

(No Model.)

F. MOHR.
CARTRIDGE.

No. 503,096.

Patented Aug. 8, 1893.

FIG. 1.

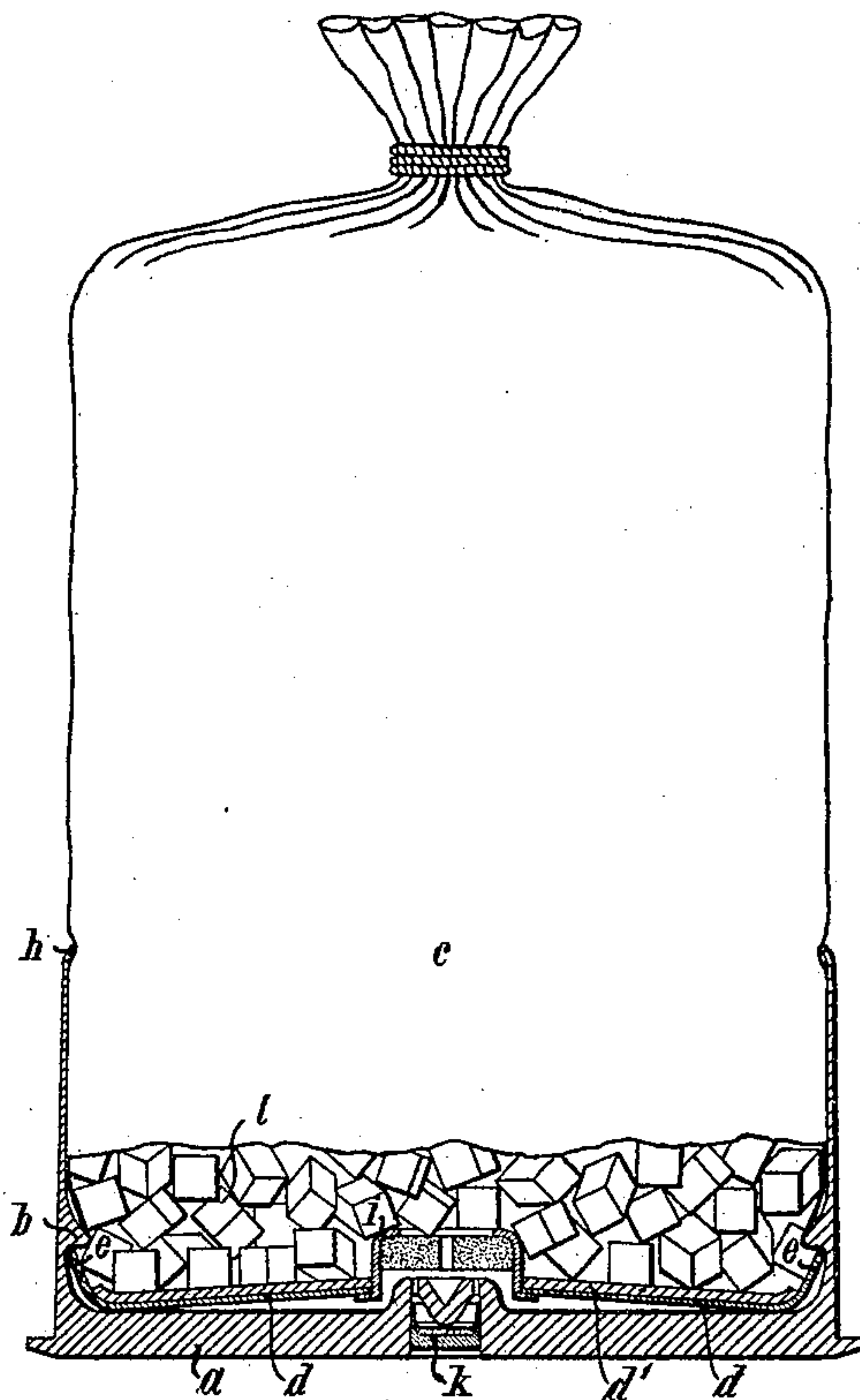
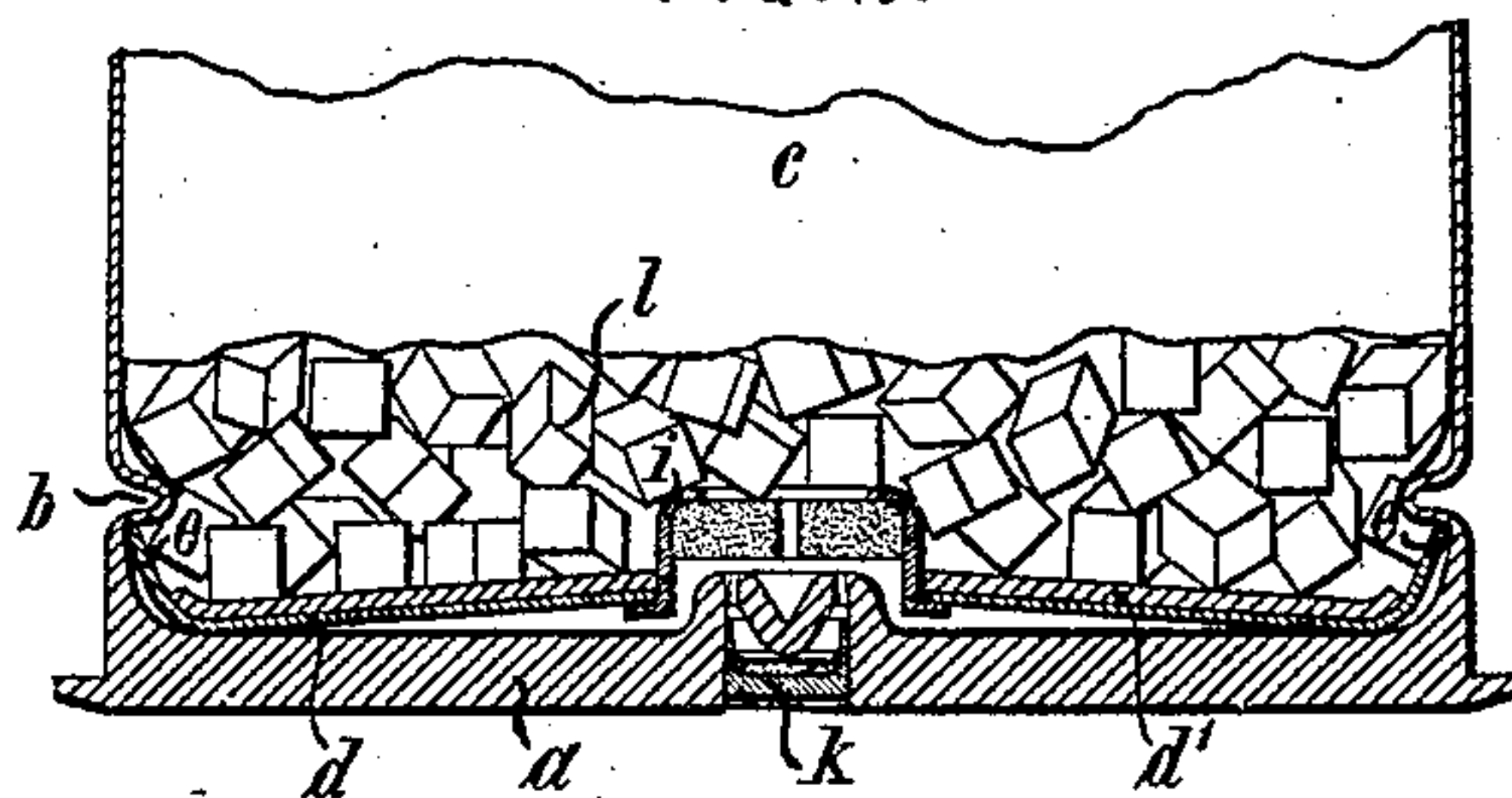


