No. 692,921. Patented Feb. 11, 1902.

A. W. SCHWARZLOSE.

BREECH MECHANISM FOR GUNS.

(Application filed June 25, 1901.)

(No Model.) 2 Sheets—Sheet 1.

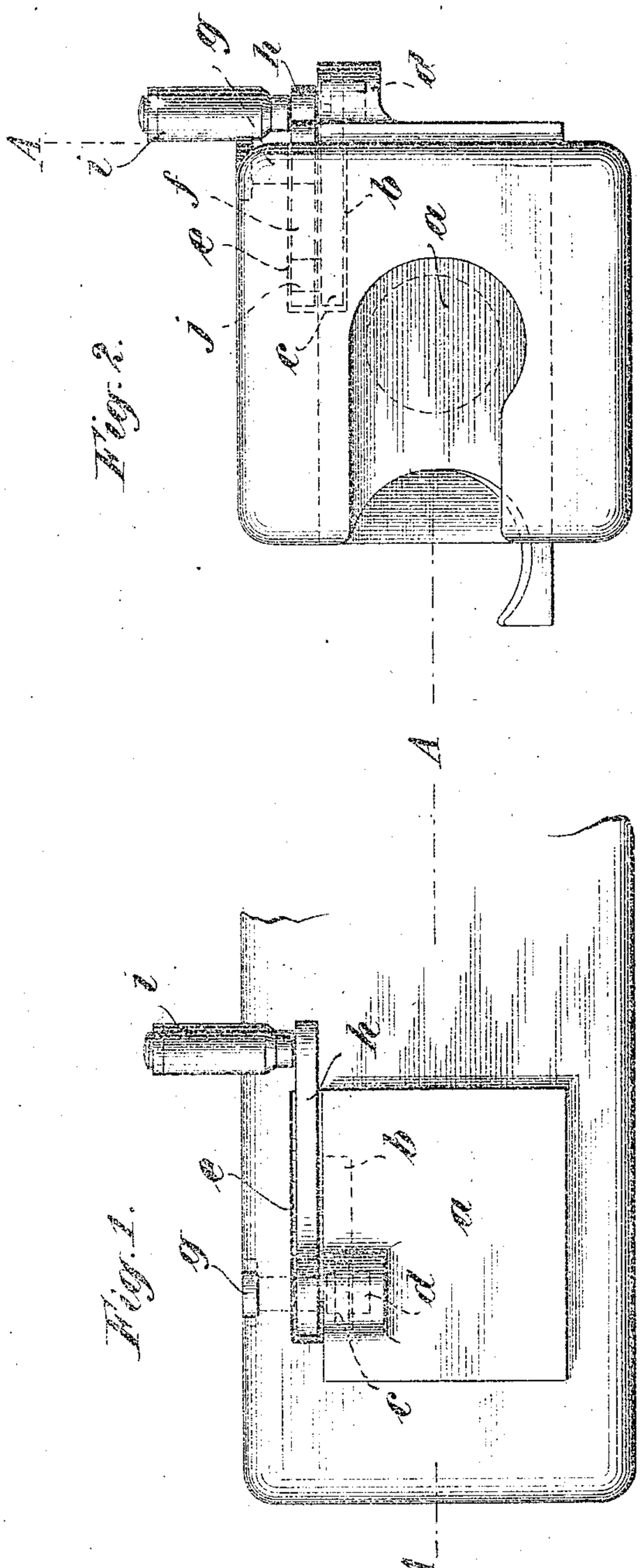

Fig. 2.

