

No. 617,906.

Patented Jan. 17, 1899.

C. POHLIT.

SAFETY LOCK FOR BREECH LOADING ORDNANCE.

(Application filed Dec. 31, 1897.)

(No Model.)

4 Sheets—Sheet 3.

Fig. 5.

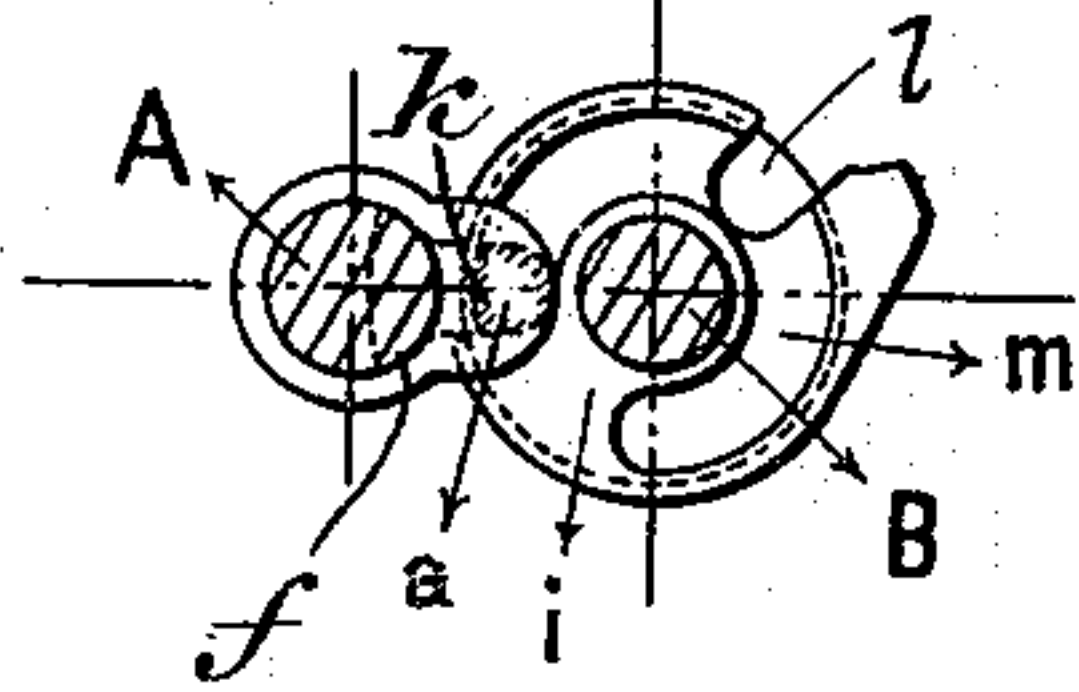


Fig. 6.

