Oct. 18, 1949. J. KOUCKY 2,485,155

BREECHBLOCK DEVICE FOR FIREARMS

Filed July 24, 1947

Fig. 1

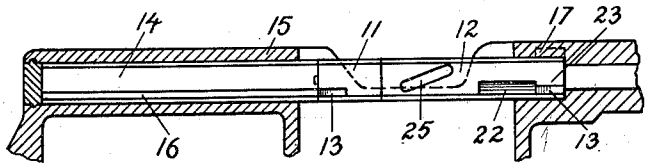


Fig. 2

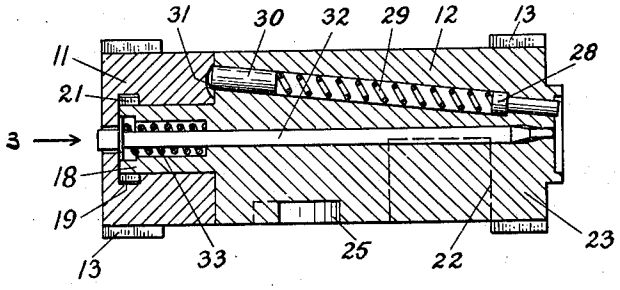


Fig. 3

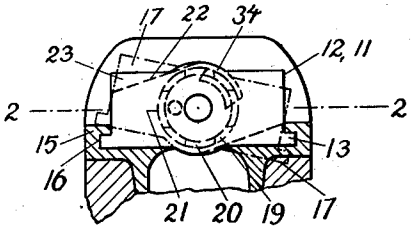
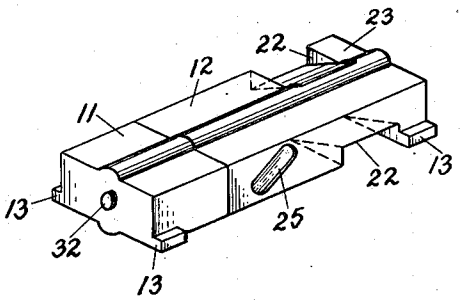


Fig. 4



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BREECHBLOCK DEVICE FOR FIREARMS

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In Germany December 11, 1943

2 Claims. (Cl. 42—16)

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My invention relates to a breechblock device for firearms and is a further improvement of the device disclosed in my prior Patent No. 2,356,595.

The essential part of said device is a breechblock slidably and tiltably mounted in the casing, said breechblock having locking lugs which in tilted position engage corresponding recesses in the casing. In the older device the length of the tiltable breechblock has to exceed the length of the cartridge chamber opening through which cartridges are introduced into the firing position to leave a sufficiently long part of the breechblock supported in the casing during the tilting movement effecting the locking and unlocking of the breechblock. The breechblock, therefore, has to have a greater length than necessary for its safe guidance during its sliding movements, and this greater length results, of course, in an increase in weight of said breechblock. This is of disadvantage especially when the breechblock device is used in gas-operated firearms wherein the masses of moving parts and the length and weight of the casing have to be kept as small as possible.

The main object of my invention is to overcome the above mentioned difficulties. According to my invention the breechblock is divided in two component parts; namely, a slide member guided in the casing and in front thereof and coupled thereto a rotatable bolt member having locking lugs engaging corresponding recesses in the casing or in the breech. Such construction contrives not only to reduce the weight and length of the firearms, but also to enhance its stability as the center of gravity is moved backwards, that is away from the barrel.

The said and other objects of my invention will be more fully understood from the following specification taken with the accompanying drawing in which one embodiment thereof is illustrated.

In the drawing

Fig. 1 illustrates schematically in a side view, partly in section, the arrangement of the breechblock within the casing,

Fig. 2 shows a horizontal section through the breechblock along the line 2—2 in Fig. 3.

Fig. 3 shows an end view of the breechblock in the direction of arrow 3 in Fig. 2 and shows also part of the casing in section, and

Fig. 4 shows a perspective view of the breechblock.

