

No. 621,581.

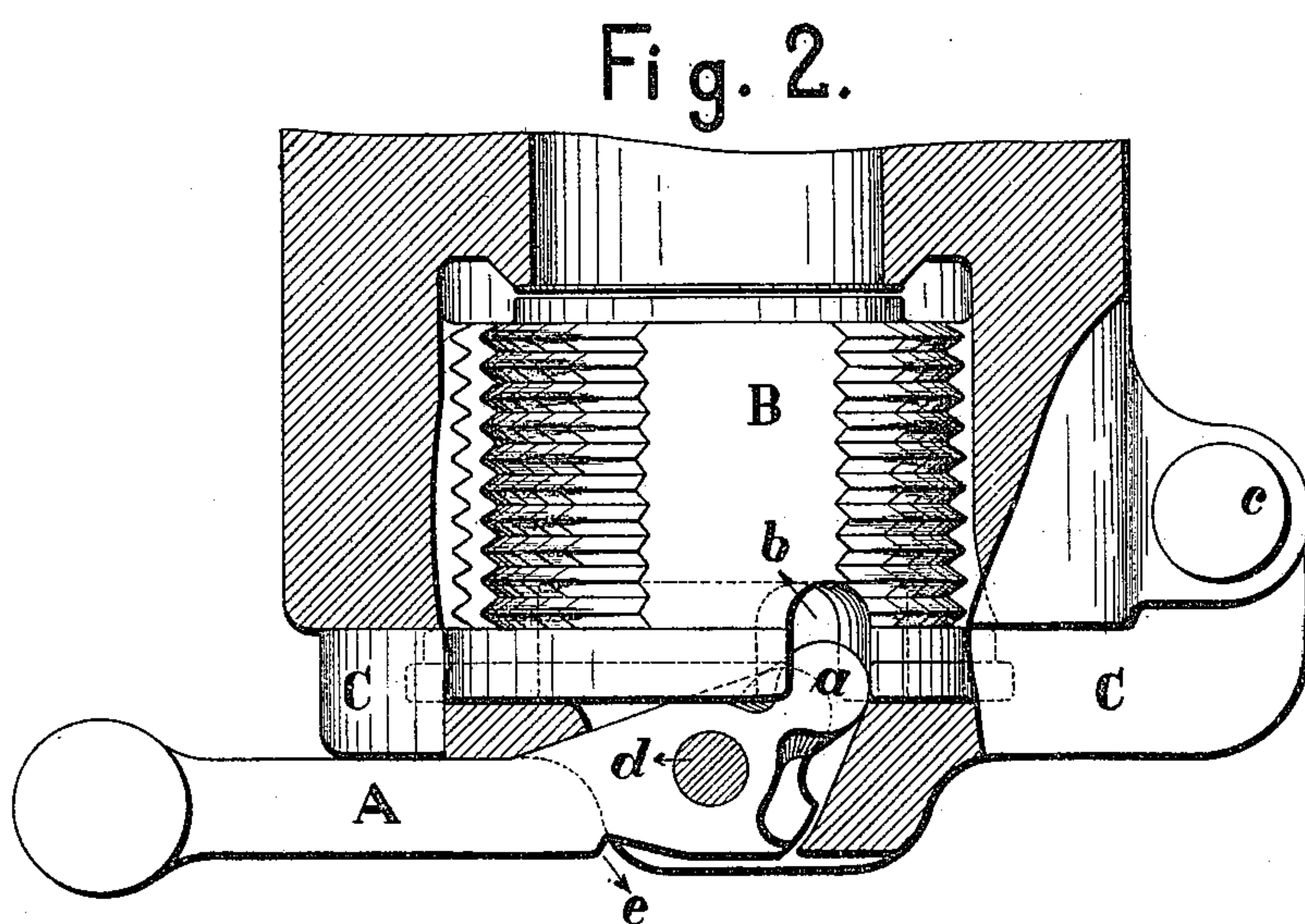