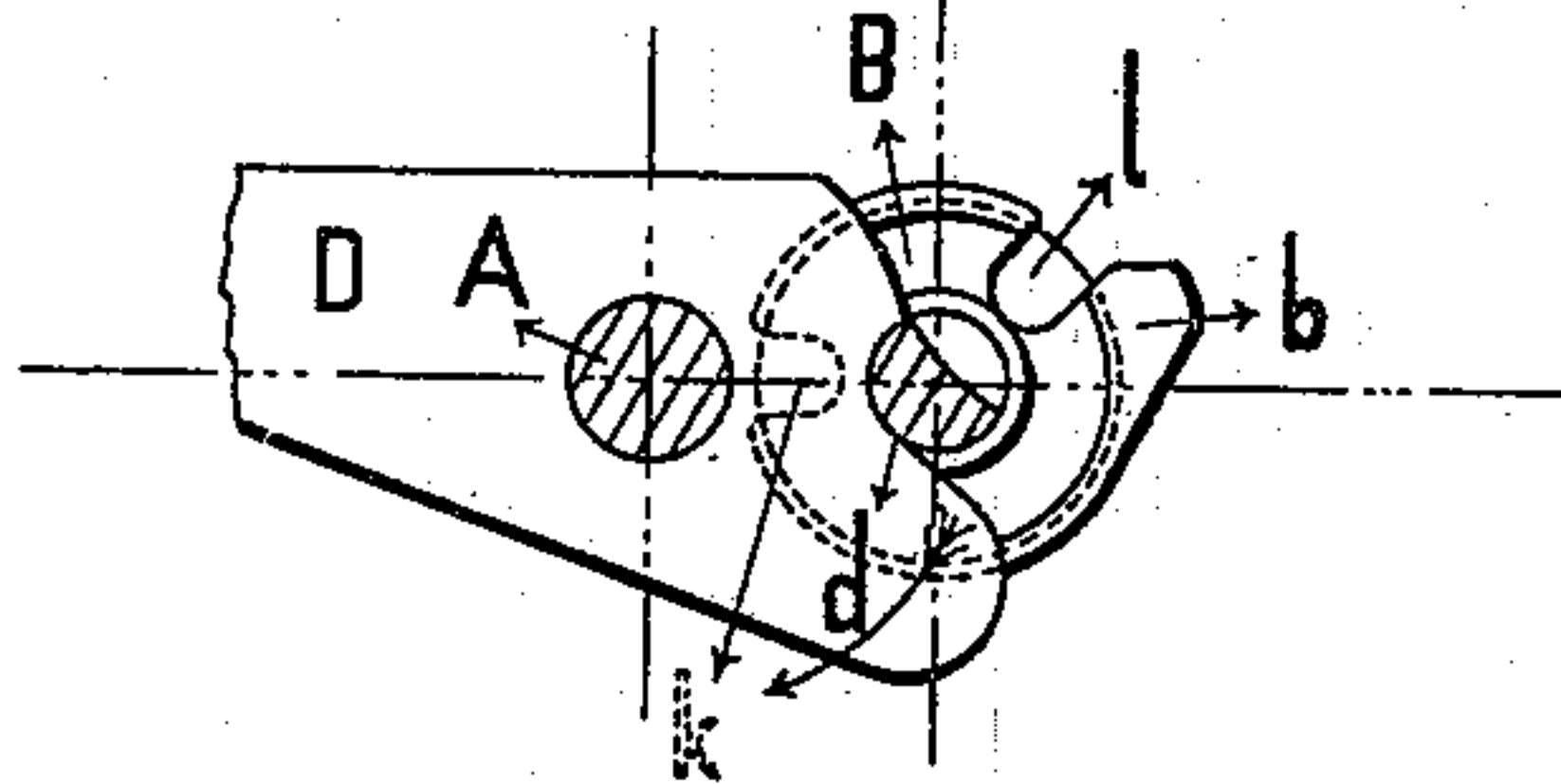


Fig. 8.

