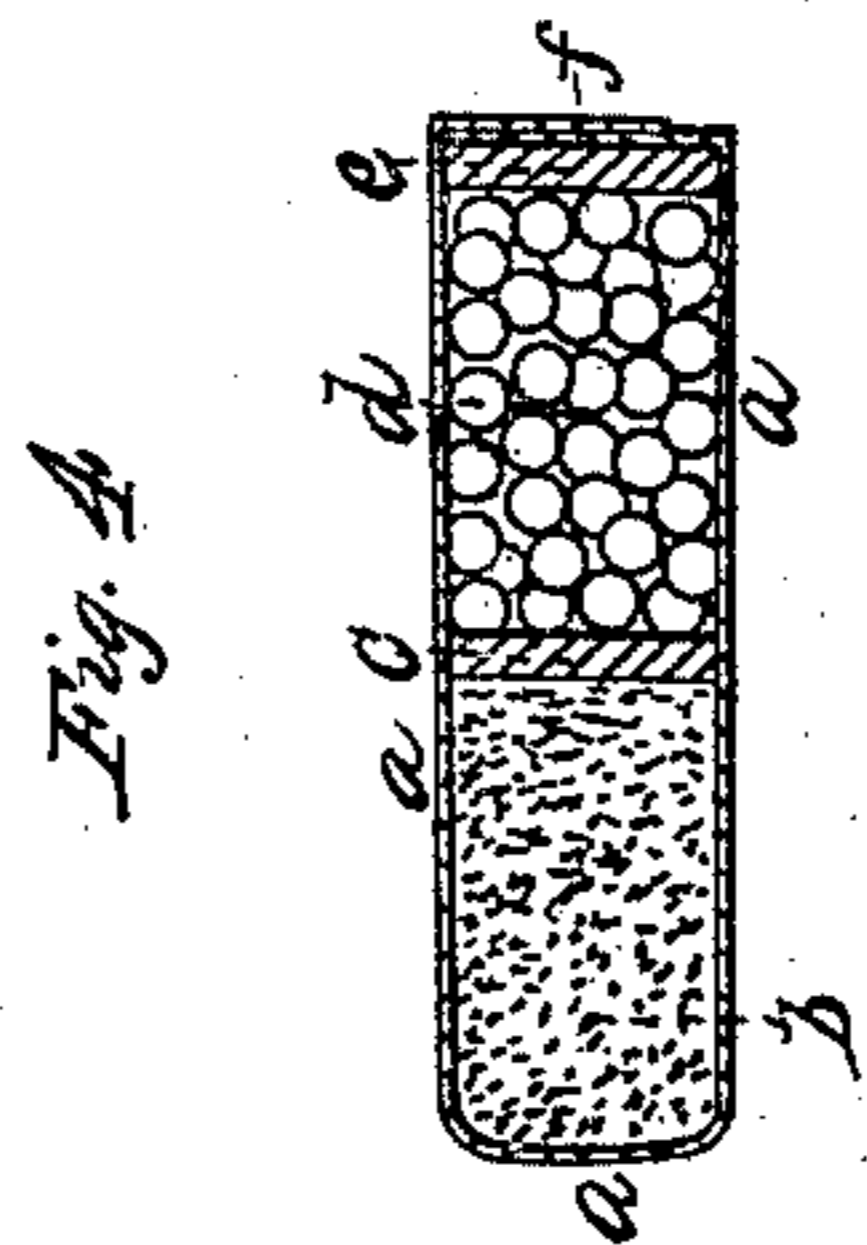
