Feb. 24, 1959 J. KOUCKÝ ET AL 2,874,501

SIGHT FOR REPEATING SMALL ARMS

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Fig. 1

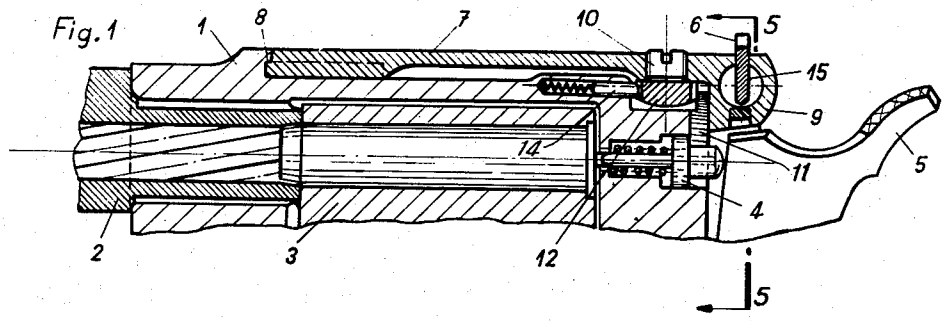


Fig. 2

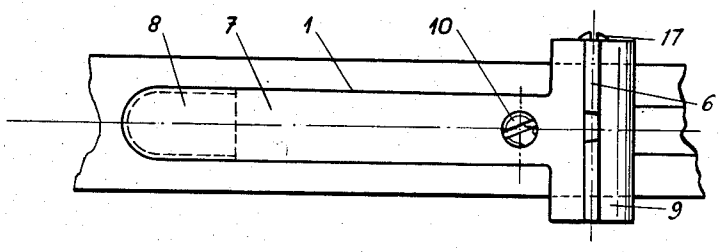


Fig. 3

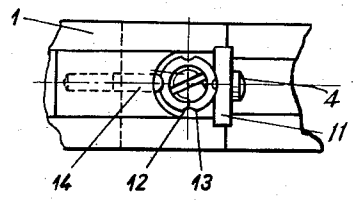


Fig. 5

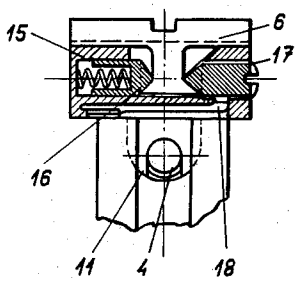
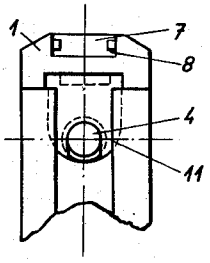


Fig. 4



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SIGHT FOR REPEATING SMALL ARMS

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4 Claims. (Cl. 42—1)

The subject of the present invention is a sight for repeating small arms, particularly but not exclusively for cylinder revolvers.

In view of the generally prevailing principles that have to be observed in the design of some standard weapons owing to their general distribution or popularity, it is difficult to arrange the delicate mechanisms of which they are constructed in such manner that both the individual component parts and the complete mechanisms are mutually reliable and at the same time easily accessible and capable of being taken apart, these being requirements particularly in the case of small arms.

In repeating small arms, such as for example revolvers or pistols, particularly in the case of target weapons, the weapon must be equipped with a laterally and vertically adjustable micrometer sight adapted to be secured when in the adjusted position. Obstacles were hitherto encountered in putting these requirements into effect simultaneously, since the firing pin is always disposed close to the sight so that in this part of the weapon the individual component parts almost overlap one another. Under these conditions it is very difficult to cater for the demand for a reliable and relatively simple weapon with easily accessible component parts adapted to be easily dismantled.

The object of the invention is to solve this problem while keeping to all the said requirements and the invention achieves this by a new construction of the weapon, the essence of which comprises that the sight of the weapon consists of a resilient removable support for the actual sight, which support is mounted so as to be capable of being pushed out in an axial groove of the frame of the weapon and is constructed in such manner that, by means of an arresting member, it secures the firing pin of the weapon against being removed, while it is itself held by said member in the installed or functional position and can be brought out of this position by overcoming its resilience by pressing it away out of engagement with the said member, whereby the firing pin is also released for removal.

The proposed arrangement constitutes a considerable improvement on known constructions of the type of weapon in question in respect of operation and maintenance and is at the same time simple and completely reliable. A further advantage of the arrangement of the invention is the possibility of using a very good easily adjustable and securable sight, this being very important particularly for high-precision target weapons.

A specific embodiment of the arrangement according to the invention is illustrated in the accompanying drawing by way of non-limiting example, and in which:

Figure 1 is a partial longitudinal section of a cylinder revolver;

Figure 2 is the corresponding plan view;

Figure 3 is a plan view of the weapon with the sight removed;

Figure 4 is a view from the rear of the weapon with the sight removed; and

Figure 5 is a cross-section of the weapon on the line 5—5 in Figure 1 in the direction of the arrows.