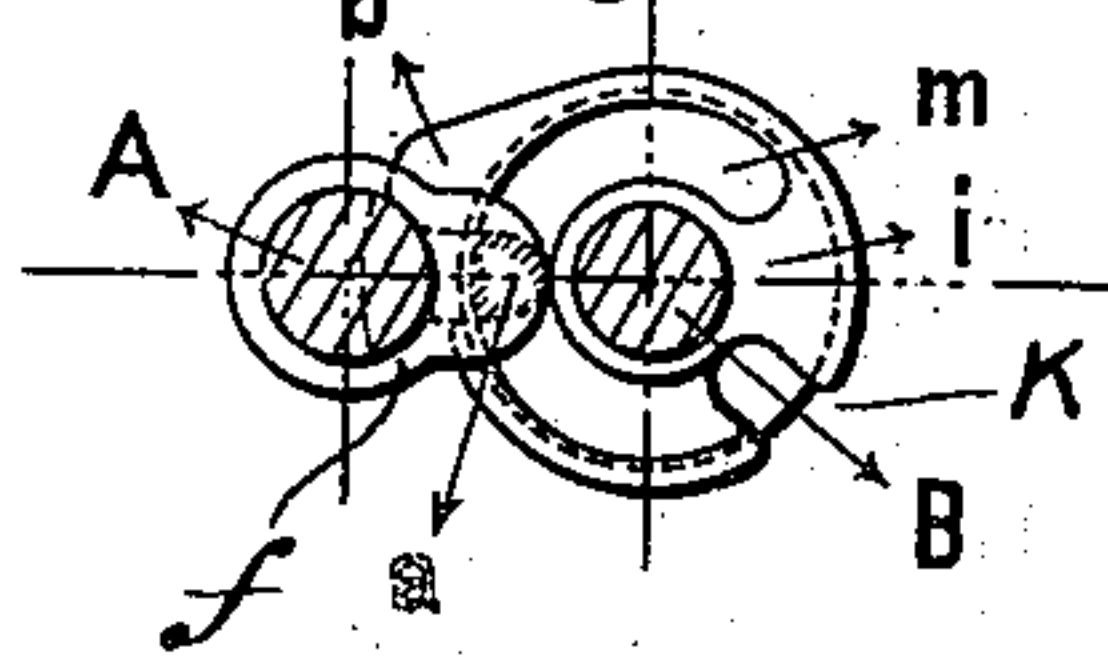


Fig. 9.