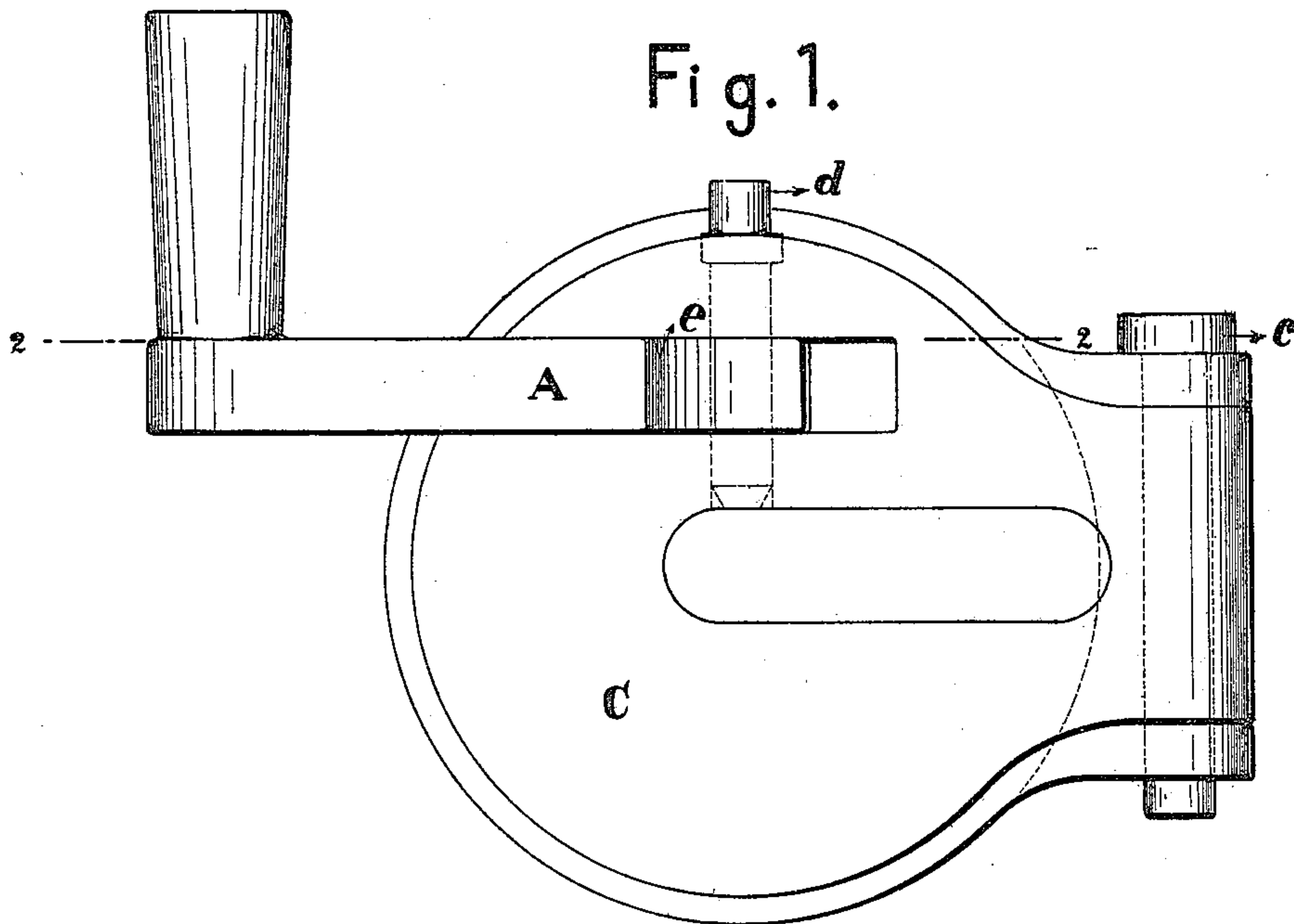
Patented Mar. 21, 1899.

