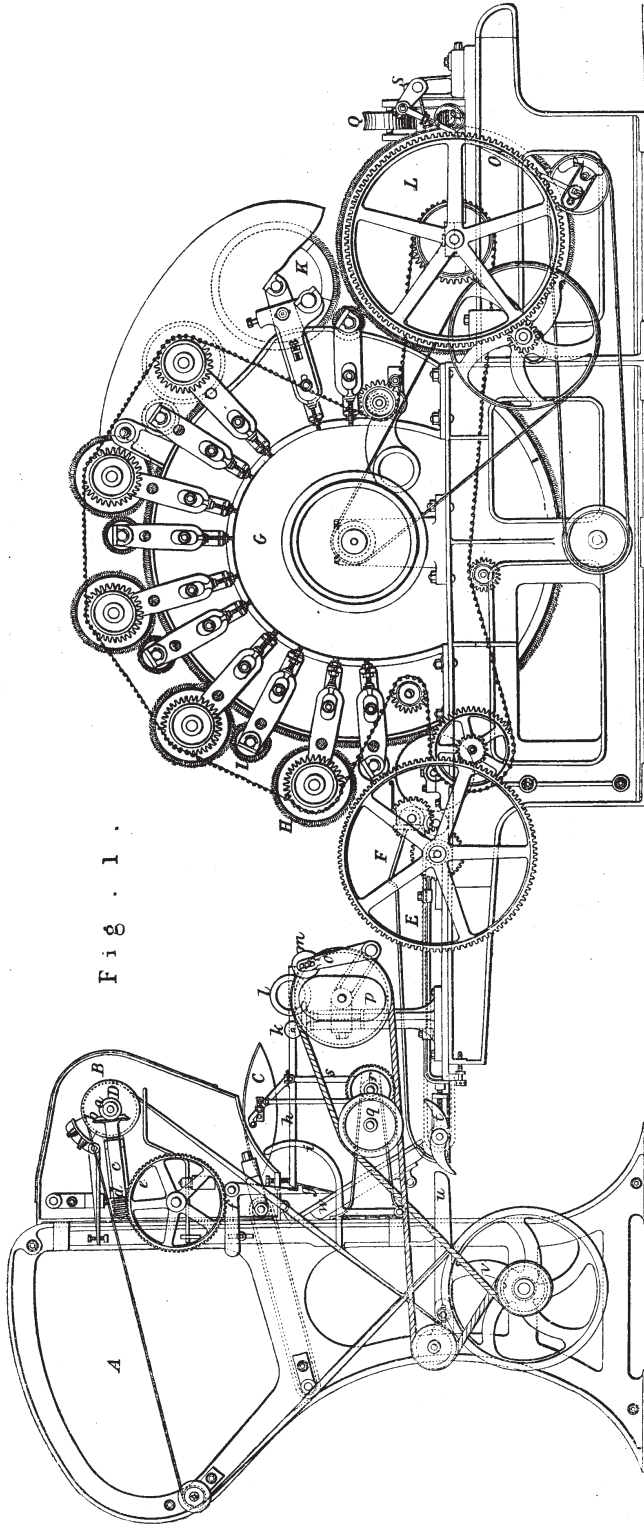


WOOL-CARDING MACHINERY.

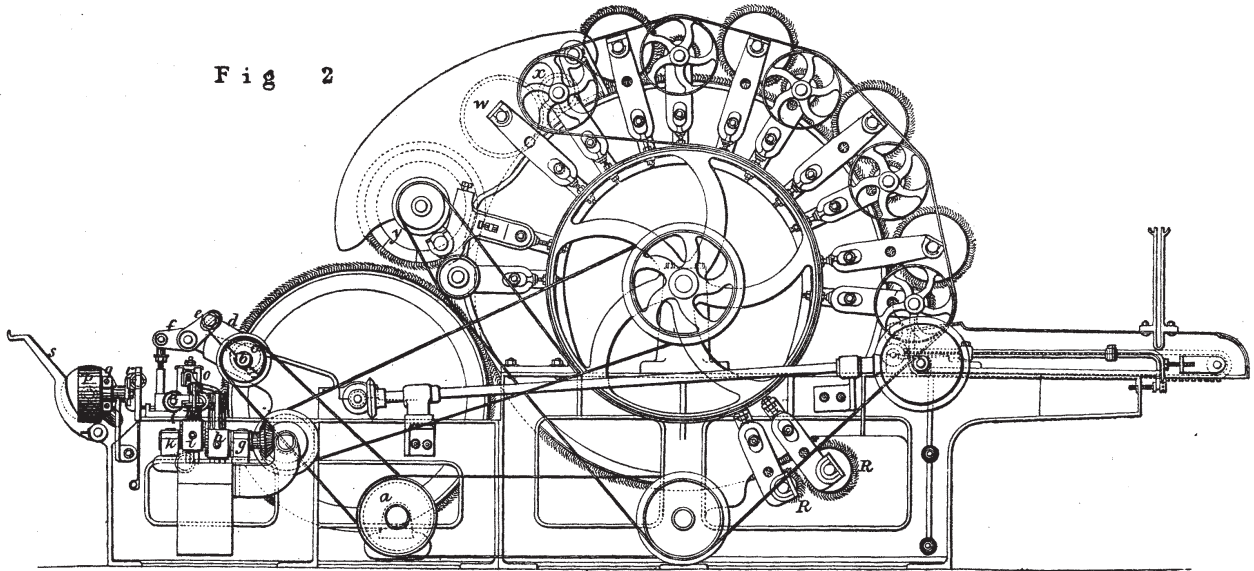
CONSTRUCTED BY THE SÄCHSISCHE MASCHINEN-FABRIK (FORMERLY R. HARTMANN), CHEMNITZ, SAXONY



WOOL-CARDING MACHINERY.

