Dec. 7, 1937. S. G. GREEN 2,101,063

MUZZLE ATTACHMENT FOR GUNS

Filed Oct. 16, 1936

Fig. 1.

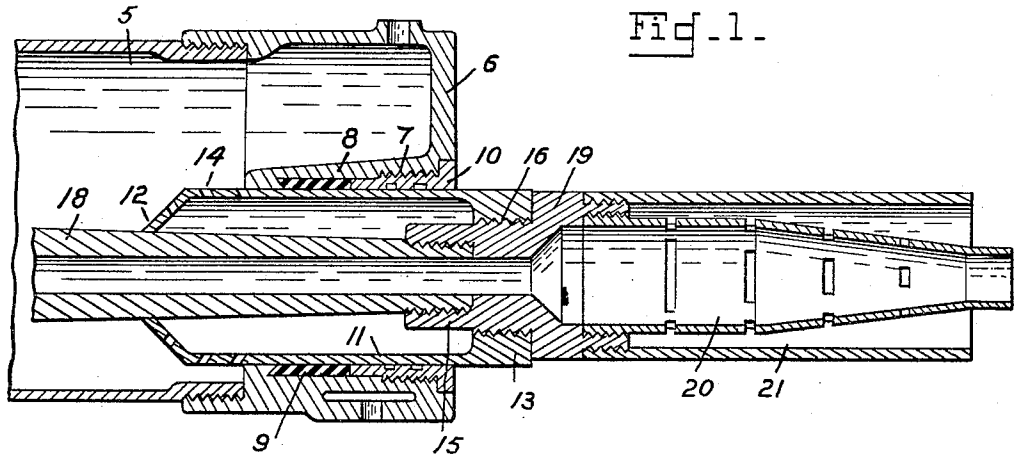


Fig. 2.

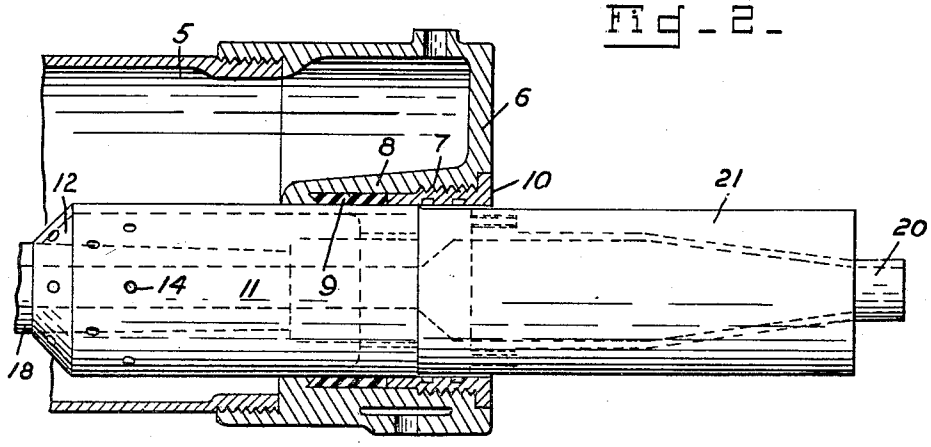
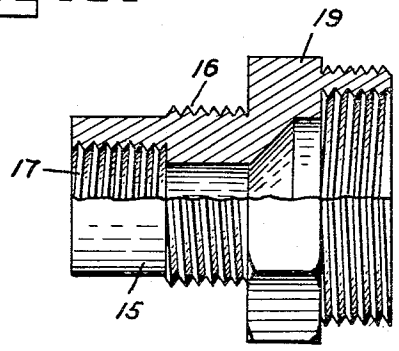


Fig. 3.



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MUZZLE ATTACHMENT FOR GUNS

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Application October 16, 1936, Serial No. 105,951

3 Claims. (Cl. 89—14)

(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 a muzzle attachment for guns and is an improvement over the structure shown in my prior Patent No. 2,026,528 in which a sleeve is placed on the muzzle of a movable gun barrel so that a cooling fluid may be circulated in a space between the muzzle of the barrel and the packing surrounding the sleeve.

