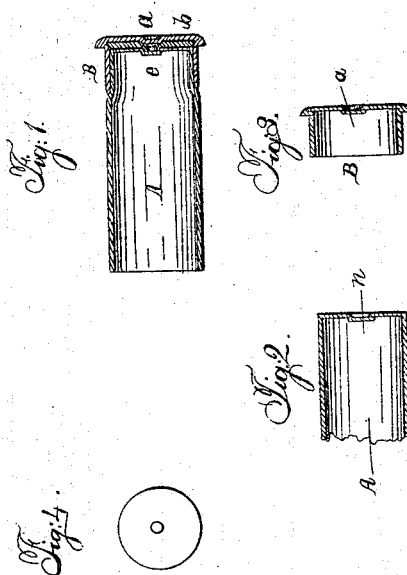


O. F. WINCHESTER.

Cartridge.

No. 60,814.

Patented Jan. 1, 1867.



W. H. Kirtland
P. F. Dodge.
J. Case.

Inventor:
O. F. Winchester
By W. H. Dodge
Atty

The drawing for this patent
is not in print.

United States Patent Office.

O. F. WINCHESTER, OF NEW HAVEN, CONNECTICUT.

Letters Patent No. 60,814, dated January 1, 1867.

IMPROVEMENT IN METALLIC CARTRIDGES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, O. F. WINCHESTER, of New Haven, in the county of New Haven, and State of Connecticut, have invented certain new and useful improvements in Metallic Cartridge-Cases; and I do hereby declare that the following is a clear, full, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon; like letters indicating like parts wherever they occur.

Figure 1 is a longitudinal sectional view of my improved case complete.

Figures 2, 3, and 4 are views of the separate parts, shown mostly in section.

The object of my invention is threefold: first, to produce a cartridge that shall be less liable to accidental explosion, both in handling and also in the magazine of the gun; second, to so strengthen the base or head as to prevent the breaking or pulling off of the flange or head; and, third, to produce a central fire-cartridge so constructed as to act as a cushion for the purpose of relieving the breech-pin, more or less, from the sudden shock or strain caused by the explosion of the charge. To accomplish these objects, I first construct the copper case or tube, A, in the usual manner, prior to having the flange formed thereon, and then form a small recess or depression externally in the centre of the base, as shown in fig. 2, *a* representing the recess. I then form a shorter tube or cap, B, having a corresponding recess *a* in the centre of its head or base, as shown in fig. 3, this cap B being of sufficient diameter to fit over the rear end of the case A. I next make a circular disk of rubber, felt, or other soft and elastic material, of a diameter corresponding with case A, as represented in fig. 4. This disk has a small hole at its centre, and this hole should be slightly less in size than the cup or recess in the base of the cases A and B. I then place the fulminate in the recess on the outside of the base of case A, drop the disk or cushion *b* into the cap B, and slip the latter over the base of case A, and then subject the cases thus united to a compression that shall reduce them in diameter at the rear until the exterior of cap B shall be of a size uniform with case A, as shown in fig. 1. It will be seen that with a cartridge-case thus constructed there is no possibility of exploding it except by driving in the base of the cup or recess in the head of cap B until it impinges against the fulminate *e*, and thus ignites it by compression between the two cases, A and B, the inner one serving as an anvil to resist the blow of the hammer or firing bolt. It will also be apparent that if, by any means, particles of the fulminate should get located at any other point than the recess, on the base of the case it will not be accidentally ignited, as the soft disk, *b*, intervening between the two metallic surfaces will prevent the latter from coming in contact. This feature not only renders the cartridge more safe to handle and transport, but especially fits it for use in a magazine arm, in which the cartridges are placed lengthwise, and where the point of the ball in one necessarily presses against the base of another. By making the point of the ball flat and of a diameter slightly larger than the recess *a* in the cap B, it will be seen that any concussion produced by a sudden jar or shock of the gun and its magazine, will expend its force on the rubber-disk or cushion *b*, and hence will not affect the fulminate. It will be further apparent that, with the addition of the cap or re-enforce B, the head of the cartridge will be so strengthened as to obviate entirely all danger of rupture and consequent escape of the gas at that point, a difficulty of frequent occurrence with the ordinary single case, in which the case is greatly weakened and frequently cracked by the crushing down of the head to form the flange. By this method of construction the inner case, A, is not thus weakened, as no flange is formed thereon, and the metal is consequently left of its full thickness and strength at that point. By inserting the cushion or disk *b* between the cases, as described, it will receive the force of the explosion of the charge, and by means of its elasticity will thus relieve the breech-pin somewhat from the sudden shock and strain that would otherwise be exerted upon it, and hence would be less liable to injure the arm.

Having thus described my invention, what I claim is—

A cartridge-case, consisting of the case A and cap B, with the intervening disk or cushion *b*, arranged to operate substantially as and for the purpose set forth.

O. F. WINCHESTER.

Witnesses:

W. W. WINCHESTER,
GEO. SPENCER VIBBERT.