

(No Model.)

M. WHEELER.

BREECH LOADING FIRE ARM.

No. 329,793.

Patented Nov. 3, 1885.

Fig. 1.

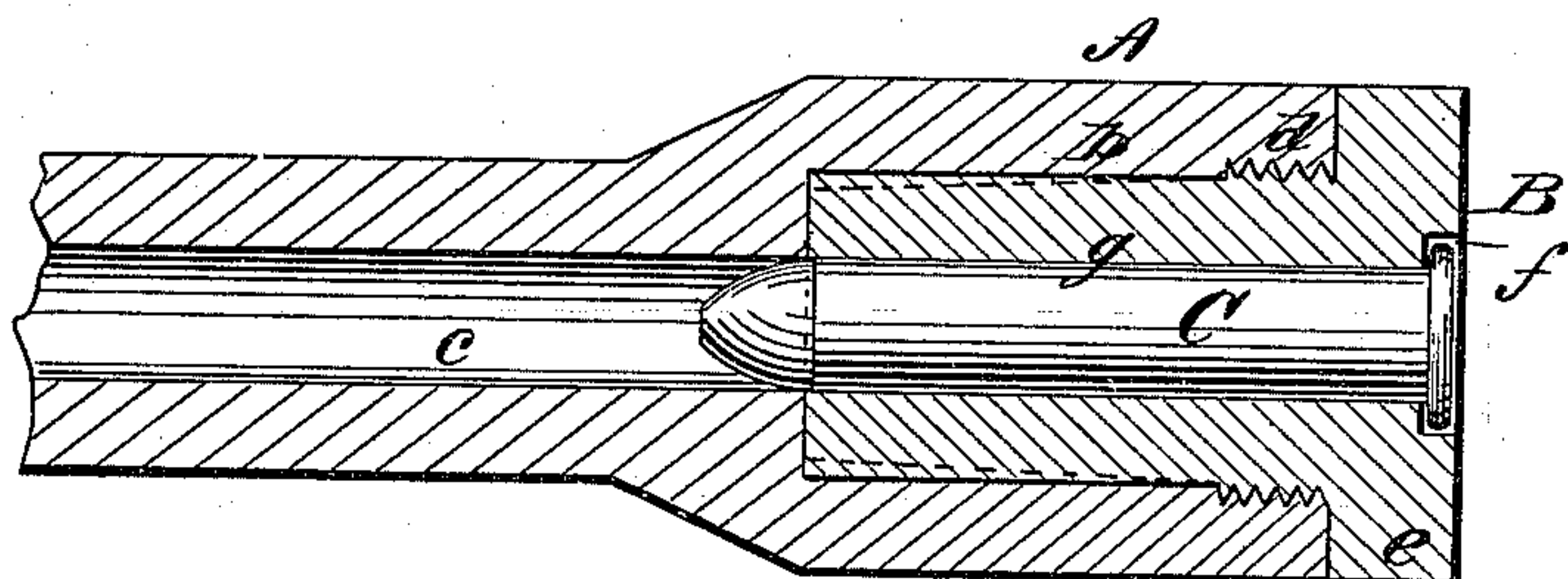


Fig. 4.