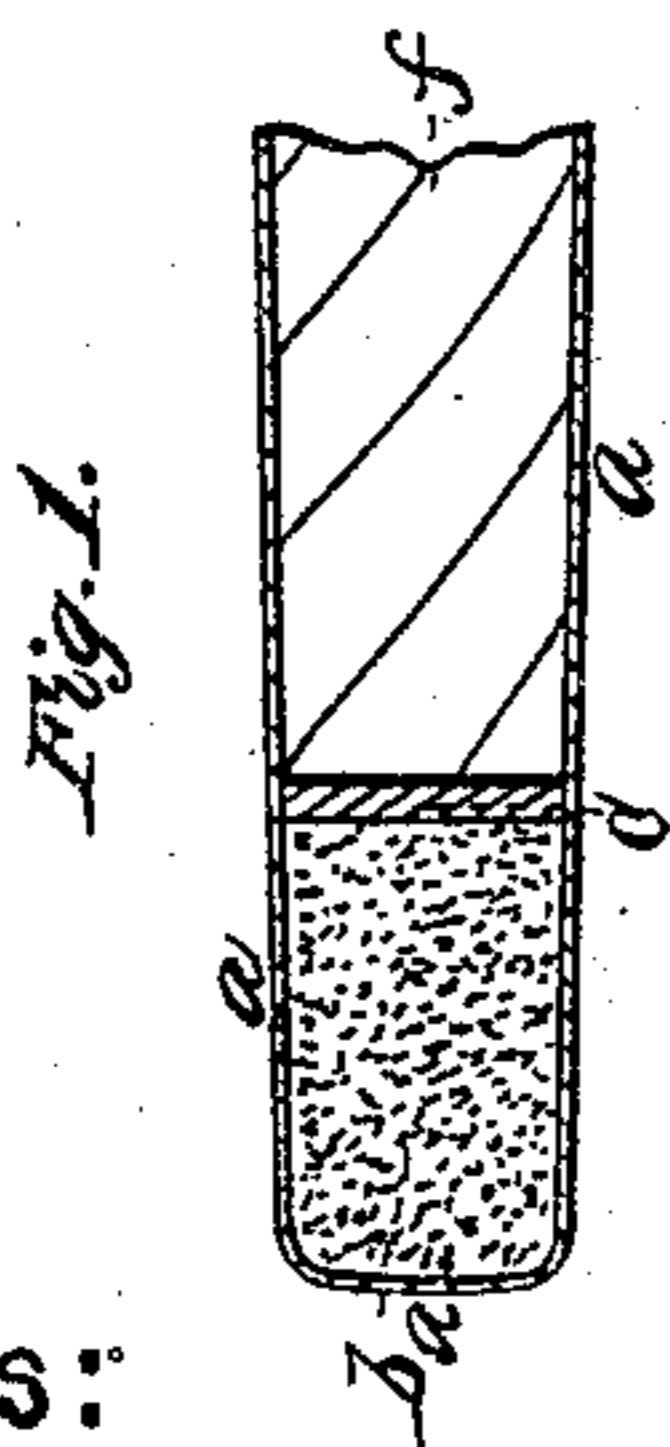
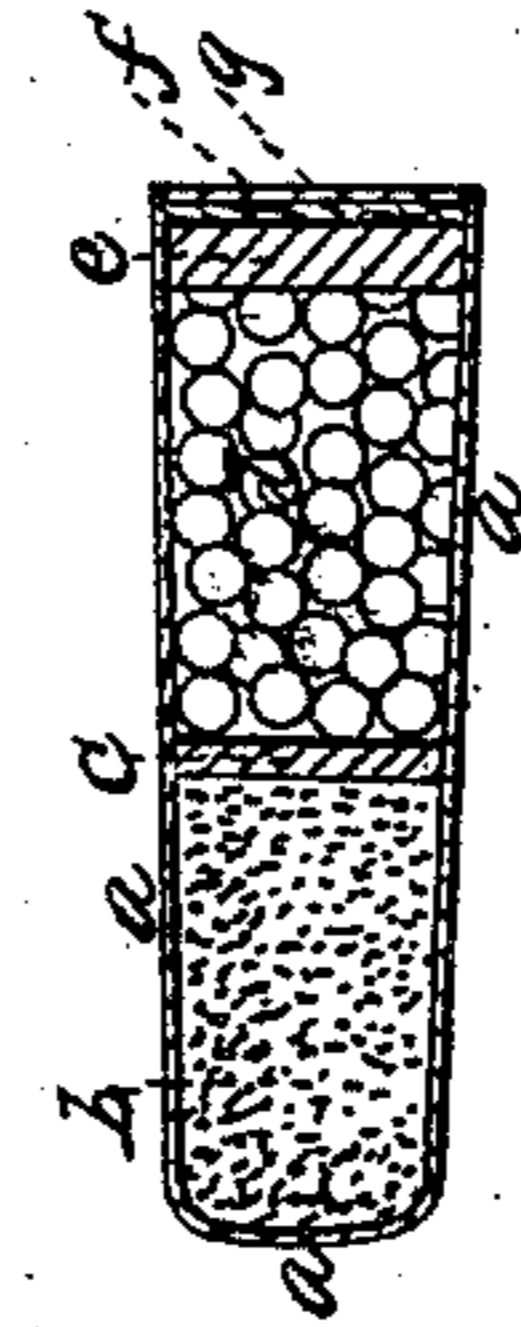
