

R. FROMMER.
AUTOMATIC FIREARM.
APPLICATION FILED JAN. 11, 1910.

988,996.

Patented Apr. 11, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

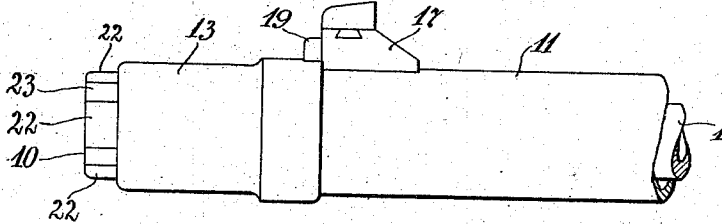


Fig. 2.

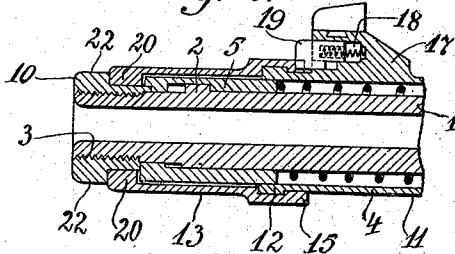


Fig. 3.

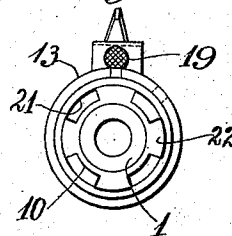


Fig. 4.

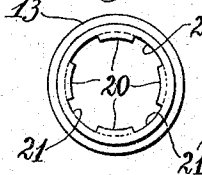


Fig. 5.

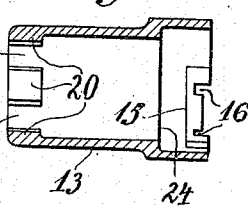
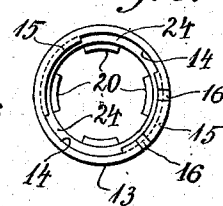


Fig. 6.



Witnesses:

L. Hoyer.
L. H. Staden.

Inventor:

Rudolf Frommer
by Arthur H. Hoyer,
Att'y.

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2 SHEETS—SHEET 2.

Fig. 7.

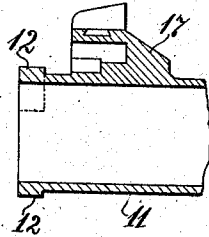


Fig. 8.

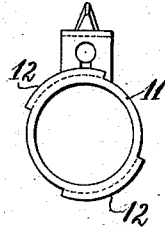


Fig. 9.

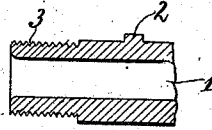


Fig. 10. Fig. 11.

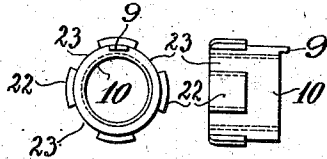


Fig. 12. Fig. 13.

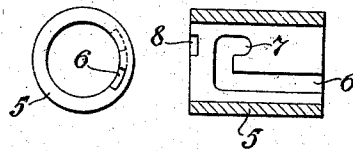


Fig. 14.

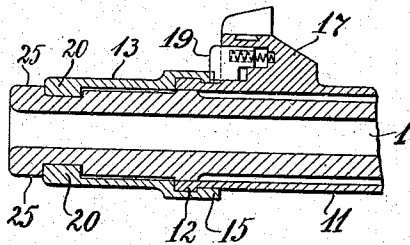
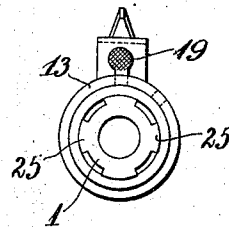


Fig. 15.



Witnesses:

L. Loyer.
A. H. Steadon

Inventor:

Rudolf Frommer
by Arthur H. Steadon,
Att'y

UNITED STATES PATENT OFFICE.

RUDOLF FROMMER, OF BUDAPEST, AUSTRIA-HUNGARY.

AUTOMATIC FIREARM.

988,996.

Specification of Letters Patent. Patented Apr. 11, 1911.

Application filed January 11, 1910. Serial No. 537,433.

To all whom it may concern:

Be it known that I, RUDOLF FROMMER, manager, subject of the King of Hungary, residing at 158 Külső Soroksári ut, Budapest, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Automatic Firearms, of which the following is a specification.

My invention relates to automatic firearms with sliding barrels of the type in which the barrel can be fixed for the purpose of using the weapon as a handloaded weapon, and to facilitate cleaning the barrel and for other purposes.

Compared with fixing devices of this character which are already known my invention consists in fixing the barrel by means of a sleeve arranged upon the guide tube of the barrel, which sleeve is adapted to rotate and be secured in its operative positions.

In the accompanying drawings; two forms of construction of my invention are shown by way of example, one of which shows the device applied to automatic firearms in which the barrel spring is arranged around the movable barrel (Figures 1 to 13), while the other shows it adapted to automatic firearms in which the barrel spring is otherwise arranged (Figs. 14 and 15).

Referring to the figures, Fig. 1 is a side view, Fig. 2 a vertical longitudinal section and Fig. 3 a front view of the fixing device. Figs. 4, 5 and 6 show a front elevation, longitudinal section, and back view respectively of the fixing sleeve. Figs. 7 and 8 show a longitudinal section and front elevation of the guide tube. Fig. 9 is a longitudinal section of the end of the barrel and Figs. 10 and 11 a front and side elevation respectively of a screw ring for the barrel. Figs. 12 and 13 show the barrel sleeve in front elevation and in section and Figs. 14 and 15 show the second form of construction of the device in longitudinal section and in front elevation.

