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1,482,805

H. P. MAXIM

SILENCER FOR GUNS

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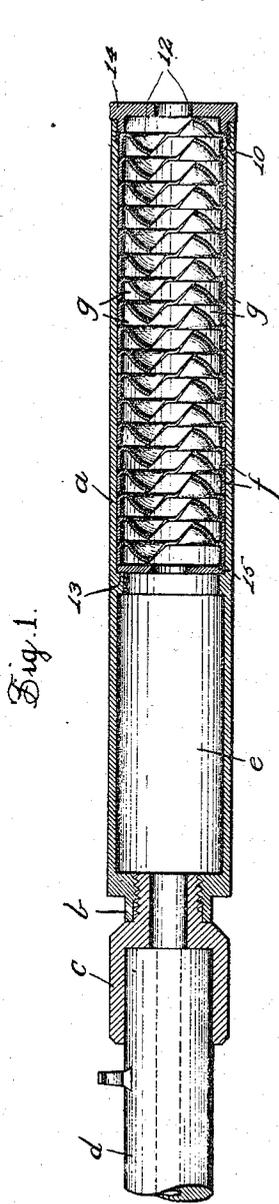


Fig. 1.

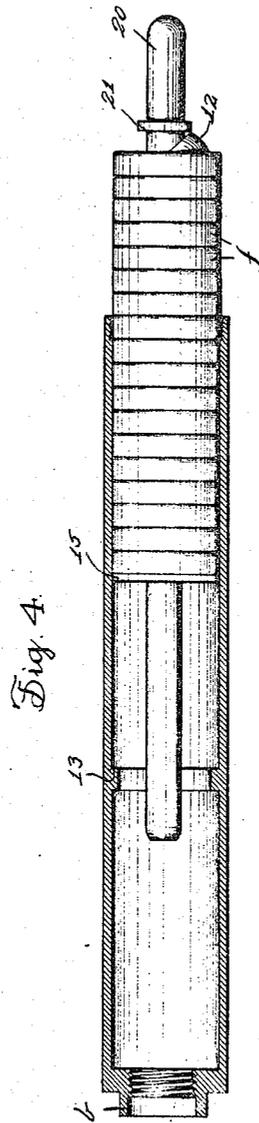


Fig. 4.

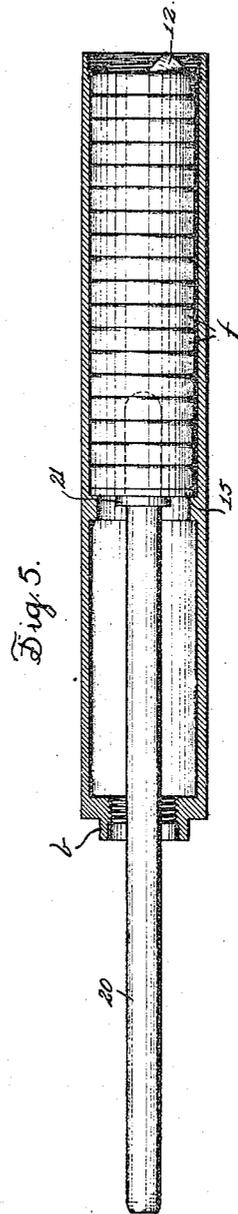


Fig. 5.

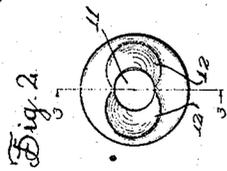


Fig. 2.

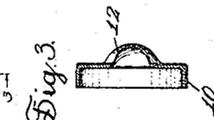


Fig. 3.

By

Inventor

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UNITED STATES PATENT OFFICE.

HIRAM PERCY MAXIM, OF HARTFORD, CONNECTICUT.

SILENCER FOR GUNS.

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To all whom it may concern:

Be it known that I, HIRAM PERCY MAXIM, a citizen of the United States and a resident of Hartford, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in a Silencer for Guns, of which the following is a specification.

The present invention relates to a device for silencing the noise of a gun report, and has as its object to provide a device of this sort which is of increased effectiveness in checking the powder gases and causing them to discharge gradually into the atmosphere without noise, which is of simplified construction, and wherein the parts may be readily assembled and dissembled. A further object of the invention is to provide an improved tool and method for use in assembling and dissembling the parts.

