

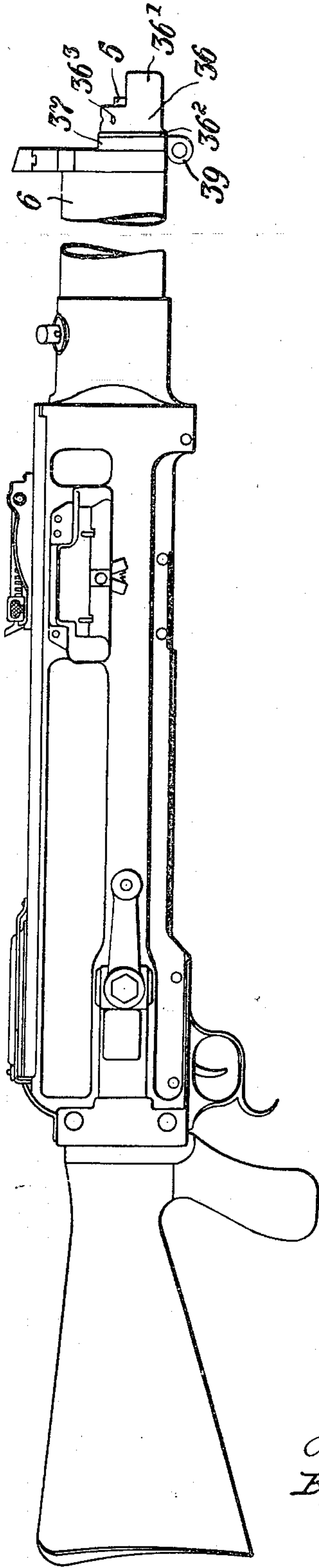
BEST AVAILABLE COPY

A. A. K. HEINEMANN.
MACHINE GUN.
APPLICATION FILED FEB. 25, 1914.

1,155,061.

Patented Sept. 28, 1915.
2 SHEETS—SHEET 1.

Fig. 1.



Witnesses:
George Du Bon
John A. Rehlentz.

Inventor
August A. K. Heinemann
By *Ponsee Knauth*
Attorneys

A. A. K. HEINEMANN.
MACHINE GUN.
APPLICATION FILED FEB. 25, 1914.

1,155,061.

Patented Sept. 28, 1915.

2 SHEETS—SHEET 2.

Fig. 2.

