SMITH & STORRS.

Cartridge.

No. 89,088. Patented April 20, 1869.

Fig. 1

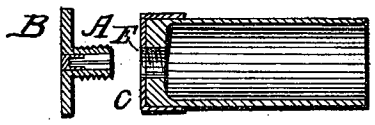


Fig. 2

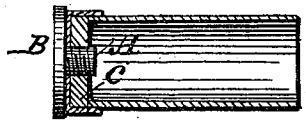


Fig. 3

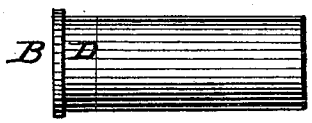


Fig. 4

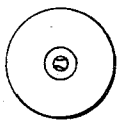
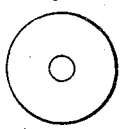


Fig. 5



WITNESSES

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UNITED STATES PATENT OFFICE.

DEXTER SMITH AND J. W. STORRS, OF SPRINGFIELD, MASS., ASSIGNORS TO THE WESSON FIRE ARMS COMPANY, OF SAME PLACE.

IMPROVEMENT IN CARTRIDGES.

Specification forming part of Letters Patent No. 89,088, *dated April* 20, 1869.

To all whom it may concern:

Be it known that we, DEXTER SMITH and J. W. STORRS, both of Springfield, Hampden county, State of Massachusetts, have invented new and useful Improvements in Cartridges; and we do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the drawings, Figure 1 is a sectional view of the parts of our cartridge. Fig. 2 is a similar view of the parts put together in partial section. Fig. 3 is a side view of the whole shell, and Figs. 4 and 5 are end views, the one of the head and the other of the shell proper.

The cartridge is of the class in which the shell proper is made of paper and the head of metal or other hard suitable substance. The improvements in this cartridge relate to the construction of the paper shell, which we will now describe.

We use substantially the same head as shown in the application of Dexter Smith, January, 1869, for the same class of cartridge. The paper shell, however, is formed with a solid thickness at the butt, so that the screw A on the head B can be screwed into it, and so firmly connect them both together. The manner of forming this solid thickness, marked C in the drawings, is as follows: A cap, D, with a hole, E, through its flat part, of sufficient size to allow the screw A to turn in, forms the rear of the butt, the paper being pressed down into this cap by the use of suitable machinery, until it is of the proper thickness and density, the rim G of the cap inclosing the outer rear end of the cylinder and the pressed paper forming the solid end next to the cap.

It is immaterial whether the hole E be formed in the process of filling and pressing or whether the shell-butt be first formed solid and the hole be punched out afterward. When the shell is so formed and completed, the head may be screwed on, the wadded paper filling at the butt, forming a nut for the screw A, which butt fully answers the purpose of a metal nut.

The advantages of this cartridge are numerous. A single head, formed as shown, will last for an indefinite number of discharges, and even the paper shells may often be fired once or twice after the first discharge, but as the paper shell can be manufactured at a small cost, the sportsman can afford to use them freely, screwing a fresh one upon the same head after each discharge, and so secure all the advantage of a metallic-headed cartridge at the small cost of the paper ones. It is also much more convenient to carry a number of light shells than it would be if each one were headed with a metal head which was permanently fixed.

Now, having described our new invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The construction of the paper shell with a solid butt of paper, C, forming the nut for the screw A of the metallic head B, substantially in the manner herein described.

2. The combination and arrangement of the head B and paper shell C, the parts being constructed substantially as herein described.

DEXTER SMITH.
J. W. STORRS.

Witnesses:
EDWARD H. HYDE,
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