

(No Model.)

L. HERTZLER.
ROTARY BOLT.

No. 546,400.

Patented Sept. 17, 1895.

Fig. 1.

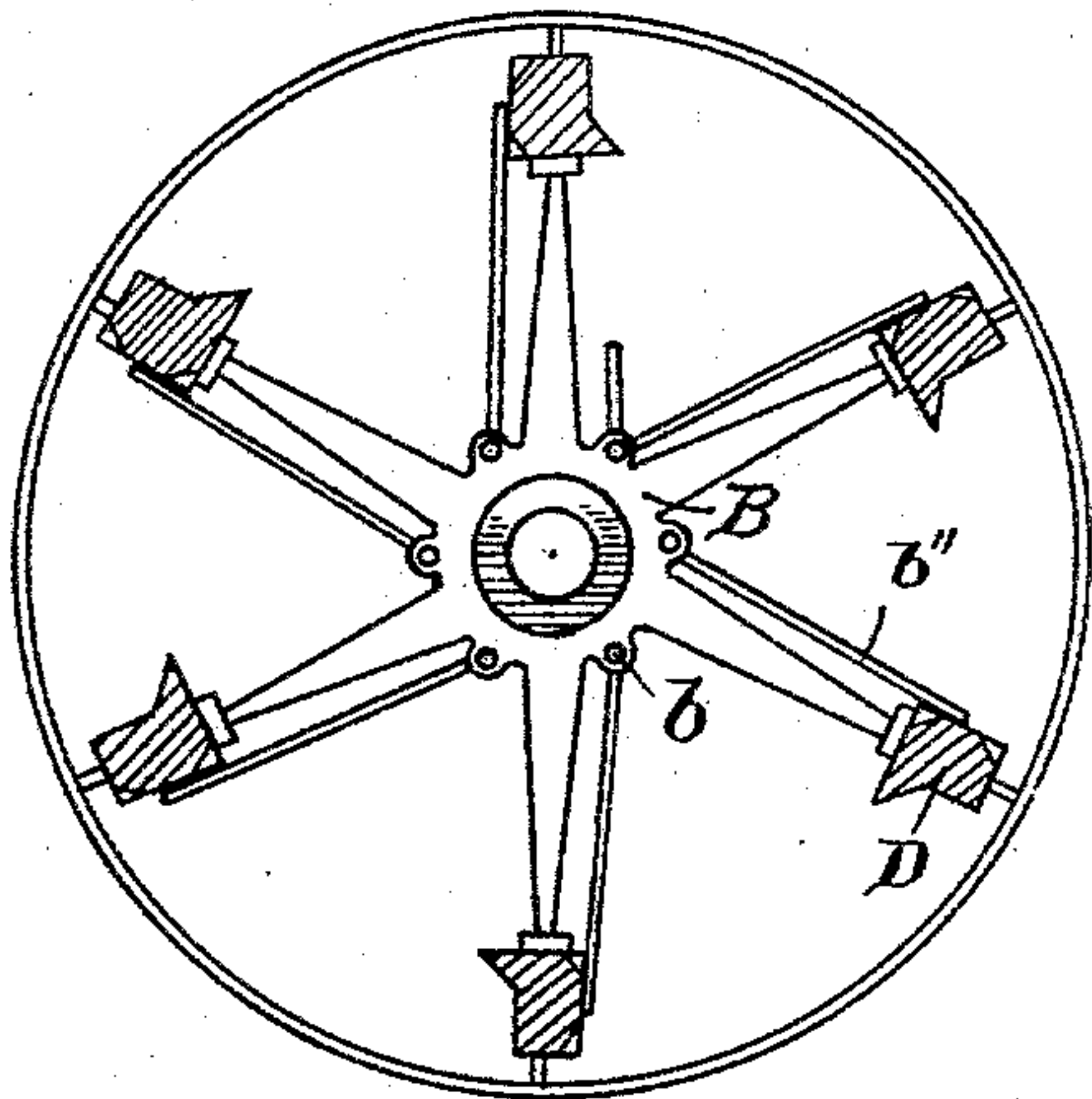


Fig. 4.