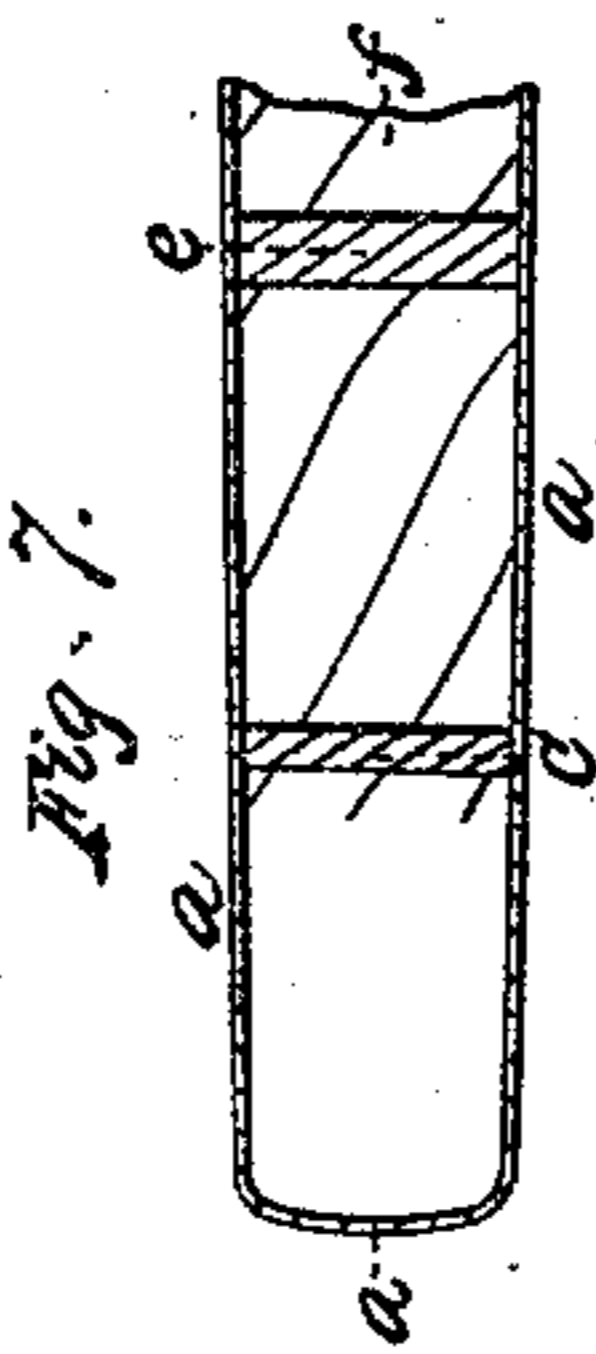
