

A. KARUTZ.
Breech-Loading Fire-Arms

No. 152,998.

Patented July 14, 1874.

Fig. 1.

Fig. 2.

Fig. 5.

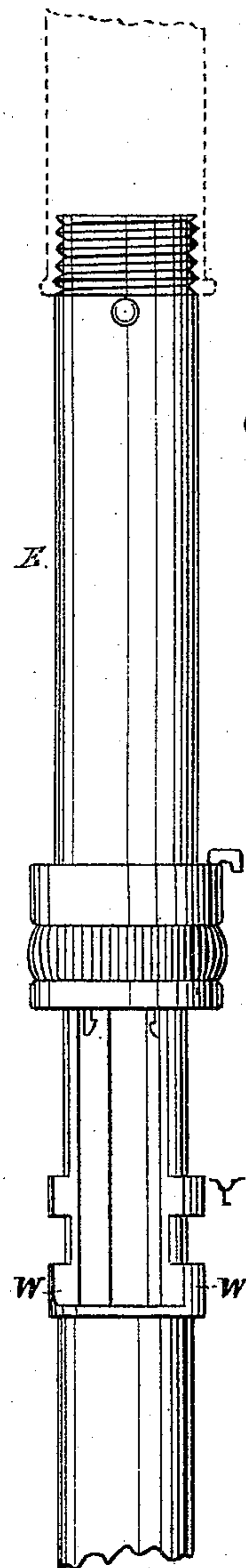