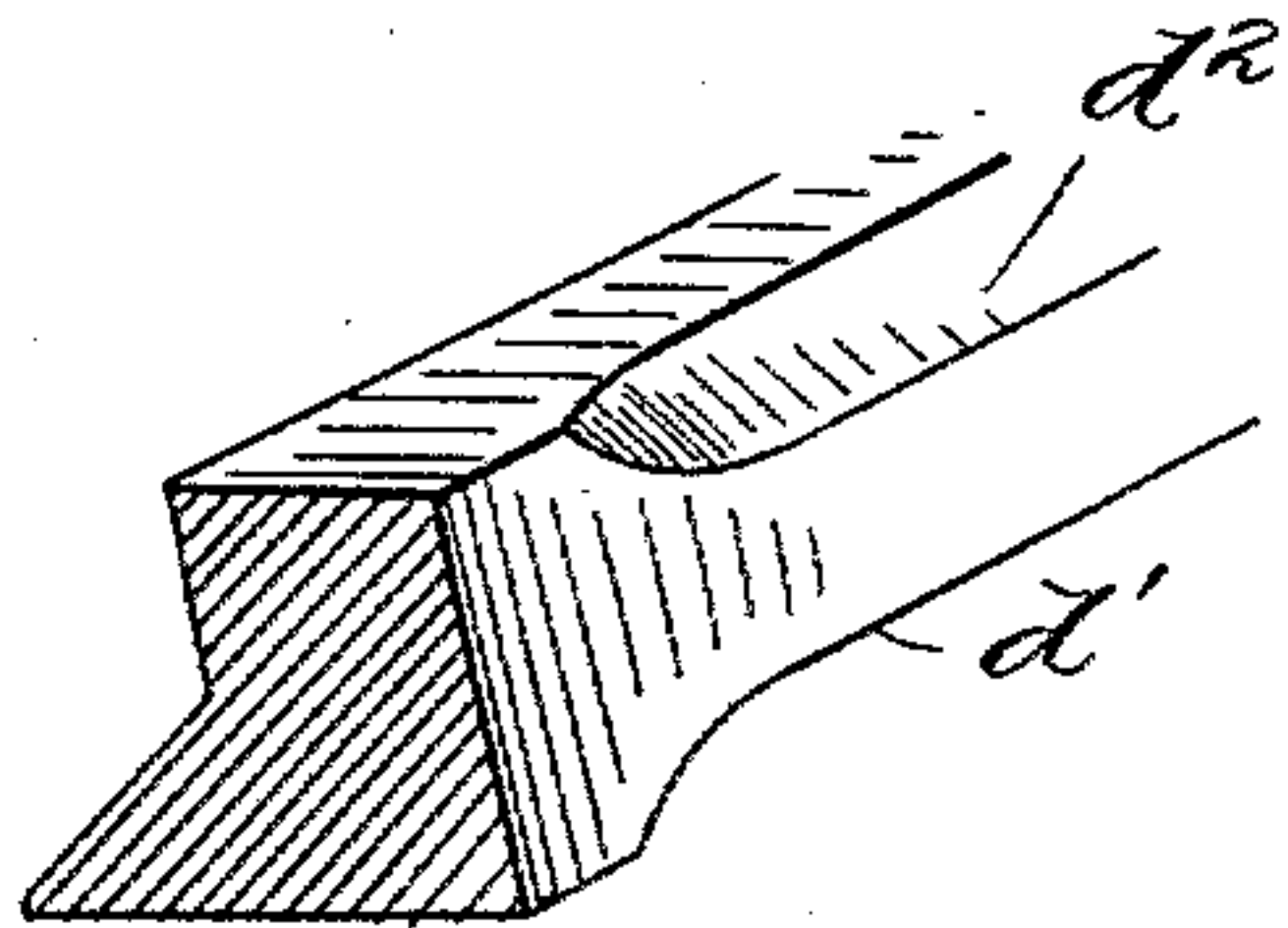


Fig. 2.

