No. 676,945. Patented June 25, 1901.

W. H. GATES.

JOINT PIN FOR GUNS.

(Application filed Nov. 1, 1900.)

(No Model.)

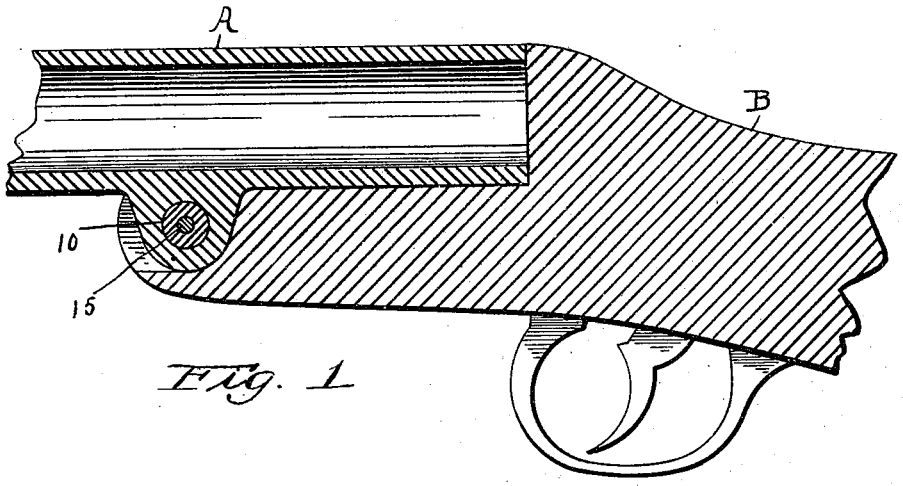


Fig. 1

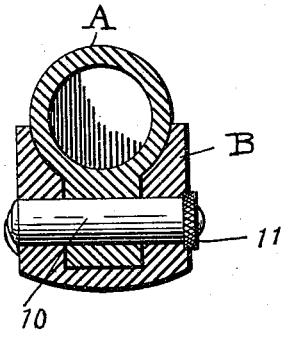


Fig. 2.

Fig. 3.

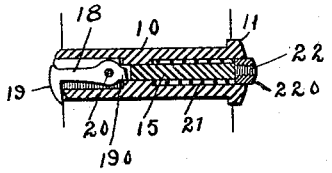


Fig. 4

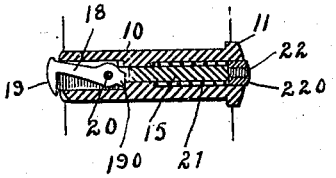
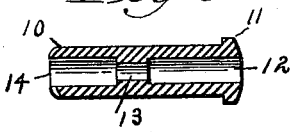


Fig. 5.



Witnesses.
C. F. Wesson.
M. E. Regan.

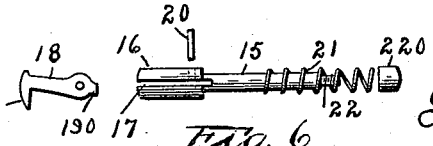


Fig. 6.

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UNITED STATES PATENT OFFICE.

WILLIAM H. GATES, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND BENJAMIN P. GREENE, OF SAME PLACE.

JOINT-PIN FOR GUNS.

SPECIFICATION forming part of Letters Patent No. 676,945, dated June 25, 1901.

Application filed November 1, 1900. Serial No. 35,080. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. GATES, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Joint-Pin for Guns, of which the following is a specification.

The object of this invention is to provide a new and improved joint-pin for guns which have their barrel-sections pivoted to their breech-sections.

The specific purpose is to provide a simple cheap joint-pin, which can be very readily inserted and locked or withdrawn from the breech-section to lock the parts together.

Referring to the accompanying drawings, forming part of this application for patent, Figure 1 is a sectional view of the barrel and breech-piece of a gun. Fig. 2 is a cross-sectional view taken through the joint-pin, the joint-pin being left in full. Fig. 3 is a sectional view of the joint-pin with its catch in operative position. Fig. 4 is a similar view with the catch in inoperative position. Fig. 5 is a sectional view of the hollow pin by itself, and Fig. 6 is a detail view illustrating the parts and construction of the plunger.