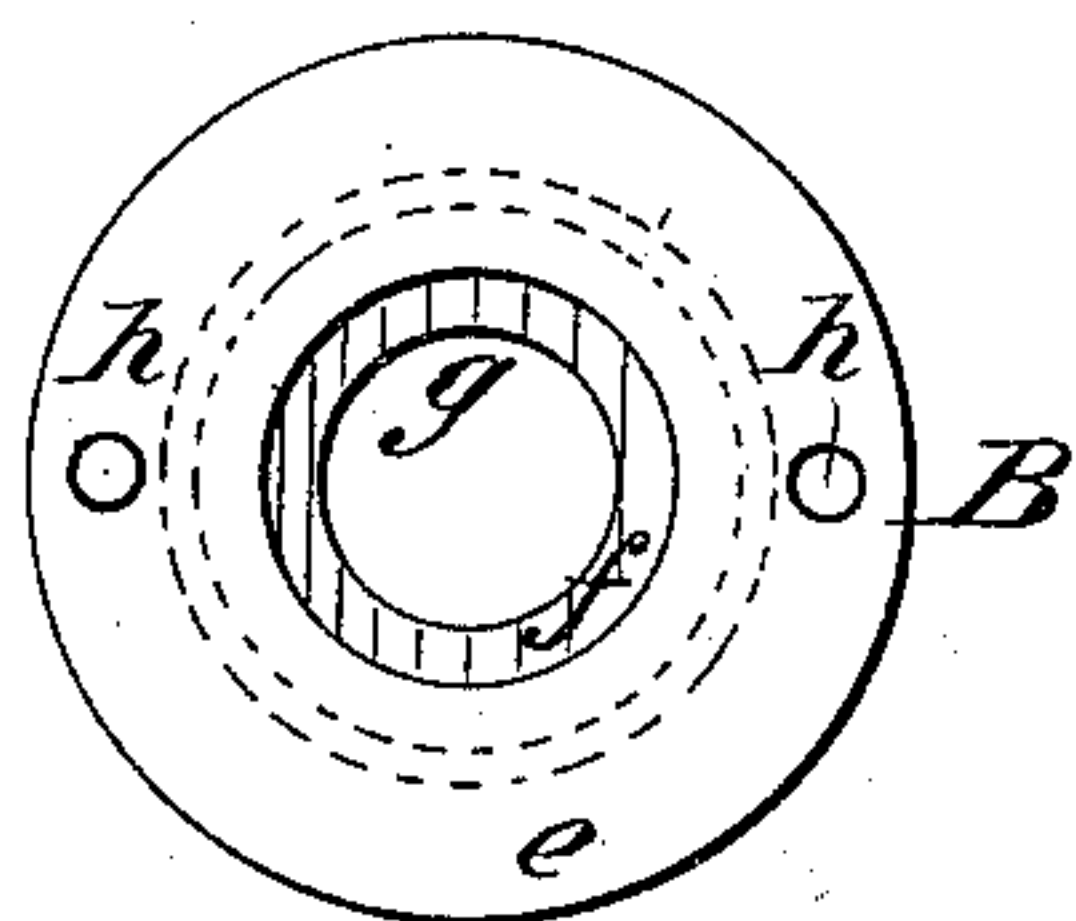


Fig. 2.

