

1,021,685.

Patented Mar. 26, 1912.

Fig. 1.

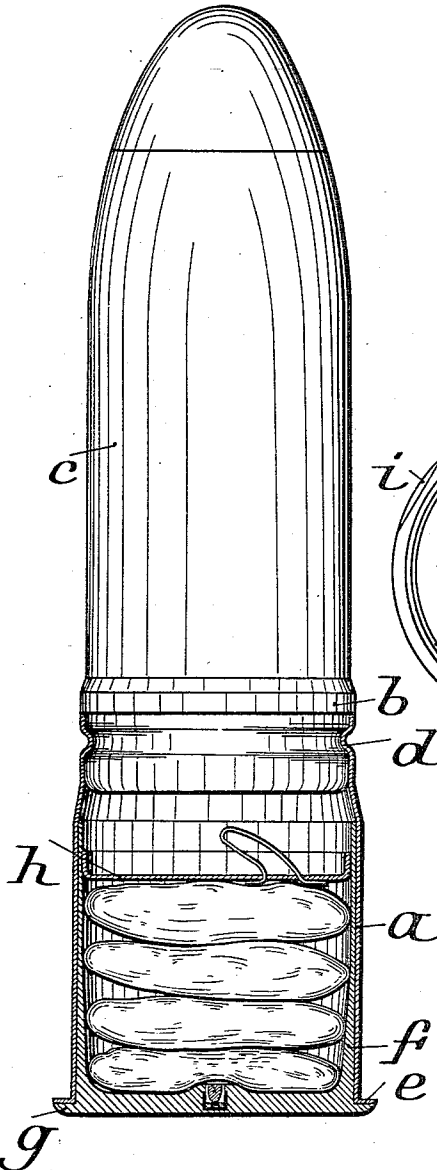
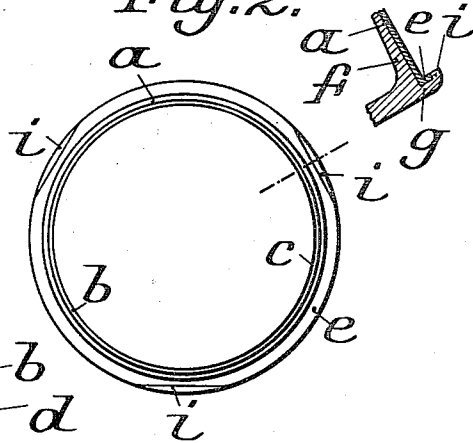


Fig. 2.



WITNESSES

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ARTILLERY-CARTRIDGE.

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To all whom it may concern:

Be it known that I, BENEDIKT KNAEBEL, chief foreman, a subject of the German Emperor, residing at Geistenstrasse, Dusseldorf 3, Germany, have invented certain new and useful Improvements in Artillery-Cartridges; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

In order that the propulsive charge of a cartridge for a gun adapted to fire at high elevations may be varied in accordance with the height and distance of the target without removing the shot, the cartridge case has heretofore been made in two parts, namely the casing firmly connected with the shot and having a large opening in its bottom and a cover for closing this opening. These parts are connected by a hinge and for varying the propulsive charge the cover is opened. Since the cover cannot be made to fit sufficiently tight the propulsive charge is not satisfactorily protected from the weather. The present invention supplies a remedy for this defect in that the cartridge casing consists of two parts, one sliding within the other. One part is firmly connected with the shot by a tight joint while the other which contains the propulsive charge is pushed into the first part.

In the accompanying drawings an example of the invention is shown in longitudinal section in Figure 1; Fig. 2 being a detail view.

The outer part *a* of the cartridge casing is open at both ends, the front end is tightly and firmly fixed to the shot *c* behind the part thereof that carries the band *b* which takes the rifling.

In the example shown the shot has a peripheral groove into which the material of the outer part *a* of the casing is pressed, as at *d*. In order that the casing may be ejected from the cartridge chamber by the usual ejector after the shot has been fired, it is provided at its rear end with an outwardly directed flange *e*.

The inner part *f* of the cartridge casing is of the usual cartridge casing form and

consists of a cylinder closed at one end and open at the other. The flange *g* on the bottom of the cylinder rests against the flange *e* of the outer part *a* when the inner part has been pushed into place, thus insuring a tight container for the propelling charge. The variable charge is carried in this inner part *f* and is held firmly by the cover *h*. It is manifest that the container can be easily withdrawn to allow of the substitution of a charge, and also that a container of different capacity may be substituted.

In order to prevent relative rotational movement of the two parts of the casing the flange *g* of the inner part has several segmental shaped projections *i* (Fig. 2), while the flange of the outer part is correspondingly cut away. The projections engage the cut away portions and prevent relative rotation as well as serving to facilitate the withdrawal of the inner casing when the charge is to be changed.

The movement of the shot after the propulsive charge has been fired may be at an essentially higher gas pressure in a cartridge constructed according to this invention than was formerly the case so that there is a better utilization of the charge.

I claim as my invention:—

1. In combination with a shot, a casing composed of two parts, one part being secured to the shot, and the other part removably fitted within the first mentioned part and containing the propulsive charge, each of said parts having an outwardly projecting flange on its rear end, the flange of one part abutting against the flange of the other part to conjointly form extractor engaging means.

2. In combination with a shot, a casing composed of two parts, one part being designed to be secured directly to the shot and the other part removably fitted in the first mentioned part and designed to alone contain the propulsive charge, and means for preventing a relative rotation between the two parts.

3. In combination with a shot, a casing composed of two parts, one part being secured directly to the shot and the other part

removably fitted within the former part and
designed to contain the propulsive charge,
both parts having parallel flanges, the flange
of one part having segmental cut-outs, and
5 the flange of the other part having projec-
tions fitting in such cut-outs.

In testimony whereof, I have signed this

specification in the presence of two subscri-
ing witnesses.

BENEDIKT KNAEBEL. [L. s.]

Witnesses:

ALFRED HENKEL,
A. POSEN.

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