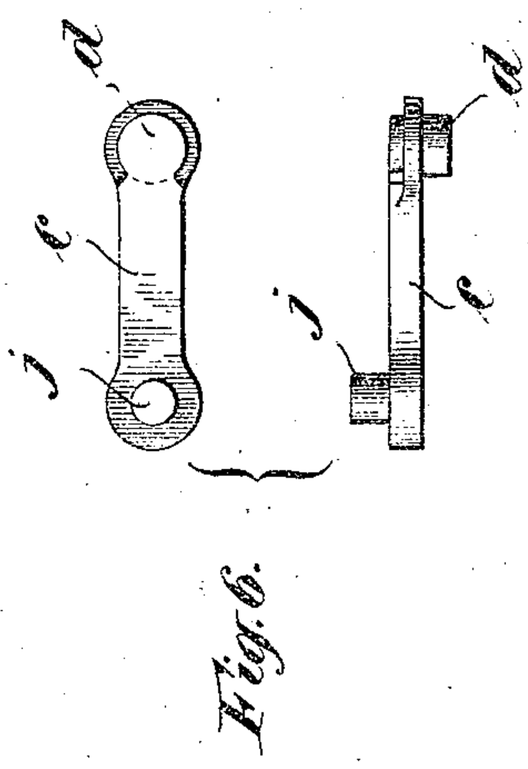

Fig. 6.

Fig. 1.

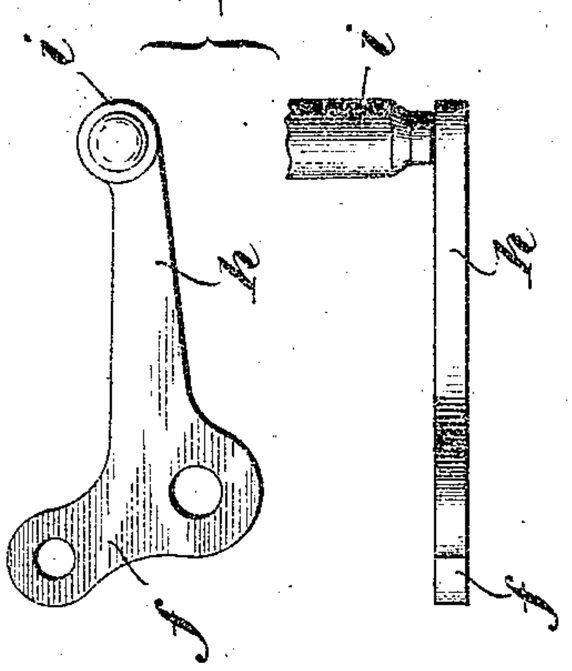

Fig. 5.

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Fig. 4.