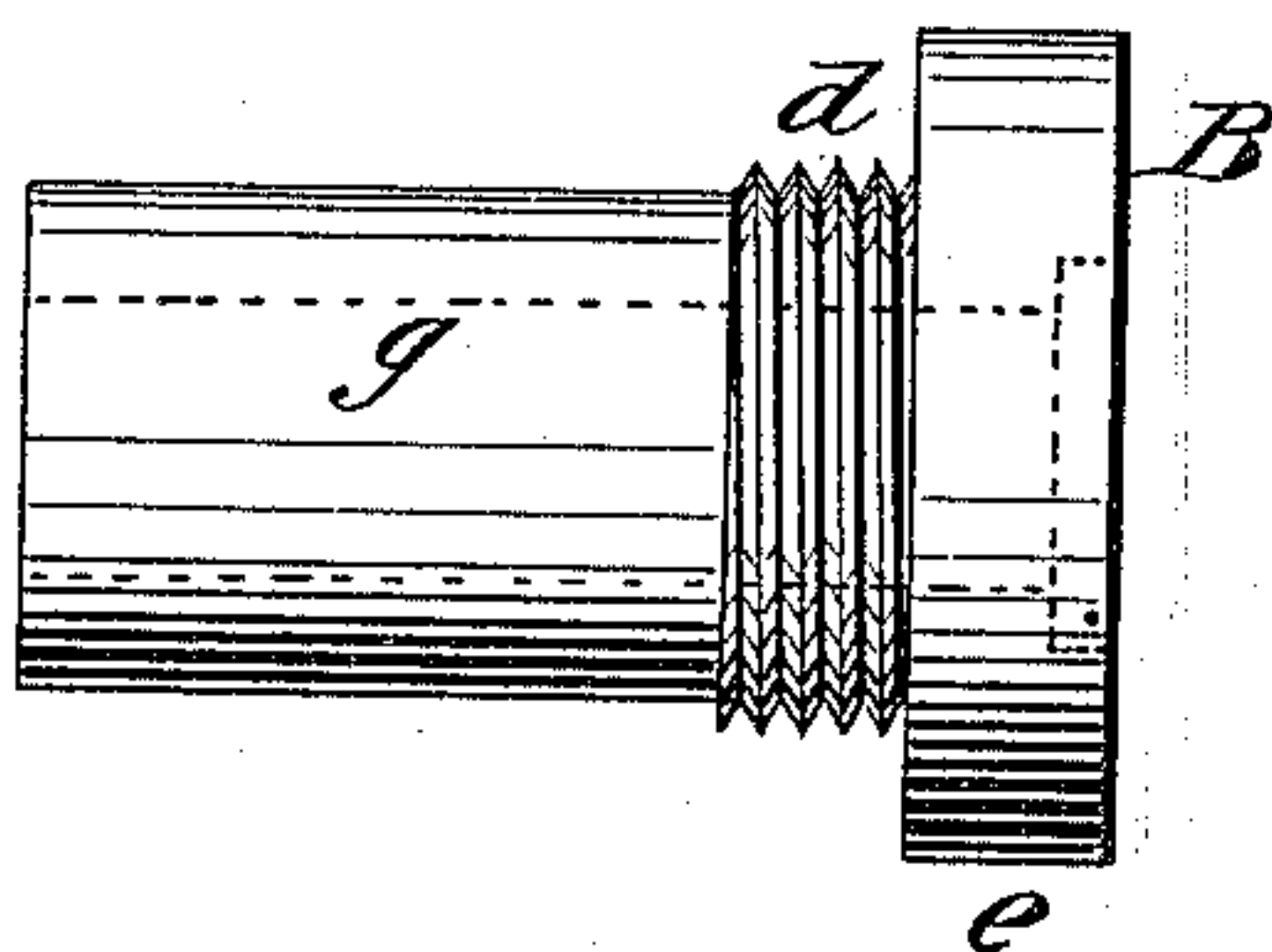


Fig. 5.

