

H. H. SCHLEBER.  
Shot-Cartridge.

No. 210,566.

Patented Dec. 3, 1878.

Fig. 1.

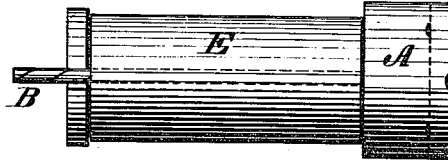


Fig. 2.

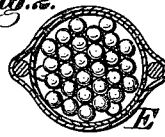


Fig. 3.

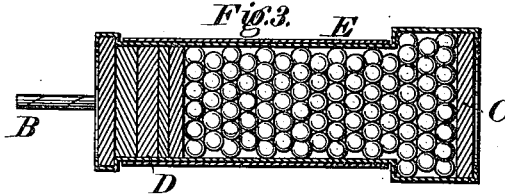


Fig. 4.

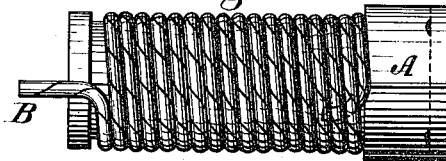
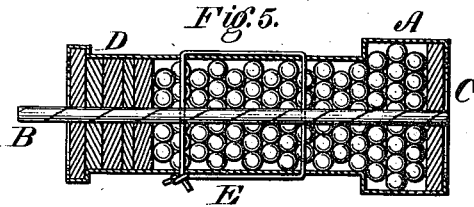


Fig. 5.



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HENRY H. SCHLEBER, OF ROCHESTER, NEW YORK.

## IMPROVEMENT IN SHOT-CARTRIDGES.

Specification forming part of Letters Patent No. **210,566**, dated December 3, 1878; application filed November 8, 1878.

*To all whom it may concern:*

Be it known that I, HENRY H. SCHLEBER, of the city of Rochester, in the county of Monroe and State of New York, have invented an Improvement in Long-Range Shot-Cartridges, of which the following is a specification:

My invention relates to an improvement in long-range shot-cartridges, for use for general sporting purposes. In my improved cartridge the shot are confined within a separable case, which is provided, either outside or inside, with a time-fuse, which operates, when ignited and consumed, to release the case, and to allow the shot to spread at a distance from the gun. The case is held together during the earlier part of the flight of the cartridge by the fuse itself, which, in this construction, is wound spirally about the case, or by a wrapper or other suitable fastening of combustible material, which is burned in two by the fuse, the combustion of the fuse in either case operating to destroy the fastenings which hold the case together, and to allow it to fall away from the shot; and my invention consists in the combination of a shot-case made of separable parts with a fuse which operates by combustion to release the parts of the case.

It also consists in the combination of a longitudinally-divided shot-case with a fuse and wrapper, and in filling the rear end of my fuse-cartridge with wadding, to lighten the same, in order to prevent the cartridge from turning sidewise during its flight through the air.

My improved long-range shot-cartridge is represented in the accompanying drawings.

Figure 1 is a side view, showing the case, the combustible wrapper, and the fuse. Fig. 2 is a transverse section. Fig. 3 is a longitudinal section; and Fig. 4 a side view, showing the fuse wound spirally about the case. Fig. 5 shows a cartridge with the fuse placed inside of it, and the means of fastening the case together.

In the accompanying drawings, A represents the case within which the shot are confined, and which consists of a cylinder of metal or other suitable material, divided longitudinally into two or more parts. A wad, C, Fig. 3, is secured in the front end of the case in any suitable manner, as by forming indentations in the case; and the rear end of the case is

lightened by the wadding D, one or more of the pieces composing the same being fitted into an enlargement in the case, for the purpose of preventing the parts of the case from shifting longitudinally on each other. Outside the case is placed a wrapper of paper, or other suitable combustible material, the ends of which are cemented together tightly about the cartridge-case, so as to hold its parts in their proper relative positions. Underneath the wrapper is placed the fuse B, which may be paper or cord, filled with any chemical compound suitable for the purpose, and capable of giving the fuse the property of burning with sufficient rapidity. The kind of fuse used by the manufacturers of fire-works to connect their pieces answers well, if made sufficiently rapid. The end of the fuse is ignited by the powder when the cartridge is fired, and consumes the wrapper E, thereby releasing the parts of the case from each other, so that the shot can spread. I prefer to saturate the wrapper E with nitrate of potash, or some equivalent substance, to secure its burning rapidly. Two or more fuses can be used, to provide for the contingency of one failing to burn. Fuses of different degrees of speed may be secured to the outside of the wrapper, the quicker ones being arranged so as to be readily removed in case it is desired to increase the range of the cartridge.

In Fig. 4 the fuse is represented as wound spirally about the case. In this mode of construction the parts of the case are secured together by the fuse itself, and are released by its combustion. A paper envelope, preferably saturated with nitrate of potash, is secured about the case to hold the fuse in place.

In another mode of construction, the fuse is placed within the cartridge-case, the parts of the case being secured together by cords passing through them and through the center of the case, which cords are burned off by the fuse. This arrangement is represented in Fig. 5. Vent-holes can, if necessary, be provided through the case.

Another mode of applying a fuse to a long-range shot-cartridge consists in making the case of a cylinder, (or of a number of cylindrical sections fitted to each other,) with heads adapted to each end thereof, which heads are

secured to each other by the fuse, placed either outside or inside of the case, or by a cord, which is burned off by the fuse.

A saturated cord wrapped about the cartridge may be used in place of the wrapper E.

From the foregoing description the operation of my improved shot-cartridge will be readily understood. The combustion of the fuse in all the forms of my cartridge herein described operates to destroy the fastening which secures the cases, or parts of the case, together, after which the shot are liberated from the case. The range depends upon the time required to consume the fuse, which will be determined by its length or the materials of which it is composed.

In the form of cartridge in which the shot are confined in a cylindrical case a layer of rubber or other elastic material should be placed between the shot and the case, to prevent the shot from wedging in the case when fired.

I claim—

1. In a shot-cartridge, the combination, substantially as described and shown, of a shot-confining case divided or made in sections,

in order that it may open or separate to release the shot, and a fuse, applied directly or indirectly, to permit the opening of the case at the required point.

2. In a shot-cartridge, the combination of a divided or separable shot-confining case, a combustible wrapper inclosing and confining the same, and a fuse extending to the rear of the cartridge, to be ignited by the charge, and so arranged as to ignite the combustible wrapper, as shown.

3. The combination of a divided shot-confining case, the combustible confining-wrapper, and the central fuse connected with said wrapper.

4. In a long-range shot-cartridge, a divided or separable shot-case, in combination with a combustible device to prevent the opening of the case, substantially as described, so that fire will be communicated thereto from the charge of the gun.

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Witnesses:

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