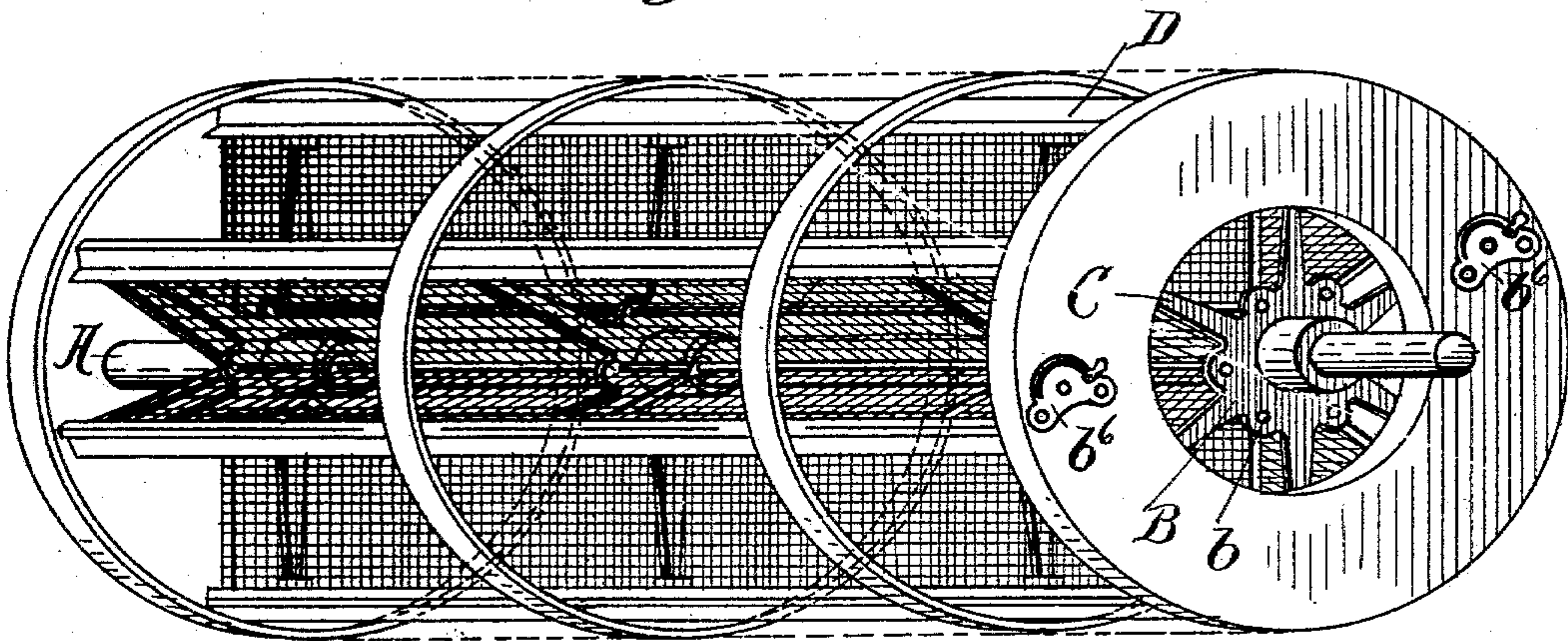
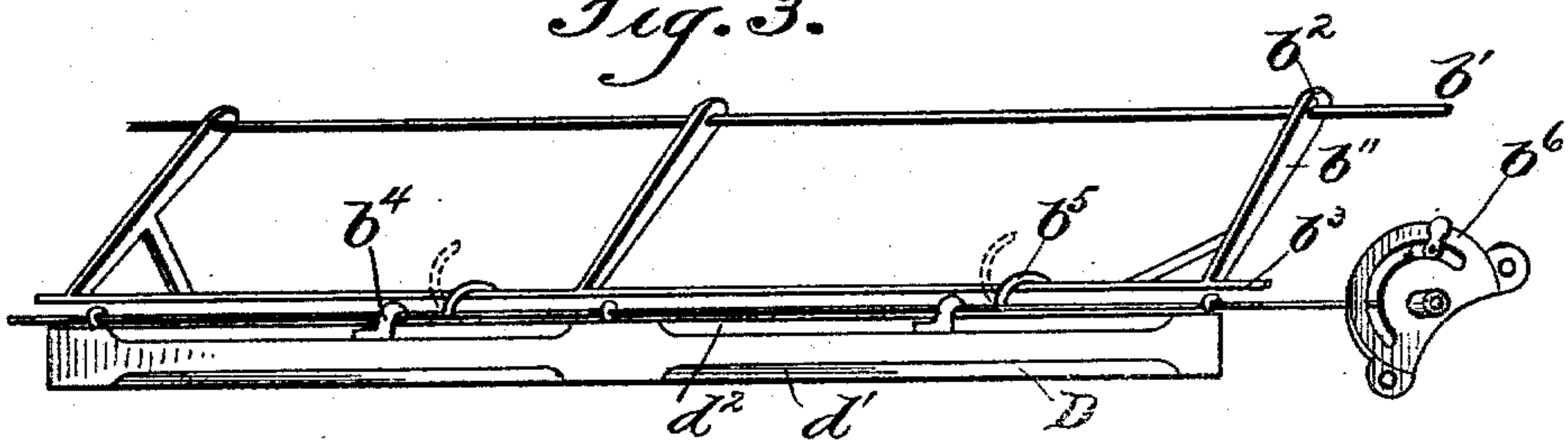


Fig. 3.



