(No Model.)

E. RUBIN.

MOLD FOR MAKING COMPRESSED POWDER CHARGES FOR CARTRIDGES.

No. 331,737. Patented Dec. 1, 1885.

Fig. 1.

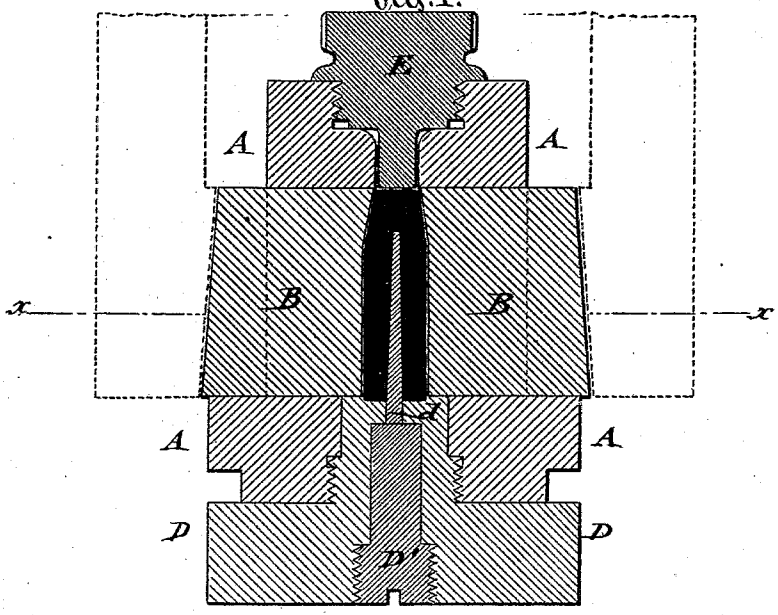


Fig. 2.

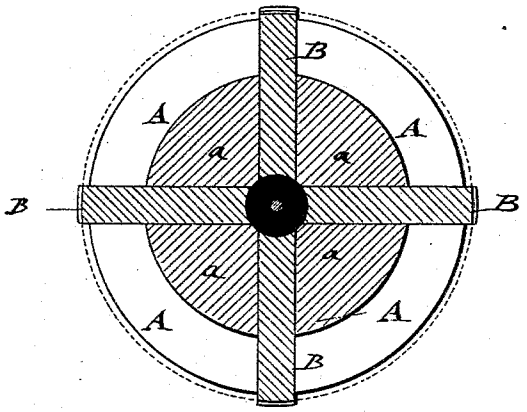
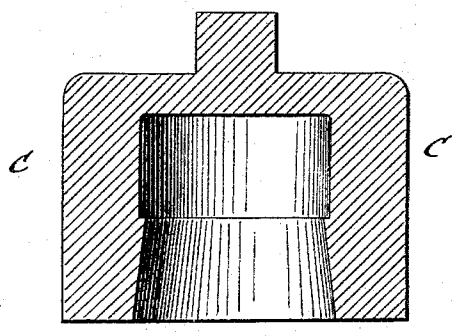


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

EDUARD RUBIN, OF THUN, SWITZERLAND.

MOLD FOR MAKING COMPRESSED POWDER-CHARGES FOR CARTRIDGES.

SPECIFICATION forming part of Letters Patent No. 331,737, dated December 1, 1885.

Application filed May 8, 1885. Serial No. 164,766. (No model.)

To all whom it may concern:

Be it known that I, EDUARD RUBIN, of Thun, in the Republic of Switzerland, have invented certain new and useful Improvements in Molds for Making Compressed Powder-Charges for Cartridges, of which the following is a specification.

This invention has reference to an improved mold or apparatus for making compressed powder-charges for cartridges; and the invention consists of a radially-slotted main block having four radially-guided pressing-cheeks, with conically-tapering outer ends that are moved inwardly, so as to compress a charge of powder by means of a conically-tapering cap that fits over the pressure-cheeks. The top and bottom of the main block are closed by screw-plugs, the bottom plug having a core-pin that extends into the center of the block, so as to form a perforation in the compressed charges.

In the accompanying drawings, Figure 1 represents a vertical central section of my improved mold for making compressed powder-charges for cartridges. Fig. 2 is a horizontal section of the same on line *x x*, Fig. 1, and Fig. 3 is a detail section of the cap.

Similar letters of reference indicate corresponding parts.

A in the drawings represents a cylindrical main block that is divided at its middle portion, by two diametrical slots at right angles to each other, into four quadrantal sections, *a a*, which serve to guide four radially-sliding pressure-cheeks, B B. The outer ends of the pressure-cheeks are made conically tapering, so as to be engaged by a cap, C, the interior wall of which has a corresponding taper, as shown in Figs. 1 and 3. The bottom of the main block A is closed by a detachable screw-plug, D, through which passes a smaller plug, D′, that is provided with a tapering core-pin, *d*, that extends in line with the axis of the mold into the open space formed by the recesses of the block A. The upper end of the mold is closed by a detachable screw-plug, E.

For operating the mold, the top plug, E, is first removed and the charge of powder placed into the cylindrical space formed by the inner concave ends of the pressure-cheeks B and the inner edges of the quadrantal sections of the block A. The screw-plug E is then replaced and the cap C placed over the pressure-cheeks and slowly driven down over the same, so that the pressure-cheeks are moved inwardly against the powder and produce the compression of the same. The core or center pin, *d*, of the plug D′ forms a longitudinal opening in the compressed charge, which may be extended partly or entirely through the charge. If the center pin is dispensed with, a solid charge of compressed powder is produced.

By using the mold described the powder is first made in grains in the usual manner and then compressed in the mold, which is preferable to reducing it to a paste. The uniform compression of the charge into cylindrical shape takes place, owing to the lateral pressure of the cheeks, from the outside toward the center, so that a very effective powder-charge for cartridges of smaller size is obtained.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

1. A mold for compressing powder-charges for cartridges, which consists of a cylindrical block having radial guide-slots, laterally-movable pressure-cheeks having concave inner and conically-tapering outer ends, detachable top and bottom plugs, and a cap having an interior conical portion fitting over the pressure-cheeks, substantially as set forth.

2. A mold for compressing powder-charges for cartridges, consisting of a recessed main block, radially-guided pressure-cheeks having concave inner and tapering outer ends, detachable top and bottom screw-plugs, an auxiliary screw-plug extending through the bottom of the cup and having a core-pin extending into the space between the pressure-cheeks, and an interior cap having an interior conical portion fitting over the pressure-cheeks, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

ED. RUBIN.

Witnesses:
N. GERBER,
R. WÜLTI.