(No Model.)

W. S. CAPEWELL.

SHOT AND POWDER CHARGER.

No. 346,718. Patented Aug. 3, 1886.

Fig. 1

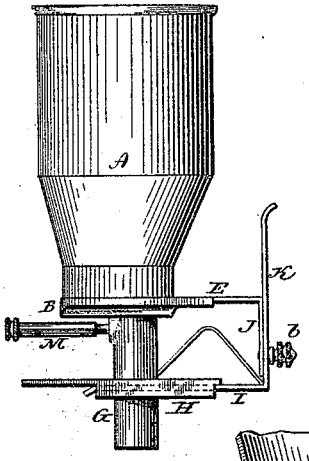


Fig. 2

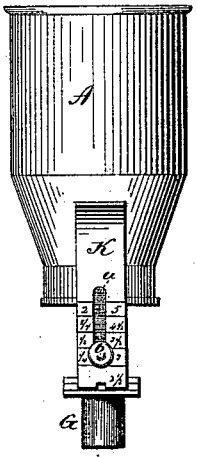


Fig. 3

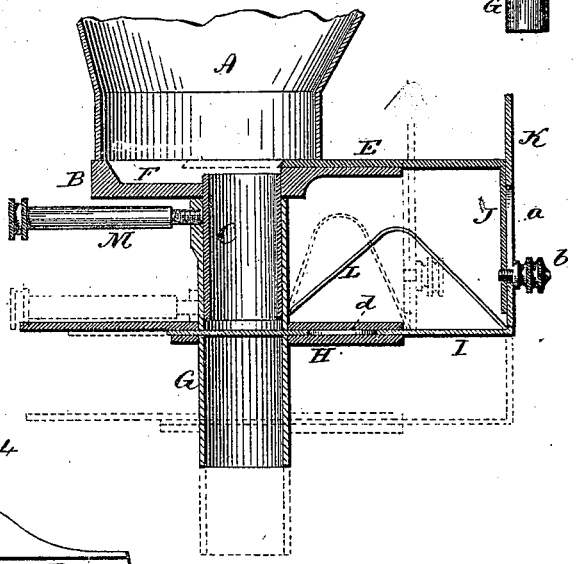
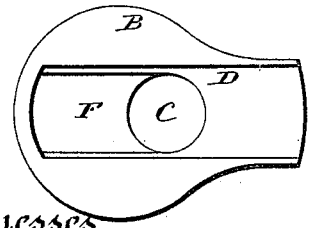


Fig. 4



Witnesses.
J. R. Shumway
Fred C. Earle

Walter S. Capewell
Inventor.
By Otty.
Fred C. Earle

UNITED STATES PATENT OFFICE.

WALTER S. CAPEWELL, OF OAKVILLE, CONNECTICUT.

SHOT AND POWDER CHARGER.

SPECIFICATION forming part of Letters Patent No. 346,718, dated August 3, 1886.

Application filed May 24, 1886. Serial No. 203,106. (No model.)

To all whom it may concern:

Be it known that I, WALTER S. CAPEWELL, of Oakville, in the county of Litchfield and State of Connecticut, have invented a new Improvement in Shot and Powder Chargers; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view; Fig. 2, a side view turned one-fourth around; Fig. 3, a vertical section of the charger portion enlarged; Fig. 4, an inside view of the cap.

This invention relates to an improvement in shot and powder chargers, and particularly to that class in which the charger is adjustable, to adapt it to charges of various quantities, and with a gate at the outer end, which is closed when the gate or cut-off at the mouth of the flask is open, and vice versa.

In the usual construction of chargers the shot or powder is liable to clog at the mouth of the flask and interfere with the proper working of the cut-off.

The object of this invention is to avoid this difficulty; and it consists in the construction as hereinafter described, and particularly recited in the claim.