C. POHLIT,
BREECH CLOSING MECHANISM FOR GUNS.

(Application filed Jan. 26, 1898.)

(No Model.)

3 Sheets—Sheet 1.



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3 Sheets—Sheet 2.

Fig. 3.

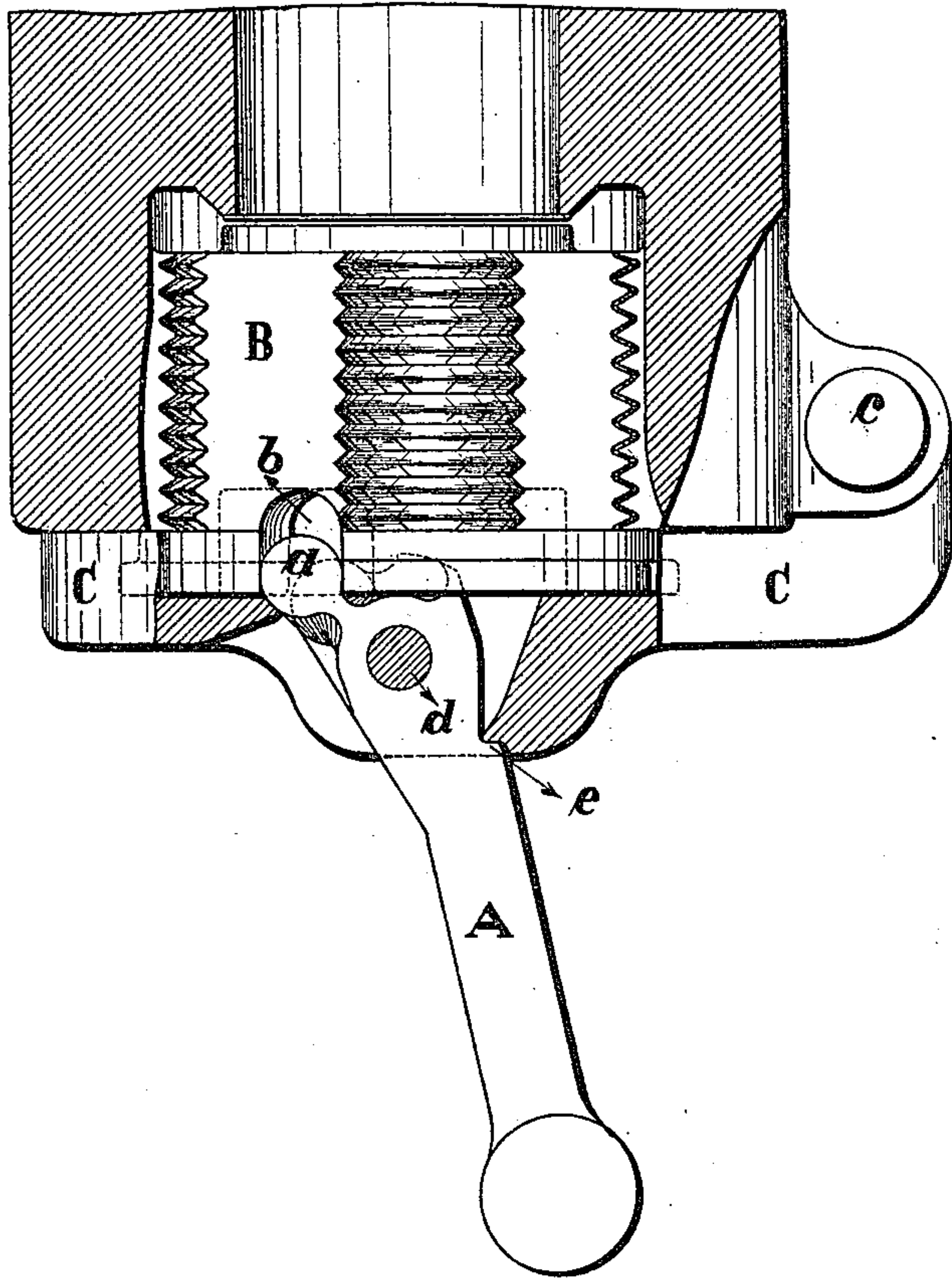
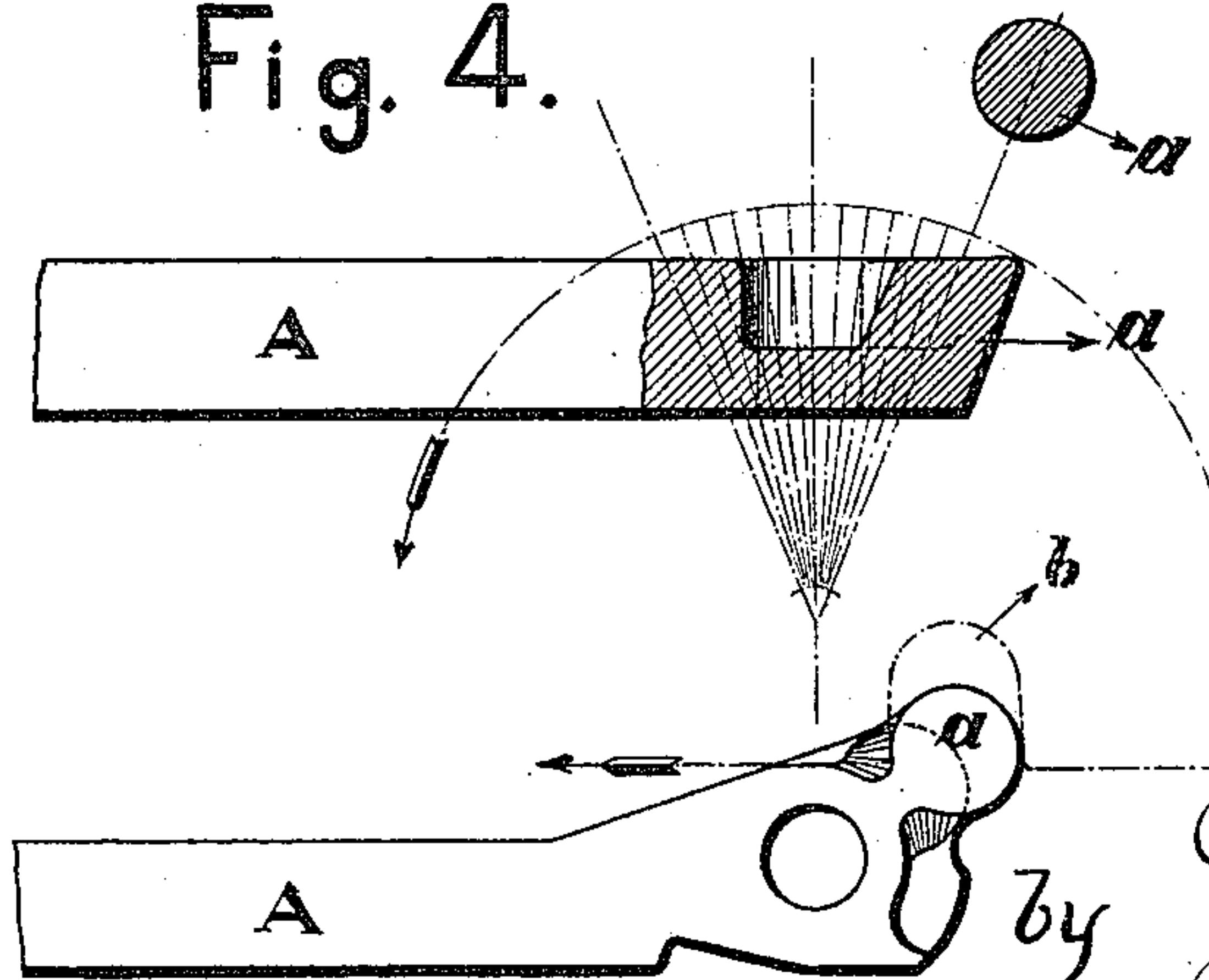


