

Beetling Ma-chine'. A machine for finishing linen or cotton goods by a hammering process. The beetling machine referred to on p. 265 of "*Mech. Dict.*" had a series of vertical stamps lifted by pins or cams in manner of an ore-stamping mill, but the Patterson beetling machine made by Mather & Platt, of Manchester, England, and shown in Plate V., has a series of spring-hammers worked at high speed. These hammers are worked by eccentrics on a shaft which extends along the top of the machine, there being interposed between the eccentric rods and the hammers a spring connection which relieves the working parts from the recoil of the blows, and materially reduces wear and tear. The spring connection is made by suspending each hammer from a leathern belt attached to a semicircular steel spring.

In the old-fashioned beetling machines the hammers or *fallers* were lifted by cams, and allowed to drop by gravity, while the utmost speed at which they could be run was about sixty blows per minute. In the Patterson machine the hammers each give 420 blows per minute, while the striking effect of each blow is the same as in the old machine. The hardness of the blow can, however, be varied by altering the speed.

The cloth being operated upon is carried by one of three rollers which revolve in bearings carried by disks, as shown, these disks being themselves capable of revolving. The three cloth rollers can thus be brought successively under the action of the hammers, and the operation of the machine is thereby rendered continuous, the filling and stripping of the rolls not interfering with the beetling.

"*Engineering*," * xxvi. 91.

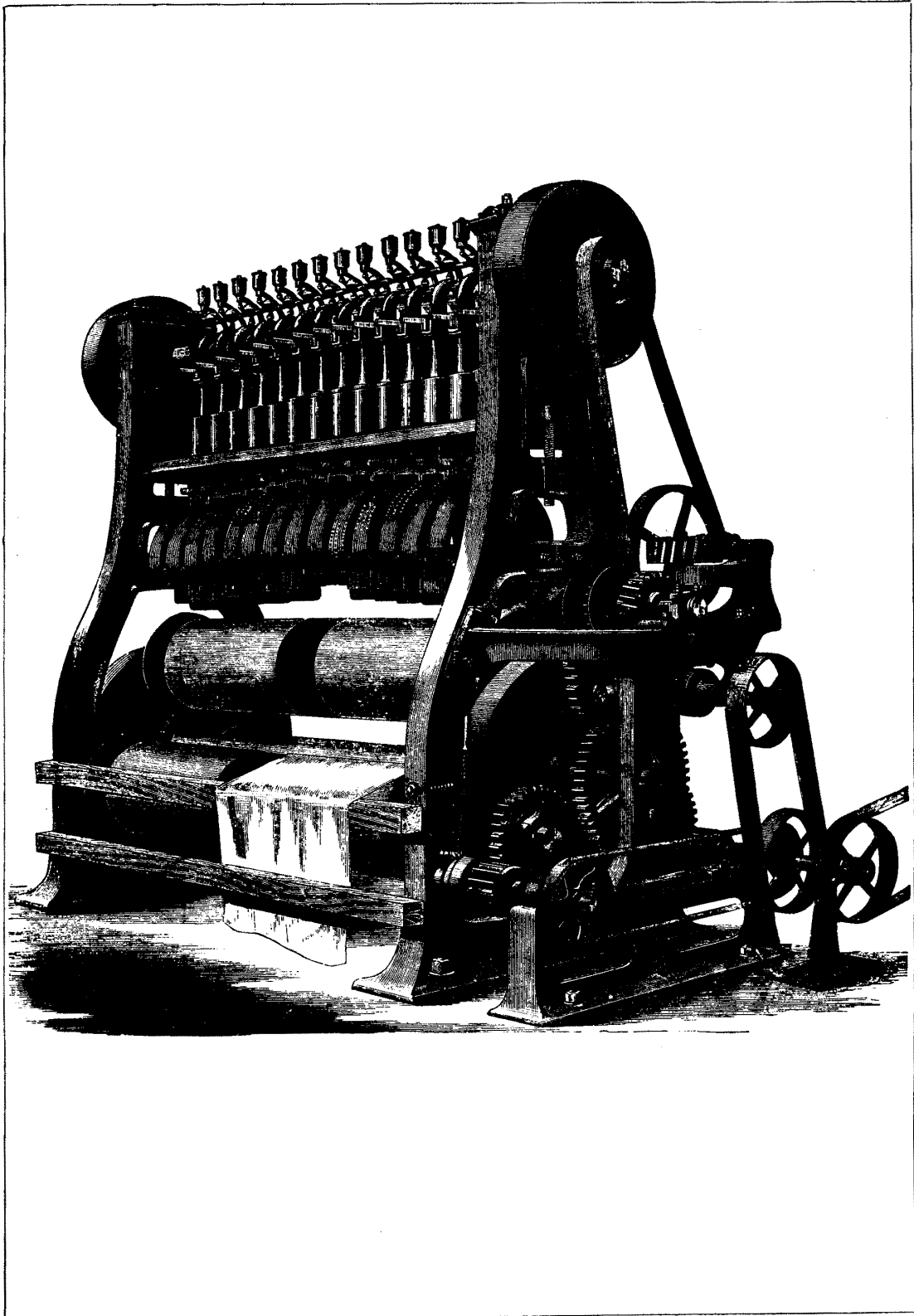


PLATE V PATTERSON'S BEETLING MACHINE. (MATHER & PLATT, MANCHESTER, ENGLAND.) See page 87