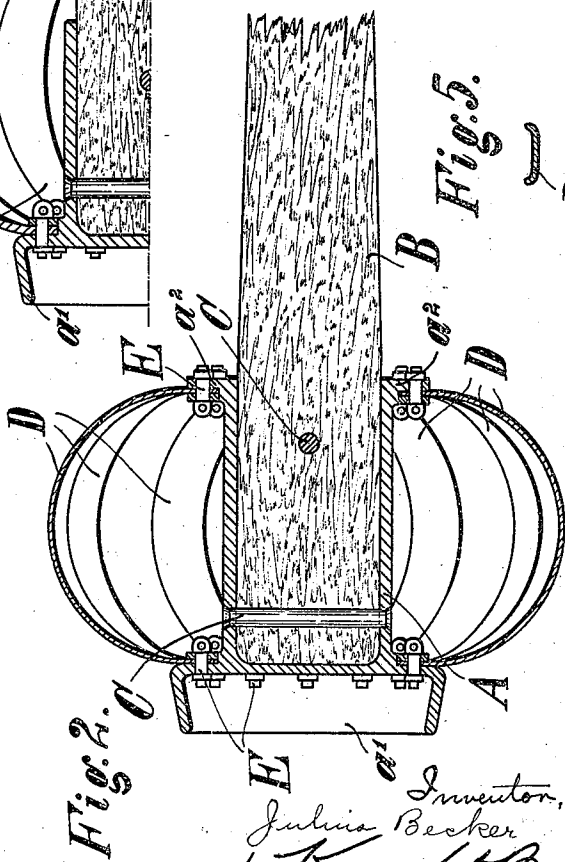
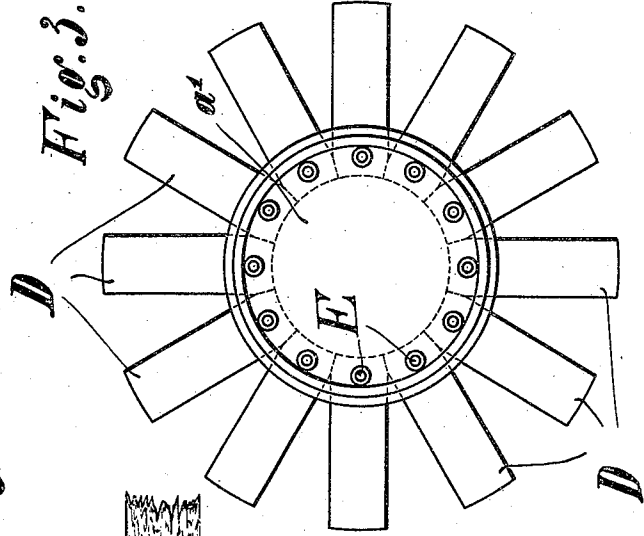
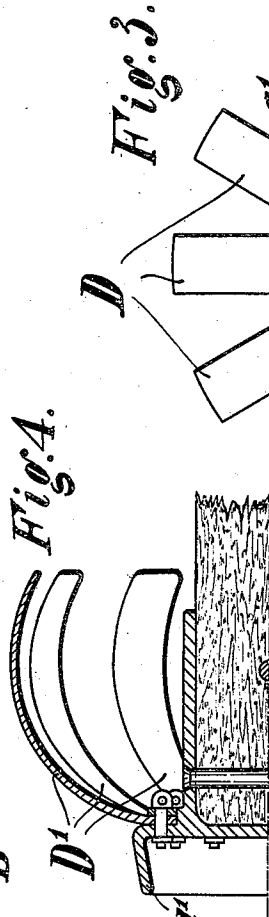
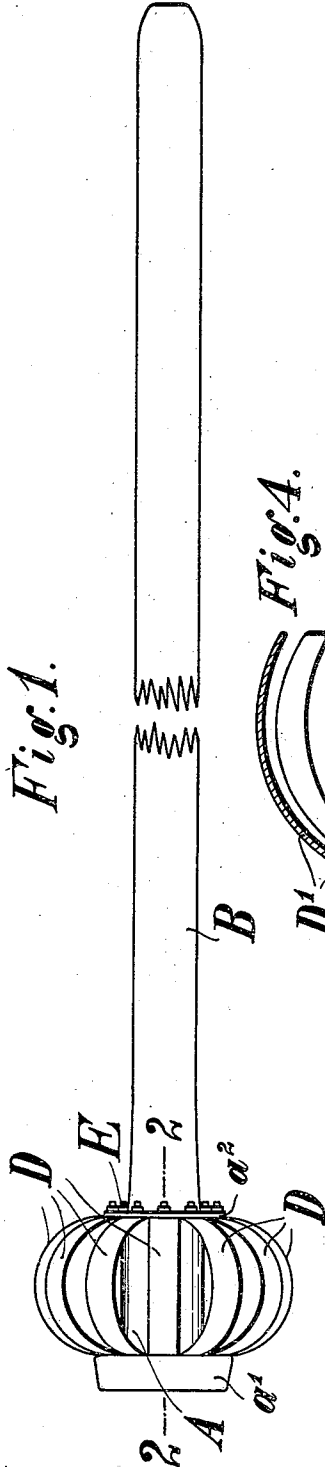


