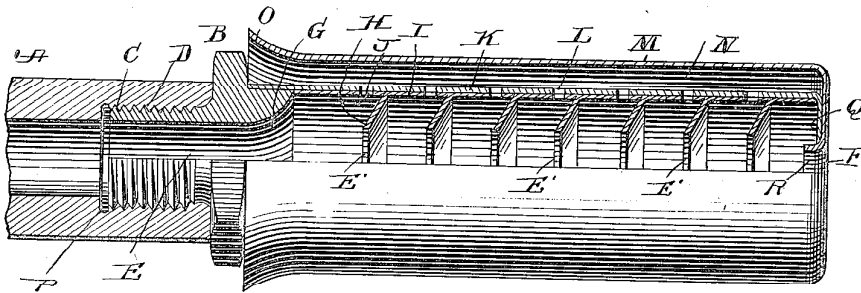


G. A. GOODWIN.  
GUN SILENCER, FLASH COVER, AND RECOIL CHECK.  
APPLICATION FILED APR. 18, 1921.

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By

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## UNITED STATES PATENT OFFICE.

GEORGE A. GOODWIN, OF DAYTON, OHIO.

GUN SILENCER, FLASH COVER, AND RECOIL CHECK.

Application filed April 18, 1921. Serial No. 462,292.

*To all whom it may concern:*

Be it known that I, GEORGE A. GOODWIN, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Gun Silencers, Flash Covers, and Recoil Checks, of which the following is a specification.

This invention relates to silencers in general and more specifically to a silencer for firearms.

In the conventional type of gun silencer no specific means have been provided for the elimination of a visible flash caused by the exploded gases. In using such type of silencer at night the noise of such explosion would be eliminated but the resulting flash would disclose the location of the firearm. It will be readily seen that the elimination of both the noise and flash would be great advantage in actual warfare.

It is therefore proposed to provide a gun silencer which will be inexpensive, easily constructed, readily attached to the firearm, and so constructed as to eliminate any flash or noise.

Referring more particularly to the attached drawings, the figure is a side elevation, partly in section, of the invention, showing its attachment to the gun barrel, and also the interior of the silencer.

The gun barrel A is recessed as at P and provided with an interior screw thread D to receive the exterior screw thread C of the coupling B. Connected to the opposite end of the coupling member B is a hollow casing K provided with apertures L. Baffles H are mounted interiorly of the casing K by means of flanges I integral with said baffles H. The flanges I are provided with apertures J so positioned as to communicate with the apertures L. Mounted exteriorly of the casing K is an outer casing M which is provided with an inturned flange R overlapping the downwardly extending flange Q of the casing K.

Thus it will be seen that upon firing, the bullet passes through the central passages E, E', and F of B, H, and M respectively. The gases, however, expand as they pass through the enlarged passage G of the coupling member B. As the gases pass forward they strike against the baffles H, are temporarily reversed in their direction, and as they further expand, find an outlet through the corresponding apertures J and

L to the outermost casing M, in the passage N thereof. As the forward end of the casing M is closed, the already expanded gases must find their outlet to the atmosphere through the enlarged, or bell-mouthed opening O in the rear end of said casing M.

By this construction the gases are fully expanded and burned and are finally admitted to the atmosphere while travelling in a direction opposite to that of their initial impulse. By being fully expanded and burned, in this manner, any noise or flash will be eliminated.

Furthermore, when this device is applied to automatic rifles, it not only accomplishes the features above set forth but also affords a means of diminishing the travel of the recoil mechanism thereby increasing the rate output of shots in a given time.

Having thus described my invention, I claim:

1. In a gun silencer an inner casing provided with an inlet and outlet in horizontal alignment for the passage of a bullet, and a plurality of laterally disposed apertures, a plurality of angularly disposed and centrally apertured baffles, provided with flanges parallel to and connected to the inner walls of said inner casing and provided with laterally disposed apertures in register with those of said inner casing, an outer casing arranged about and connected to said inner casing at its discharge end, said outer casing having a discharge opening arranged at its rear end and annularly about said gas inlet.

2. In combination, an interiorly screw-threaded gun barrel, an exteriorly screw-threaded hollow sleeve adapted to be screwed therein, a nut integral with sleeve, a hollow extension beyond said nut, the passage through said hollow extension being venturi-shaped, a gun silencer being detachably secured to said sleeve extension.

3. In combination, an interiorly screw-threaded gun barrel, an exteriorly screw-threaded hollow sleeve adapted to be screwed therein, a nut integral with sleeve, a hollow extension beyond said nut, the passage through said hollow extension being venturi-shaped, a gun silencer being detachably secured to said sleeve extension, said gun silencer comprising an inner casing provided with an inlet and outlet in horizontal alignment for the passage of a bullet, said inner casing being further provided with a

plurality of laterally disposed apertures, a plurality of angularly disposed and centrally apertured baffles provided with flanges parallel to and connected to the inner walls of said inner casing and provided with laterally disposed apertures in register with those of said inner casing, an outer casing arranged about and connected to said

inner casing at its discharge end, said outer casing having a discharge opening arranged at its rear end and annularly about said gas inlet. 10

In testimony whereof I have affixed my signature.

GEORGE A. GOODWIN.