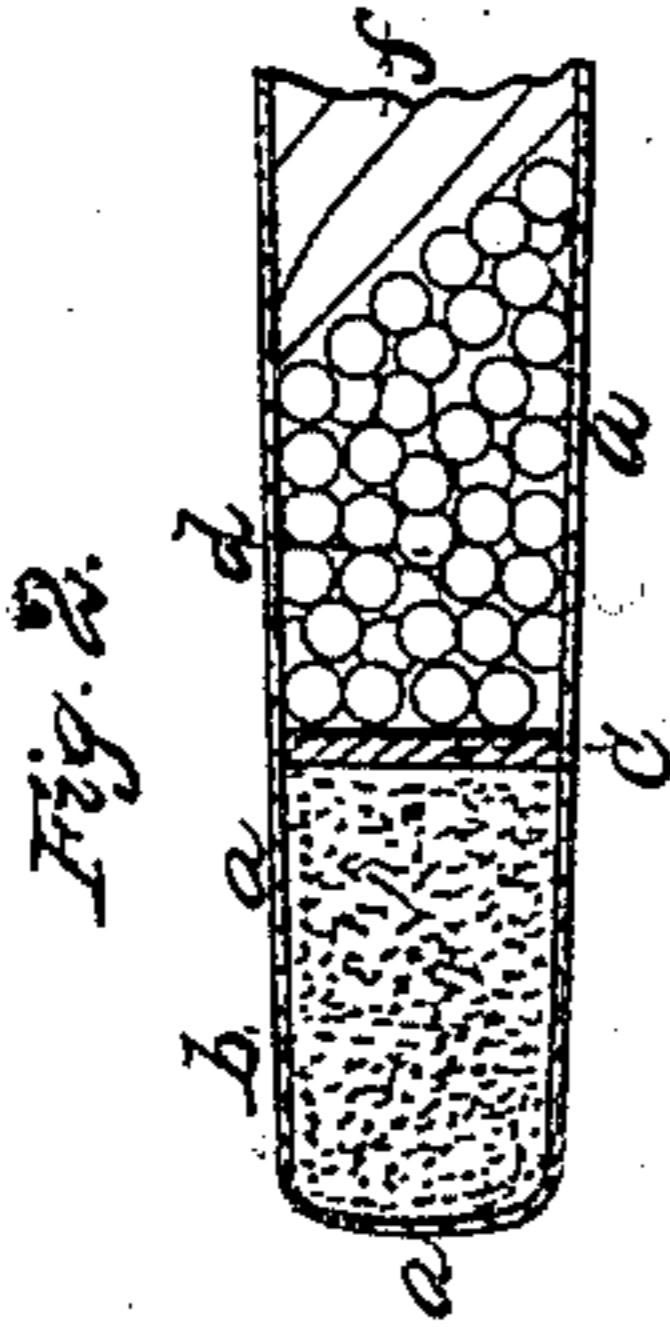
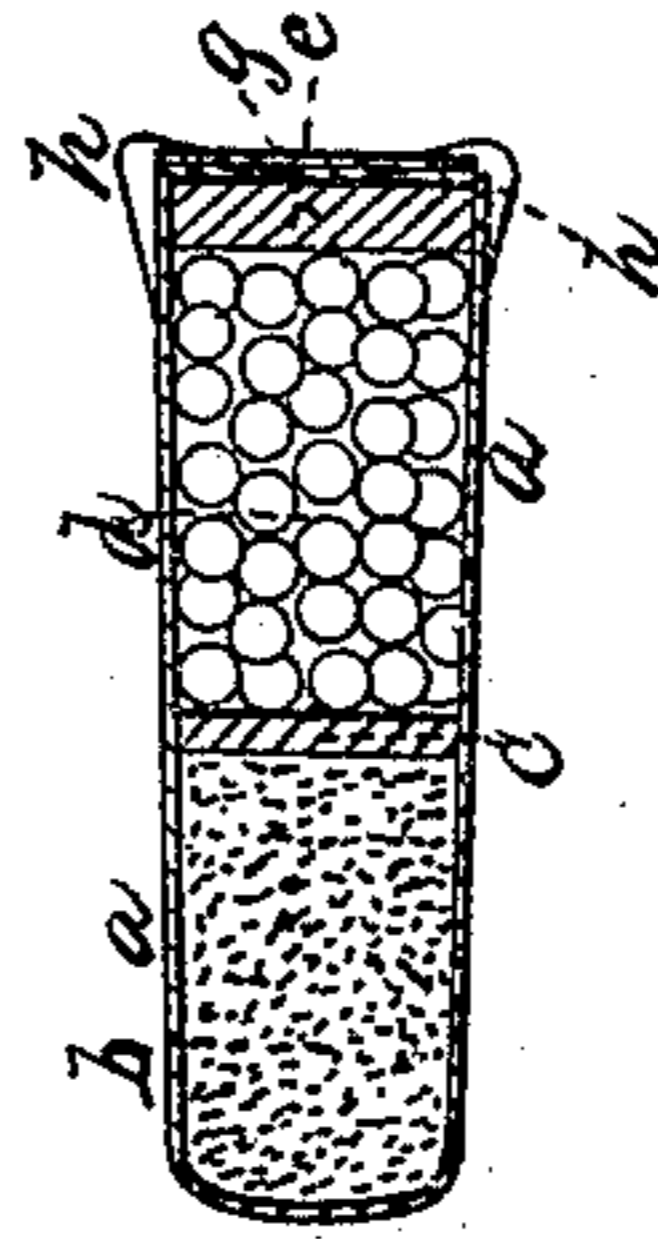