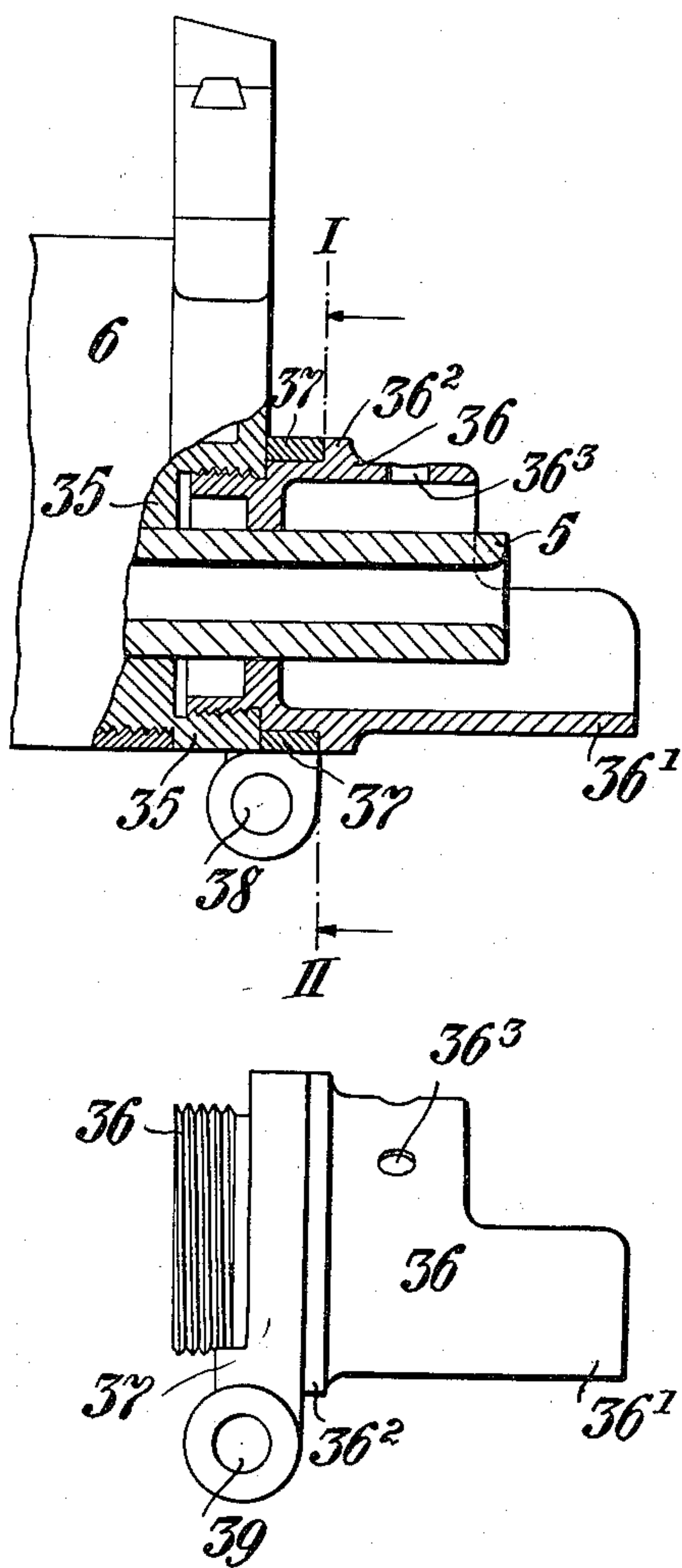


Fig. 3.