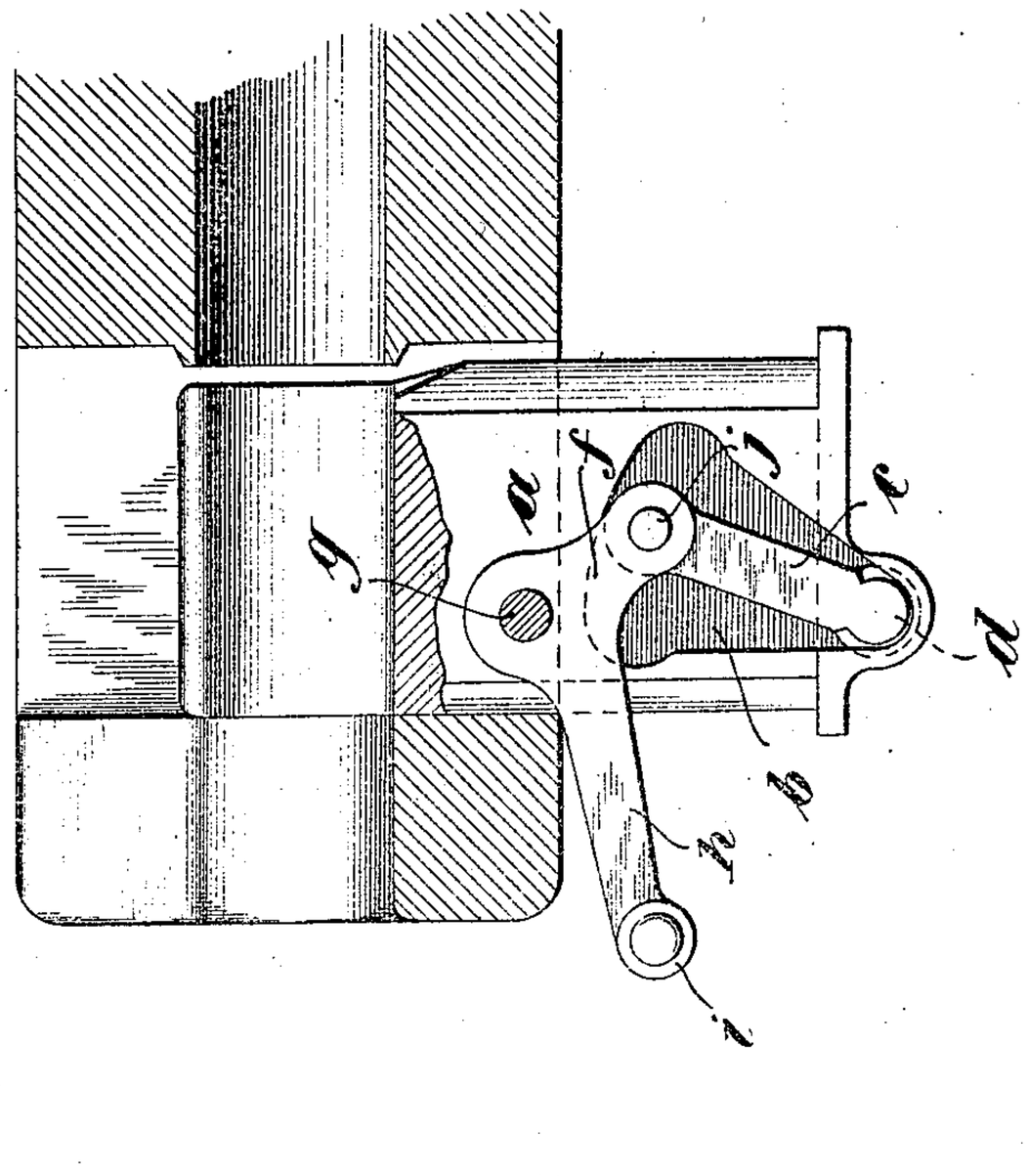
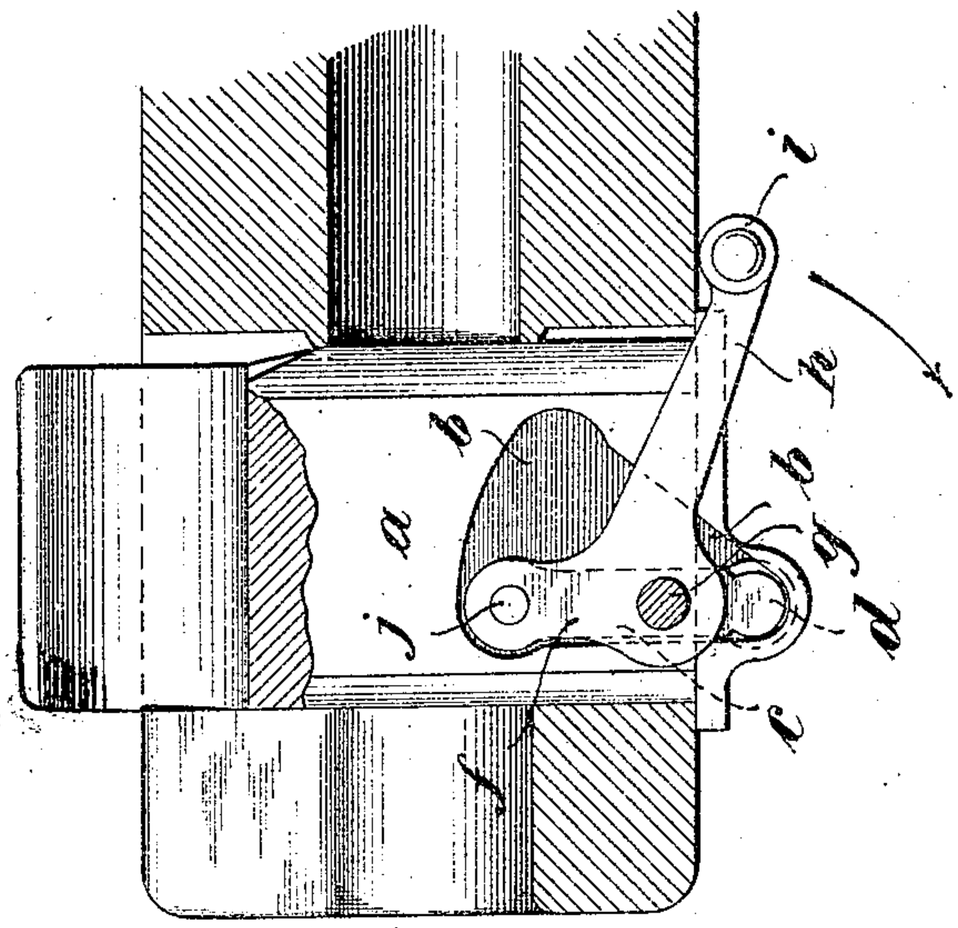


