W. P. BROWN.

SHOTGUN SHELL.

APPLICATION FILED NOV. 7, 1910.

1,040,503. Patented Oct. 8, 1912.

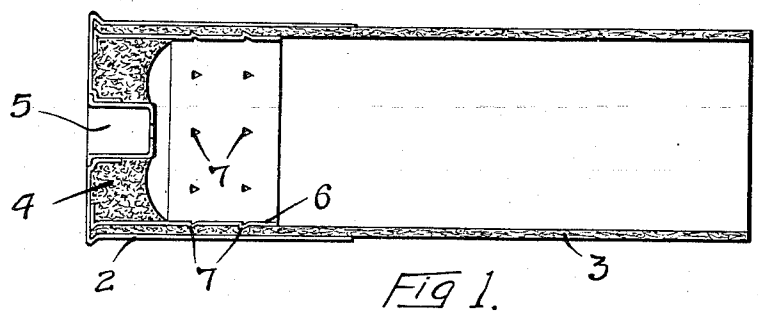

Fig 1.

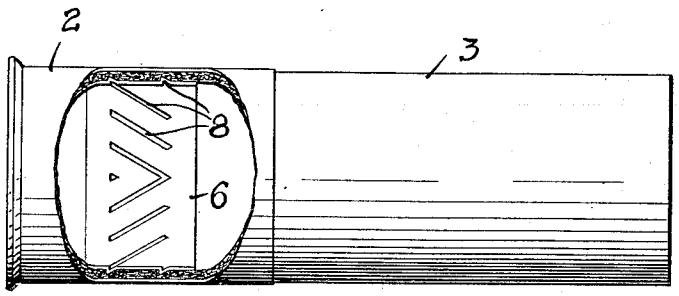

Fig 2.

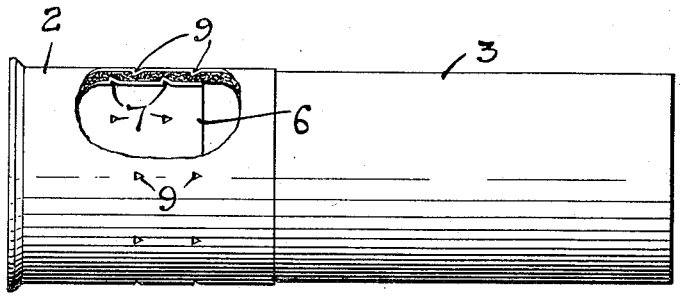

Fig 3.

WITNESSES

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WILLIAM P. BROWN, OF MINNEAPOLIS, MINNESOTA.

SHOTGUN-SHELL.

1,040,503. Specification of Letters Patent. Patented Oct. 8, 1912.

Application filed November 7, 1910. Serial No. 591,143.

To all whom it may concern:

Be it known that I, WILLIAM P. BROWN, of Minneapolis, Hennepin county, Minnesota, have invented certain new and useful Improvements in Shotgun-Shells, of which the following is a specification.

In the use of the ordinary paper shell for shot guns difficulty has been experienced in holding the paper in the cap of the shell during the explosion of the charge, so that it can be readily removed after the gun has been fired. Various devices have been provided for this purpose, but many of them have been more or less inadequate to accomplish the object in view.

The purpose of my present invention is to positively lock the paper shell in the cap so that the pull thereon resulting from the explosion of the powder will not tear it loose from its seat in the cap.

With this end in view, my invention consists in various constructions and combinations, all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings forming part of this specification, Figure 1 is a longitudinal sectional view of a shot gun shell embodying my invention. Fig. 2 is a side view, with a portion of the shell broken away. Fig. 3 is a similar view, showing a modified construction with means for locking the paper shell in the cap.

In the drawing, 2 represents the cap of the shell or the outer cylinder in which the end of the cylindrical paper portion 3 is inserted.

4 is a disk, usually of paper, inserted into the end of the cylinder 3 and carrying the ordinary fulminating cap 5 in the usual way.

6 is an inner sleeve fitting snugly within the end of the cylinder 3 and having its outer edge bent inwardly to bear on the surface of the disk 4. The paper cylinder 3 is gripped between the outer cylinder 2 and the sleeve 6 and to prevent slippage of the paper cylinder on the sleeve I form a series of points or projections 7 in the outer surface of the sleeve, having square shoulders on one side and adapted to dig into the paper and resist pull thereon to separate it from the sleeve. These points are pressed or punched out of the metal of which the sleeve is composed and form a very efficient means to resist the sliding of the paper cylinder on the sleeve.

In Fig. 2 I have shown a modification which consists in providing a series of diagonal ribs 8 in the surface of the sleeve, these ribs converging and having the effect of squeezing the paper against the surface of the sleeve when a longitudinal pull is exerted on the paper. The ribs may be made of suitable length and a convenient distance apart.

In Fig. 3 I have shown another modification, which consists in pressing or punching points 9 inwardly from the outer cylinder 2, preferably in staggered relation with respect to the points 7 or alternating therewith, as indicated in Fig. 3, so that the paper shell will be pressed both inwardly and outwardly and be securely locked against displacement. With a shell constructed in this way, no difficulty at all will be experienced in removing it from the gun, and there will be no danger of separation of the paper cylinder from the metal portion of the shell when the explosion takes place.

I claim as my invention:—

1. A shot gun shell comprising an outer cylindrical portion, a paper cylinder fitting therein, an inner metallic sleeve forming a lining for said paper cylinder and having an outer roughened surface between which roughened surface and said outer cylindrical portion the paper cylinder is held, said roughened surface comprising projections or points having inner, substantially square, faces, and outer inclined faces.

2. A shot gun shell comprising an outer cylindrical portion, a paper cylinder fitting therein, an inner metallic lining, said outer cylinder and said sleeve having opposing roughened surfaces between which the paper cylinder is gripped and held.

3. A shot gun shell comprising an outer cylinder, a paper cylinder fitting therein, a metallic lining for said paper cylinder, said metallic lining having a series of diagonally arranged ribs formed in its outer surface between which and said outer cylinder said paper cylinder is gripped and held.

In witness whereof, I have hereunto set my hand this 18th day of October 1910.

WILLIAM P. BROWN.

Witnesses:
GENEVIEVE E. SORENSEN,
C. H. REHFUSS.