J. BECKER.
 RAMMER FOR AMMUNITION.
 APPLICATION FILED JULY 23, 1908.

932,094.

Patented Aug. 24, 1909.



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RAMMER FOR AMMUNITION.

932,094.

Specification of Letters Patent.

Patented Aug. 24, 1909.

Application filed July 23, 1908. Serial No. 445,048.

To all whom it may concern:

Be it known that I, JULIUS BECKER, a subject of the Emperor of Germany, and a resident of Essen-on-the-Ruhr, Germany, have invented certain new and useful Improvements in Rammers for Ammunition, of which the following is a specification.

The present invention relates to rammers for ammunition.

Such rammers are generally provided with a member for guiding the rammer in the gun-barrel and in the known rammers this member of bent or curved strips made from a suitable material, such as wood. These guide-members have considerable weight and therefore cause the center of gravity of the rammer to become located a considerable distance from the middle of the rammer-shaft. This fact makes it rather difficult to handle a manual rammer having such a guide-member.

The object of the present invention is to provide a rammer which does not possess the above-mentioned drawback.

In accordance with this invention the desired object is attained by forming the guide-member of bent or curved strips made from a springy, hard material, such as steel.

In the accompanying drawings the invention is, by way of example, shown applied to a manual rammer.

Figure 1 is a side view of one embodiment of the improved rammer; Fig. 2 is a section, on an enlarged scale, on line 2—2, Fig. 1; Fig. 3 is a front view of the rammer, shown in Fig. 1; Fig. 4 shows a part of a second embodiment in a view corresponding to that shown in Fig. 2, and Fig. 5 shows a detail in section.

Reference will first be had to the embodiment shown in Figs. 1 to 3. By means of rivets C a metallic sleeve A, which is integral with the rammer-head α^1 , is secured on one end of the rammer-shaft B which is made from wood. The end of the sleeve A which is remote from the rammer-head α^1 is provided with a flange α^2 . Strips D which preferably are made from steel (that is, from springy, hard material) are suspended between the flange α^2 and the part of the rammer-head α^1 which projects beyond the surface of the sleeve A. Nuts and bolts E serve to secure the ends of the strips to the flange and the rammer-head. In other respects the ar-

range of the strips D is selected in such a manner that the strips to a certain extent form a part of the surface of a solid of revolution which has its axis coinciding with the axis of the rammer-shaft.

The guide-member formed by the strips D has small weight and furthermore provides for a rapid ramming of the ammunition as the guide-member, by reason of its shape which approaches that of a flattened sphere, can easily slide past the projections of the loading opening and the loading chamber. If necessary, for instance in case of breakage, any one of the strips D can be replaced by a new strip.

In the embodiment shown in Fig. 4, the strips D¹ forming the guide-member of the rammer are secured to the rammer-head α^1 only. In this instance the guide-member is formed like a mushroom. In order to prevent the edges of the strips which form the guide-member, inflicting damage to the gun-barrel, the parts of the strips, which come in contact with the walls of the gun-barrel during the ramming operation, may be of the cross-section shown in Fig. 5.

It is apparent that the invention is equally applicable to the so-called mechanical rammers, that is the rammers which are operated by means of a crank or a special motor.

Having thus described the invention, what is claimed and desired to be secured by Letters Patent is:—

1. The combination with a rammer shaft, of an integral rammer head fitting over and inclosing the end of said shaft, said head being provided with strips of springy material secured to said head to form a guide member therefor.

2. A rammer head comprising an integral cylindrical body closed at one end and provided at each end with an annular flange; and a plurality of strips of spring metal having their ends attached respectively to said flanges to form a guide member for said rammer.

The foregoing specification signed at Düsseldorf, Germany, this 24th day of June, 1908.

JULIUS BECKER.

In presence of—

PETER LIEBER,
WILHELM FLASCHE.