

No. 865,978.

PATENTED SEPT. 10, 1907.

C. A. BAILEY.
CARTRIDGE.

APPLICATION FILED MAY 24, 1907.

Fig. 1.

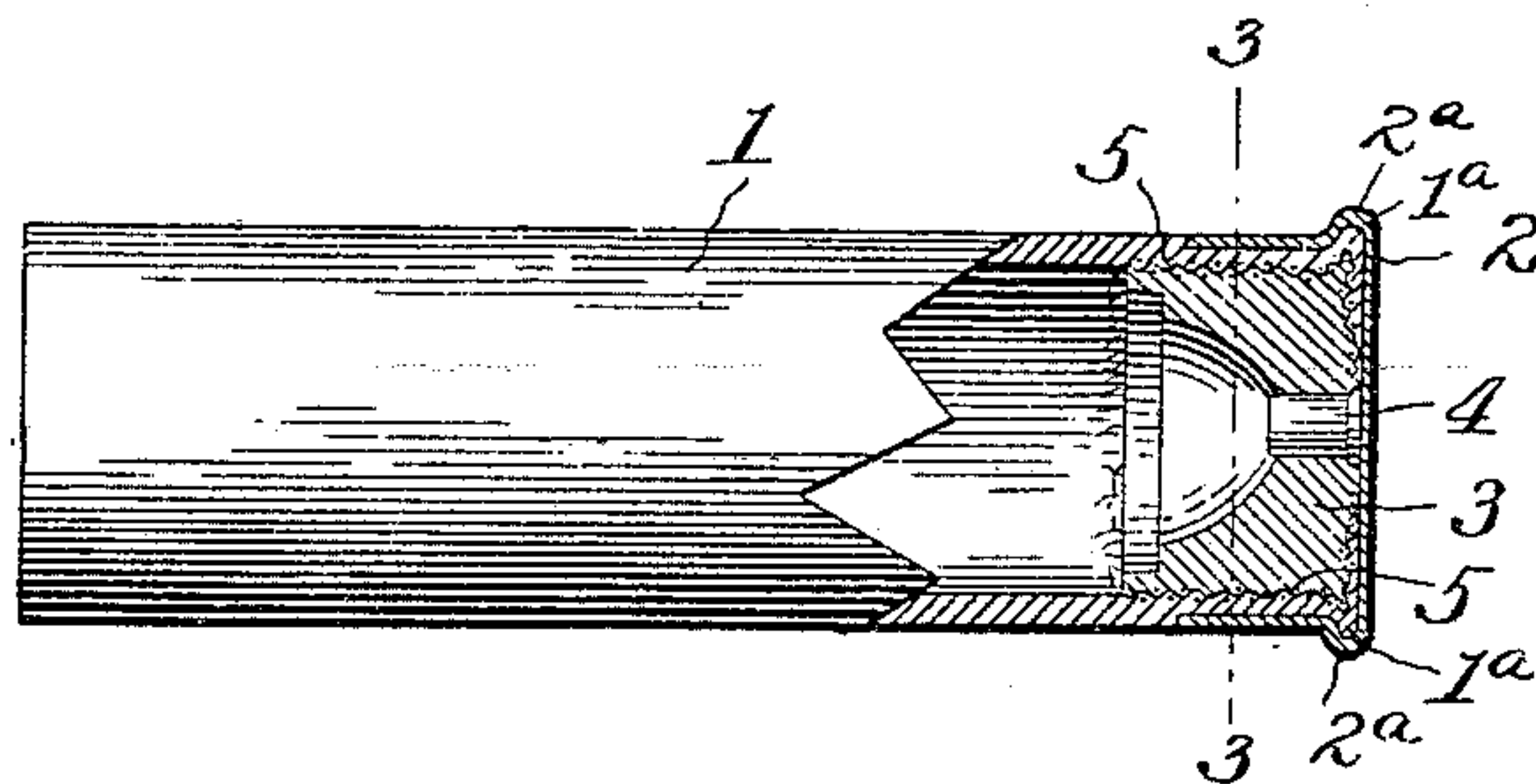


Fig. 2.

