

J. ORCUTT.
Cartridges.

No. 155,841.

Fig. 2.

Patented Oct. 13, 1874.

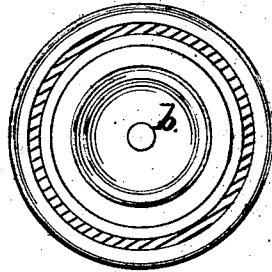


Fig. 1.

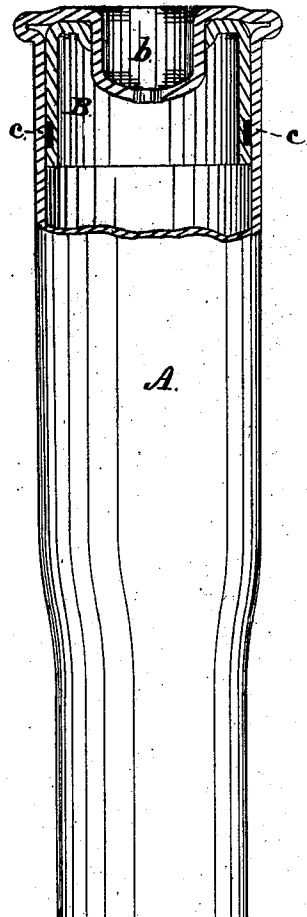


Fig. 3.

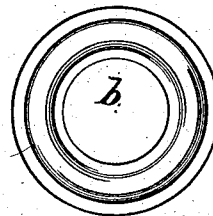
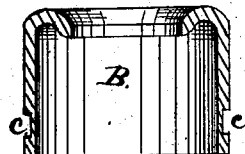


Fig. 4.



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UNITED STATES PATENT OFFICE.

JEROME ORCUTT, OF BRIDGEPORT, CONNECTICUT.

IMPROVEMENT IN CARTRIDGES.

Specification forming part of Letters Patent No. 155,841, dated October 13, 1874; application filed September 28, 1874.

To all whom it may concern:

Be it known that I, JEROME ORCUTT, of city of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain Improvements in Re-enforcing Shells for Metallic Cartridges, of which the following is a specification, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents a side elevation of a case for a cartridge with the base thereof in section, and having my improvement applied thereto; Fig. 2, a cross-section of Fig. 1; Fig. 3, a plan of the interior of a cup; Fig. 4, a longitudinal section of the cup representing my improvement of an annular groove on the exterior thereof.

My invention consists in forming an annular groove or recess in the re-enforce cup in a cartridge-case, by which a space between the exterior surface of the cup and the inner surface of the case is made to prevent the gas penetrating between the cup and case in firing.

My invention is applicable to that class of metallic cartridge-case required to be re-enforced by an inside cup, and to that end have represented, in the accompanying drawings, a case, A, of ordinary construction, of drawn metal, and having a recess, *b*, to receive the percussion cap or fulminate to explode the charge of powder. To this case A is fitted, in the usual manner, an interior re-enforce cup, B, for the purpose of strengthening the base and head of the case to better resist the force of the charge of powder in firing. This re-enforce cup B is swaged into place by means of punch and die in the usual manner, so as to fit tightly against and conform to the interior of the base of the case, in order to prevent the gas finding its way between them, as well as to give additional strength thereto; and to render the cup still more effective against the penetration of gas behind it, an annular groove, *c*, is formed on its exterior, which, when the cup is swaged into place in the base of the case, forms an annular re-

cess between them, which, in practice, is found to entirely prevent the entrance of gas behind said cup, thereby loosening and rendering it of little or no assistance in supporting the base of the case. This cup, with its annular groove or recess *c*, when properly swaged into position, as shown in the accompanying drawings, forms an air-tight chamber, into which the gas does not penetrate. A cartridge-case, having the cup B of the usual form, without the air-tight chamber formed by the groove *c*, when well made, the gas, in many instances, will not penetrate between the case and it, and many very excellent cases are so made, but with the slightest variation from a certain texture of metal in such construction of a case, lack of proper swaging of the cup therein, and many other contingencies to which the manufacture of cases for cartridges are liable unless special provision is made to absolutely prevent, there is constant danger of the gas forcing its way between this ordinary cup and case, thereby injuring the cartridge in such manner as only to be ascertained when fired, and too late to repair damages.

All these disastrous contingencies are avoided in the provision of the annular groove or recess in the cup herein described.

The method of making and form of groove are not essential, but the configuration represented in the annexed drawings is found, in practice, to effect the desired object.

Having thus fully described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

A case for a cartridge, with an interior re-enforce cup, said cup having an annular groove or recess to prevent the penetration of gas between said cup and case, constructed substantially as herein set forth.

JEROME ORCUTT.

Witnesses:

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