Fig. 4.



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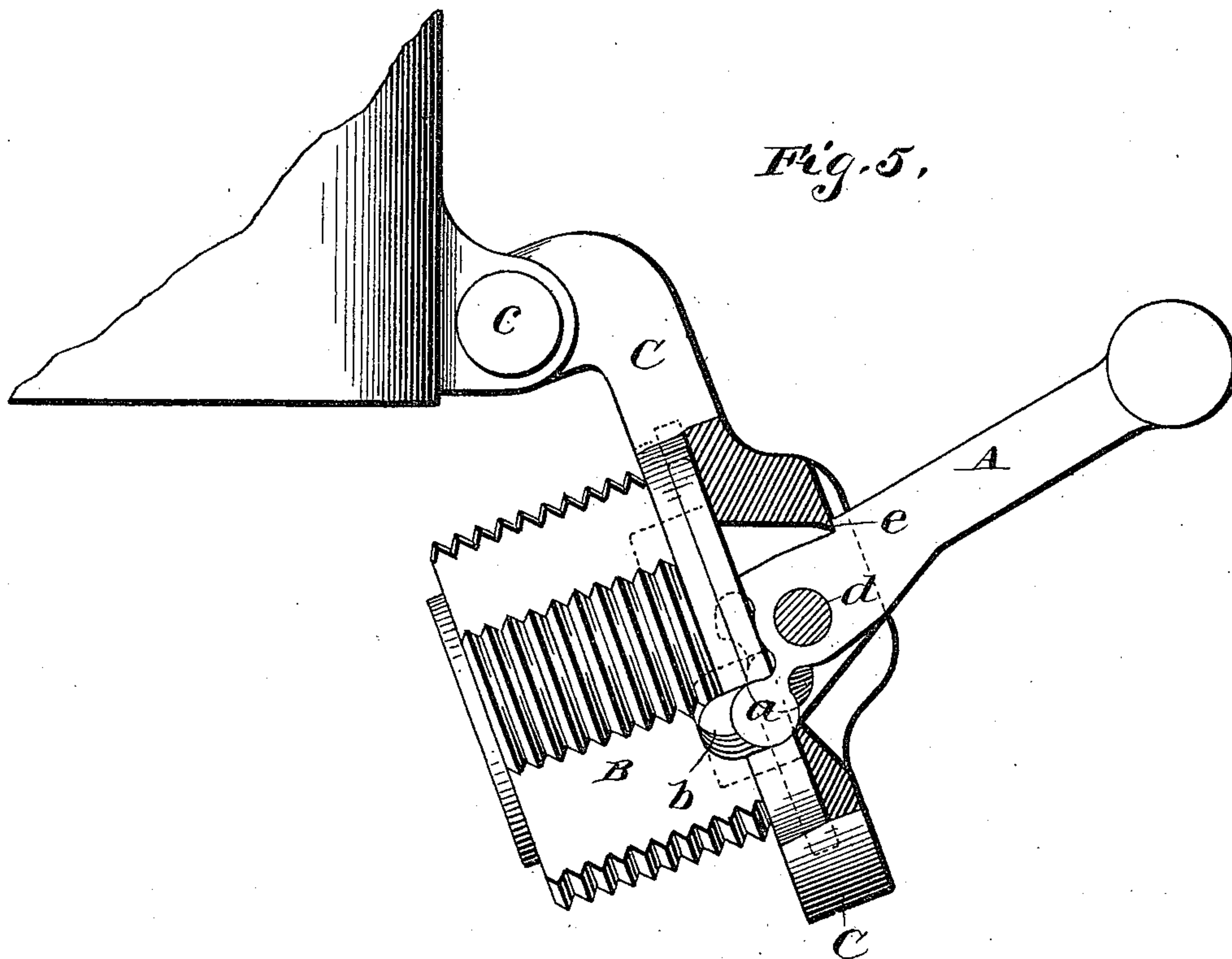
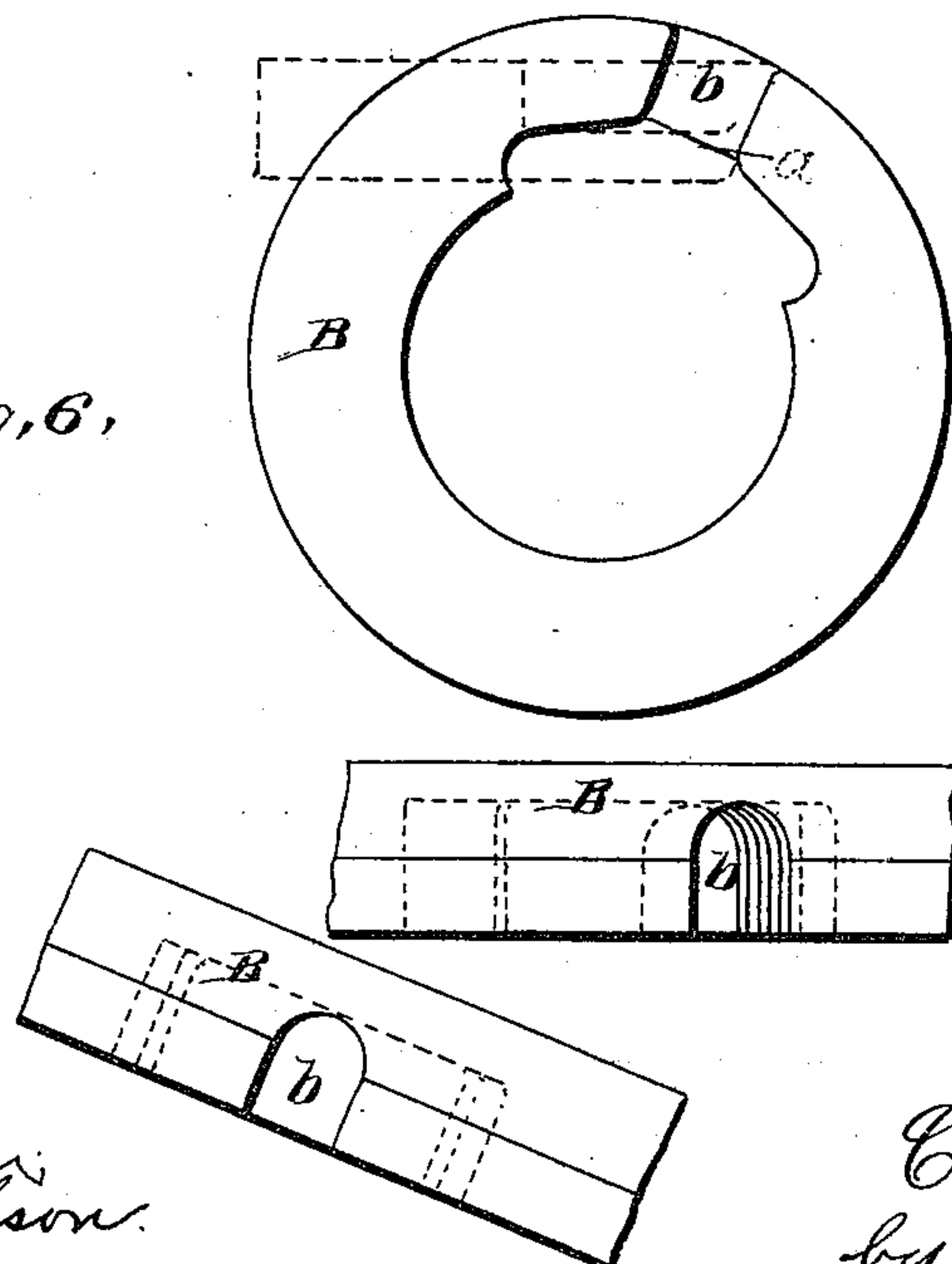