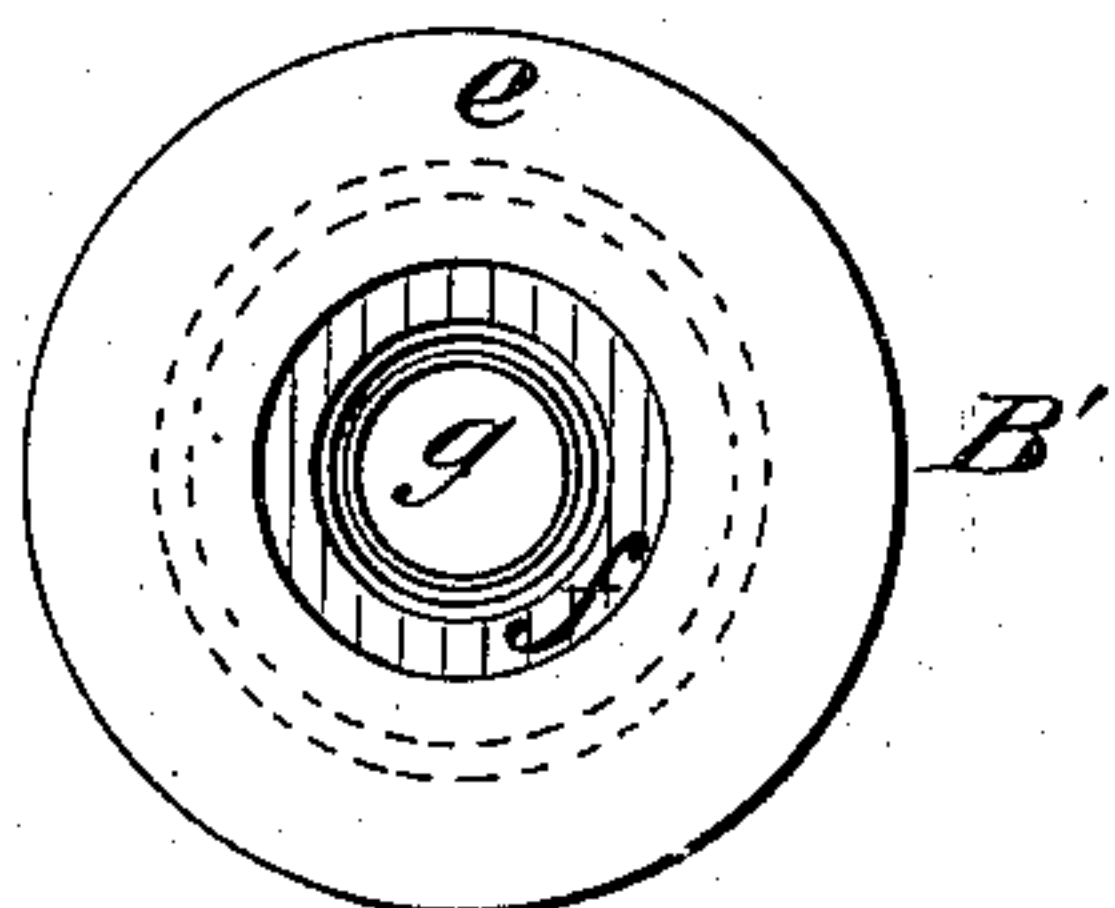
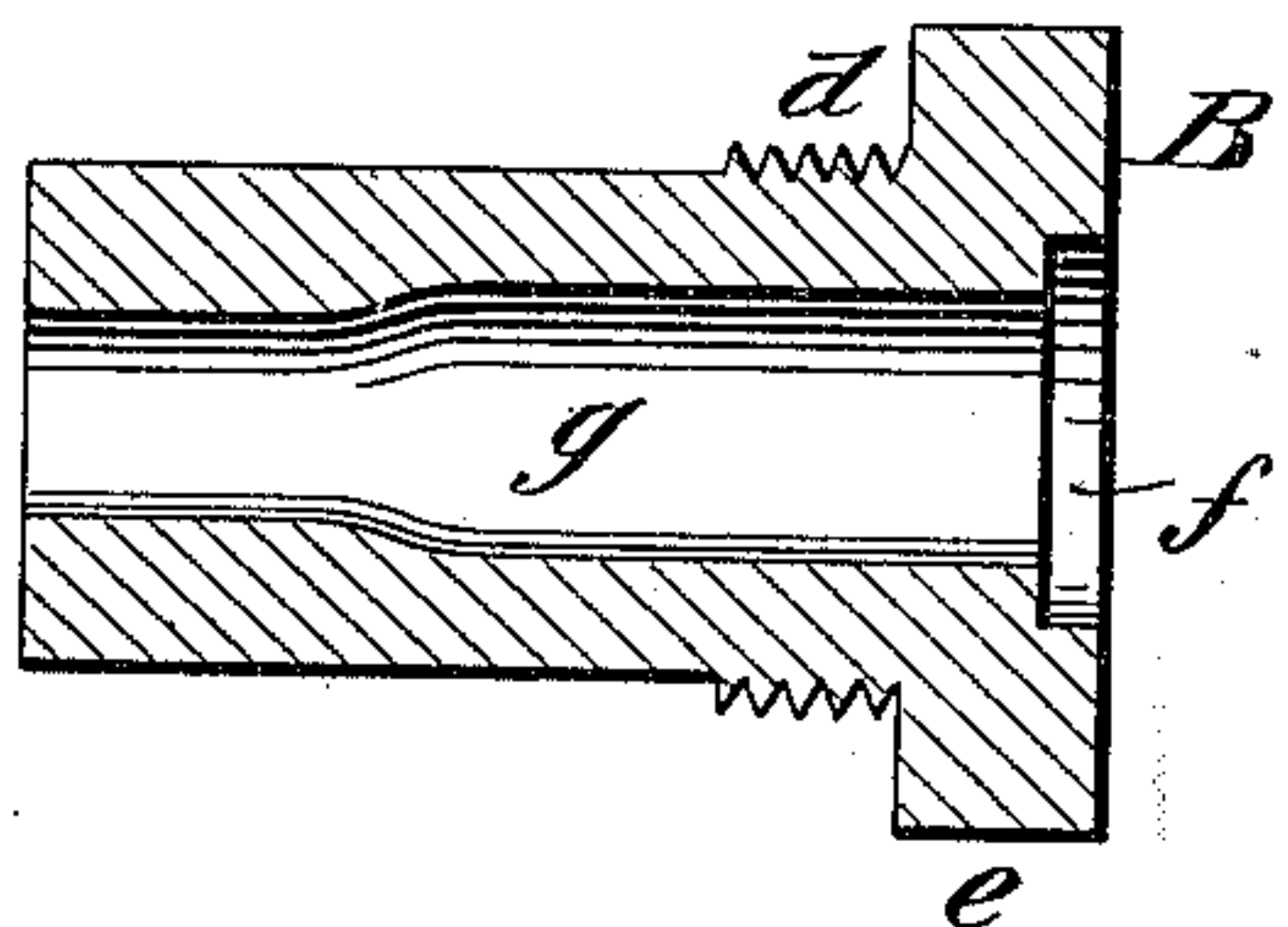


