

No. 696,295.

Patented Mar. 25, 1902.

H. ANGELL & T. BERNTSON.

CARTRIDGE.

(Application filed Oct. 26, 1901.)

(No Model.)

FIG. 1.

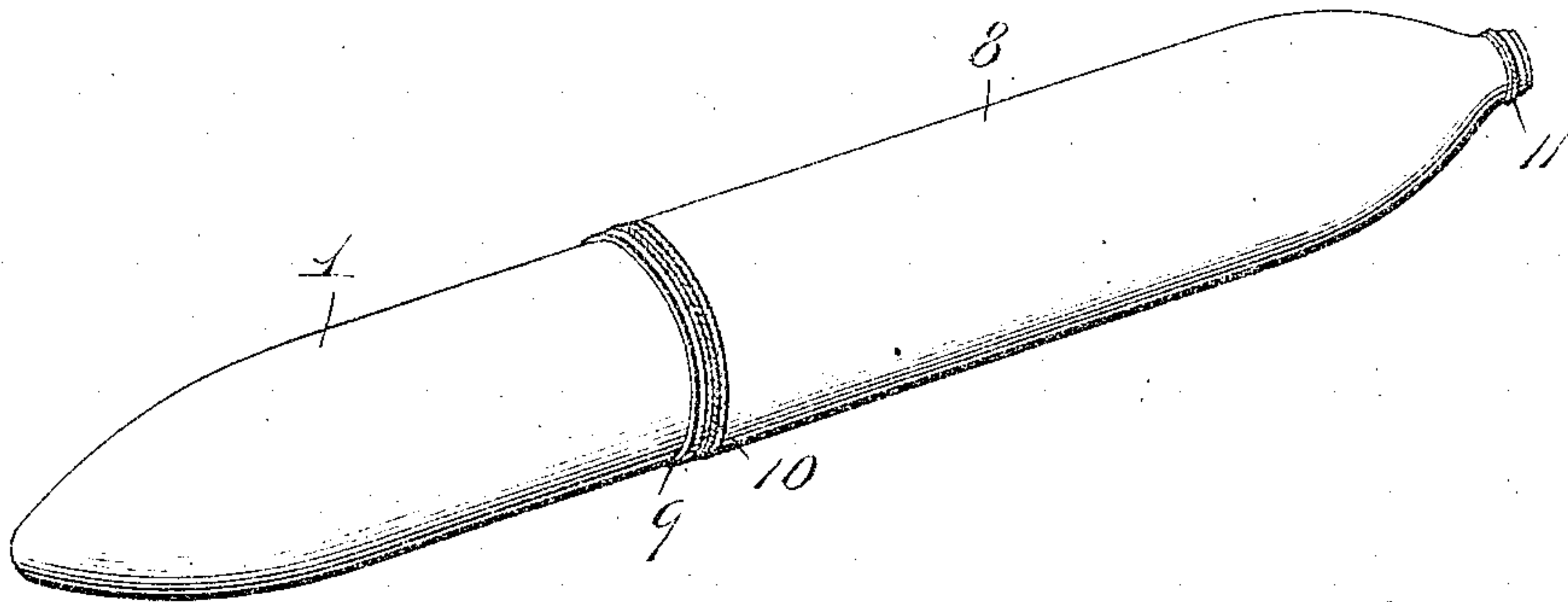


FIG. 2.

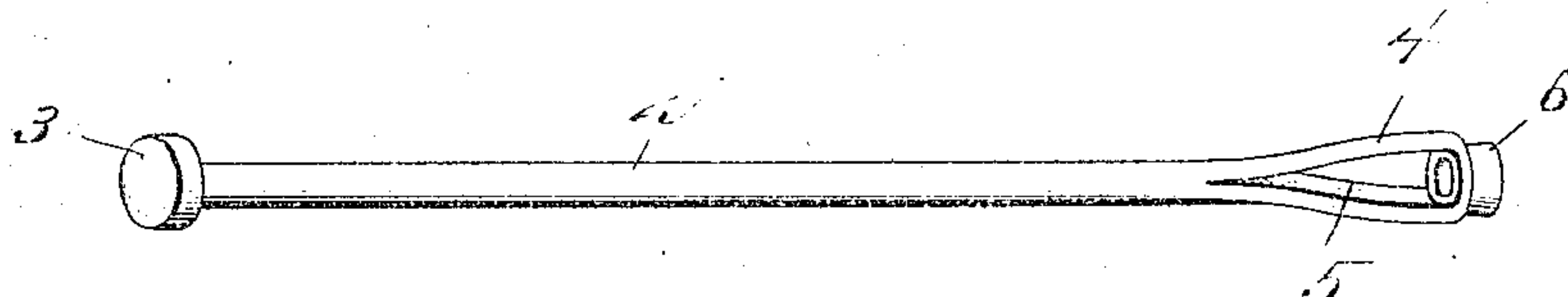


FIG. 3.

