

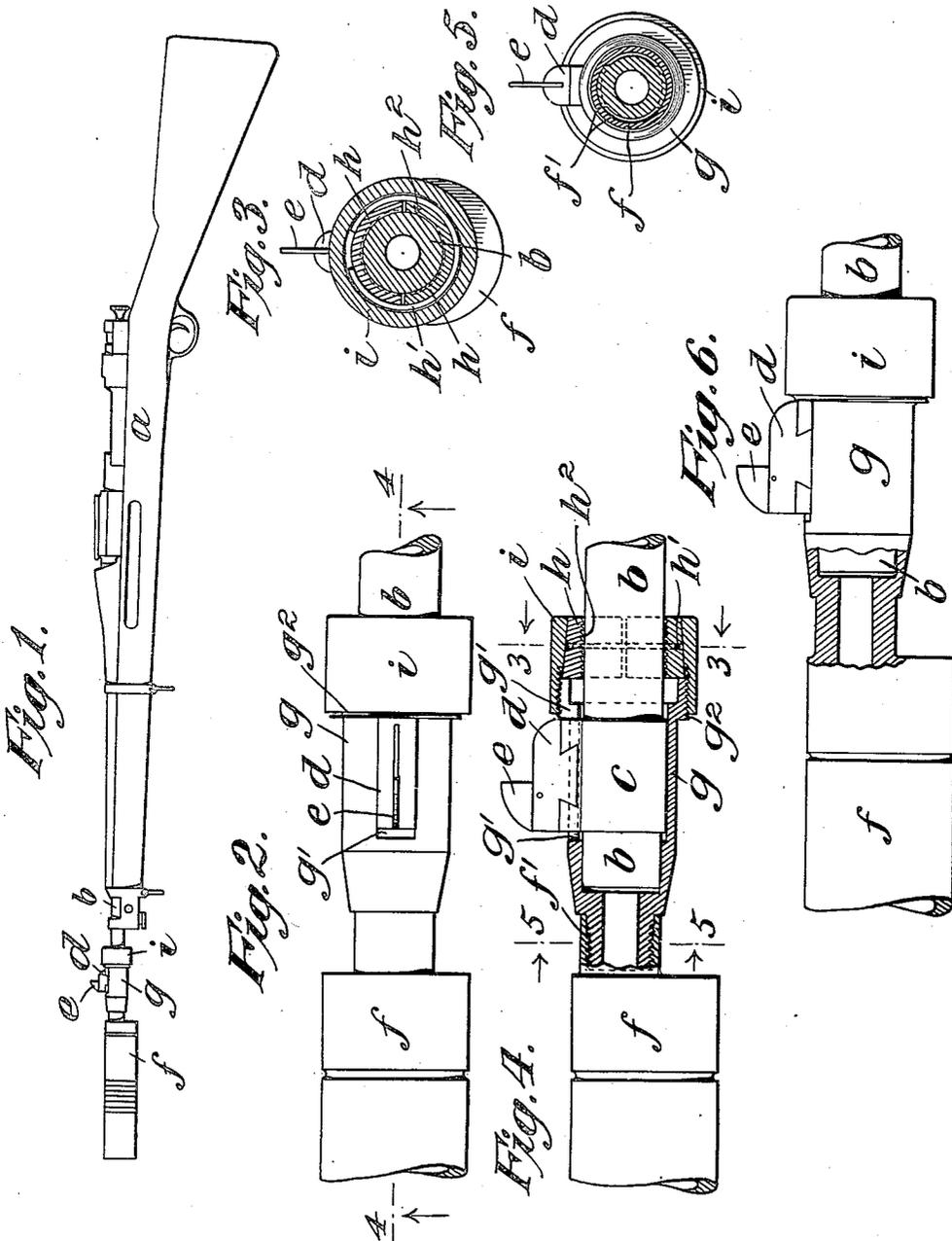
H. P. MAXIM.

FIREARM.

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1,054,434.

Patented Feb. 25, 1913.



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UNITED STATES PATENT OFFICE.

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FIREARM.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HIRAM PERCY MAXIM, a citizen of the United States, residing in the city of Hartford, in the State of Connecticut, have invented certain new and useful Improvements in Firearms, of which the following is a specification, reference being had to the accompanying drawing, forming a part hereof.

This invention relates particularly to the means for securing silencers or devices for reducing the noise of discharge of firearms, upon the muzzle of shoulder arms and particularly of military rifles. It is necessary that such devices shall be secured in proper alignment and it is also desirable that they shall be capable of being secured, especially upon military rifles, without requiring any change in the rifle, even such a change as the cutting of a mutilated screw thread upon the forward extremity of the gun barrel to engage a corresponding internal screw thread in the neck of the silencer. Such a means as that just referred to permits the silencer to be applied to the firearm and removed at will as is usually desirable in the case of a sporting rifle, while in the case of a military rifle it is now considered desirable that the silencer shall be in the nature of a permanent attachment, that is, that it shall be removable only for the purposes of repair or cleaning. It is, of course, in all cases desirable that the silencer shall be so secured as to withstand the tendency of the discharge of the firearm to separate it from the barrel.