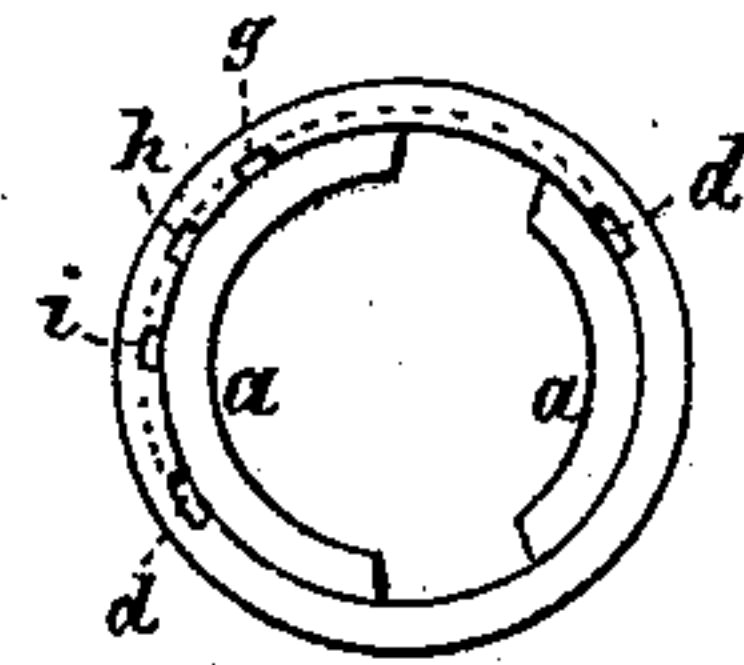
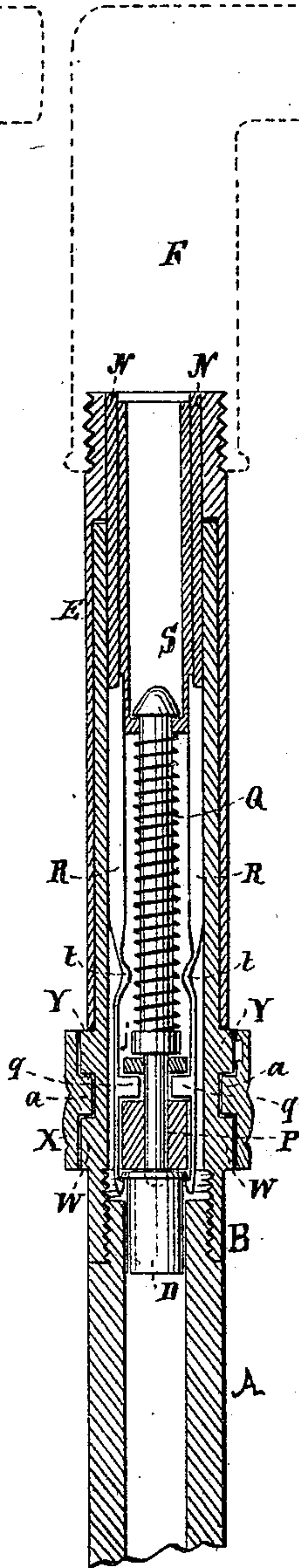
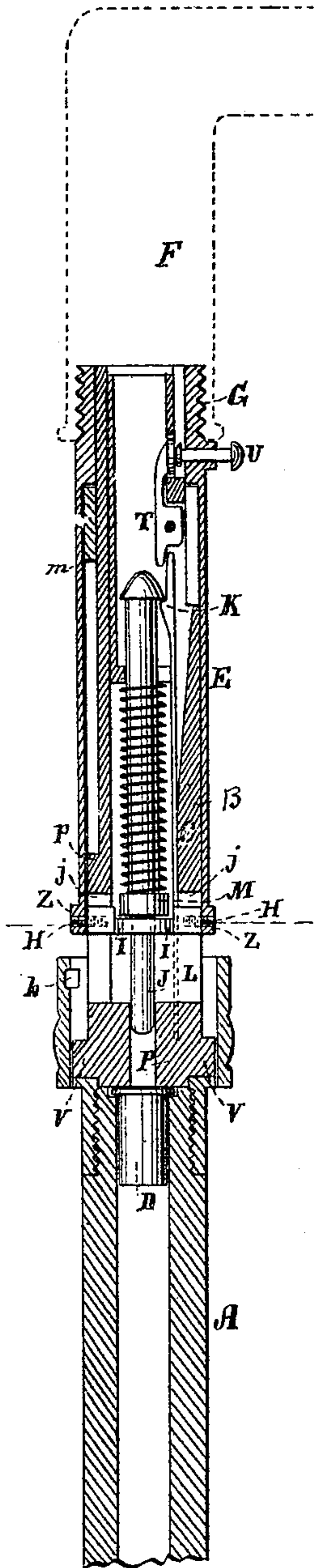
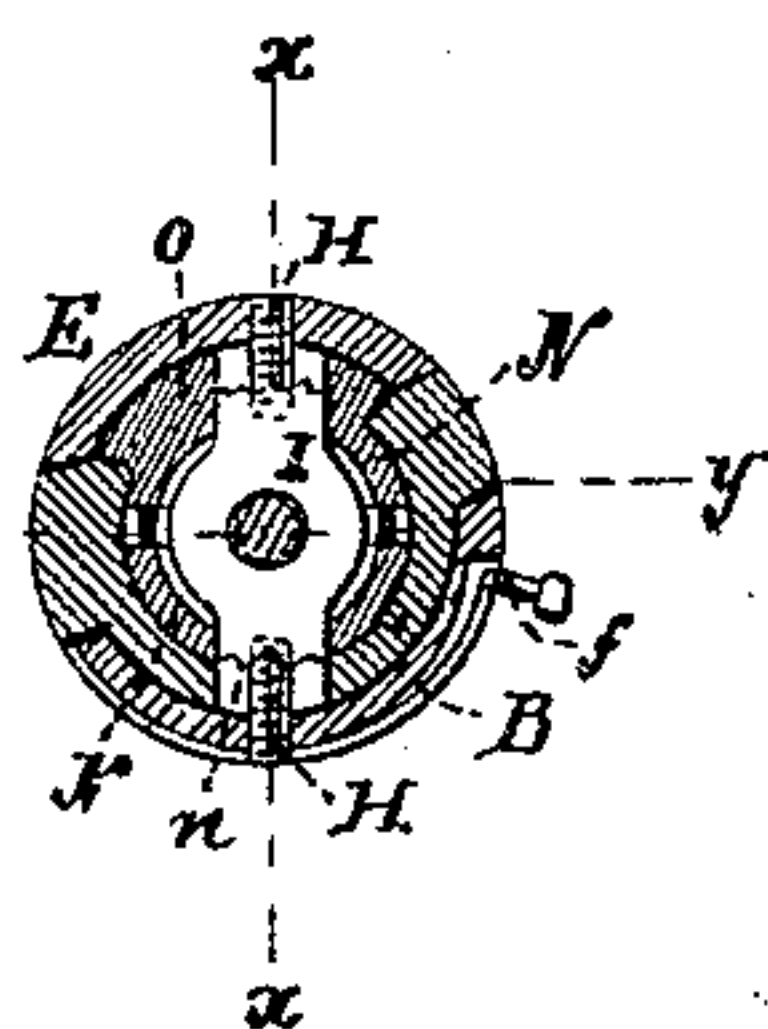