The breechblock has an essentially prismatic shape and is composed of two adjoining and cooperating parts namely a slide member 11 and

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a bolt member 12 in part thereof. Each of these parts 11 and 12 has a pair of laterally arranged shoulders 13 which move in corresponding slide channels 16 arranged in the casing 15. The front end of the breechblock part 12 is provided with a pair of triangular locking lugs 23 as disclosed in my Patent No. 2,356,595. These known locking lugs 23 are formed at the end of the beveled faces 22 which are arranged in the bottom and top face of the bolt member 12. The said locking lugs 23 engage corresponding recesses 17 in the casing 15 or in the breech of the barrel after the bolt member 12 has been turned into locking position. This turning of the bolt member 12 is effected with the help of the inclined groove 25 arranged laterally thereon into which engages in a manner known per se an active member of an operating handle for moving the breechblock back and forth, or an active member of the gas cylinder group to effect the breechblock movement automatically.

The bolt member 12 is provided with a pivot 18 which extends into and seats in a corresponding axial bore arranged in the slide member 11. The base of said bore is extended into an annular groove 19 (Fig. 2) into which lead two longitudinal grooves 20 arranged in diametrically opposed positions in the top and in the base respectively of said bore (Fig. 3). The pivot 18 is provided at its outer end with two opposing radial teeth 21 which are introduced through said longitudinal grooves 20 until they engage the annular groove 19 so that the forepart 12 may be turned by 90° into the locking position shown in Figs. 2 and 3.

The bolt member 12 is provided on its front end with two locking lugs 23 which are formed by chamfered surfaces 22 in the same way as described in my Patent No. 2,365,595. These lugs 23 after slightly turning the bolt 12 engage corresponding recesses 17 in the casing 15. This turning is achieved with the help of the inclined groove 25 into which engages an active member of the breechblock displacing device as stated above.

The bolt member 12 is further provided with a longitudinal boring into which the ejector 28 is introduced and held therein by a compression spring 29 resting with its other end upon a pin 30 slidingly arranged in said boring. The free end of said pin 30 is pressed against and slides upon the front face of the slide member 11 and rests in a recess 31 thus securing the breechblock parts 11 and 12 in their relative position shown in Figs. 2 and 4.

The breechblock parts **11** and **12** contain the striker **32** which is charged with the spring **33**. The bolt member **12** contains also a conventional cartridge extractor **34**.

Although I have shown and described a specific embodiment of my invention, it will be apparent to those skilled in the art that many changes, substitutions, additions and omissions may be made therein without departing from the spirit of my invention as set forth in the appended claims. Thus the shape of the two breechblock parts, as well as the connecting and securing means used to join the said parts may be of different construction.

What I claim as my invention is:

1. In a breechblock device for firearms, a casing, a breechblock slidably mounted in said casing, said breechblock comprising a slide member guided in said casing and a bolt member adjoining said slide member in front thereof, a pivot upon said bolt member extending axially into said slide member and a corresponding boring in the latter to rotatably support said pivot, a circular groove arranged at the base of said boring, at least one tooth upon said pivot interlocking with said circular groove, an axially extending groove in said boring for each of said teeth to permit the same to pass into said circular groove, locking lugs arranged on said bolt member and recesses in said casing adapted to receive said lugs, and means for turning said bolt member from an unlocked position to a locked position in which said lugs are received in said recesses.

2. In a breechblock device for firearms, a casing, a breechblock slidably mounted in said casing, said breechblock comprising a slide member guided in said casing and a bolt member rotatably coupled thereto in permanently adjoining position in front thereof, coupling means permitting a rotation of said bolt member with regard to said slide member, locking lugs arranged on said bolt member and recesses in said casing adapted to receive said lugs, means for turning said bolt member from an unlocked position to a locked position in which said lugs are received in said recesses, a boring in the bolt member, an ejector in the front part of said boring, a locking pin in its rear part, a pressure spring between said ejector and said locking pin, and a recess in the front face of the slide member cooperating with said locking pin.

JOSEF KOUCKY.

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