CONSTRUCTED BY THE SÄCHSISCHE MASCHINEN-FABRIK (FORMERLY R. HARTMANN), CHEMNITZ, SAXONY.

Fig 2

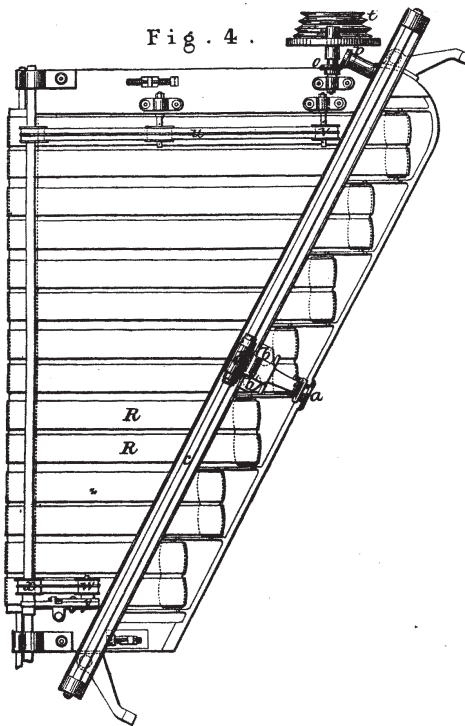


We publish on this and the opposite page drawings of wool-carding machinery, manufactured by the Sächsishe Maschinen-fabrik, of Chemnitz. This firm has devoted itself with much success to the perfecting of this class of machinery, and the engravings we have prepared show a selection of three machines, and their various attachments, all of the most recent form. Fig. 1—a scribbler—shows the first carder for opening the wool, and transforming it into a light mass, in which the fibres are laid parallel. This machine comprises a feeding apparatus, special rollers for preparing the wool, and an apparatus for laying the fibres. The feeding apparatus consists, as shown in the drawing, of a receiver A for containing the wool, of a mechanical device a B D for extracting it in small quantities, which fall into a cup C, mounted on a combination of levers c, h, i, and being moved by the gearing q r, the cam t, and the lever u. So actuated, an inclined position is periodically given to C, when it is filled with wool, and this movement throws the wool at first upon an inclined fixed table, and afterwards upon an endless platform. By means of the feeding rollers F the wool is led into the machine. This mode of feeding is very efficient, and its delivery is quite regular, because the cup C receives a given quantity of wool in a given time, and any excess is rejected, and does not enter the machine. This regulation is effected by means of the weight of the wool itself, and by the counting wheels. The wool passes by the carrying cylinder to the drum, which revolves in connexion with five pairs of workers H, and cleaners I.

The large roller K raises the wool a little, so that the comb L may receive all the wool from the drum. The vibrating comb, worked by the lever and connecting rod O, separates the wool, and forms it into a light fleece, and it then passes off by the roller, shown in the engraving upon machine Fig. 2. This machine is fitted with a so-called "diagonal" feeding apparatus. It contains a guide moved by means of an endless band l running over the pulleys m n. Over the belt is a bar c, on which is mounted, free to slide, an arm d, the lower part of which is formed with a slot. To the band is attached a small finger which passes through the slot, and gives motion to the arm d, and at the bottom of this is placed a bracket carrying the gauge a and the double elliptical ring b. The band of fleece is led through a and b on the endless table. As will be seen from Fig. 3 this apparatus is placed diagonally with regard to the endless table, and the reciprocal movement insures the band of wool being placed also diagonally on the feed table, and it does not enter into the machine in the direction of the length of the fibre, but at an angle to it. By this means the amount of separation of the fibres can be increased, and their position with regard to each other equalised. The drum in this machine is also connected with five pairs of working rollers and cleaners w x, with a cylinder and doffer P. The oscillating comb c separates the fibres of the wool, and forms a fleece ready to be fed upon the third machine, Fig. 4.

This carding engine takes the wool from the previous machine upon the endless table E. The drum works also in connexion with five pairs of small rollers, and the large cylinder y lifts the wool from the drum to the doffer, while the oscillating comb (driven by a pulley a and eccentric c on the shaft b) separates the wool from the doffer, and the dividing apparatus cuts the fleece into thirty cardings,

Fig. 4.



which are compressed and rolled by means of three cylinders, which are driven by the eccentrics g, h, i, k, and c. The fibres remaining on both sides of the doffer are taken off by means of the small combs. This continuous carding engine is supplied with the cleaning cylinders R R for clearing the drum. The whole of the machines are commendable for the simplicity of their arrangements, and the solidity of their work.