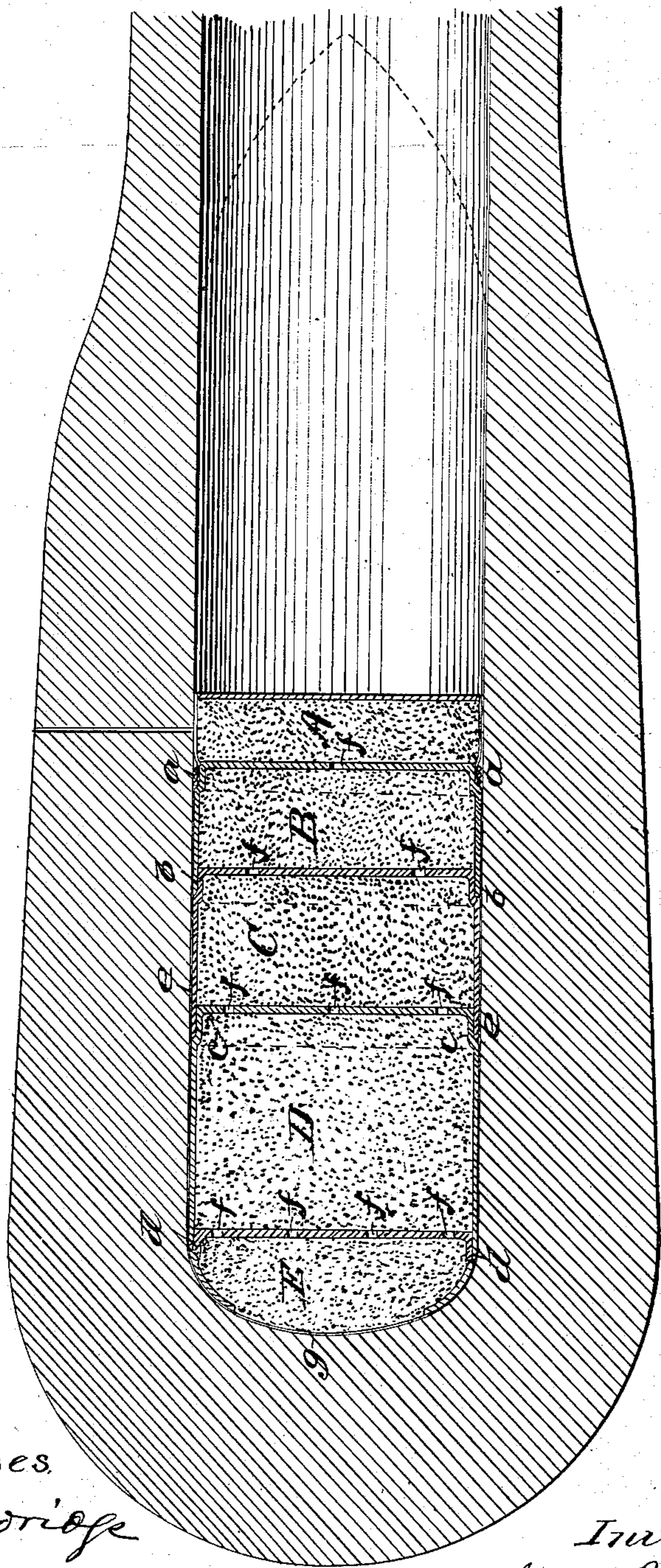


J. M. CROCKETT.
 GRADUATING ACCELERATING CARTRIDGES FOR ORDNANCE, &c.
 No. 68,609 Patented Sept. 10, 1867



Witnesses
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JAMES M. CROCKETT, OF NEWBERN, VIRGINIA.

Letters Patent No. 68,609, dated September 10, 1867; antedated September 1, 1867.

IMPROVEMENT IN GRADUATING ACCELERATING-CARTRIDGES FOR ORDNANCE, &c.

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, JAMES M. CROCKETT, of Newbern, of the county of Pulaski, State of Virginia, have invented certain new and useful Improvements in the Construction of Cartridges for Artillery; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and letters of reference marked thereon.

The nature of my invention consists in the construction and arrangement of the separate sections (marked *a b c d*) that are connected together, one within the other, the front one, *a*, fitting upon and lapping over the shoulder of the rear section *b*, and *b* lapping over *c*, and *c* over *d*, as a series of cups, each cup or chamber containing a separate charge. The explosion of the front charge compresses and packs the rear chambers tighter, and thus secures in the process of firing perfect gas-proof joints.

The object of my invention is to admit of the use of a heavier charge of powder with an equal strain, or an equal charge of powder with a less strain upon the gun than that attending the usual mode of constructing artillery ammunition, and thereby adding greatly to the durability and value of the gun.

The annexed drawing represents a longitudinal central section of a cannon and my cartridge in the position for being fired. *A, B, C, D*, and *E* are separately-formed sections, made either of different sizes, as shown, or of equal size, at pleasure. These separate sections, each filled with its separate charge, are joined together, as shown, at *a, b, c*, and *d*, and the whole firmly secured in combination by an external envelope, of paper or other suitable material, as shown by the lines *e*. The igniting communication between the several separate charges is by means of the holes *f* in the several partitions. The caps or shells which contain the separate charges may be made of papier mache, felt, vulcanized India rubber, or any other suitable material, but I prefer the former. The envelope of the cup *A* is sufficiently thin to admit of its being pierced by the priming-needle, while the remainder are formed of considerable thickness, say about one-eighth of an inch thick, to impart the necessary strength to endure transportation without becoming injured. The separate chambers or cups may be charged with the same kind of powder or with different kinds, the first section, *A*, being of a kind to burn slowly, the next one, *B*, to burn more rapidly, and so on to the last. Even when the same kind of powder is used the combustion of the whole charge will be materially prolonged and the objects thus attained, but no doubt it would be more thoroughly attained by the use of the different qualities of powder above suggested. The rear end of the cartridge, at *g*, is made of thin or combustible material, the object of the small charge contained in section *E* being to expel the shells forward of it when the projectile has left the bore of the gun. It will be perceived that I ignite my cartridge in the front. The charge *A* is partly consumed and starts the ball before the second charge, *B*, is ignited through the hole *f*, and this again is partly consumed before charge *C* is ignited, and so on to the rear, the object being to burn the whole charge in an accelerating ratio, and thus, in a simple and less expensive manner, secure all the advantages claimed for the "accelerating gun."

Having now fully explained my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

The construction of the chambered cartridge in separate sections, as fitted together at *a, b, c*, and *d*, when arranged and combined as herein described, and for the purposes set forth.

JAMES M. CROCKETT.

Witnesses:

C. E. DODDRIDGE,

J. FRANKLIN REIGART.