Referring to the drawings the revolver frame 1 carries the barrel 2, in front of which is disposed the cartridge cylinder 3, behind the top cartridge chamber of which a sprung firing pin 4 is disposed in the frame. The firing pin is operated by the hammer 5. The sight of the revolver consists of a resilient removable support for the actual sight 6, which is mounted in an axial groove of the frame 1 so as to be capable of being pushed out longitudinally. The resilient support for the sight is constructed as a slide 7, which is provided at its front end with guide means, for example with strips 8, which engage in corresponding guides of the frame.

The slide 7 forming the support for the sight 6 is at the same time so constructed that it secures the firing pin 4 of the weapon against removal, by means of an arresting member, while the slide 7 is held by said member in the installed or functional position. The slide 7 can be brought out of this position by overcoming its resilience and pushing it away out of the engagement with the said arresting member, whereby the firing pin 4 is also released for removal. For this purpose the rearward end of the slide 7 is constructed as a downwardly extending transverse flange which, in co-operation with the vertical-adjustment screw 10 of the sight disposed in front of it, holds the arresting member of the firing pin 4. In the embodiment illustrated the arresting member has the form of a fork 11 which is mounted to be vertically slidable in a corresponding guide, for example in a dovetailed guide, transversely to the axis of the firing pin 4. The arrangement is at the same time such that the fork 11 by means of its legs secures the firing pin in its functional position, that is to say against being removed from the frame. The top end of the fork 11 engages from below into the space between a lug 9 and the adjustment screw 10 of the sight 6.

For the purpose of preventing the fork 11 of the firing pin 4 from sliding upward when the weapon is assembled (Figure 1), the adjustment screw 10 is provided at its lower end with a cylindrical head 12, which at the same time secures the said adjustment screw against accidental falling out. The head 12 is mounted so as to be concealed beneath the slide 7 and engages in a corresponding recess of the firing pin fork 11, whereby the latter or the firing pin 4 is secured in its functional position. In order to obtain a reliable invariable vertical adjustment of the sight 6, the cylindrical head 12 of the adjustment screw 10 is provided with lateral diametrically disposed notches 13 (Figure 3) in which engages a sprung pin 14 located in the frame 1.

In the case in question, the actual sight 6 is constructed as a substantially T-shaped plate, which is slidably mounted in a transverse recess of the lug 9 of the slide 7 and projects by its crossbar into a bore 15 disposed coaxially beneath the said transverse recess. The crossbar of the sight 6 is securely clamped between a sprung pin 16 and an adjustment screw 17 and can therefore be laterally adjusted as required. The securing of the adjustment screw 17 in the adjusted position is effected similarly to that in the case of the vertical screw, by longitudinally extending diametrically disposed notches in the screw 17 in which, contrary to the said arrangement, engages a resilient securing means 18, which is mounted in a recess in the underside of the lug 9 in a manner such as to be easily removable of the slide 7.

Dismantling of the arrangement according to the invention is effected, as already stated, by pushing up the rear end of the slide until the head 12 of the vertical-adjustment screw 10 of the sight comes out of engagement with the securing fork 11 of the firing pin and by drawing the slide 7 out of the guide groove of the frame

1. The firing pin 4, the adjustment screw 10, the sprung pin 14, the sight 6 and the securing means 18 of the lateral-adjustment screw 17 are thereby released for removal. Complete dismantling is very simple and requires no special tool.

The arrangement described and illustrated is only one exemplified embodiment of the subject of the invention and can therefore be modified in various ways without thereby departing from the scope of the invention.

We claim:

1. In a firearm, the combination of a frame, a firing pin slidably mounted in said frame and removable rearwardly from the latter, an arresting element operative to prevent rearward removal of the firing pin and being vertically slidable in said frame to release said firing pin for removal upon upward sliding of said arresting element, a resilient sight support, longitudinally extending guide means on said frame slidably receiving said sight support at the forward end portion of the latter so that said support is removable rearwardly from said guide means from an operative position wherein the back end portion of said support overlies said arresting element, a sight carried by said support, and means on said back end portion of the support extending downwardly from the latter and engageable in front and in back of said arresting element in said operative position of the support so that said arresting element normally prevents rearward removal of said support and so that upward flexing of said back end portion of the resilient support raises said means extending downwardly from the back end portion to clear said arresting element and thereby permit rearward displacement of said support for freeing the latter from said guide means.

2. In a firearm, the combination as in claim 1; wherein said means on the back end portion of the resilient sight support includes a transversely extending projection depending from the back end of said support and a sight elevation screw threaded into said support from below at a location spaced forwardly from said depending projection so that said arresting element engages between said elevation screw and said depending projection; and wherein said sight is disposed on said back end portion of said support so that, with said screw bearing on the top of said frame, adjustment of said screw relative to said support causes adjustment of the elevation of said sight.

3. In a firearm, the combination as in claim 2; wherein said arresting element has a bifurcated lower portion to embrace said firing pin, and said firing pin has a collar thereon disposed in front of said bifurcated lower portion and engageable with the latter to prevent rearward removal of the firing pin so long as the latter is embraced by said bifurcated portion.

4. In a firearm, the combination as in claim 3; wherein said elevation screw has a head disposed below said sight support and said arresting element has a recess in its upper portion normally receiving said head of the elevation screw to prevent displacement of said arresting element until said head has been removed from said recess.

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