

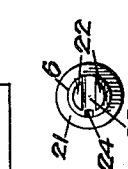
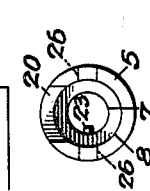
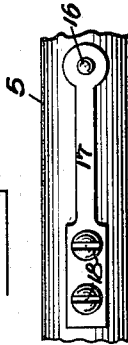
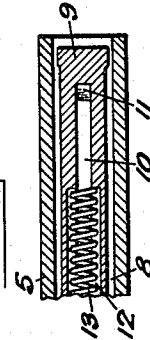
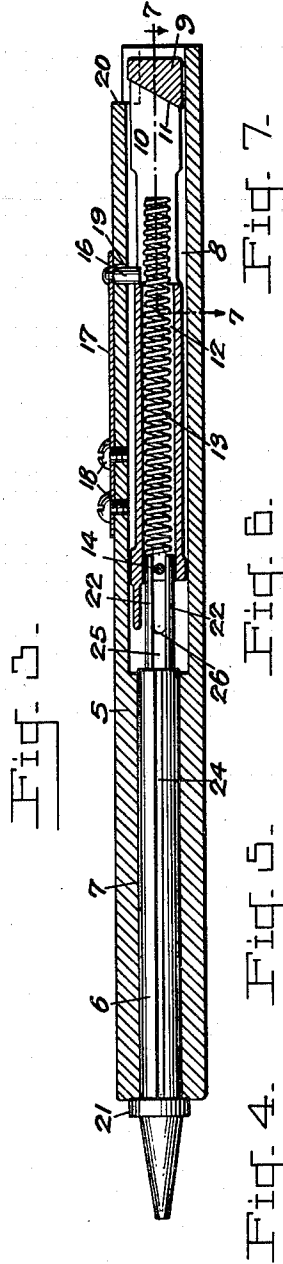
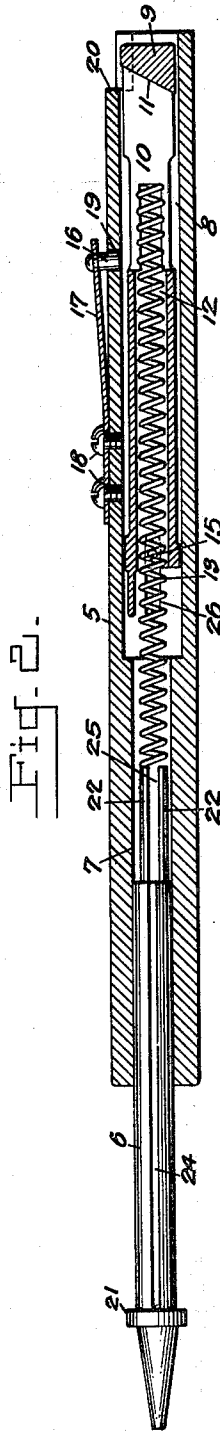
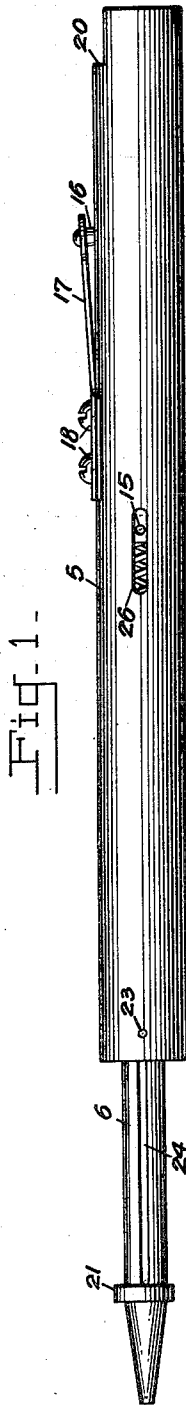
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2,301,984

IMPLEMENT FOR INSERTING FIRING PIN SPRINGS

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IMPLEMENT FOR INSERTING FIRING PIN
SPRINGS

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Application December 11, 1940, Serial No. 369,594

2 Claims. (Cl. 29—87.1)

(Granted under the act of March 3, 1883, as
amended April 30, 1928; 370 O. G. 757)

The invention described herein may be manufactured and used by or for the Government for governmental purposes, without the payment to me of any royalty thereon.