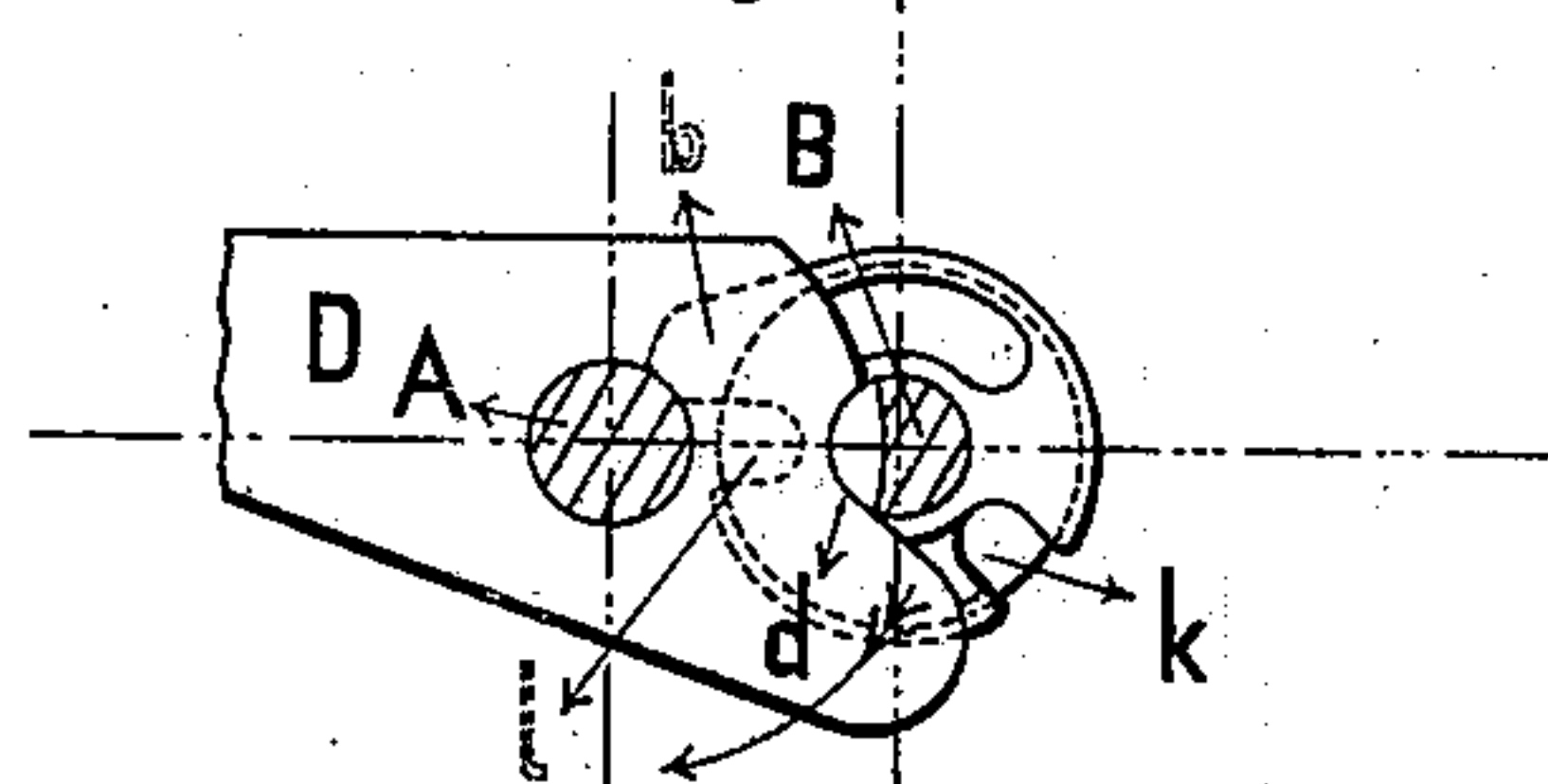
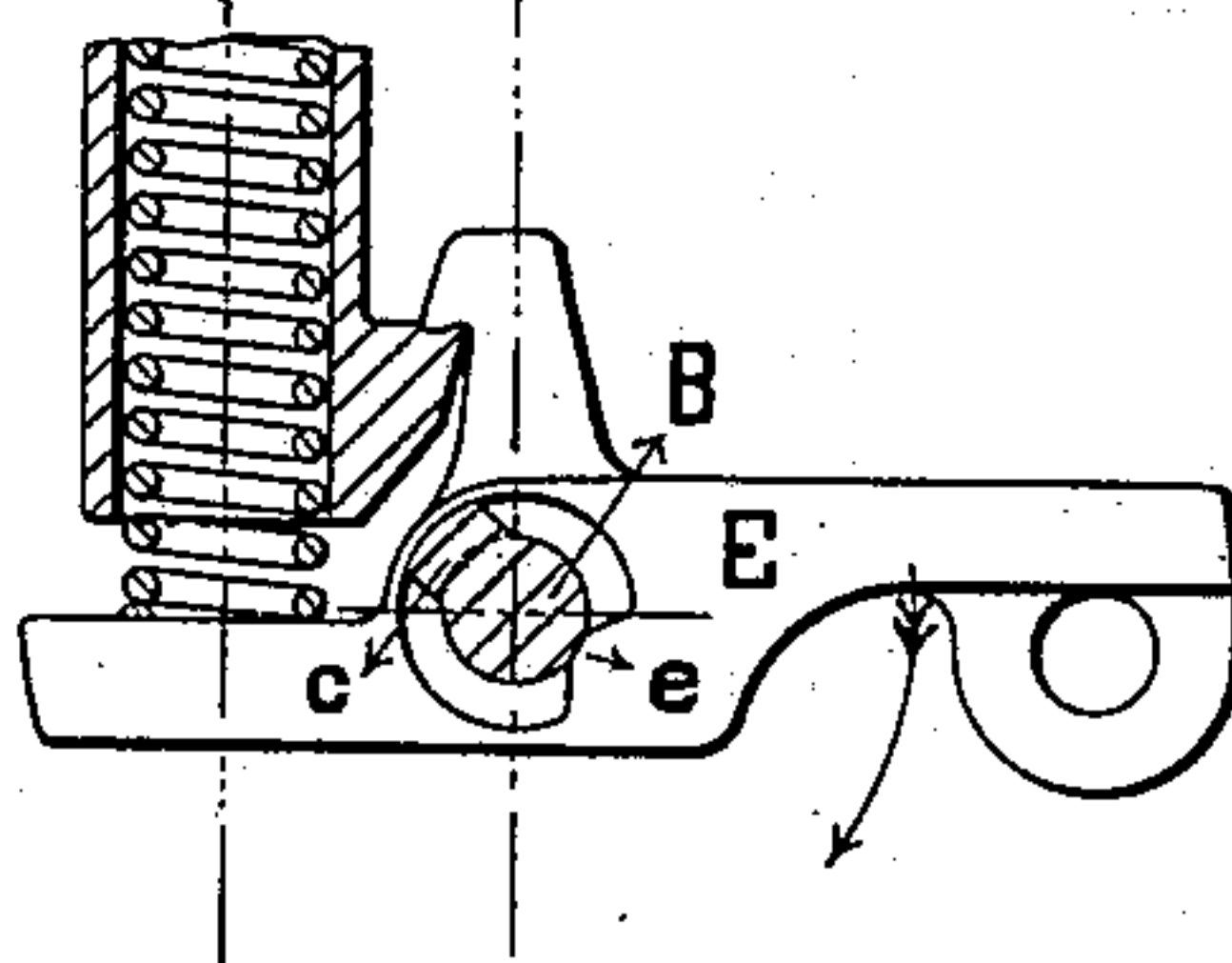