Witnesses:-

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UNITED STATES PATENT OFFICE.

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ROTARY BOLT.

SPECIFICATION forming part of Letters Patent No. 546,400, dated September 17, 1895.

Application filed February 14, 1895. Serial No. 538,446. (No model.)

To all whom it may concern:

Be it known that I, LEVI HERTZLER, a citizen of the United States of America, residing at Mechanicsburg, in the county of Cumberland and State of Pennsylvania, have invented certain new and useful Improvements in Rotary Bolts, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The object of this invention is to produce novel means whereby the stock is discharged from the ribs in their descent in an even and gradual manner, overcoming the objections so prevalent in bolts in common use, where
15 the rear surface of the rib is flat; furthermore, in so forming the integral carrying-board of the rib that it extends outwardly from the main portion of the rib with its surface greater than a right angle with relation
20 to the rib proper.

A further object of the invention is to provide mechanism which will knock or vibrate the cloth and prevent the meshes thereof from filling; furthermore, to provide means
25 for securing or releasing the knocker at the will of the operator.

The invention furthermore consists in the novel means for securing the screens in position, that a ready removal may be effected
30 should it be necessary to renew worn or broken parts.

With these and other objects in view the invention consists in the novel details of construction, arrangement, and combination of
35 parts to be hereinafter more fully set forth, and specifically pointed out in the claim.

In describing the invention in detail reference is had to the accompanying drawings, forming part of this specification, wherein like
40 characters denote corresponding parts in the several views, in which—

Figure 1 is a transverse sectional view of a bolt embodying the improvements. Fig. 2 is a view in perspective of a bolt with the outer
45 cloth removed. Fig. 3 is a view in perspective of the knockers and their securing mechanism. Fig. 4 is a view in perspective of a section of a rib, showing the rear face beveled.

In the drawings, A denotes the shaft; B, the
50 spider; C, the arms secured to the spider and carrying on the ends ribs D, and the ribs in

turn forming supports for the bearings of the rods, which carry the arms for securing the knocker, to be hereinafter referred to.

The spiders B are provided with apertures 55 *b* to receive the rods *b'*, which pass through the eyelets *b²* in the knocker-arms *b''*, said arms extending radially therefrom. By this means the knocker-arms are secured in place by and are pivoted on the rods *b'*. The outer 60 ends of the knocker-arms are connected by a wooden or metallic piece *b³*, which, with the arms and rod, form the knocker-frame. The bearing-posts *b⁴* are secured to the ribs D, and the rods *b³* are mounted to rotate therein, said 65 rods being provided with integral extensions *b⁵*, which are curved to fit around the connecting-piece *b³* of the knocker and secure said knocker in place against action. A plate *b⁶* is secured on the head of the bolt and is pro- 70 vided with a semicircular groove to receive the thumb-screw *b⁷*, which is secured in the head of the bolt and connected with the rod *b⁵* for the purpose of adjustment.

As shown in Fig. 3, the knocker is held to 75 the ribs, and in dotted lines the arms are shown elevated out of engagement with the knocker-frame.

The operation of the device will be understood from the foregoing. Each of the ribs D 80 has its rear face oppositely beveled, as at *d' d²*, while the opposite face is provided with an extension beveled at an angle approximating sixty degrees with relation to the main section of the rib. By thus increasing the bevel 85 of this extension, which forms the pocket, as the ribs pass upward the pockets are filled, and the discharge therefrom will commence before the rib reaches the top, and it will continue gradually to discharge until empty. It 90 will be seen also that by beveling the rear surface of the ribs in an opposite direction from the center the stock is discharged entirely by the time the rib is opposite the shaft on the down-going side, and the rib in front 95 guides the stock inward toward the cloth at the bottom.

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

In a rotary bolt the combination with the ribs, of knockers provided with arms, pivoted

on rods of the spider, bearing posts secured to the ribs and a rod mounted to partially rotate therein, curved extensions on the rod for embracing the knockers, a plate on the head of the reel having a slot in which the end of the rod is adjustable, as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

LEVI HERTZLER.

Witnesses:

THEO. CORNMAN,
FRED T. MAXWELL.