This invention relates to an implement for inserting a firing pin spring.

In the present method of inserting a spring in the firing pin of a Browning machine gun it is customary to hold the firing pin against some rigid object and after inserting the spring, compress it by applying a projection on the side of a spanner wrench. A retaining pin is then inserted in one of a pair of aligned holes in the wall of the firing pin and driven into position. The compression of the spring by means of the spanner wrench or similar appliance is difficult and the retaining pin frequently fails to line up properly with the holes in the firing pin.

The purpose of this invention is to provide a simple implement by means of which the operation of inserting the spring and the retaining pin is greatly facilitated.

The specific nature of the invention as well as other objects and advantages thereof will clearly appear from a description of a preferred embodiment as shown in the accompanying drawing in which:

Fig. 1 is a view in side elevation of the implement preparatory to compressing a spring in the firing pin;

Fig. 2 is a longitudinal sectional view of Fig. 1;

Fig. 3 is a similar view with the spring compressed;

Fig. 4 is a rear end view of the plunger;

Fig. 5 is a rear end view of the casing;

Fig. 6 is a fragmentary top plan view of the casing and the stop member;

Fig. 7 is a sectional view on the line 7—7 of Fig. 3.

Referring to the drawing by characters of reference the implement comprises a cylindrical casing 5 and a plunger 6. The casing is formed with a reduced bore 7 in its front portion for slidably receiving the plunger and it has an enlarged bore or chamber 8 in its rear portion for receiving a standard firing pin 9 of the type employed in the Browning machine gun.

The firing pin is formed with a narrow slot 10 for receiving a cocking lever. This slot terminates at its rear in an inclined face 11 and it extends forwardly into the chamber 12 which houses the spring 13. The chamber 12 is open at the front end of the firing pin for the purpose of admitting the spring, which when assembled, is held by a retaining pin 14 inserted in

aligned apertures 15—15 in the opposite side walls of the firing pin.

The firing pin, when inserted in the bore 8 of the casing 5, is held against rearward displacement by means of a stop member which consists of a lug 16 fixed on the free end of a flat spring 17 which is anchored by screws 18. The lug is movable through an aperture 19 in the wall of the casing and when the free end of the spring is in its depressed position in contact with the casing the lug enters the front end of the slot 10 of the firing pin and opposes rearward movement of the firing pin.

The rear end of the casing 5 is cut out or recessed as at 20 to expose the inclined face 11 of the slot 10 and permit the insertion of an element or member for removing the firing pin when the lug has been withdrawn from the slot.

The plunger 6 is formed with a collar 21 which is engageable with the front face of the casing 5. A pair of spaced fingers 22—22 project rearwardly from the rear end of the plunger and are adapted to engage the spring 13 to compress it. The plunger is restrained against rotational displacement during its reciprocation by means of a pin 23 carried by the casing 5 and disposed in a longitudinal groove 24 in the plunger. The purpose of this arrangement is to insure the proper angular position of the fingers 22 so that the space 25 between the fingers will be aligned with slots 26—26 in opposite side walls of the casing 5 and permit insertion of the retaining pin 14 in the aligned apertures 15 of the firing pin.

The normal position of the parts preparatory to compressing the spring 13 is shown in Fig. 2. In grasping the casing the flat spring 17 is depressed to bring the lug 16 into holding position. Upon the application of pressure to the plunger, as by pushing the casing forwardly with the plunger resting on a solid object, the parts assume the position shown in Fig. 3. The retaining pin 14 is now applied to the firing pin. Upon disengaging the lug 16 the firing pin is removed from the casing.

I claim:

1. A tool for inserting a spring in a housing comprising a tube having an enlarged bore portion at one end for receiving the spring housing, aligned slots in said tube in the region of the enlarged bore portion, an opening in the tube in the said region of the enlarged bore portion, a stop member aligned with said opening and a spring member normally biasing said stop member away from the internal face of said enlarged bore por-

tion, a plunger in the normal bore portion on the other end of said tool, stop means on said plunger limiting its motion into said tool, an opening in said plunger to maintain a passage between said slots in said tube when said plunger lies adjacent thereto, and means to prevent rotation of said plunger while reciprocating in said tube.

2. A tool as in claim 1 wherein said plunger is bifurcated and said last mentioned means comprises a pin transversely held in said tube and passing between the branches of said bifurcated plunger.

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