FIG. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

FREDERIK MOHR, OF MAGDEBURG, GERMANY, ASSIGNOR TO THE GRUSON-
WERK, OF SAME PLACE.

CARTRIDGE.

SPECIFICATION forming part of Letters Patent No. 503,096, dated August 8, 1893.

Application filed February 2, 1893. Serial No. 460,679. (No model.) Patented in Germany April 29, 1892, No. 7,428, and in Belgium September 7, 1892, No. 101,255.

To all whom it may concern:

Be it known that I, FREDERIK MOHR, a subject of the King of Prussia, and a resident of Magdeburg, in the Kingdom of Prussia, German Empire, have invented new and useful Improvements in Cartridges, (for which I have received Letters Patent in Germany, dated April 29, 1892, No. 7,428, and in Belgium, dated September 7, 1892, No. 101,255,) of which the following is a specification.

This invention relates to cartridges and has for its object to provide an easily portable and cheap ammunition for field guns with quick-firing breech blocks and for fire-arms wherein the charge is required to be sometimes large and sometimes small.

It is well-known that projectiles firmly connected with metallic cartridge cases permit of quickly loading the gun; the cases form moreover an excellent packing, inasmuch as the powder gases press the wall of the case against the wall of the gun; and lastly the igniting apparatus, consisting of an igniting cap, is extremely simple. From these advantages possessed by the above characterized ammunition there results very material advantages in the arrangements of the breech mechanism of the gun. If however a gun is to be used for alternately firing with larger or smaller charges, such for instance as takes place in the case of mortars and howitzers, the connection of the projectile with the cartridge case must be abandoned because it is impracticable to prepare a great number of cartridges suited for the various ranges required. Nevertheless the advantages afforded by metallic cartridges are so important that it has been desired to use such cartridges for varying charges. This problem is solved by the present invention wherein a bag is employed to contain the charge, said bag being firmly connected to a metallic cartridge case either before or after it is filled.

In the accompanying drawings which illustrate the invention, Figure 1 is a side view partly in section of a cartridge. Fig. 2 shows a slight modification in construction.

a is the base of the metallic case.

c is the bag for containing the charge.

A very simple and reliable mode of con-

necting the bag to the metallic case is that hereinafter described. On the inner side of the cylindrical part of the metallic case in proximity to the base *a* is formed an annular collar or shoulder *b* which may be solid as shown in Fig. 1, or may be formed by contracting the wall of the case as shown in Fig. 2. In the bottom of the cartridge bag *c* is placed according to one construction a flat or slightly arched rigid plate *d* of pasteboard, wood, metal or other suitable material the outer edge *e* of which is bent as shown to form a spring. The flat central part of the plate *d* may be reinforced by another plate *d'* placed thereon to give the desired rigidity at that part, while retaining sufficient spring at the curved part *e* for the object in view. When the cartridge bag is pressed into the cartridge case the edge *e* of the plate *d*, as it passes the collar or shoulder *b*, is bent inward but as soon as it has moved behind the said shoulder, the said curved edge springs out again and bears with its edge against the lower face of the shoulder and locks the bag and case together. Sometimes according to this invention the locking piece *d* is made of very elastic material, such as india-rubber, cork or the like and in such case the curved or turned-up edge is not required. The entire plate will be compressed a little on forcing it through the annular collar *b* and will expand again and lock the bag to the metallic case as soon as it has passed the said collar.

In order to relieve a little the pressure on the plate *d*, the upper edge *h* of the case may be bent inward as shown to help to hold the bag. The plate *d* may at the same time be made to serve as a support for the cap *i* which contains the priming interposed between the igniting cap *k*, arranged in the base *a* of the case, and the charge *l*.

The described connection between the bag and metallic case is very secure and will not admit of separating the two without tearing the bag. It is the form of connection which is preferred according to this invention but it is obvious that the details of such connection may be modified without departing from the nature of this invention.

The problem of using metallic cartridge

cases for varying charges is solved in a satisfactory manner by the herein described combination of a bag cartridge with a cartridge case. The metallic casings with igniting caps
5 can be produced almost as cheaply as the ordinary tubes.

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. A cartridge composed of a bag containing
10 the charge, and a metallic case; the case being formed with a shoulder extending inwardly from its outer cylindrical wall and the bag being provided with the attaching disk which engages said shoulder, as and for the
15 purpose set forth.

2. In a cartridge, the combination of a metallic shell having a shoulder extending transversely within it, and a bag containing the charge, and provided with an elastic flexible
20 attaching disk, arranged to be compressed in forcing past the shoulder and to then expand

behind it to unite the parts of the cartridge, as explained.

3. A cartridge, consisting of the metallic case, formed with the inner transverse shoulder, and a bag containing the charge provided with the attaching disk, concaved to make it elastic at the edge whereby it is adapted to be forced past the shoulder and expand to engage behind the shoulder, as explained. 25 30

4. In a cartridge, the combination of the metallic shell having the inner transverse shoulder, and the charge-bag having the attaching disk, concaved for operation as explained and supplemented by the reinforce
35 disk, all substantially as and for the purpose set forth.

FREDERIK MOHR.

Witnesses:

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