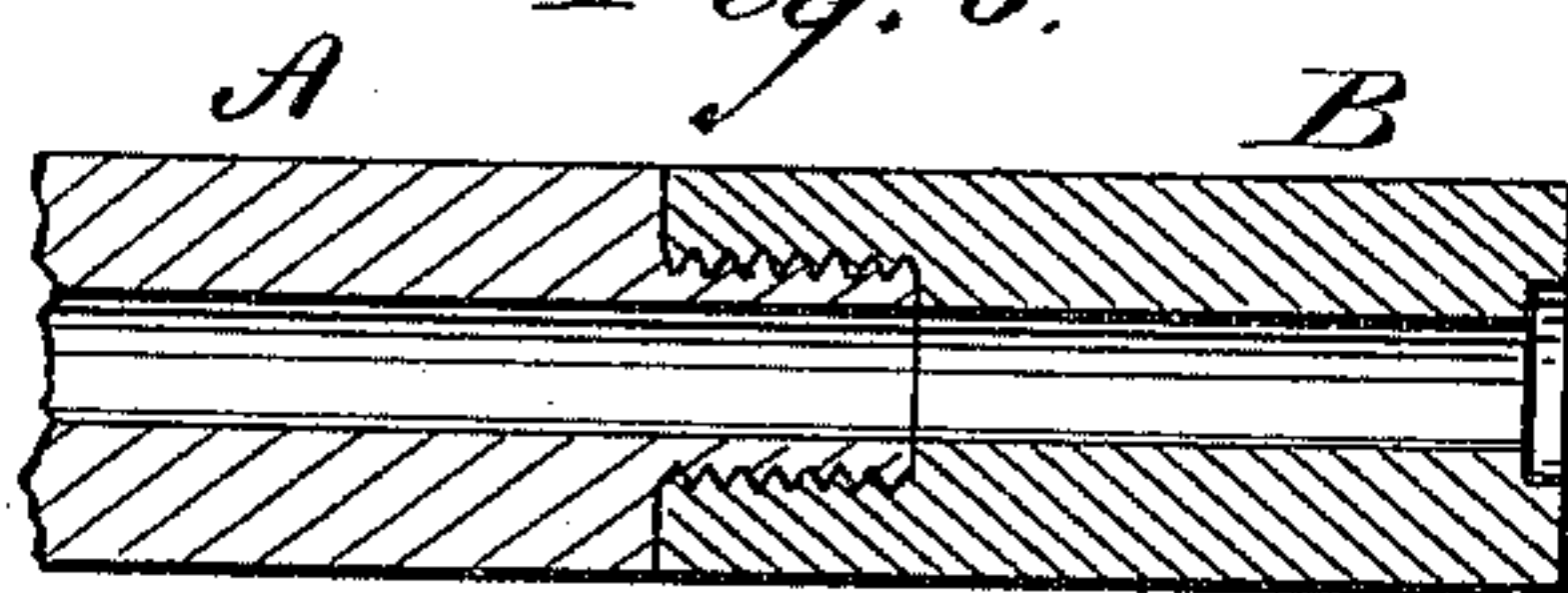
Fig. 3.



WITNESSES:

Doni Twitchell.
C. Sedgwick

Fig. 6.



INVENTOR:

M. Wheeler

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

MARSHAL WHEELER, OF CRESTON, IOWA.

BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 329,793, dated November 3, 1885.

Application filed July 8, 1885. Serial No. 170,955. (No model.)

To all whom it may concern:

Be it known that I, MARSHAL WHEELER, of Creston, in the county of Union and State of Iowa, have invented certain new and useful Improvements in Breech-Loading Fire-Arms, of which the following is a full, clear, and exact description.