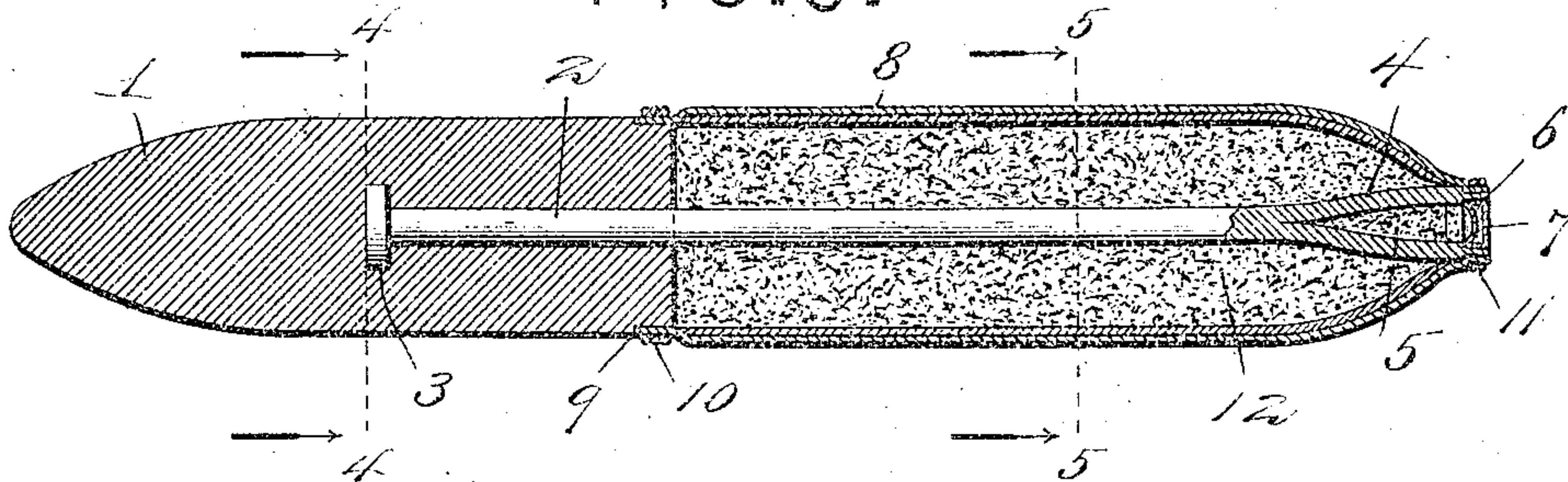


FIG. 4.

