No. 694,895. Patented Mar. 4, 1902.

R. W. SCOTT.

GUN CARTRIDGE.

(Application filed Dec. 5, 1900. Renewed Aug. 7, 1901.)

(No Model.)

Fig. 1.

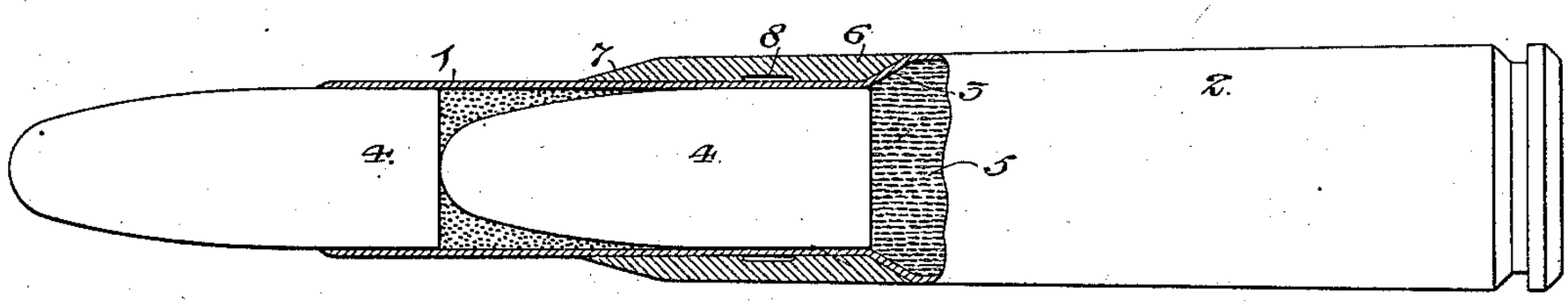


Fig. 2.

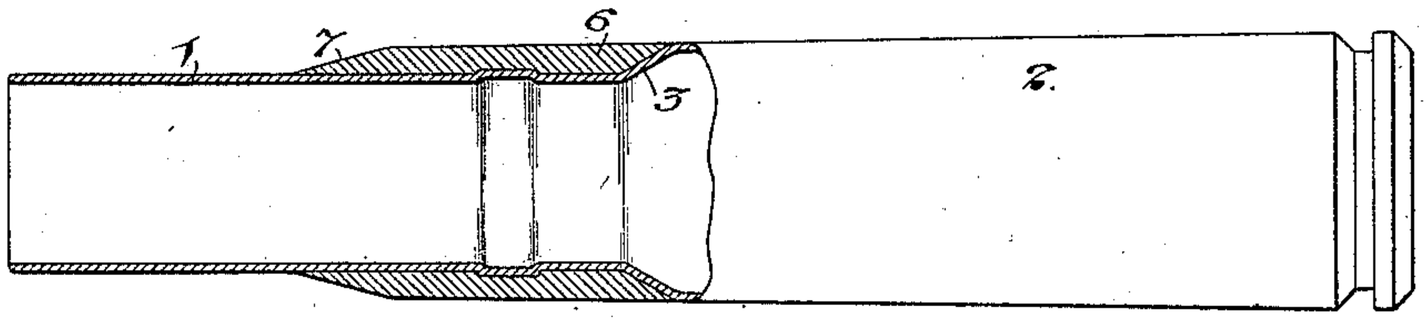


Fig. 3.

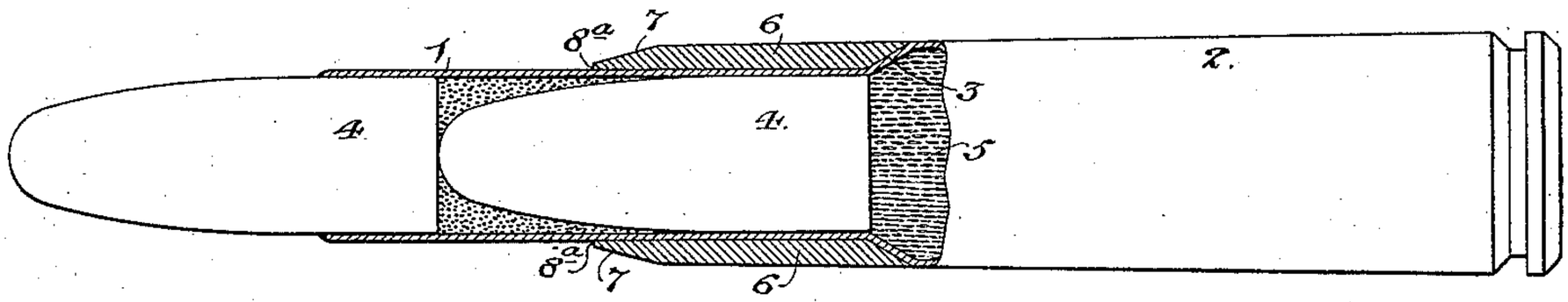
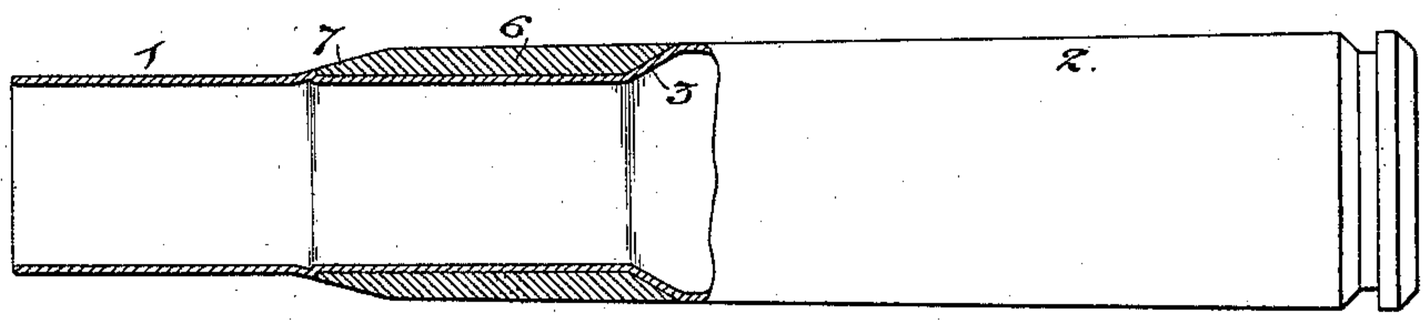


Fig. 4.



