

UNITED STATES PATENT OFFICE.

JAMES KERR, OF SOUTHWARK, COUNTY OF SURREY, ENGLAND.

IMPROVEMENT IN REVOLVING FIRE-ARMS.

Specification forming part of Letters Patent No. 39,409, dated August 4, 1863.

To all whom it may concern:

Be it known that I, JAMES KERR, of 17 Bedford Terrace, Trinity Square, Southwark, Surrey county, England, have invented certain new and useful Improvements in Revolvers; and I hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to an improved construction and arrangement of that class of fire-arms known as "revolvers," whereby greater cheapness, simplicity, and certainty of action are obtained.

According to this invention it is proposed to apply, in combination with certain peculiar pieces of mechanism, the ordinary gun-lock and cock, with the usual safety-bolt, to revolving fire-arms, but detached from the body or frame. The lock may be made either on the single or double action principle, it being simply necessary for producing the throwing action to make an extra "bent" in the tumbler and to modify the form of the "hook." The upper strap and the barrel are forged in one piece, and the lower portion of the frame and under-strap are connected or jointed to the barrel itself in a peculiar manner, hereinafter described.

Figure 1 of the annexed sheet of drawings represents a full-sized elevation of a revolver-pistol constructed according to this invention. Fig. 2 is a separate detail, showing the mode of connecting the barrel with the frame and stock, the parts being shown separated. Fig. 3 is an internal view of the lock and trigger, showing the manner of their connection and the modifications introduced into the action. Fig. 4 is a separate detail of the lever-rammer, and Fig. 5 is an end elevation of the revolving chamber detached.

A is the ordinary gun-lock, detached from the body or frame, which admits of the action being completely inclosed within the stock, and consequently the danger of pieces of discharged caps or other matters falling into and deranging the action of the lock is entirely obviated. The lock is detached from the body or frame, and the cock B works outside of the lock-plate in the ordinary manner; but I lay no claim to this side cock when not combined with a detached lock.

C is the usual safety-bolt.

The rotation of the cylinder D is effected by the following means, combined with the ordinary gun-lock: The ordinary lever, E, (shown in red lines in Fig. 3) is jointed to the rear portion of the trigger F, which turns on the fixed stud-center *f*, and the point of this lever acts upon the ratchet-teeth formed on the base of the cylinder shown in Fig. 5, which arrangement is common to most revolving fire-arms, and forms no part of my invention when not combined with or applied to an ordinary gun-lock. A stud or hook, *g*, Fig. 3, is formed on or inserted in the tumbler G of the lock. This stud or hook engages with a stud, *h*, on the upper end of the link-piece *h'*, (shown in edge view at Fig. 3^a), which link is jointed to the trigger by the same pin which serves to connect the lever E. The cocking of the lock by pulling back the hammer will obviously cause the stud *g* to raise the trigger through the introduction of the link *h'*, and consequently the lever E will be simultaneously raised and rotate the cylinder by acting against one of the ratchet teeth in the base, while at the same time a projection, *f'*, on the trigger will be brought into a recess in the cylinder, thereby locking it in the proper position for discharge. The single pulling action—namely, the power of cocking and firing by simply pulling the trigger—is easily obtained in this lock by simply having an extra bent or notch, *a*, made in the fore part of the tumbler, and causing the external upper end of the link *h'* to take into such notch or bent, as is clearly shown in Fig. 3, the link *h'* and lever E being both maintained in their proper positions by the blade-spring *b*. The link *h'*, in rising, forces back the hammer, and is then thrown off or released from the bent by the pressure against it of the fore part of the tumbler as it comes round, whereupon the hammer falls and strikes the cap.

The barrel H, Fig. 2, of the pistol is forged separately or apart from the body or frame, and is connected therewith in the following manner: The frame I and lower strap, K, are connected at L by a square tongue and slot and pin to that part of the barrel through which the ramming-plunger M passes into the chamber, while the hinder part of the barrel forms the upper strap, N. This strap is let into the upper surface of the stock and drops into a re-

cess, *o*, formed in the body or frame, the two straps and stock being firmly secured together by a screw-pin passing through the upper strap and stock and entering the under strap, so that the stock is firmly gripped between the two straps. The upper strap and the frame are still further held together by another screw at *c*, and also by the cylinder-rod *P*, which passes through the corresponding openings, *d d'*, made for that purpose in the upper strap and frame, respectively.

My improved lever-action for the ramming-plunger shown at Fig. 4 consists in having a lever, *Q*, working on a fixed fulcrum, *R*, and having a curved slot made therein, in which slot works the connecting-pin of the ramming-plunger *M*.

I lay no claim to any of the parts separately, but claim only—

1. The combination of the lever *E*, trigger *F*, link *h'*, stud *h*, hook *g*, and extra bent *a* with

the ordinary tumbler and sear, these parts constituting a lock detached from the body or frame, as hereinbefore described, and illustrated by my drawings.

2. The adaptation and use to and in revolving fire-arms of the ordinary gun and pistol lock detached from the body or frame, as hereinbefore described.

3. The peculiar mode hereinbefore described of connecting the barrel with the frame and stock when such barrel is forged apart from the body or frame.

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

JAMES KERR.

Witnesses:

THOMAS I. BYRNE,

EDWARD I. BOWTELL,

Clerks to J. Henry Johnson, Sol., 47 Lincoln's Inn Fields, London.