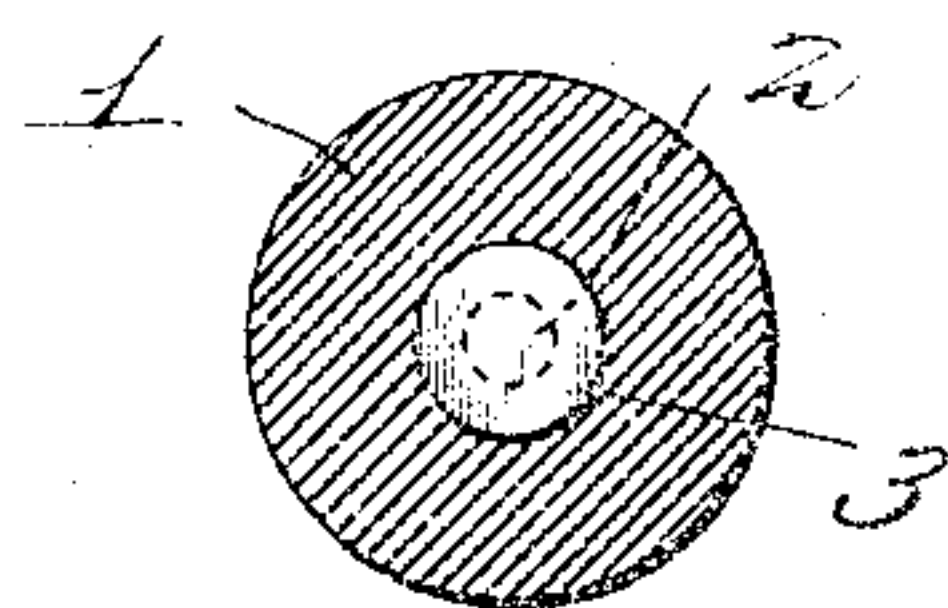
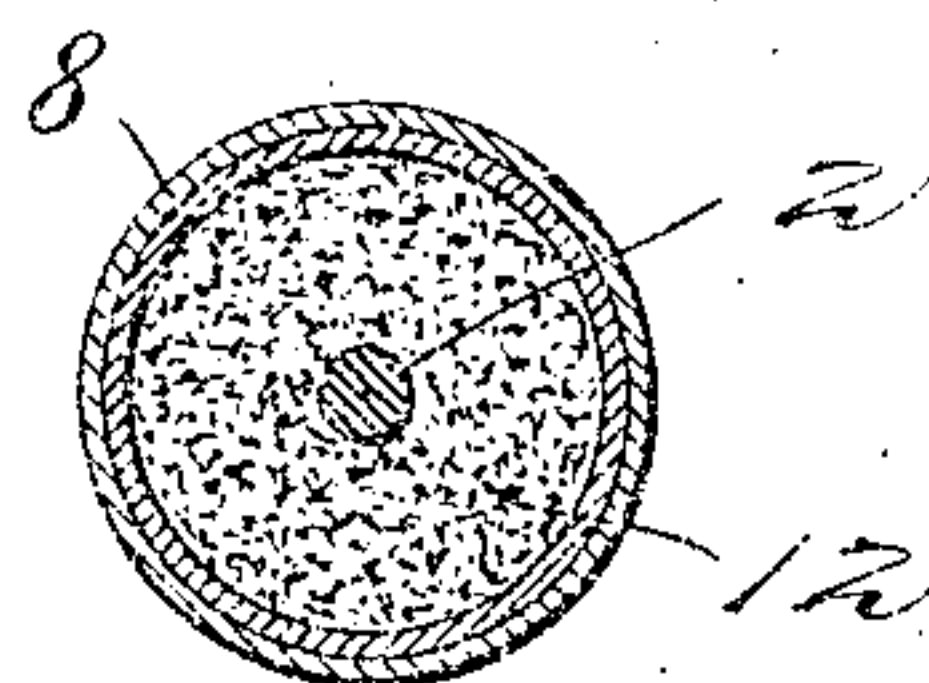


FIG. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

HANS ANGELL AND THOMAS BERNTSON, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNORS OF ONE-THIRD TO VICTOR J. EVANS, OF WASHINGTON, DISTRICT OF COLUMBIA.

CARTRIDGE.

SPECIFICATION forming part of Letters Patent No. 696,295, dated March 25, 1902.

Application filed October 26, 1901. Serial No. 80,093. (No model.)

To all whom it may concern:

Be it known that we, HANS ANGELL and THOMAS BERNTSON, citizens of the United States, residing at Washington, in the District of Columbia, have invented new and useful Improvements in Cartridges, of which the following is a specification.

This invention relates to cartridges; and the object in view is to provide a cartridge in which the projectile is provided with means, preferably in the form of a backwardly-extending stem, for supporting a flexible case or jacket in which the explosive compound is packed, the said stem also forming a support and receptacle for the cap by means of which the charge is ignited. In addition to forming a support for the flexible case or jacket the stem also forms a longitudinal brace for the flexible case or jacket and keeps the latter in proper shape during the operation of transferring the cartridge from the magazine to the firing-chamber and in the act of forcing the firing-pin against the cap.

A further object of the invention is to provide a flexible outer case or jacket of inflammable material, preferably some phlogistic textile fabric, which will be consumed by the burning powder, so as to obviate the necessity for employing an ejector, said case or jacket also serving as a wiper or cleaner for the breech of the barrel as the cartridge is inserted therein.

With the above and other objects in view the invention consists in the novel construction, combination, and arrangement herein-after fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a cartridge complete constructed in accordance with the present invention. Fig. 2 is an enlarged detail perspective view of the stem. Fig. 3 is a central longitudinal section through the cartridge, showing a portion of the stem in elevation and also illustrating the manner of applying the exploding-cap to the stem. Fig. 4 is a cross-section through the projectile on the line 4-4 of Fig. 3. Fig. 5 is also a cross-section taken on the line 5-5 of Fig. 3.

Similar numerals of reference designate

corresponding parts in all the figures of the drawings.

Referring to the drawings, 1 designates a projectile, which may be of lead, steel, or any desired material and which in carrying out the present invention is provided with a centrally-disposed stem 2, which extends backwardly from the projectile a suitable distance.