Witnesses:-
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by His Attorneys:-
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UNITED STATES PATENT OFFICE.

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GUN-CARTRIDGE.

SPECIFICATION forming part of Letters Patent No. 694,895, dated March 4, 1902.

Application filed December 5, 1900. Renewed August 7, 1901. Serial No. 71,260. (No model.)

To all whom it may concern:

Be it known that I, ROBERT W. SCOTT, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented Improvements in Gun-Cartridges, of which the following is a specification.

My invention consists of certain improvements in cartridge-cases, such as those constituting the subject of my application for patent filed November 18, 1899, Serial No. 737,510, the object of my present invention being to prevent separation of the cartridge-case and the external collar applied thereto in order to fill the space which would otherwise be formed in the cartridge-chamber of the gun in advance of the shoulder formed by decreasing the diameter of the shell to produce the projectile-receiving neck.

In the accompanying drawings, Figure 1 is a longitudinal section, on an enlarged scale, of a cartridge constructed in accordance with my invention. Fig. 2 is a view of the cartridge-case after the firing of the charge. Fig. 3 is a view similar to Fig. 1, but illustrating another method of carrying out my invention; and Fig. 4 a view of the cartridge-case shown in Fig. 3 after the charge has been fired therefrom.

In the cartridge shown and described in my application before referred to the case 2 was reduced in diameter at 3 to form the projectile-receiving neck 1, which had therein two projectiles 4, disposed one in advance of another, with an explosive charge 5 between them. This produced a cartridge differing from the ordinary service or standard cartridge in having a shorter length of expanded case for containing the explosive charge 5 and a greater length of contracted neck in order to adapt it for the reception of the two projectiles. Hence when such a cartridge was introduced into the cartridge-chamber of the service or standard gun the shoulder 3 would be some distance in the rear of the shoulder formed in the gun to coincide with the external shoulder of the standard cartridge. Therefore in order to fill this space and permit use of the multishot-cartridge interchangeably with the standard cartridge in the same gun I provided the rear portion of the reduced neck 1 with a ring or collar 6, fitting snugly thereto and to the shoulder 3 of the cartridge-case and terminating at its forward end in a shoulder 7 to coincide with the internal shoulder formed in the gun-chamber. It has been found in practice that this ring or collar sometimes sticks in the chamber of the gun and is stripped from the cartridge-case when the latter is extracted, and in order to overcome this objection I now effect the secure locking together of the case and the external ring or collar by the expansive action of the gases of explosion on the firing of the charge. One method of effecting this result is to form in the inner wall of the ring 6 a shallow annular recess 8, as shown, for instance, in Fig. 1, so that when the charge is fired the expansive force of the generated gases will distend or upset the cartridge-case into this recess, and thus securely lock the case and ring together, as shown in Fig. 2. Another method of accomplishing the result is to cut away the forward portion of the shoulder 7 at the forward end of the ring, as shown, for instance, at 8^a in Fig. 2, so as to provide for the expansion of the cartridge-case into the space thus formed, as shown in Fig. 4. By either of these means the material of the cartridge-case is expanded in front of a shoulder on the ring. Hence it becomes impossible for the ring to be stripped from the cartridge-case in the act of extraction after the charge has been fired.

Of course in carrying out my invention it is not essential that the shoulder on the ring for engaging with the expanded portion of the cartridge-case should be an annular shoulder, as recesses of any desired character forming one or more shoulders on the ring may be used, and instead of relying upon the pressure of the gases of explosion for upsetting or distending the cartridge-case into the recess or recesses of the ring such engagement of the ring and case may be effected by a suitable implement before the cartridge is loaded.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. A cartridge-case having a reduced and projectile-receiving neck, and an external ring confined longitudinally between the shoulder formed by reducing the case, and an opposed shoulder in advance of the same.

2. A cartridge-case having a reduced and projectile-receiving neck, and an external ring in advance of the shoulder formed by such reduction, said ring presenting one or more shoulders, with which the material of the cartridge-case will be caused to engage by the expansive action of the gases of explosion.

3. A cartridge-case having a reduced and projectile-receiving neck, and an external ring in advance of the shoulder formed by such reduction, said ring having an internal shoulder-forming recess, into which the material of the cartridge-case will be forced by the expansive action of the gases of explosion.

4. A cartridge having a power-chamber, a reduced neck in advance of the same, containing a series of projectiles, and an external ring in advance of the shoulder produced by reducing the case to form the neck, said ring presenting one or more shoulders, with which the material of the cartridge-case will be caused to engage by the expansive action of the gases of explosion.

5. A cartridge having a powder-chamber, a reduced neck in advance of the same, containing a series of projectiles, and an external ring in advance of the shoulder produced by reducing the case to form the neck, said ring having an internal shoulder-forming recess, into which the material of the cartridge-case will be forced by the expansive action of the gases of explosion.

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

ROBERT W. SCOTT.

Witnesses:
F. E. BECHTOLD,
JOS. H. KLEIN.