Fig. 10.



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Fig. 11.

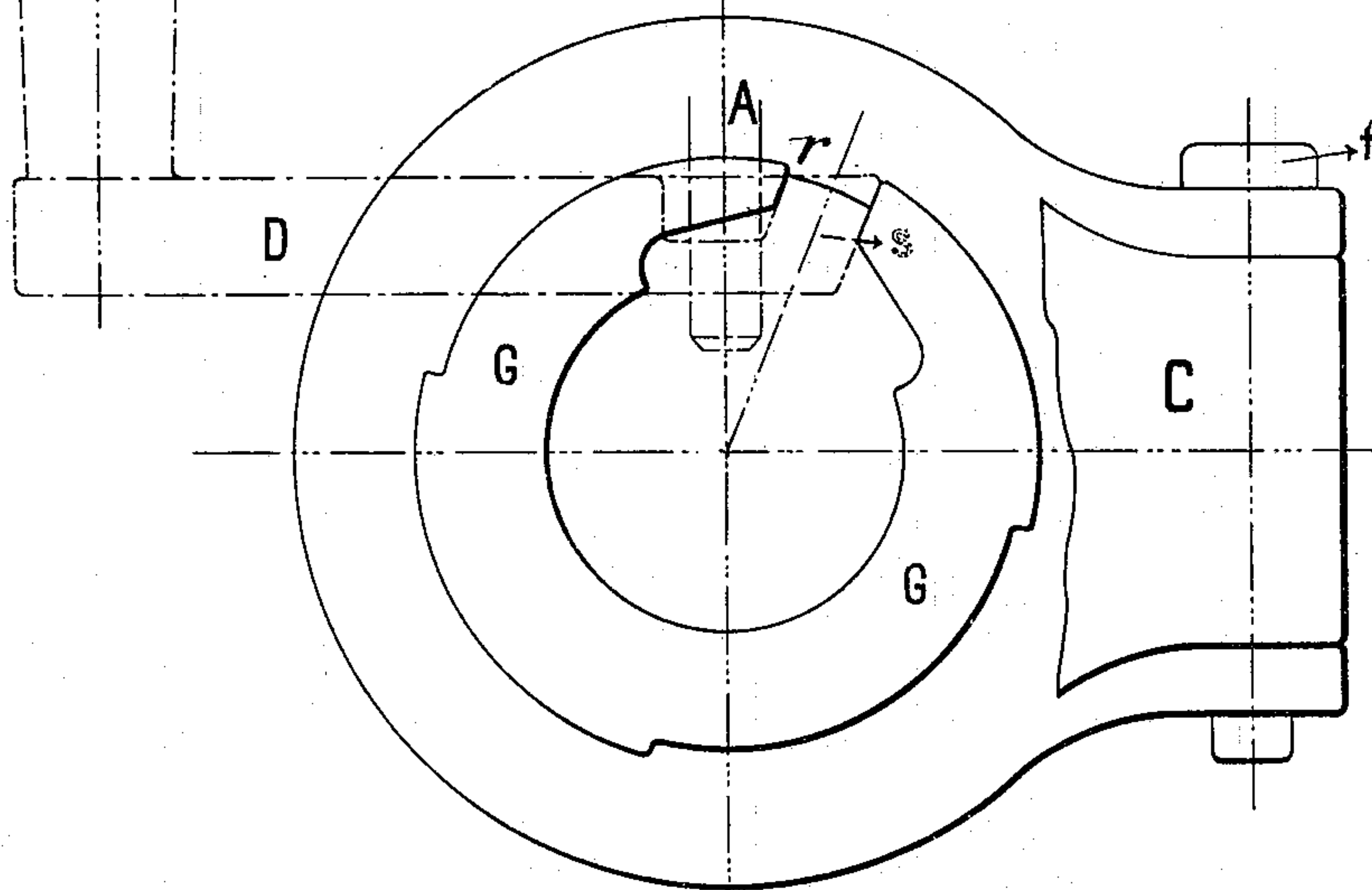
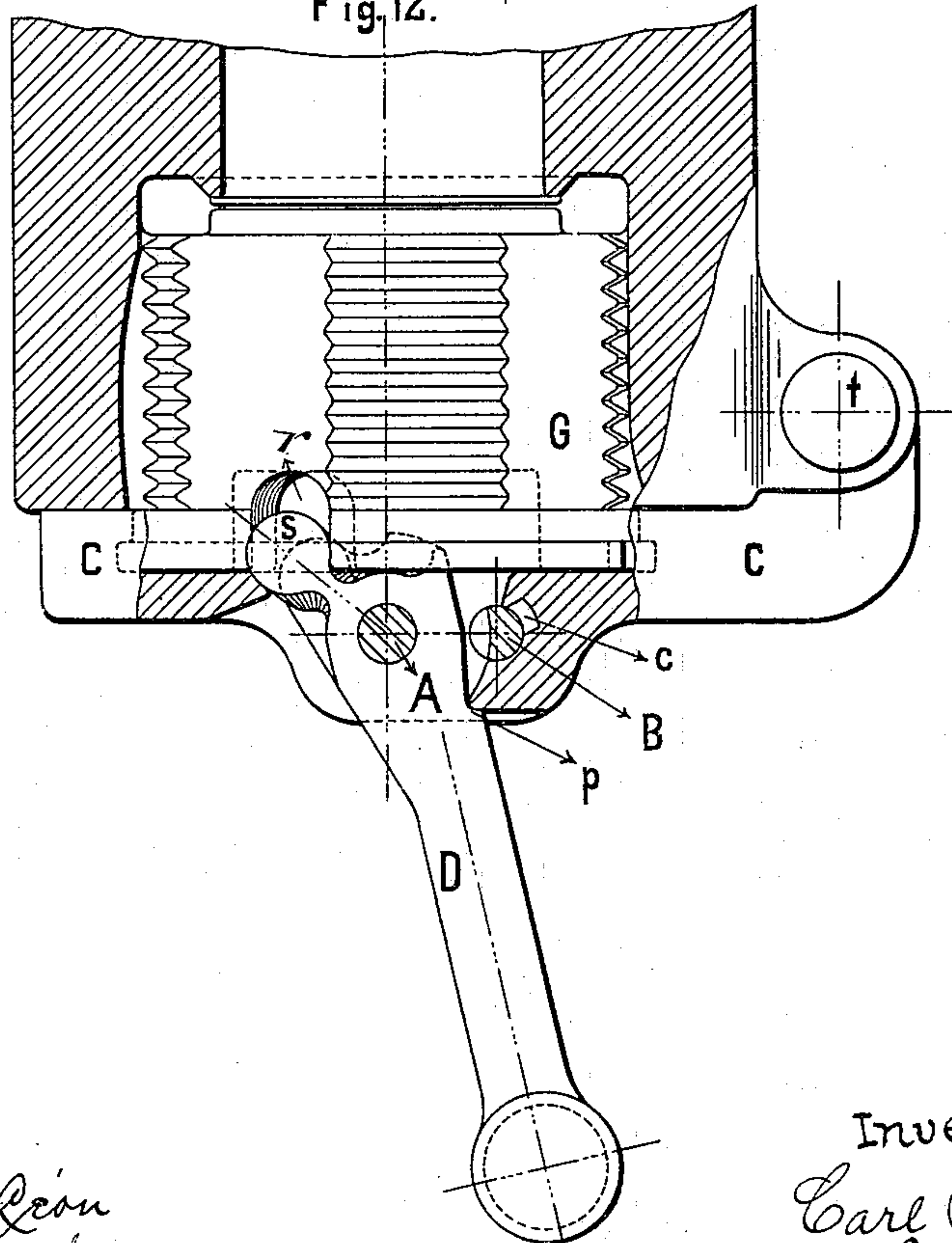


Fig. 12.