The stem 2 is provided at its forward extremity with an enlargement or head 3, around which the projectile 1 is molded or cast, the result being that the projectile and stem are firmly and permanently united. The stem 2 at its rear end is extended, as shown at 4, and slotted, as at 5, while the extreme end of the stem is in the form of a small sleeve 6, which forms a cap-socket into which is adapted to be inserted an explosive-cap 7, which thereby communicates directly with the slot 5 of the stem, as will be readily seen in Figs. 2 and 3. The slot 5 permits the explosive compound to bank up against the cap, thus insuring ignition.

Surrounding the stem 2 is an outer flexible case or jacket 8. This jacket is preferably composed of some phlogistic textile fabric, although other material may be substituted therefor without departing from the principle of this invention. The forward edge of the jacket 8 is received in an annular depression 9 in the projectile 1 and is secured by a binding-thread 10, which is wrapped firmly around the jacket, as shown in Figs. 1 and 3. The rear end of the jacket is reduced and fitted snugly around the cap-socket 6 and is secured by wrapping a binding-strand 11 around said jacket. Other means than the thread may, however, be employed for securing the jacket to the stem and projectile.

Within the outer case or jacket 8 there is placed a lining of oil-paper or any equivalent material, which will protect the explosive compound 12 with which the jacket is filled and exclude the moisture, thus keeping the powder or other explosive always in condition for firing. Said lining may be fastened in place in any convenient manner, as by uniting the same to the inner surface of the outer case or jacket or binding the opposite

ends thereof on the projectile and cap-socket simultaneously with or independently of the outer case or jacket.

In view of the above description it will be seen that the stem 2 is permanently connected with the projectile and travels therewith when the cartridge is exploded. It will also be understood that said stem forms a support and brace for the flexible jacket, which contains the explosive compound; further, that said stem not only forms the support for the firing-cap, but it serves to take the thrust of the breech-block during the operation of transferring the cartridge from the magazine to the firing-chamber, and, further, acts to withstand the thrust of the firing-pin when the latter is thrown against the cap.

In inserting the cartridge into the firing-chamber the walls of the said chamber are wiped and cleaned by the outer flexible jacket, and as the material of the jacket is combustible it is instantly consumed by the powder or explosive compound as the explosion takes place.

It will be apparent that the cartridge as a whole may be manufactured in various sizes to suit firearms of various caliber and description. We therefore do not desire to be limited to the details of construction and arrangement hereinabove set forth and accordingly reserve the right to change, modify, or vary the construction within the scope of the appended claims.

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

1. A cartridge comprising a projectile, a stem extending backward therefrom and slotted at its free end, and a phlogistic flexible case or jacket supported by the stem and inclosing the explosive compound.

2. A cartridge comprising a projectile, a rigid slotted stem connected therewith, a phlogistic flexible case or jacket connected at one end with the projectile and at the opposite end with the stem, and an explosive compound inclosed by said flexible case or jacket.

3. A cartridge comprising a projectile, a

stem rigidly connected therewith, an outer flexible case or jacket supported at one end by the stem and connected at the opposite end with the projectile, an air-proof lining within said case or jacket, and an explosive compound packed within said lining.

4. A cartridge comprising a projectile, a rigid stem extending backward therefrom and provided adjacent to its extremity with a slot, a flexible outer case or jacket surrounding the stem and supported thereby, and an explosive compound inclosed by said jacket, and filling the slot in the stem.

5. A cartridge comprising a projectile, a headed stem having the head thereof anchored within the projectile, the opposite end of the stem being slotted and provided with a cap-socket, an outer flexible case or jacket secured at one end to the projecting extremity of the stem and connected at its opposite end to the projectile, and an explosive compound inclosed by said jacket.

6. A cartridge comprising a projectile, a rigid stem extending backwardly therefrom and provided adjacent to its outer extremity with a slot, a hollow sleeve at the extremity of the stem communicating with said slot and constituting a cap-socket, an outer flexible case or jacket connected at one end to said stem and at the opposite end to the projectile, and an explosive compound inclosed by said jacket.

7. A cartridge comprising a projectile, a stem rigidly connected therewith and projecting backwardly therefrom and slotted at its free end, and a phlogistic flexible case or jacket secured to the projectile, an explosive compound in the flexible case, said flexible case or jacket being supported at one end solely by the stem.

In testimony whereof we affix our signatures in presence of two witnesses.

HANS ANGELL.
THOMAS BERNTSON.

Witnesses:

GEO. E. FRECH,
B. F. FUNK.