My improved joint-pin consists of a hollow pin in which is mounted a spring-pressed plunger carrying a pivoted catch at its end. The pin is made of different internal diameters, so that by operating the plunger the catch may be held either in its operative or inoperative position.

In detail, A designates the barrel-section, and B the breech-section, of any one of the ordinary forms of guns. The details of these parts are not illustrated, as they may be of any form.

The drawings illustrate a single-barrel gun, although it is perfectly obvious that my improved joint-pin is equally applicable to a double-barrel as to a single-barrel gun.

10 designates a hollow pin which has a milled or ornamented head 11. This pin has three internal diameters 12, 13, and 14, as shown, the middle diameter 13 being smaller than either of the other two. 15 designates a plunger which is fitted into said hollow pin. This plunger has an enlarged head 16, which is slotted, as at 17. A catch 18 is pivoted in this slot by means of pin 20. This catch has a jaw 19 and a rearwardly-extending projection 190. The other end of the plunger is screw-threaded, as at 22, and a nut 220 is rigidly secured and fastened thereon after the plunger has been inserted in the hollow pin from the left-hand end and a spring 21 inserted in the portion 12 of the hollow pin.

The parts hereinbefore described are so arranged that they will operate as follows: By pressing in on the plunger on the end which has the nut 22 the plunger will be moved, so that the projection 190 of the catch will come into the portion 14 of the hollow pin. The catch can then be moved, so that the jaw 19 will come in line with the pin 10, and then when the pressure is released on the end of the plunger the catch will be locked in this position, because as the plunger moves outwardly under the influence of its spring the projection 190 of the catch will strike on the shoulder between the portion 13 and the portion 14 of the hollow pin. This will lock the catch in its inoperative position, as shown in Fig. 4. When in this position, the joint-pin can be inserted or removed from the gun. When the joint-pin is inserted and when it is desired to lock the same in place, the catch 19 is moved down to catch over the breech-section, as shown in Fig. 3. When the catch is moved to this position, the projection 190 thereon will register with the hole 13 in the pin 10, and the spring 21 will then force the plunger outwardly and will move the projection 190 on the catch into the hole 13 of the hollow pin, thus rigidly locking the catch in operative position. The catch will bear rigidly on the side of the breech-section and prevent any lost motion or play of the parts. In this way a simple and efficient joint-pin is provided which can be quickly inserted or withdrawn.

The details herein shown and described may be greatly varied by a skilled armorer without departing from the scope of the claims.

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

1. A joint-pin for guns comprising a pin, and a plunger having a catch in its end, substantially as described.

2. A joint-pin for guns comprising a pin, and a spring-pressed plunger having a catch in its end, substantially as described.

3. A joint-pin for guns comprising a hollow pin, having different internal diameters, a plunger fitted therein, and a catch carried by the plunger, which is locked when its end is drawn into the portion of the hollow pin having the small diameter, substantially as described.

4. A joint-pin for guns comprising a hollow pin having a small diameter in its middle portion, a plunger fitted therein, a spring normally tending to move the plunger in one direction, and a catch pivoted in the end of said plunger, and having a projecting end which is adapted to catch on the shoulder formed in the pin, so that the same will be held in inoperative position, or to slide into the small diameter of the pin to be locked in operative position, substantially as described.

5. A joint-pin for guns comprising a hollow pin 10 having the three internal diameters 12, 13 and 14, the plunger 15 fitted therein having an enlarged forked end, a catch 18 pivoted in said end, and a spring 21 for normally moving the plunger in one direction, substantially as described.

6. A joint-pin for guns comprising a hollow pin 10 having the three internal diameters 12, 13 and 14, the plunger 15 fitted therein and carrying the catch 18 which has a jaw 19, and a projecting end 190, and a spring 21 for normally forcing the plunger in one direction, substantially as described.

7. A joint-pin for guns comprising a hollow pin 10 having the three internal diameters 12, 13 and 14, the plunger 15 fitted in the said hollow pin, the catch 18, having the jaw 19, and the projecting end 190, pivoted in the end of said plunger, a nut 220 arranged on the other end of the plunger, and a spring 21 arranged in the portion 12 of the pin to bear on said nut 220, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WILLIAM H. GATES.

Witnesses:
B. P. GREENE,
LOUIS W. SOUTHGATE.