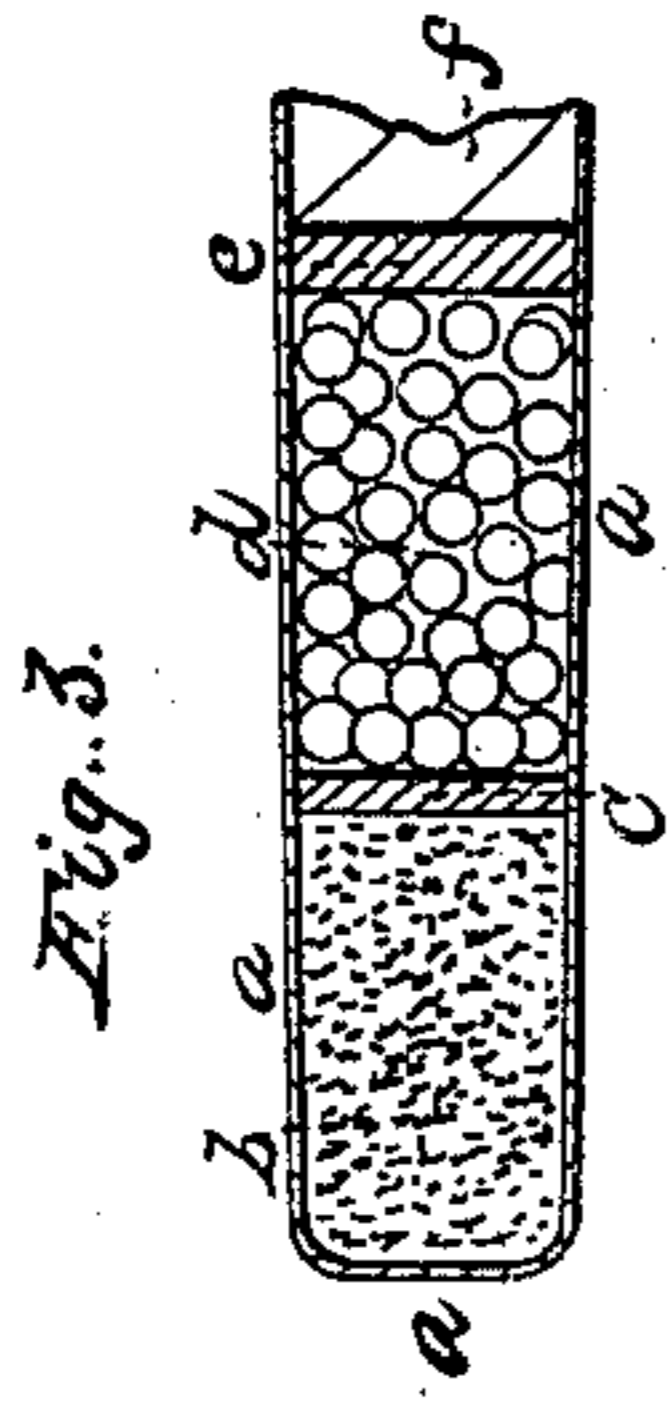