Fig. 3.

WITNESSES:

A Bernheimer & Co.
Sedgwick

Fig. 4.



INVENTOR:

BY

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ALBERT KARUTZ, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **152,998**, dated July 14, 1874; application filed March 14, 1874.

To all whom it may concern:

Be it known that I, ALBERT KARUTZ, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Cane-Gun, of which the following is a specification:

The invention will first be fully described, and then pointed out in the claims.

Figure 1 is a sectional elevation of my improved cane-gun, showing the parts in the position for setting the needle, the section being taken on the line *xx* of Fig. 4. Fig. 2 is also a sectional elevation of Fig. 4 on line *yy*, showing the position after the needle has been sprung to fire the cartridge. Fig. 3 is a side elevation, showing the chamber open for receiving the cartridge. Fig. 4 is a transverse section on line *zz* of Fig. 1, and Fig. 5 is an end elevation of a ferrule employed for locking the parts together.

Similar letters of reference indicate corresponding parts.

The barrel A screws onto the receiver B at the place for receiving the shell D. On the receiver is an outer shell or casing-tube, E, to which the handle of the cane F, or it may be a pistol handle or breech, connect at G. This tube is capable of sliding forward and backward on the receiver, and it is connected by screws H with a cross-head, I, which is employed to force the needle J back to set it for firing the spring K. The said cross-head works forward and backward in a mortise, L, in another tube arranged within the receiver, pushing the needle back by its collar M, and then, after setting the needle, going forward out of the way of the collar, so as not to interfere with the forward movement of the needle for exploding the cartridge. This cross-head is arranged within a small tube, N, which slides forward and backward in the receiver B, and has a portion, O, thickened to the size of tube B, and fitting along slot in it. Besides the needle-spring Q for throwing it, and the cross-head for pushing the needle back, this tube contains the retracting-springs R for throwing out the exploded shells, the setting-spring K for the needle, guide or bearing tube S for the middle, and the trip-lever T for releasing the needle. The tube B or receiver has a collar, Y, and on the opposite side a lug, V, at

the end next to the barrel, which, together with the collar Y, form a bearing for the sleeve or ferrule X to rest on at its front end, the said sleeve being to lock the inside tube N and outside tube E in the forward position next to the barrel, which is the position for use either as a cane or a gun. At the rear end said sleeve rests on a sectional collar forward of the lugs *y* on the receiver B, and the flange *z* on the front end of the outside tube E, which match so as to form a continuous collar when the parts are put together. The sleeve has a flange, *a*, at the middle of the inside, which is notched so as to pass the lugs *y* of the receiver and lock together with them by turning behind them after so passing beyond them, and it has a groove, *b*, extending part-way round its inner surface, with two notches, *d*, admitting the screw-head H to it from the rear end to lock the tube E, also the inside tube N, to the sleeve by entering the screws to the annular groove *b* and shifting them around from the notches *d*. These screws connect the cross-head to the outside tube E, and by means of the needle, and its spring Q, and bearing-tube S, also connect the inner tube N, so that the tube E can be used for pulling the needle back and setting it, also for pulling the needle and tube N back to open the chamber for the magazine, as shown in Fig. 3, for putting in the cartridge. When the needle is to be set the sleeve X is turned so as to allow the screws H to pull out of the notches *d*, but not so as to allow the sleeve to unlock with the lugs *y*; but when the cartridge-chamber is to be opened the sleeve is turned so as to escape from the lugs *y* and be pulled back with the tube E. A spring-catch, *f*, is arranged on the collar Y of tube E, to engage with notches *g h i* in the rear end of the sleeve to arrest it in the different positions to which it is turned for thus releasing the tube E, and also for holding it in the locking position. One of the screws H passes through the spring of catch *f*, and serves for its fastening, and these screws connect the outer tube E and the inside tube, as well as the cross-head. The end *j* of the slot L of tube N serves to stop the cross-head when pulling the needle back for setting it, and a stop-piece, *m*, dropped into notches made in the wall of slot *n* of tube

B, which is provided for introducing the head P, and the cross-head I serves for a stop when the tubes E and N are pulled back for opening the chamber to put in the cartridge, the lug *p* of tube N striking against it. This stop-piece *m* is confined in its place between the tubes E and N so as to need no fastening. The retracting-springs R are confined in slots in tube N, between tubes B and S at the rear end, and between B and the head P at the front end, and they are prevented from end motion by a projection, *q*, extending behind the head P, by abutting against the end of the slot in tube S. The setting-spring is secured by its end fitting in head P. The lever T for tripping the needle is worked by the push-pin *r*. The springs R are bent at *t*, to be opened by the cross-head when setting the needle to release the spent shell. They engage the new shell when the tubes are pushed forward to close the chamber.

It will be seen that by the modes adopted

for connecting the tube E and the inside works, and fastening the springs and the stop, the construction is simplified and cheapened.

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

1. The combination of receiver B having lugs *y*, sleeve X having notched flange *a*, and notched groove *b* and screws H, arranged as and for the purpose set forth.

2. The combination of locking-sleeve X, having notches *g h i*, with tube E, having collar Y and spring-catch *f*, as and for the purpose specified.

3. The combination, with breech-plug P, having tubular extension and slot L, of sliding sleeve E and cross-head I, as and for the purpose described.

ALBERT KARUTZ.

Witnesses:

T. B. MOSHER,

ALEX. F. ROBERTS.