The purpose of this invention is to provide a simple and effective association between the gun barrel, the sleeve and an attachment which conducts the gases of explosion to atmosphere and serves to check recoil, silence the report, eliminate smoke and conceal flash. This is accomplished by employing an adapter which is mounted on the gun barrel and which carries the sleeve and the attachment.

To these and other ends, the invention consists in the construction, arrangement and combination of elements described hereinafter and pointed out in the claims forming a part of this specification.

A practical embodiment of the invention is illustrated in the accompanying drawing, wherein:

Fig. 1 is a longitudinal sectional view of the front end of a machine gun constructed in accordance with the invention and showing the parts in the normal position of rest.

Fig. 2 is a similar view showing the parts in position of full recoil.

Fig. 3 is a detail view of the adapter partly in elevation and partly in section.

Referring to the drawing by characters of reference there is shown a jacket 5 adapted to contain a cooling medium. The front plate 6 is formed with a bearing portion 7 having an inturned flange 8 at its inner end against which a packing member 9 is held by a gland 10 threaded into the bearing. A sleeve 11 slidably mounted in the bearing has an inturned rear end 12 and a thickened inturned front end 13. The walls of the rear portion of the sleeve, including the rear end 12, are provided with apertures 14 to permit circulation of the cooling fluid. In the position of the parts shown in Fig. 1 the apertures 14 are in the rear of the bearing 7 while the front end of the sleeve projects beyond the front face of the plate 6 of the jacket.

A tubular adapter 15 has external threads 16 intermediate its ends whereby it is connected to the front end 13 of the sleeve. The inner end of the adapter has internal threads 17 for receiving the threaded muzzle end of a gun barrel 18 which is disposed within the sleeve and on which the rear end of the sleeve is supported. The enlarged head 19 at the front end of the adapter bears against the sleeve and has a diameter that is not greater than that of the sleeve so that it may enter the bearing 7 as seen in Fig. 2 during the recoil movement of the gun barrel.

The head 19 of the adapter carries an attachment comprising perforated inner tube 20 and an imperforate outer tube 21 which serve to conduct the gases of explosion to atmosphere whereby recoil is checked, the report is silenced, the smoke is eliminated and the flash concealed. The particular type of attachment shown is covered in a separate application.

By virtue of this arrangement the muzzle of the barrel is always surrounded by the cooling fluid and the fluid at all times extends forwardly of the packing member 9 even when the parts are in the position of full recoil as shown in Fig. 2. The attachment 20—21 does not interfere with the movement in recoil and the adapter 15 may be readily applied and removed.

I claim:

1. In combination with a jacket adapted to contain a fluid medium, a bearing at the end of the jacket, a gun barrel arranged to reciprocate within the jacket, a tubular adapter on the muzzle of the gun barrel and having an enlarged head spaced from the end of the gun barrel and capable of moving into the bearing, a sleeve attached to the adapter forwardly of the gun barrel and bearing against the head of the adapter, said sleeve slidably mounted in the bearing and having apertures for circulation of the fluid medium, and a device mounted on the head of the adapter for receiving the gases of explosion and having a diameter less than the bearing whereby it is capable of moving into the bearing.

2. In combination with a jacket adapted to contain a fluid medium, a bearing at the end of the jacket, a gun barrel arranged to reciprocate within the jacket, a tubular adapter on the muzzle of the gun barrel, a sleeve attached to the adapter forwardly of the gun barrel, said sleeve slidably mounted in the bearing and having apertures for circulation of the fluid medium.

3. In combination with a jacket adapted to contain a fluid medium, a bearing in the front end of the jacket, a gun barrel arranged to reciprocate within the jacket, a tubular adapter on the muzzle of the gun barrel, a sleeve slidably mounted in the bearing and normally projecting in front of the jacket and attached to the adapter forwardly of the barrel, said sleeve having apertures for circulation of the fluid medium.

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