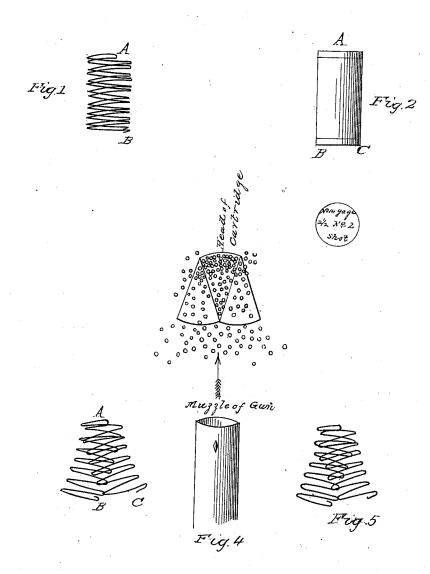
C. W. LOVETT, Jr. Shot Cartridge.

No. 113,677.

Patented April 11, 1871.



Witnesses William Albayeszr C **66**rom

Enventor Chat W. Lovett

## United States Patent Office.

CHARLES W. LOVETT, JR., OF BOSTON, MASSACHUSETTS.

Letters Patent No. 113,677, dated April 11, 1871.

## IMPROVEMENT IN SHOT-CARTRIDGES.

To all whom it may concern:

Be it known that I, CHARLES W. LOVETT, Jr., of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented a new and improved Gun-Cartridge; and I declare the following to be a

full and exact description thereof.

The nature of my invention consists in producing a case or cartridge for shot, bullets, balls, or other projectiles by inclosing the same in a spiral or coil composed of two or more spiral or coils of wire, rods, strips of metal, or other equivalent material joined at one of the ends, the opposite ends being left free and disunited, so as to allow the coils or spirals on the cartridge being discharged from the gun to separate and spring somewhat apart and divide the cartridge or case

into three or more separate compartments or cages.

My mode of construction is as follows:

I twist two or more lengths of wire, rods, or strips of metal, or other equivalent material, around a mandrel, taking care to have the mandrel smaller in circumference than the intended coil or spiral, on ac-

count of its tendency to enlarge upon being released.
I then, upon a slightly larger mandrel, make a very light case of paper, cloth, or other similar material and place or inclose the coil or coils within it. The case is then packed with shot mixed with powdered chalk, Tripoli, or other finely-divided dry equivalent material, and a common paper or other gun-wad placed over the shot, the whole being secured by turning the ends of the case over and fastening them with

The cartridges are then labeled with the gauge of the gun, and the weight and size of the shot, and are

ready for use.

Figure 1 in the accompanying drawings making part of this specification represents the case or coil of two wires before it is filled with snot and inclosed in the wrapper—A being the point of juncture of the separate coils, and B, the separate opposite ends of the coils or spirals.

Figure 2 represents the cartridge when loaded and

at its completion.

Figures 3 and 5 represent the spiral or case, consisting of two coils with the disconnected ends separated, the whole forming three compartments or cages.

Figure 4 represents the outline of the form the

cartridge assumes on being discharged from the gun and the manner in which the shot is distributed, the black lines representing the outlines of the compartments or cages.

The following are some of the advantages proved by experiment that this cartridge possess over those

now in use:

First, that the shot is delivered with more uniformity than by other cartridges; the cartridge delivering a portion of the shot immediately upon the discharge of the gun, and continuing to deliver it throughout its entire flight, thus rendering it effective both for

us entire night, thus rendering it effective both for short or for very long ranges.

Second, that the spiral or coil bursts or separates as soon as discharged from the gun, the construction of the lower end of the cartridge readily admitting of this, thus obviating one of the principle defects of wire shot cartridges now in use, it being observed that they do not burst or distribute their shot with any dethey do not burst or distribute their shot with any de-

gree of uniformity.

Third, that the cartridge does not turn over and over in its flight, or assume other irregular motions, the construction of the cartridge being such that that portion of the charge in the head of the cartridge is delivered last, and contributes by its weight to accomplish this result.

I am aware that other wire cartridges are now or have been used, and that a single spiral case has been used for canister shot; but I am not aware that a double or multiple spiral of wires or rods united at one of their ends, and so constructed as to spring apart and assume another form upon leaving the gun, has ever been before used.

This case or form of cartridge is specially applicable to shot-guns, but it may be used with equal efficiency for case-shot for field or other ordnauce.

what I claim as my invention, and desire to secure by Letters Patent of the United States, is—
A gun-cartridge, consisting of two or more spirals or coils of wire, or other similar material, arranged substantially as above described.

CHAS. W. LOVETT, Jr.

WILLIAM A. HAYES, Jr., C. E. CRAM.