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UNITED STATES PATENT OFFICE.

CARL POHLIT, OF ESSEN-ON-THE-RUHR, GERMANY, ASSIGNOR TO FRIED.
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SAFETY-LOCK FOR BREECH-LOADING ORDNANCE.

SPECIFICATION forming part of Letters Patent No. 617,906, dated January 17, 1899.

Application filed December 31, 1897. Serial No. 664,996. (No model.)

To all whom it may concern:

Be it known that I, CARL POHLIT, a citizen of the German Empire, residing at Essen-on-the-Ruhr, Germany, have invented new and useful Improvements in Safety-Locks for Breech-Loading Ordnance, of which the following is a specification.

My invention has reference to improvements in the fermeture for guns of the interrupted-screw system, provided with an actuating-lever pivoted within the carrier-arm and engaging a recess in the block adapted to rotate the breech-block, so as to lock or unlock the screw-threads.

The invention consists in a safety device whereby the actuating-lever of the breech mechanism and the trigger may be locked at the same time to prevent the gun being accidentally fired or the breech mechanism being accidentally opened.

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

Figure 1 represents a rear elevation of the breech mechanism, the breech being locked, but not secured. Fig. 2 is a top view of the breech mechanism not secured. Fig. 3 is a horizontal section through the axis of the breech, the block being locked and secured. Fig. 4 is a detail elevation of the safety device in the safety position. Fig. 5 is a horizontal section on the line 5 5, Fig. 4, looking up. Fig. 6 is a horizontal section on the line 6 6, Fig. 4, looking up. Fig. 7 is a horizontal section on the line 7 7, Fig. 4, looking down. Figs. 8, 9, and 10 are sections corresponding to Figs. 5, 6, and 7, but showing the safety device released. Fig. 11 is a rear elevation of the breech-block and gun, part of the carrier-arm being cut off. Fig. 12 is a horizontal section of the fermeture, showing the actuating-lever in the position after unlocking the breech-screw.

Similar letters of reference designate corresponding parts throughout the several views of the drawings.

In the drawings, the letter G designates the breech-block, made on the interrupted-screw system; C, the carrier-arm, hinged to the breech of the gun; D, the actuating-lever, and E the firing-arm or trigger.

The actuating-lever D, Figs. 1, 11, and 12, is pivoted within the carrier-arm C on a bolt A. It has a projection *s* engaging a corresponding recess *r* of the breech-block G. When the actuating-lever D is turned from the position Figs. 1, 2, and 11 to the position Fig. 12, the breech-block is rotated so as to unlock the breech-screw, and the actuating-lever then bears against the carrier-arm, so that by continuing its motion in the same sense as before it causes the carrier-arm C, together with breech-block, to swing out around the pivot *t*. While the breech is being opened, the hammer is cocked in the usual manner by inclined surfaces on the block and on the hammer, and the trigger snaps into the position Fig. 3. The directions of motion of the actuating lever in opening the breech and of the trigger in firing are indicated by arrows in Figs. 9 and 10.

The safety device forming the subject-matter of this invention consists of the bolt A, on which the actuating-lever D is pivoted, the bolt B, forming the axle of trigger E, and the safety-spring F. The two safety-bolts are inserted into suitable vertical sockets of the carrier-arm C, which contains the rear end of the breech-block G.

The cylindrical bolt A, Figs. 1 and 4, is provided with a head *g* and an elongated flange *f*. The flange *f* being countersunk within the top of the carrier-arm C prevents turning of the bolt A. The upper end of the shank of the bolt A beneath the flange *f* is surrounded by a spiral spring F within a socket of the carrier-arm C, said spring abutting against the bottom of this socket and against the under side of the flange *f*.

