

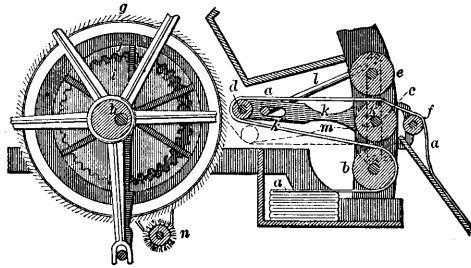
Napping-machine'. A machine for raising the nap or pile on woolen and cotton fabrics.

Fig. 3293 illustrates an improved form. In this the cloth *a a a* is drawn between the rollers *b c*, passing around the roller *d*, then between the rollers *c e*, and over the small roller *f* to a receptacle. These rollers, as well as the napping-cylinder *g*, are driven by the shaft *h*, which carries two eccentrics running loose upon it. The inner one of these is attached to the gear-wheel *i* on the napping-cylinder, which meshes with the internal gear *j*, causing an intermittent rotary motion. This movement causes a reciprocating motion of the arm *k* slotted at *k'*, the latter of these slots receiving the pivoted rod *l*, which is adjustably attached to a lever *m* (indicated by dotted lines) provided with a spring-pawl that engages with teeth on the central roller *c*.

In the operation of the machine, at each revolution of the driving-shaft the napping-cylinder is moved slightly forward, remaining momentarily stationary while the roller *d*, which presents the cloth to the napping-cards or teasels on the periphery

g, is moved eccentrically back and forth toward and from them, the ratchet device causing at the same

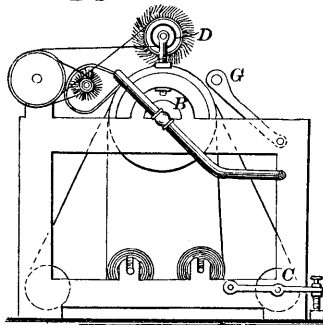
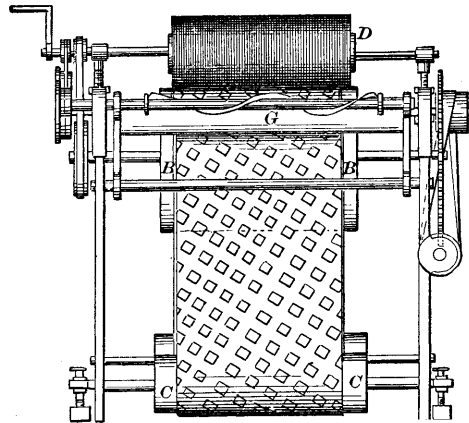
Fig. 3293.



Napping-Machine.

time a partial revolution of the roller *c*, and presenting to the action of the cards a width of cloth equal

Fig. 3294.



Napping-Machine.

to that which is at the same moment withdrawn therefrom by the rollers *c e*.

The roller *d* admits of delicate adjustment to regulate the depth of nap raised.

n is a revolving clearer for removing fibers from the napping-cards.

Four series of the rollers are actuated at the same time by the movement of the shaft, so that four pieces of cloth are napped simultaneously.

In Fig. 3294, the rolls *C B* carry an endless band of thin sheet-metal stenciled with figures of any desired pattern. The fabric, which passes between the roller *B* and the endless band, is only exposed to the action of the napping-cards or teasels on the surface of the cylinder *D* at those points where the metal has been removed from the band; consequently, those parts only are napped, the rest of its surface remaining plain.

A shearing-device *G* of the ordinary kind may also be attached to the machine.