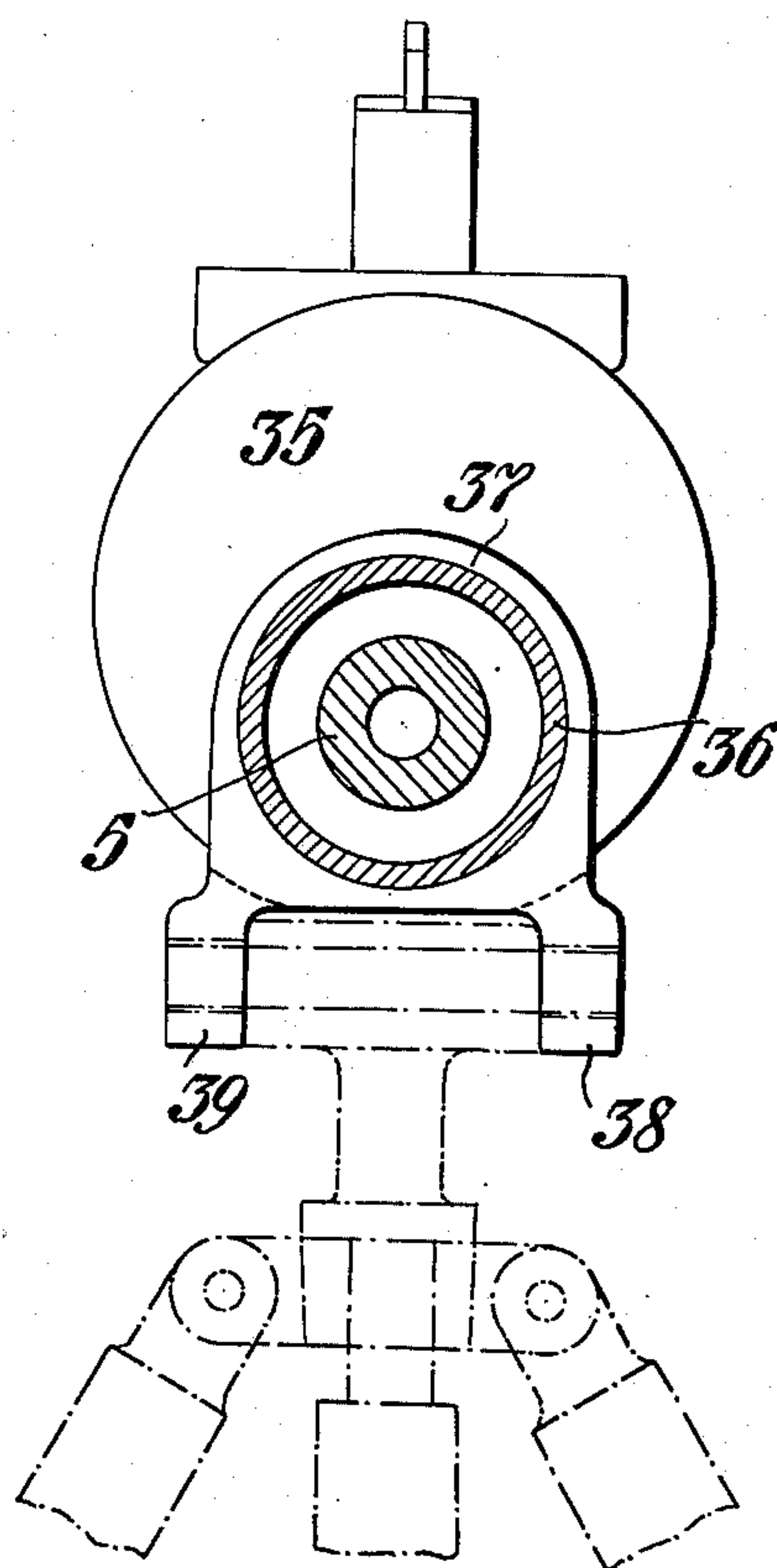


Fig. 4.

Witnesses:
George DuBon
John A. H. H. H.

Inventor
August A. K. Heinemann
By
P. H. H. H.
Attorneys

UNITED STATES PATENT OFFICE.

AUGUST ALBERT KARL HEINEMANN, OF BERLIN, GERMANY, ASSIGNOR TO DEUTSCHE WAFFEN- UND MUNITIONSFABRIKEN, OF BERLIN, GERMANY.

MACHINE-GUN.

1,155,061.

Specification of Letters Patent.

Patented Sept. 28, 1915.

Original application filed August 7, 1913, Serial No. 783,471. Divided and this application filed February 25, 1914. Serial No. 820,806.

To all whom it may concern:

Be it known that I, AUGUST ALBERT KARL HEINEMANN, a citizen of the German Empire, residing at Berlin, in the German Empire, have invented certain new and useful Improvements in Machine-Guns, of which the following is a specification.

The present invention relates to improvements in machine guns and refers more particularly to a muzzle-attachment; the object being to create a device which is adapted during firing a shot, to be acted upon in downward direction by the driving gases leaving the muzzle in order to steady the latter thereby preventing or counteracting the bucking of the muzzle, that is to say, its tendency to jump upward during a shot, and diminishing the dispersion of the projectiles. Furthermore the said muzzle attachment may be used for bearing or supporting the muzzle on a carriage or rest, such as a trivet or the like. And with these ends in view my invention consists in certain novel features of construction and combinations of parts, as will be hereinafter fully described and pointed out in the claims with reference to the accompanying sheets of drawings in which:—

Figure 1 is a longitudinal elevation of a hand machine gun provided with a muzzle attachment made in accordance with and embodying my invention; Fig. 2 shows on a larger scale a central vertical longitudinal section through the front part of the hand machine gun and the muzzle attachment; Fig. 3 is a vertical cross section on the line I—II (Fig. 2); and Fig. 4 is a lateral view of the muzzle attachment as it appears after the removal from the gun.

Similar numerals of reference refer to similar parts throughout the several figures.