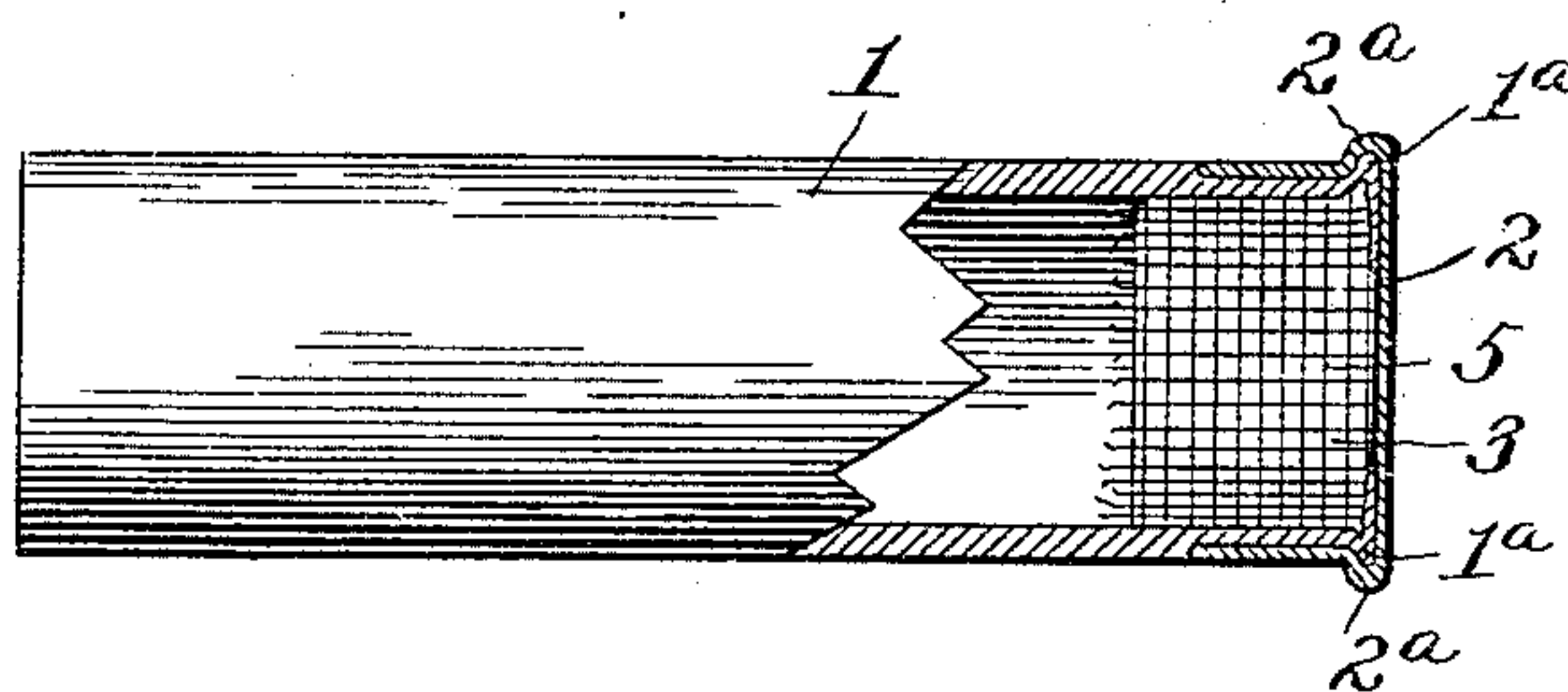


Fig. 3.