This invention more especially relates to breech-loading rifled guns, and its main object will be best explained by the following statement: It is a well-known fact that guns of this description, after a limited amount of use, lose their accuracy, owing to the wearing away and consequent enlargement of the bore of the barrel, which creates too much windage for the bullet, and for close shooting renders them practically useless. It then becomes necessary to have the cartridge-chamber of the gun bored out larger, so as to admit a cartridge of larger size with a bullet big enough to destroy said windage. Thus enlarging the bore of the barrel is a serious inconvenience and expense, not only to sportsmen, but to a government using these arms in large quantities. To remedy this defect, I provide each gun with a set or series of detachable thimbles adapted to load with or carry a metallic or other cartridge, which thimbles are totally independent of the barrel, but which are separately capable of being fixedly connected with the breech end of the barrel. These thimbles are each of the same size externally, so as to fit the same gun or breech end of its barrel, but they are of different-sized bores or diameters internally, so as to accommodate cartridges of different sizes suitable for enlarged conditions of the bore of the barrel as produced by wear.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a longitudinal section of the breech end of the barrel of a gun with a thimble of the smallest interior bore suitable therefor inserted therein, and with a ball-cartridge in its place within the thimble. Fig. 2 is an exterior longitudinal view of a similar thimble of like dimensions externally, but of larger bore or interior dimensions. Fig. 3 is a longitudinal section of another thimble suitable for the same gun, but having its cartridge-

chamber of special shape. Figs. 4 and 5 are rear end views of the thimble shown in Figs. 2 and 3, respectively. Fig. 6 is a longitudinal section showing a modified construction of the invention.

Referring to the drawings, A indicates the breech end of the barrel of a gun of enlarged interior capacity, as at *b*, relatively to the bore *c* of the barrel, and serving to receive within it from its rear one of a series of thimbles, B, of which there may be three or more in a set, the same being constructed of the same exterior diameter to fit the chamber *b*, with which they engage by a screw-thread, *d*, and having a flanged head, *e*, recessed, as at *f*, to receive the head of the cartridge.

The thimbles B, (shown in Figs. 1 and 2,) of which there may be two or more, are of like construction, and, as before observed, same exterior dimensions, so as to be interchangeable, but of different bores *g*, to hold cartridges of different diameters, said thimbles forming detachable cartridge-carrying devices or holders. Thus the thimble B in Fig. 1 may be of a No. 40 caliber or gage to be loaded with or carry a straight or cylindrical cartridge, C, of corresponding dimensions, the next thimble, B, in Fig. 2 of No 41 caliber or gage to carry a like shaped cartridge of dimensions to suit, and so on for any number of interchangeable thimbles in succession, all of increasing caliber or gage to carry ball-cartridges of correspondingly-increasing sizes. By this means a breech-loader may have its accuracy greatly prolonged, as when the barrel becomes worn to an extent that the bullets of the cartridges of the smaller or normal size used in the gun become too small for the barrel, causing too much windage, the thimble adapted to such sized cartridges may be readily unscrewed from the breech end of the barrel, and a thimble of the next sized larger caliber or gage be inserted in its place to allow of the use of bullet or ball cartridges of the next larger size, and so on for any number of thimbles, increasing in caliber corresponding with the wear of the barrel, and carrying or adapted to cartridges to correspond, thus restoring the accuracy of the gun.

My invention, too, has another advantage. Thus the same gun or breech-loader may have its power increased by employing a similarly

externally constructed thimble, B', Fig. 3, having its bore *g* of different diameters, or, in other words, of bottle-shape, to receive what are known as "Swiss" cartridges. The exterior of the bodies of the thimbles may be made slightly tapering, as shown by dotted lines in Fig. 1, and the chamber *b* in the breech end of the barrel of like configuration, to facilitate the entry and removal of the thimbles. Furthermore, holes *h h*, as shown in Fig. 5, may be made in the flanged head *e* of each thimble for the insertion of a wrench, to facilitate the screwing and unscrewing of the thimble in and out. The thimbles may, however, be detachably connected with the breech end of the barrel otherwise than by a screw-thread.

Fig. 6 of the drawings shows a modification of the invention for the same purpose, in which, instead of the detachable thimbles fitting or

screwing into the breech end of the barrel A, each separate thimble or breech-piece B is constructed at its forward end to screw onto a rear externally-reduced extension of the breech end of the barrel.

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

The combination, for use in connection with a breech-loading rifle or gun, of a set or series of independent cartridge-carrying thimbles constructed to detachably connect with the breech end of the barrel and of like exterior dimensions, but of different-sized internal bores or calibers, essentially as and for the purposes herein set forth.

MARSHAL WHEELER.

Witnesses:

ANDREW J. STEFFEY,
JAMES M. LOCKE.