A represents the body of the flask, adapted to receive the powder or shot, as the case may be. Its neck end is closed by a cap, B, secured to the flask in any suitable manner. Through the cap a tube, C, is introduced, opening into the flask in the usual manner for such chargers. Transversely across the inside of the cap B is a groove, D, extending outside the flask, as seen in Fig. 4, and into which groove a gate, E, is arranged to slide out and in, and so as to open or cut off the tube C from the flask, in the usual manner for the gate in this class of chargers. Upon the inside of the cap, and upon the side of the opening opposite the gate, is a recess, F, considerably deeper than the groove in which the gate works, as seen in Figs. 3 and 4.

G is a tube arranged outside the tube C, and so as to slide thereon in the usual manner for the adjustable tube of this class of chargers. The tube G is provided with a lateral guide, through which the second gate, I, works, and so that the gate may slide back and forth laterally across the tube G. The guide H, being fixed to the tube G, is, with the gate I, movable with the said tube G, and so that it may be adjusted with relation to the gate E, and under such adjustment increase or diminish the distance between the two gates E I. The two gates are arranged in line with each other, as shown, so that both may be moved in the same direction. The two gates are connected by an arm, J, extending from the one, E, and an arm, K, extending from the gate I, and so as to lie upon each other, as seen in Fig. 3. In the one K is a longitudinal slot, *a*, through which a set-screw, *b*, extends into the other arm, J, and by which the two arms may be clamped together at any point to which the gates may be set with relation to each other.

The gate I is longer than the gate E, and so that when the gate E is open the gate I is closed, as seen in Fig. 3. In this condition the contents of the frame are free to run into the tube upon the gate I; but when the two gates are forced inward, as indicated in broken lines, Fig. 3, and so that the gate E will have passed over the inner end of the tube C, so as to close it, the gate I will have passed inward, to bring an opening, *d*, therein across the lower end of the tube C, and so that the contents in the tube C above the gate H and below the gate E may escape. Then on the return of the gates the gate I closes the passage from the tube C, and the gate E opens the tube to the flask to receive a second charge.

As the normal condition of the parts is with the gates in the position of the tube C being closed by the gate I, and that the gates may be retained in that position, I arrange a spring, L, the tendency of which is to force and hold the gates in their normal position, but so as to yield under the inward movement of the gate, as indicated by broken lines, Fig. 3.

To vary the charge the outer tube, G, with the gate it carries, is moved toward or from the cap, as the case may be, and as indicated by broken lines, Fig. 3, and when so adjusted the outer tube may be clamped upon the inner tube by a set-screw, M; or the set-screw *b* may be alone depended upon for that purpose; or, the screw M being used, the screw *b* may

serve only as the means for making the connection between the two gates, that the movement of one may be imparted to the other.

The recess F should be in depth greater than the largest shot or grain of powder used in the flask, and so that the gate E may pass above the shot or grain which lies upon the bottom of the recess. By providing the recess F the end of the gate E is enabled to pass into the mass of shot or powder, and force obstructing shot or grains up or down, as the case may be, and thus avoid obstruction to the gate, which sometimes exists in the more common construction.

The adjacent parts are provided with graduations, as seen in Fig. 2, in the usual manner, and so as to measure the contents of the charger.

To preserve the gates from being forced outward too far by the spring, the inner end of the gate extends beyond the end of the guide H, and is bent down, as seen in Fig. 1, so as to form a stop to limit the return movement of the gates.

I claim—

In a charging-flask, the combination of the flask A, the cap B, fixed thereto, and with a tube, C, extending therefrom, opening into the flask through the cap, the gate E, arranged to slide in a groove upon the inside of the cap and transversely across the opening C, the cap constructed with the recess F upon its inside, and about said opening, and below the plane of the said gate E, with a tube, G, adjustable on said tube C, a second gate, I, arranged in guides in said tube G, and so as to slide transversely through it, the said gate constructed with an opening, *d*, the two gates adjustably connected, and the spring L, substantially as and for the purpose described.

W. S. CAPEWELL.

Witnesses:
C. S. BRADLEY,
R. P. BRADLEY.