Into the front wall 35 of the water-jacket 6 of the hand machine gun is screwed a sleeve-like structure 36 which surrounds the muzzle of the barrel 5 and is provided beneath the muzzle with a trough shaped projection 36¹. The sleeve 36 may be provided in its upper part, if desired with perforations 36³, constituting outlets or passages for the driving gases leaving the barrel. Upon the recessed front end of the sleeve is mounted a ring 37. After the sleeve has been screwed into position in the wall 35 this ring is located between this wall and a collar 36²

on the sleeve 36. The ring has two lateral or more properly downward directed eye-lets 38, 39 by means of which it may be pivotally fastened on a three-legged rest or the like as shown by dotted lines in Fig. 3, or on a suitable arm or support extending from a gun-carriage not shown.

When firing a shot the driving gases issuing from the bore of the barrel can freely escape upward, whereas in downward direction they are striking against the projection 36¹ forming and acting somewhat like a baffle-plate to cause the said gases to exert a downward pressure upon the muzzle attachment. Owing to this downward pressure the muzzle of the hand machine gun, when firing a shot, will be prevented from bucking or held down, when supported, on its rest, carriage or the like, whereby the dispersion of projectiles is greatly reduced.

While I have shown and described my muzzle attachment as applied to a hand machine gun, it is, however, evident that this novel device can be used on any gun.

As many changes might be made in the construction and relative arrangement of the said muzzle attachment forming a baffle-device for the propelling gases underneath the muzzle without involving a departure from the spirit of my invention, I would have it understood that I do not limit myself to the exact construction shown and described, but consider myself at liberty to make such changes as fall within the scope of my invention.

Subject-matters of invention disclosed herein, but not claimed form the subject-matters of my prior application Ser. No. 783471, filed Aug. 7th 1913 and of two other contemporary divisional applications.

I claim:

1. In a gun, the combination of a muzzle, and means located adjacent to the discharge end thereof and arranged to permit a free expansion in one direction of the gases escaping from said muzzle after firing a shot and to arrest the expansion of said gases in the opposite direction whereby a bucking of the muzzle is prevented.

2. In a gun, the combination of a muzzle and means located beneath the same and extending forwardly beyond the discharge end of said muzzle, said means being arranged to permit a free expansion in an upward

direction of the gases escaping from said muzzle after firing a shot and to arrest the expansion of said gases in a downward direction whereby a bucking of the muzzle is prevented.

3. In a gun, the combination of a muzzle, a sleeve surrounding said muzzle at a distance at the discharge end thereof and a trough-shaped projection extending from said sleeve below and in front of said discharge end against which the gases escaping from said muzzle after firing a shot are arranged to impact whereby a bucking of the muzzle is prevented.

4. In a gun, the combination of a muzzle, a detachable sleeve surrounding said muzzle at a distance at the discharge end thereof and provided in its upper portion with a radially disposed escape aperture and a trough-shaped projection extending from said sleeve below and in front of said discharge end against which the gases escaping from said muzzle after firing a shot are adapted to impact whereby bucking of the muzzle is prevented, said gases being free to escape through said aperture.

5. In a gun, the combination of a muzzle,

a projection located below and in front of the discharge end thereof, said projection being arranged to permit a free expansion in an upward direction of the gases escaping from said muzzle after firing a shot and to arrest the expansion of said gases in a downward direction whereby bucking of the muzzle is prevented, means for connecting said projection with said muzzle, a ring located on said means and pivotal connecting means extending from said ring.

6. In a gun, the combination of a muzzle, a jacket on the same, a sleeve adapted to be screwed into the front wall of said jacket, said sleeve being spaced from and surrounding said muzzle at the discharge end thereof, a trough-shaped projection extending from said sleeve below and in front of said discharge end against which the gases escaping from the muzzle after firing a shot are adapted to impact whereby a bucking of the muzzle is prevented and pivotal connecting means carried by said sleeve.

AUGUST ALBERT KARL HEINEMANN.

Witnesses:

WOLDEMAR HAUPT,
HENRY HASPER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."