Hat-filling Machine. The function of a filling-mill in hat-making is to thicken or consolidate the body. It commonly consists of two or more sets of beaters or hammers, successively raised and dropped upon the mass of hats contained in the trough, where they are agitated or turned by mechanical means so as to constantly present new surfaces to the filling-stocks. In the example the movement of the swinging side of the filling-box causes the mass of hats to pass around regularly to insure equal action on all their parts.

In Fig. 2433 the bat is laid over the basin D and the forming-block G brought over it. Steam is admitted through perforations in the mold, and also in the former, if desired. The mold and its rim rotate continuously. The former has an adjustable reciprocating rotary motion, and also an up-and-down vertical one; the shingles or curved lapping surfaces serve to crowd down and aid in filling the hat. By an automatic motion of a weight outward upon the beam-liver, a blow of gradually increasing force is given to the falling cone G as the work proceeds.

A is the steam-chamber, B the steam-pipe.