

## SHEARS.

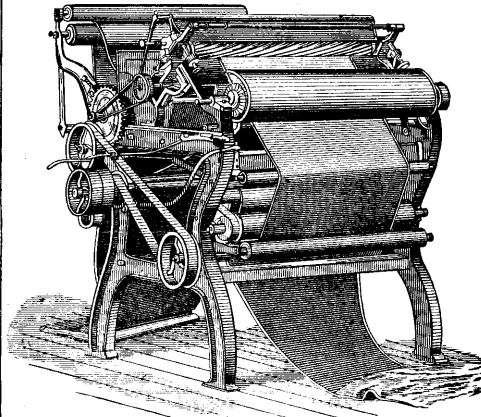
cutters ; one of these is a continuous spiral cutting-edge upon the periphery of a roller, and the other a stationary blade ; the nap is clipped between the two.

For removing the loose fibers from cotton cloth, it is passed over a hot plate or a row of gas-jets set closely together. See SINGEING-MACHINE.

Fig. 4924 is a view from another point of direction of a similar machine. It is intended for shearing brussels, axminster, tapestry, and ingrain carpets. The fabric is fed continuously through the machine, passing rollers which smooth it perfectly and pass it over a straight-edge. Here it is so sharply bent

that the fibers are projected outward and caught between the spiral blades and a straight steel knife, between which the fluff is cut off or the pile reduced to a length, as the case may be.

Fig. 4924.



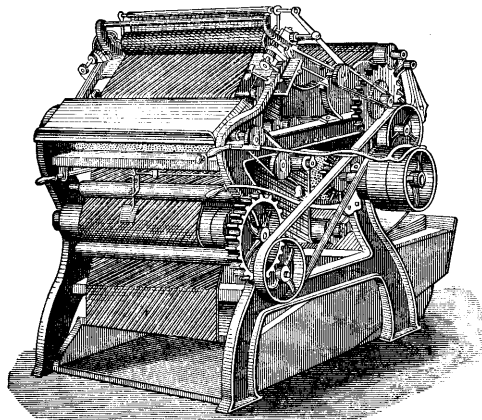
Shearing-Machine.

**Shear'ing-ma-chine'. 1. (Woolen-manufacture.)** A machine through which cloth is passed after leaving the *gig-mill*, in order to shorten the nap and bring it to an even length so as to secure a smooth surface. This was formerly done by hand with a pair of shears. Machinery for the purpose was introduced, leading, of course, to riots, in England, at the beginning of this century. See CLOTH-SHEARING MACHINE, page 575.

One arrangement consists of a fixed semicircular rack, within or behind which is a cutting-edge, called a *ledger-blade*, and a large revolving wheel containing eight small cutting-disks, which, in contact with the ledger-blade, form a number of delicate cutting-shears ; each cutting-disk is furnished with a toothed pinion working into the semicircular rack, so that as the large wheel revolves the disks acquire an independent rotary motion in addition to their motion with the large wheel. The machine may be made to travel over the cloth, or the cloth may be moved beneath the machine, which remains stationary.

In Curtis and Marble's machine (Fig. 4923), the cloth is wound from one roller on to another, passing over a fixed bar, which holds it up to the action of the

Fig. 4923.



Shearing-Machine.

Fig. 4925 is a view of Curtis and Marble's mat-shearing machine. It has a revolving cylinder, with spiral knives cutting against a sharp straight knife known as a *ledger-blade*. It is constructed to cut five feet wide either in single mats or in strings.

The view shows a mat undergoing treatment.

Shearing-machines are made for shearing *crosscut*, *reversibly*, or *continuously*.