In the drawings—

Fig. 1 is a longitudinal sectional view through my improved silencer.

Fig. 2 is an end view of one of the baffle members which form the gas retarding chambers.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 2.

Fig. 4 is a view illustrating the manner of assembling the parts, and

Fig. 5 is a similar view illustrating the manner of dissembling the parts.

Referring to the drawings in detail, *a* is a tubular casing or shell which, as usual, may have at its rear end an internally threaded boss *b* for reception of the nipple of a coupling member *c* adapted to be fitted on the muzzle of the gun barrel *d*. In the rear end of the casing is an unoccupied space *e* forwardly of which are a plurality of baffle members *f* which form successive gas retarding chambers *g*.

The baffle members are of novel and advantageous construction. Each consists of a disk provided with a cylindrical skirt or flange 10 of such diameter as to fit closely within the bore of the casing *a*. Each disc is centrally apertured as at 11 to form a passage for the projectile, and the opposite edges of this aperture are offset as at 12 in opposite directions so that the plane of the aperture is inclined to the axis of the casing *a*. With this arrangement, upon firing the gun to which the silencer is attached, the combustion gases pass from one retarding chamber into the succeeding ones at an angle to the passage for the projectile and

are thus slowed down and caused to issue gradually from the silencer without noise.

Also in accordance with the present invention, the arrangement is such that the baffle members may be easily and quickly inserted into and removed from the casing *a*, this being of advantage in that the silencer may be easily cleaned and repaired. For this purpose the outer end of the bore of the casing is of such diameter that the baffle members may pass therethrough. This end of the casing is internally threaded to receive a retaining member in the form of a nut 14, which is centrally apertured, as shown. Preferably the bore of the casing is of uniform diameter up to the internal shoulder 13.

To facilitate assembling and dissembling of the baffle members within the casing, I provide an improved tool which comprises a pin 20 having adjacent to but spaced from one end an abutment, in the present instance this abutment being in the form of an annular rib or collar 21 of greater diameter than that of the apertures in the baffle members but of less diameter than the internal diameter of the boss *b*. To insert the baffle members into the casing, they are first threaded onto the long end of the pin in the same relation to each other as they have when finally positioned within the casing and then this pin together with the baffle members thereon is inserted into the casing as shown in Fig. 4; the pin is then withdrawn and the nut 14 is screwed into the end of the casing to hold the baffle members in position. To remove the baffle members from the casing, the nut 14 is unscrewed from place and the short end of the pin is inserted through the rear end of the casing to bring the abutment 21 into engagement with the centrally apertured washer 15 which is positioned between the foremost baffle member and the shoulder 13 of the casing. Then by pushing forwardly on the pin, the baffle members are forced from the casing. The washer 15 is of advantage in that it prevents mutilation of the foremost baffle member by the removing tool. This provides a convenient and easy means of assembling and dissembling the baffle members within the casing, it being difficult to properly position the baffle members within the casing by dropping them one by one thereinto or removing them therefrom by jarring or shaking the casing.

I claim as my invention:

1. In a gun silencer, a tubular casing having a bore open at one end and provided with a shoulder spaced from its other end, 5 an apertured washer against said shoulder, a plurality of baffle members within said bore, the innermost member being in engagement with said washer and all of said members and said washer being removable 10 through the open end of said casing, and an apertured nut threaded into the open end of said bore for retaining said baffle members and washer therein.
2. A baffle member for gun silencers comprising sheet metal disc provided with a 15 cylindrical peripheral flange and centrally apertured with the opposite edges of the aperture offset in opposite direction where- by the plane of the aperture is inclined to that of the disc. 20
3. In combination, a gun silencer having a casing and a plurality of apertured baffle members removably positioned therein; and a tool comprising a pin on which said mem- 25 bers may be threaded and having an abutment adjacent but spaced from one end larger in diameter than the apertures in said baffle members both ends of said tool being adapted to be inserted into the aper- 30 tures of said members for the purposes de- scribed.

HIRAM PERCY MAXIM.