The cylindrical bolt B, Figs. 1 and 4, is provided with a head or button *h* and a supporting-flange *i*, said flange *i* having stop-notches *k* and *l*, and on the lower face a circular guide-groove *m*, Fig. 4, for the lug *a* of the bolt A. By engagement with the stop-notch *k* the lug *a* holds the bolt B in the safety position, while when the bolt B is turned so that the lug *a* engages the notch *l* the safety device is released and the lock is in the position for firing.

In the plane of the stop-lever D a section is cut away from the shank of the bolt B, so

as to allow turning of the actuating-lever from the position Figs. 1 and 2 to the position Fig. 12 and also back to the former position when the cut-away part is in the position Figs. 9 and 12, but to prevent such turning when the bolt B is in the safety position, because in this position the remaining section of the bolt B engages a corresponding depression in the actuating-lever D, as shown in Fig. 6. The breech consequently cannot be unscrewed.

The shank of the bolt B is of such length that it reaches through the cylindrical bore of the trigger E, Figs. 1 and 4. At its upper part this bore is enlarged cylindrically for the reception of a nose *c* of the bolt B, so, however, that a stop *e*, Figs. 3 and 7, remains, against which the nose *c* of the bolt B strikes to prevent turning of the trigger and firing of the gun when the bolt B is in the safety position, while when the bolt B is in the position Fig. 10 the trigger is released and can be turned for firing.

The short arm *b*, arranged on the supporting-flange *i* of the bolt B, limits the extent of turning of the bolt B by striking against the head of the bolt A when brought into the firing position, Fig. 2. On returning to the safety position the stop-lug *a* of the bolt A, striking against the end of the circular groove in the flange of the bolt B, limits the motion of the bolt B.

The spiral spring F, Figs. 1 and 4, located beneath the flange *f* of the bolt A, presses this bolt upward, so that the stop-lug *a* is held within one or the other of the notches *k* or *l* in the flange *i* of the bolt B. When the bolt B is to be turned for the purpose of securing or releasing the lock, the bolt A is depressed sufficiently to cause the lug *a* to be withdrawn from one of the notches *k* or *l*. On then turning the bolt the lug *a* slides within the groove *m* until it engages the other notch.

What I claim as new is—

1. In a fermeture for guns of the interrupted-

screw system, and provided with an actuating-lever D pivoted within the carrier-arm C and with a trigger E; a safety-bolt B inserted into the carrier-arm C, forming the fulcrum of the trigger E, and held against rotation in two extreme positions, forming a stop to the motion of the trigger E and of the actuating-lever D when locked in one of these positions, and releasing the same when locked in the other position, substantially as specified.

2. In a fermeture for guns of the interrupted-screw system, and provided with an actuating-lever D pivoted within the carrier-arm C and with a trigger E; a safety device consisting of a bolt A inserted within the carrier-arm C and forming the fulcrum of the actuating-lever D; the bolt A held against rotation by a flange *f*, with a lug *a*, and supported by a spring F, so that it may be depressed by hand; a safety-bolt B inserted into the carrier-arm C, forming the fulcrum of the trigger E, provided with a flange *i* having notches *k* and *l*, and arranged to be held against rotation in two extreme positions by the lug *a* engaging one or the other of the notches *k* and *l*; the safety-bolt provided with a nose *c* projecting into a recess with a stop *e*, so arranged that when the lug *a* engages the notch *k*, the nose *c* bears against the stop *e* and prevents pulling of the trigger, while, when the lug *a* engages the notch *l*, the trigger is released; and finally a segment of the bolt B cut away, for the inner arm of the actuating-handle to pass by when the lug *a* engages the notch *l*, while the remaining segment acts as a stop to the actuating-handle D when the lug *a* engages the notch *k*, substantially as and for the purpose specified.

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

CARL POHLIT.

Witnesses:

WILLIAM ESSENWEIN,
ADOLF RESOW.