



# UNITED STATES PATENT OFFICE.

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## FIREARM.

SPECIFICATION forming part of Letters Patent No. 630,478, dated August 8, 1899.

Application filed March 14, 1899. Serial No. 709,116. (No model.)

To all whom it may concern:

Be it known that I, BURKARD BEHR, a citizen of the Empire of Russia, residing at Zurich, Switzerland, have invented certain new and useful Improvements in Revolvers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to revolvers; and it consists, substantially, in such features of improvement as will hereinafter be more particularly described.

The invention has reference more particularly to that type of revolver in which two or more barrels are arranged one above the other; and the object of the invention is to provide means for altering the position of the striker or firing-pin for the cartridges in such manner that the firing of the cartridges takes place successively first through the uppermost barrel and next through the barrel beneath, whereupon the striker or pin is again restored to its first position to repeat the operation.

The above and additional objects are attained by the means illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a revolver embodying my improvements, the same being shown with the side of the "butt" or handle removed, so as to more clearly indicate the construction and arrangement of the interior mechanism. Fig. 2 is a vertical sectional view on the line  $x x$  of Fig. 1. Figs. 3 to 5, inclusive, are detail views of the several parts or elements contributing to make up the mechanism constituting my present improvement.

In the carrying of my present invention into effect I preferably, though not essentially, construct the main frame and cartridge-chamber of the revolver substantially in accordance with the form of revolver shown and described in my application, Serial No. 682,355, filed June 2, 1898—that is to say, I employ two barrels, one located above the other, together with a cartridge-chamber the sides of which are flush or even with the sides of the frame. The said chamber is substantially a box pivoted in such manner that by successively turning the same by hand to a

position corresponding to one hundred and eighty degrees the cartridges in each half of the chamber can be discharged through the barrels of the arm in the ordinary way.

In the accompanying drawings, A represents the frame of the revolver, and B the cartridge-chamber, the barrels being shown at  $a$  and the passages in the chamber at  $b$ .

The hammer or cock E of the revolver is actuated in any suitable way, and said cock is mounted on a pivot  $e'$ , passing through the butt or handle portion and supported in the sides of the latter.

Journalled or pivoted in the upper end of the cock at  $e$  is a movable firing-head F, provided forwardly with a striker or pin  $f''$  and also having on one side thereof a projection  $f$ . Said firing-head is also provided with notches  $r$  and  $r'$  in its edge rearwardly of the pivot  $e$ , which notches are successively engaged by the end of a spring-catch R accordingly as the firing-head is turned to one position or the other in the manner to be described.

Mounted loosely on the pivot  $e'$  of the cock E is a disk P, on one side of which is rigidly secured a ratchet-disk Q, the teeth of which latter are engaged by a spring-catch  $q$ , connected to the firing mechanism. The said disk P is substantially quadrangular in shape or outline, with the angles thereof rounded and constituting raised or elevated portions  $p$  and with the intervening edges thereof curved inwardly to constitute recesses  $p'$ , which alternate with said raised or elevated portions, as shown. Located or arranged in the frame intermediate the said disk and the firing-head is what I term a "pusher" O, which is simply a metal plate oblong in shape and provided in its forward edge, at near the upper end thereof, with an angular or >-shaped notch  $o$ , in which is received the projection  $f$  on the side of said firing-head. The lower end of said pusher or plate O engages the elevated or depressed portions of the disk P, according to the position of the latter, and the rear edge of the pusher is engaged by a spring O', the tendency of which is to force the pusher downwardly. The said spring O' is held in place in any suitable manner, as by a rivet (not shown) passing through it and the handle-frame. In the movements

of said pusher up and down (caused by the movements imparted to the disk P by the catch *q*, actuating the ratchet-disk Q) the striker or pin *f'* of the head F is moved up and down to a limited extent by the engagement of the lower and upper edges, respectively, of the recess O with the said projection *f*. In other words, such engagement of the edges of said recess with said projection causes the firing-head to rock on its pivot *e*, and the firing-pin or striker *f'* is raised or lowered accordingly to be brought to the proper positions to be carried into the openings JK of the cartridge-chamber for exploding the cartridges therein by contact of said pin with the latter.

Assuming the parts to be in the position shown in Fig. 1—that is, with the pusher held upwardly against the tension of spring O' by means of one of the elevated portions of the disk—it will be noted that the firing-pin *f'* is also held in its upward position. When, now, the firing mechanism is operated in the usual way by pulling upon the trigger, the hammer or cock will be thrown forward, carrying with it the firing-head, and the firing-pin or striker will enter the opening J. On again pulling upon the trigger the catch *q* moves the ratchet-disk, and with the latter the disk moves just far enough to carry the elevated portion referred to from beneath the lower end of the pusher, whereupon the spring O' forces the pusher down into the recess or depression following the said elevated portion, and then when the cock or hammer is next drawn back and thrown forward the firing-pin will enter the lower opening K. This second operation of the hammer by means of the trigger causes the lower edge of the pusher to ride upon the edge of the depressed portion of the disk with a tendency to rise and then the pulling upon the trigger operates said disk to be moved so as to carry the pusher upward upon the next succeeding elevated portion *p*. During the throw of the hammer, with the pusher in its raised position, the lower end of the latter rocks upon the elevated portion *p*. Whenever the pusher is lifted, the lower edge of recess *o* therein raises the striker or pin *f'*, and when said pusher is lowered the upper edge of said recess acts to lower the striker by

rocking the striker-head downwardly, as already explained.

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

1. In a revolver comprising two or more barrels arranged one above the other, the combination with the firing mechanism, of a movable firing-head mounted upon the cock or hammer, the same being provided forwardly with a striker, and rearwardly with notches, a vertically-movable plate engaging the head to alter the position of the striker after each firing, means for operating the plate, and means engaging the notches of the head to hold the latter in each position to which the same is moved, substantially as described.

2. In a revolver comprising two or more barrels arranged one above the other, the combination with the firing mechanism, of a firing-head pivoted upon the cock or hammer, the same being provided forwardly of its pivot with a striker, and rearwardly of such pivot with notches, means for turning the head upon its pivot after each firing to alter the position of the striker, and a spring-catch engaging said notches to hold the head in each position to which the same is turned, substantially as described.

3. In a revolver comprising two or more barrels arranged one above the other, the combination with the firing mechanism, of a firing-head pivoted upon the cock or hammer, and provided with a striker and a side projection, a substantially quadrangular disk mounted upon the pivot of the hammer and provided with alternating depressions and elevations, a ratchet-disk on the disk first named, a catch engaging said ratchet-disk and operated by a continued pull upon the trigger to move the two disks, a movable device having an angular recess receiving said projection, and said device riding the edges of the quadrangular disk, and a spring tending to carry the movable device downwardly.

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

BURKARD BEHR.

Witnesses:

ANNA SEHNÄBELI,  
A. LIEBERKNECHT.