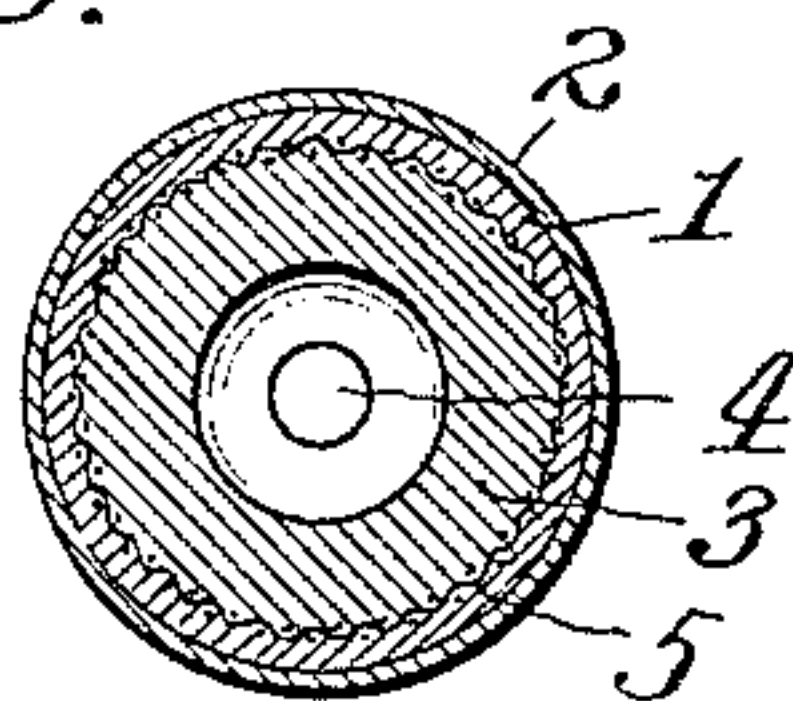
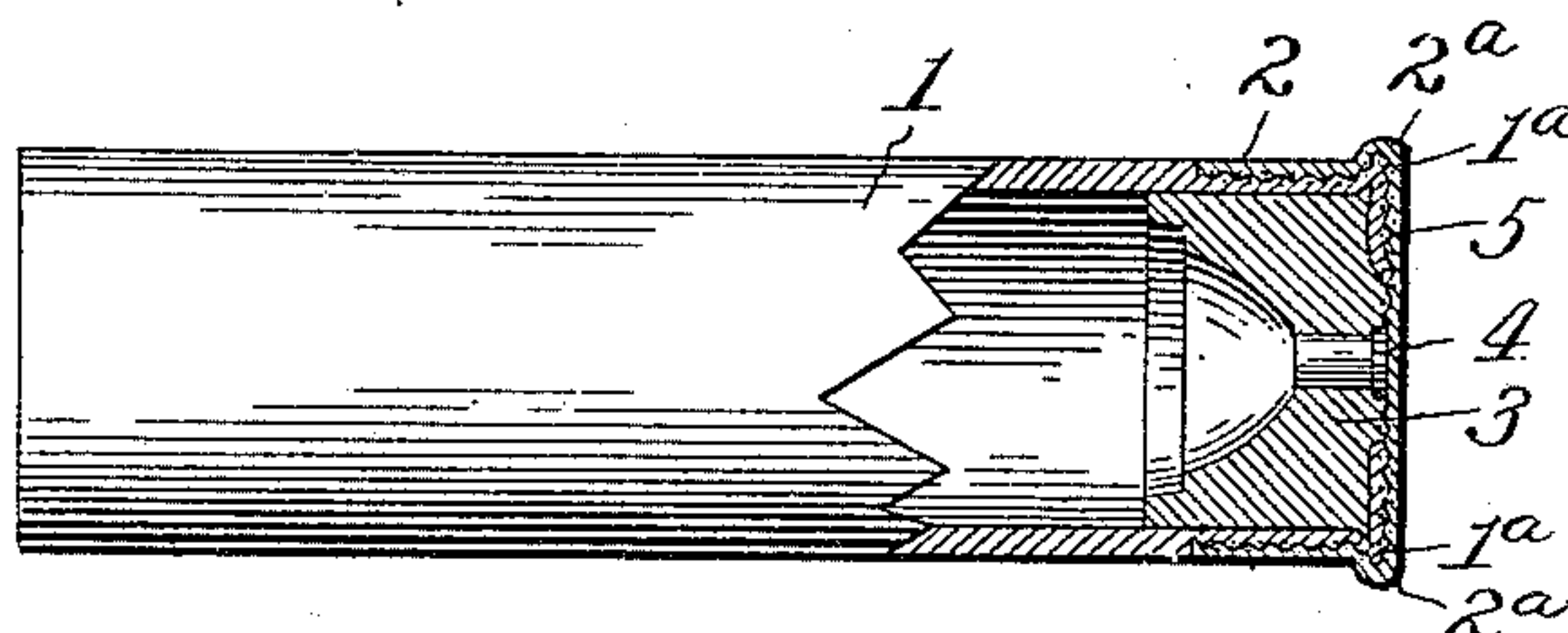


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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CARTRIDGE.

No. 865,978.

Specification of Letters Patent.

Patented Sept. 10, 1907.

Application filed May 24, 1907. Serial No. 375,433.

To all whom it may concern:

Be it known that I, CHARLES A. BAILEY, a citizen of the United States, residing at Cromwell, in the county of Middlesex and State of Connecticut, have
5 invented an Improvement in Cartridges, of which the following is a specification.

This invention is an improvement in cartridges, and has particular reference to that class which are usually made up of a paper-tube, base-wad and metal cap, all
10 intimately connected together. In the use of cartridges of this construction it is not an uncommon thing for the joint or connection of the parts to become weakened or loose by the explosion of the charge, and when this occurs considerable difficulty is experienced in ejecting the parts of the empty shell from
15 the gun, inasmuch as the paper-tube is liable to separate and remain in the barrel of the gun.

The primary object of my invention, therefore, is to provide a simple, effective and inexpensive means for
20 reinforcing the connection of the parts of a paper-tube cartridge or paper shot-shell, so that the parts will be firmly held in intimate engagement, and so that such engagement will not be affected by the explosion of the charge when the cartridge is in use.