Fig. 6,



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UNITED STATES PATENT OFFICE.

CARL POHLIT, OF ESSEN, GERMANY, ASSIGNOR TO FRIED. KRUPP, OF
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BREECH-CLOSING MECHANISM FOR GUNS.

SPECIFICATION forming part of Letters Patent No. 621,581, dated March 21, 1899.

Application filed January 26, 1898. Serial No. 668,018. (No model.)

To all whom it may concern:

Be it known that I, CARL POHLIT, a citizen of the German Empire, residing at Essen, Germany, have invented new and useful Improvements in or Connected with Push-Lever Arrangements for Screw Breech-Closing Mechanisms for Guns and Ordnance, of which the following is a specification.

In the heretofore-known screw breech-closing mechanisms for guns and ordnance, in which the breech is opened and closed by means of an actuating-lever engaging in a curved slot or groove in the breech screw-block, the friction arising between the actuating-lever and the breech screw-block is so great as to considerably diminish the practical utility of the breech mechanism.

Now according to the present invention the arrangement of the actuating-lever and of the slot provided for the same in the breech screw-block is such that the force for effecting the opening and closing of the breech always acts at right angles to the radially-formed contact-surface of the screw breech-block. Consequently no cam action takes place between the actuating-lever and the slot in the screw breech-block, as in the constructions heretofore known; but, on the contrary, a direct and almost frictionless driving of the screw breech-block by the actuating-lever results.

The nature of my invention will be best understood when described in connection with the accompanying drawings, in which—

Figure 1 represents a rear elevation of the breech with the breech closed. Fig. 2 is a horizontal section on the line 2 2, Fig. 1, the breech being closed. Fig. 3 is a similar view to that shown in Fig. 2, the actuating-lever being turned in a horizontal plane through about ninety degrees and the breech-block screw being unlocked. Fig. 4 shows the actuating-lever partly in section and in plan. Fig. 5 is a plan of the breech when completely opened. Fig. 6 shows a rear elevation of the screw breech-block, illustrating the slot for the pin of the actuating-lever, also showing the slot for the actuating-lever by two horizontal projections.

Referring to the drawings, the letter A designates the actuating-lever, which is pivoted at its right-hand end on the vertical bolt *d* in the

carrier C and having its pin *a* passing through the carrier and engaging the radially-directed slot *b*, which is formed in the upper part of the breech-block, Figs. 2, 3, and 5.

The arrangement of the actuating-lever is such that its axis of rotation and the axis of rotation of the breech-block are situated in one and the same plane. The pin *a* of the actuating-lever has the form of a cylinder, the axis of which passes through the point of intersection of the rotary axes of the actuating-lever and the breech-block and is inclined to the axis of rotation of the actuating-lever. Hence it follows that during the rotation of the actuating-lever A around the bolt *d* the axis of the cylindrical pin *a* moves in a cone—i. e., describes a cone—the apex of which is situated at the point of intersection of the axis of the bolt *d* and the axis of the breech-block. The pin *a* thus is always situated radially to the screw breech-block, and a full straight side line of the cylindrical pin of the actuating-lever will always be in bearing with the radial slot of the screw breech-block.

In order to open the breech, the actuating-lever is moved away from the breech-block in a horizontal direction. In the first portion of the rotary movement of the actuating-lever its pin *a*, by reason of its sliding in the slot *b*, (which is arranged radially to the axis of the screw-block,) compels the breech-block to make an axial rotation through forty-five degrees, whereby its locking-threads become disengaged from the threads of the breech-block chamber.

From the arrangement of the actuating-lever and of the slot in the breech-block it will be readily understood that when the actuating-lever is rotated the breech-block will be carried directly along with it and that consequently the friction will be reduced to a minimum. If after the completion of the first portion of the rotation of the actuating-lever the force for opening the breech continues to act upon the actuating-lever, then the nose *e* of the actuating-lever strikes against the rear surface of the carrier, so that now the whole breech-block and breech mechanism is swung out of the gun-barrel, turning on the bolt *c* as a pivot, Fig. 5.

Similar to the opening operation the clos-

ing of the breech is effected by means of a single movement of the actuating-lever.

What I claim as new is—

5 In a fermeture for breech-loading guns of the interrupted-thread system, the combination of the actuating-lever A pivoted within the carrier-arm C by a bolt *d*, and provided at its inner end with a cylindrical pin *a*, the
10 intersection of the axes of rotation of the actuating-lever A and of the breech-block B, and a radial notch *b* within the breech-block adapt-

ed to receive the cylindrical pin *a* which acts against the radial faces of the notch *b* in locking or unlocking the breech by turning the actuating-lever A, substantially as described. 15

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CARL POHLIT.

Witnesses:

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JOH. BAKER.