It is the object of this invention, therefore, to provide a coupling device by which a silencer can be accurately and firmly secured to the barrel of a firearm or gun without requiring any modification of the barrel. Such coupling may be either an integral part of the silencer or it may be formed separately therefrom and adapted to be engaged therewith by a mutilated screw thread or other suitable connection.

The improved coupling comprises a sleeve adapted to fit upon the barrel, a split gripping ring to encircle the barrel and a nut or internally threaded sleeve adapted to engage the threaded portion of the coupling sleeve and at the same time to clamp the gripping ring tightly about the barrel.

The invention will be more fully explained hereinafter with reference to the accompa-

nying drawing in which it is illustrated and in which—

Figure 1 is a view in side elevation of a military rifle equipped with a silencer. Fig. 2 is a top view, on a larger scale, showing the front end of the rifle and the rear of the silencer with the improved coupling. Fig. 3 is a detail view in section on the plane indicated by the line 3—3 of Fig. 4. Fig. 4 is a view, partly in vertical, longitudinal section, on the plane indicated by the line 4—4 of Fig. 2, the silencer being shown as separably secured to the barrel. Fig. 5 is a detail view in section on the plane indicated by the line 5—5 of Fig. 4. Fig. 6 is a detail view showing the coupling as an integral part of the silencer.

The rifle *a* shown in Fig. 1 is a military rifle of a well known type, having upon the forward end of its barrel *b* a band *c* which supports the front sight block *d*, the block *d* being removable as usual. The blade *e* of the front sight is mounted in the block *d* as usual. In the construction shown, the coupling, hereinafter described, is adapted for application to a firearm having a front sight of the character referred to, but the invention is not concerned with the particular construction of the front sight nor indeed is the existence of a front sight absolutely essential to the application of the coupling.

The silencer *f* may be of any suitable construction. It may be formed separately from the coupling sleeve hereinafter referred to and secured thereto by any suitable means, as by screw threads, as shown at *f'* in Figs. 4 and 5, or it may be formed in one piece with the coupling sleeve, as shown in Fig. 6.

The coupling sleeve *g* is adapted to fit upon the forward extremity of the barrel *b*. The fit should be somewhat close for the sake of accurate alinement, but need not be tight. When that portion of the barrel which enters the coupling sleeve *g* bears the front sight, as is usually the case, or any other projection, the sleeve *g* is slotted from its rear end, as at *g'*, so as to straddle the block, and at its rear end the sleeve is threaded externally, as at *g*². Surrounding the barrel in rear of the sleeve *g* is a split gripping ring *h*, which may be formed in two or more parts held together by a spring wire *h'*. The gripping ring is preferably

roughened internally, as at h^2 , in order that it may have a firm hold upon the barrel when clamped thereon. A clamping ring i is formed to engage the coupling sleeve g ,
 5 being preferably screw threaded, as clearly shown in Fig. 4, and also formed to clamp the gripping ring h upon the barrel, preferably having an internal taper which corresponds to the external taper of the gripping
 10 ring.

When the barrel is provided with a front sight, such as that shown in the drawing, the front sight block is removed from its seat in the band c to permit the clamping
 15 ring i to be slipped upon the barrel and is then replaced. The gripping ring h is then assembled, the coupling sleeve is slipped upon the barrel and the clamping sleeve is made to engage the coupling sleeve, at the
 20 same time through the cooperation of its tapered portion with the tapered surface of the gripping ring, clamping the gripping ring firmly upon the barrel and simultaneously drawing the coupling sleeve home.
 25 The gripping ring is then anchored firmly to the barrel and the coupling sleeve is anchored firmly to the gripping ring and the silencer is thereby held firmly in position. The tendency of the discharge of the gun is
 30 to draw the coupling sleeve forward, but the

tendency of such movement is only to cause the gripping ring to grip the barrel more tightly and thereby to hold the silencer more firmly in place.

It will be understood that the form and 35 relations of the parts may be varied more or less to suit different conditions of use and that the invention therefore is not limited to the precise details of construction shown and described herein. 40

I claim as my invention:

The combination with a firearm having a front sight block, of a coupling sleeve for a silencer adapted to be slipped upon the bar- 45 rel and having an interior shoulder engaged by the barrel to limit the movement of the sleeve rearwardly and slotted to straddle the front sight block, a split gripping ring adapted to encircle the barrel in rear of the 50 sight, a clamping ring adapted to clamp the gripping ring upon the barrel and to engage the coupling sleeve and cooperating with the sight to prevent the removal of the coupling sleeve from the barrel.

This specification signed and witnessed 55 this 20th day of April, A. D., 1910.

HIRAM PERCY MAXIM.

Signed in the presence of—

ELLA J. KRUGER,
 AMBROSE L. O'SHEA.