Fig. 3.



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BREECH MECHANISM FOR GUNS.

SPECIFICATION forming part of Letters Patent No. 692,921, dated February 11, 1902.

Application filed June 25, 1901. Serial No. 66,001. (No model.)

To all whom it may concern:

Be it known that I, ANDREAS WILHELM SCHWARZLOSE, engineer, a citizen of the Kingdom of Prussia, and a resident of Bahnhofstrasse 54, Suhl, Thuringia, in the Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Breech Mechanism for Guns, of which the following is a specification.

The present invention relates to means for actuating the breech mechanism of guns of that kind in which the closing of the barrel is done by means of a wedge. This new mechanism is exceedingly simple in its construction, facilitates the management of the wedge, and insures a smooth working of the same.

It consists of a toggle-joint of peculiar form. The toggle-joints of known construction have their parts arranged in such a way that they form a straight line when the mechanism is closed, having the articulation arranged in the middle. In the new mechanism, on the contrary, the joints of the toggle are arranged in such a way that they lie one beside the other when the mechanism is closed and that the articulation lies at the end. In consequence of this arrangement in the beginning of the movement for opening and closing the mechanism, as well as toward the end of same, a maximum of force is transmitted to the wedge, which is greater than the force which will be transmitted, all other conditions being equal, by any other mechanism of known construction.

In the accompanying drawings, Figure 1 shows the breech of the gun provided with the mechanism in elevation, and Fig. 2 the same in rear view. Figs. 3 and 4 are horizontal longitudinal sections through same on line A A of Figs. 1 and 2, showing the breech closed and open, respectively. Figs. 5 and 6 are details of the mechanism.

The wedge *a*, sliding in a transversal bore in the barrel of the gun, has on its upper side a recess *b*, imitating the form of a sector of a circle. In this recess is arranged an arm *c*, pivoted with one end to the wedge by means of a laterally-arranged pivot *d*. Above the opening for the wedge in the rear part of the barrel of the gun another recess *e*, also of sector shape, is provided in the barrel. In this recess *e* moves the short arm *f* of a bent lever pivoted, by means of a bolt *g*, to the barrel of the gun, the longer arm *h* of said lever bearing at its end a handle *i*. A bolt *j* connects the free ends of levers *f* and *c*, which therefore form a toggle-joint.

If the handle *i* in the closed position of the mechanism, Fig. 3, is moved in the direction of the arrow, the arm *f* rotates about the pin *g*, and its end thereby describes a path forming part of the circle. As to the end of said arm *f* is articulated part *c*, the free end of which is connected to the wedge *a*, it is evident that the circular motion of arm *f* will cause the wedge to be displaced in a straight line and will be withdrawn from its seat, thereby uncovering the bore of the barrel. By turning the lever *h* in the opposite direction when the breech is open, Fig. 4, the wedge is brought back to its original position.

What I claim is—

A breech mechanism for guns, comprising a wedge sliding in a transversal bore in the breech of the barrel, a rod, being pivoted to said wedge and moving in a recess of same, a double-armed lever articulated to the barrel, the short arm of which moves in a recess of the barrel, said arm being articulated to the free end of said rod; substantially as shown and described.

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

ANDREAS WILHELM SCHWARZLOSE.

Witnesses:
FANNY SCHWARZLOSE,
R. HARMON.