C. R. ALSOP.
CARTRIDGE.

No. 37,481.

Patented Jan. 27, 1863.



Witnesses:

Gustavus Dieterich
Edwin J. Sherb

Inventor:

Charles R. Alsop
by
Mason, Penrich & Lawrence
Attys,

UNITED STATES PATENT OFFICE.

CHARLES R. ALSOP, OF MIDDLETOWN, CONNECTICUT.

IMPROVEMENT IN CARTRIDGES.

Specification forming part of Letters Patent No. 37,481, dated January 27, 1863.

To all whom it may concern :

Be it known that I, CHARLES R. ALSOP, of Middletown, in the county of Middlesex and State of Connecticut, have invented a new and Improved Combined Powder and Shot Cartridge; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, like letters indicating the same parts in the several figures, and in which drawings—

Figure 1 shows a cartridge in longitudinal section, with a charge of powder therein, and a wad upon the powder to hold the latter in place, as well as form a partition between it and the slot; Fig. 2, a view the same as Fig. 1, with the shot inserted in the cartridge-tube; Fig. 3, a like view, with a wad inserted upon the shot, and with the open end of the cartridge projecting beyond the wad which rests upon the shot; Fig. 4, a view showing the projecting end of the cartridge, as represented in Fig. 3, turned or twisted down upon the wad which rests upon the shot; Fig. 5, a view showing a paper cap or disk secured upon the turned-down end of the cartridge; and Fig. 6, a view, in section, of the cartridge complete, having lubricating material thereon.

The object of my invention is to so form a powder and shot cartridge for sporting purposes that, while it shall possess all the advantages of the most approved cartridges now in use for small-arms, it shall at the same time possess the quality of insuring its own passage from the gun-barrel, when the gun is fired off.

For this purpose I form the tube *a* either of hog's or mutton gut, or rubber, prepared in the well-known way, and rendered water-proof, if made of gut, by any of the approved modes for so doing. When the fillet of which the tube is composed is placed upon the "former," the operator presses the fillet down the former with a spiral movement of the hand, in order to make portions of the body of the tube *a* overlap each other around the former, and so, by doubling, as it were, the thickness of the fillet, make a tube for the reception of the powder and shot, which, in the direction of its length, shall possess great strength. When so formed and allowed to dry, the tube is removed from the former, and a charge of powder, as at *b*, is inserted therein, with a thick

disk of paper, *c*, upon it, as represented in Fig. 1, the paper disk or wad being cut with a punch, and of a suitable diameter to fit the tube, as shown.

The shot *d* is then inserted, as indicated in Fig. 2, and upon the shot another disk or wad of paper is placed, as indicated in Fig. 3, at *e*, care being taken, when cutting out the fillet, to so apportion its size to the length of tube to be formed that when the tube is charged, as seen in Fig. 4, the wad *e* shall be inclosed by the lapped or doubled portions of the body of the cartridge-tube *a*. The wad *e* having been inserted, as shown in Fig. 3, the end *f* of the tube *a* is then turned over down upon the wad *e*, as in Fig. 4, the adhesive quality of the gut or rubber serving to retain the end of the cartridge-tube in place upon the wad. It will thus be seen that a portion of the lapped thicknesses of the tube will be turned down upon the wad *e*; and for the further securing of the end so turned down upon the wad I also apply thereon a disk of paper or rubber, *g*, Figs. 5 and 6, using for such purpose a solution of shellac or other proper cement to make the parts adhere. Tallow, as at *h*, Fig. 6, is then applied, which completes the cartridge.

Thus constructed, it is evident that when the cartridge is fired from a gun, the wads *e* and *e* being inclosed by the lapped portions of the cartridge and firmly secured, the one to the other, the unconsumed portions of the tube will be drawn from the gun-barrel by the wads, the strength of the tube being sufficient for this purpose.

I would here state that, instead of giving the fillet a twist or spiral movement in the act of applying it to the former, the fillet may be pressed down upon the former simply in the direction of its length, which act will also cause the formation of a tube with lengthwise lapped portions; but in either case, in making up the cartridge, care should be taken to insert the wads *c* and *e* so as to be inclosed by the lapped portions of the fillet, and in such condition secured so as to prevent the detachment of the wad from the fillet in the act of passing out from the barrel of the gun when fired off. I would also state that the disk *c*, previous to its insertion in the tube *a*, is provided with adhesive material upon its periphery, in order to hold it in place as well as assist in forcing the

fillet out of the gun when discharged; and by making the shot portion of the cartridge with several layers or winds of gut, rubber, or other proper material, while the powder portion below the disk *c* is left thin, the shot is thereby confined a much longer time after leaving the gun than would be the case if the tube *a* were of uniform single thickness throughout. Fig. 7 illustrates an empty tube, *a*, with the wads *c* and *e* only in place.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent of the United States, is—

As a new article of manufacture, a powder and shot cartridge constructed in the manner and for the purpose set forth.

Witness my hand this 21st day of May, A. D. 1862.

CHAS. R. ALSOP.

Witnesses:

ROBT. W. FENWICK,
D. C. LAWRENCE.