In the form of construction shown in Figs. 1 to 13, the barrel 1 has a projection 2 (Figs. 2 and 9) and a screw-threaded portion 3; the action of the barrel spring 4 is transmitted to the barrel 1 by means of an inner sleeve 5 (Figs. 12 and 13). This sleeve has a bayonet-joint 6, the end 7 of which is adapted to receive the projection 2 of the barrel.

In order to protect the barrel sleeve 5

from accidentally rotating and becoming loose, it is provided with a recess 8 which takes a nose 9 on the screw ring 10. This ring 10 is screw-threaded on its inner surface and screwed on to the threaded portion 3 of the barrel 1. The barrel sleeve 5 is preferably so arranged relatively to the screw ring 10 that when the bayonet-joint 6 of the barrel sleeve 5 is arranged to be closed by rotating it toward the right, the screw-thread 3 of the barrel is left-handed. Thus owing to the engagement of the nose 9 in the recess 8, the barrel sleeve 5 is secured against accidental release since the screw ring and barrel sleeve are only adapted to turn in opposite directions.

In order to enable the barrel to be fixed according to my invention, the guide tube 11 of the barrel 1 is provided with an interrupted flange 12 (Figs. 2, 7 and 8) the projecting portions of which can pass through corresponding grooves 14 within a flange of the fixing sleeve 13. This sleeve can then be rotated upon the guide tube 11 so that the portions 15 of its flange engage behind the portions 12 of the flange on the guide tube and thereby prevent said sleeve from sliding off the guide tube 11.

In order to protect the sleeve 13 from accidental rotation, it is provided with notches 16 (Figs. 5 and 6) in which a catch 19 engages under the action of a spring 18, preferably arranged in the base 17 of the muzzle sight of the guide tube 11. By this means the fixing sleeve 13 can only be rotated after being released by pressing in the catch 19. The rotatable sleeve 13 is furthermore provided with an inner flange 20, having grooves 21 which permit corresponding projections 22 on the screw ring 10 to slide through, or not, according to the position of the sleeve 13 as determined by the notches 16. If the sleeve 13 is turned so that portions 20 of the flange come behind the portions 22 on the screw ring 10, the screw ring and therefore also the barrel, will be fixed, and will not slide backward under the recoil or other pressure to which it is subjected. On the other hand, if the sleeve 13 is rotated so that the grooves 21 come behind the corresponding portions 22 the screw ring, and therefore also the barrel can slide freely backward. The sleeve 13 is secured against displacement by the engagement of the flange 12 on the guide tube between the shoulder 24 and the flange 15 on the sleeve.

Since the shoulder 24 abuts against the mouth of the guide tube 11, an accurately concentric seating of the sleeve is obtained, and a concentric position of the barrel is thereby assured.

In order to dismount the device, the sleeve 13 must first be removed. For this purpose, the catch 19 is pressed in and the sleeve is rotated until the grooves 14 coincide with the projecting parts of the flange 12 whereupon the sleeve can be pulled off, because in this position the grooves 21 also coincide with the portions 22 of the flange on the screw ring 10. The barrel sleeve 5 is now pressed back against the action of the barrel spring 4 until the nose 9 no longer projects into the recess 8, this being rendered possible on account of the extended groove 7 of the bayonet-joint 6. The ring 10 can now be unscrewed, and the barrel-sleeve 5 after being suitably manipulated to disengage the bayonet-joint can be pulled off. The reassembling of the parts takes place in the reverse order to that above described.

In the form of construction above described, a barrel sleeve and a special screw ring are provided. The screw ring can however be dispensed with by lengthening the barrel sleeve 5 toward the end of the barrel and by arranging the flange 22 with its passage grooves 23 upon the barrel sleeve itself.

In Figs. 14 and 15 a form of the device is shown which is suitable for those types of automatic firearms in which the barrel spring is not arranged around the movable barrel 1, but in some other manner. The arrangement of the fixing sleeve 13 is exactly the same as before, but the projecting portions 25 which cooperate with the portions 20 of the flange on the sleeve are arranged on the barrel itself, and the barrel

sleeve and screw ring are dispensed with. The operation of the fixing sleeve 13 is in this case precisely the same as in the form of construction previously described.

Claims:

1. An automatic fire-arm having a sliding barrel, a guide tube for the same, a rotatable sleeve on the guide tube, coacting means on the barrel and on the rotatable sleeve to fix and release the barrel, and means to secure the rotatable sleeve in its operative positions.

2. An automatic fire-arm having a sliding barrel, a guide tube for the same, a rotatable sleeve on the guide tube, interrupted flanges on the barrel and on the rotatable sleeve coacting with each other to fix and release the barrel, and means to secure the rotatable sleeve in its operative positions.

3. An automatic fire-arm having a sliding barrel, a guide tube for the same, a screw-ring on the barrel, a rotatable sleeve on the guide tube, interrupted flanges on the screw-ring and on the rotatable sleeve, coacting with each other to fix and release the barrel, and means to secure the rotatable sleeve in its operative positions.

4. An automatic fire-arm having a sliding barrel, a guide tube for the same, a barrel sleeve to transmit the action of the barrel-spring to the barrel, a rotatable sleeve on the guide tube, interrupted flanges on the barrel sleeve and on the rotatable sleeve, coacting with each other to fix and release the barrel, and means to secure the rotatable sleeve in its operative positions.

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

RUDOLF FROMMER.

Witnesses:

FULÖP SCHÖN,
HUGH KEMÉNY.