With this primary object in view my present invention consists in providing a device which will engage the parts at the breech-end of the cartridge and strengthen their connection.

My invention further consists in the employment of
30 a reticulated fabric which is interposed between the parts of the cartridge to more securely connect them together.

The following specification enters into a detail description of my invention, and what I claim as new and desire to protect by Letters-Patent, is more specifically set forth in the appended claims.

In the accompanying drawings, which form a part hereof:—Figure 1 is a sectional view of a cartridge embodying my invention. Fig. 2 is a view of a cartridge with parts broken away to illustrate the application of the reticulated fabric. Fig. 3 is a sectional view on the line 3—3 of Fig. 1. Fig. 4 is a sectional view showing a modification of the invention.

Like numerals of reference indicate like parts in all
45 the figures of the drawings.

Referring to the drawings, 1 designates the paper-tube, 2 the metal cap, 3 the base-wad, and 4 the primer; these parts all being of the ordinary construction and assembled and connected together by means
50 of a press, as is usual, though in the present instance I prefer that the primer be embedded in the base-wad so as to lie within and be covered by the head of the metal cap.

In carrying out my present invention I employ a

reinforcing means which is adapted to be used for the
55 purpose of intimately connecting the paper tube to the other parts of the cartridge, and in the present instance have shown this reinforcing means as comprising a strip of wire-cloth, as 5, though as will be obvious a strip of perforated sheet-metal or other reticulated
60 fabric may be substituted.

As shown in Figs. 1, 2 and 3 the wire-cloth 5 is interposed between the base-wad 3 and the paper tube 1, extending around the body of the base-wad and over the rear end thereof. In this application of the
65 reinforce or connecting means the crossed strands of wire will become embedded in both the paper-tube and base-wad during the operation of pressing the parts of the cartridge together, it being understood, of course, that the wire-cloth is inserted between the
70 paper-tube and base-wad when the parts are assembled for the press.

When the wire-cloth is applied it will not only serve the function of securely connecting these parts together, but will also stiffen the breech of the cartridge and firmly hold the crimped end of the paper-tube in the rim-flange of the metal-cap. In preparing the wire-cloth for application to the cartridge the same is first cupped up so as to fit within the paper-tube at the crimped end thereof and so as to receive
80 the base-wad, that part which engages the rear end of the base-wad being left with a central opening to receive the primer, when the latter is embedded in the base-wad as shown in Fig. 1.

Instead of disposing the wire-cloth between the
85 base-wad and paper tube I may in some instances dispose the same between the paper-tube and metal cap, or at the outer side of said paper-tube, as illustrated in Fig. 4 of the drawings. In this instance the wire cloth will become embedded in the paper-tube and will
90 also engage the metal cap, and as it extends within the rim-flange or bead 2^a of the metal cap it will reinforce the crimped end 1^a of the paper-tube at this point and thereby strengthen the connection.

As heretofore stated I may employ perforated sheet
95 metal instead of the wire-cloth, but the latter is cheaper and more easily applied.

Having described my invention, I claim:—

1. In a paper-tube cartridge, the combination with the paper-tube, base-wad and metal-cap, of a reticulated fabric
100 for connecting the parts together.

2. In a paper-tube cartridge, the combination with the paper-tube, base-wad and metal-cap, of a reticulated fabric interposed between the base-wad and paper-tube.

3. In a paper-tube cartridge, the combination with the
105 paper-tube, base-wad and metal-cap, of a reticulated fabric interposed between the base-wad and paper-tube and extending around the sides and over the end of the base-wad.

4. In a paper-tube cartridge, the combination with the
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paper-tube, base-wad and metal-cap, of a strip of wire-cloth interposed between the base-wad and paper tube.

5. In a paper-tube cartridge, the combination with the paper-tube, base-wad and metal cap, of a strip of wire-cloth interposed between two of the parts of the cartridge.

6. In a paper tube cartridge, the combination with the paper-tube 1, metal-cap 2, base-wad 3, and primer 4, the latter being embedded in the base-wad and the paper-tube crimped at its inner end, of a strip of wire-cloth interposed
10 between the base-wad and crimped end of the paper tube, substantially as shown and described.

7. In a paper-tube cartridge, the combination with the paper-tube, base-wad and metal cap, the latter having a rim-flange, of a strip of wire-cloth interposed between two of the parts of the cartridge and extending into the rim-flange of the metal cap. 15

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHAS. A. BAILEY.

Witnesses:

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MAUDE E. BAILEY.