No. 776,921. PATENTED DEC. 6, 1904.

C. LA DOW.

WAD FOR MULTIMISSILE CHARGES.

APPLICATION FILED AUG. 8, 1904.

NO MODEL.

Fig. 1.

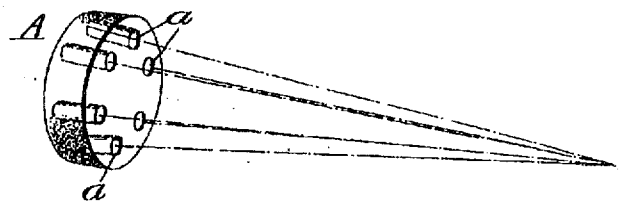


Fig. 2.

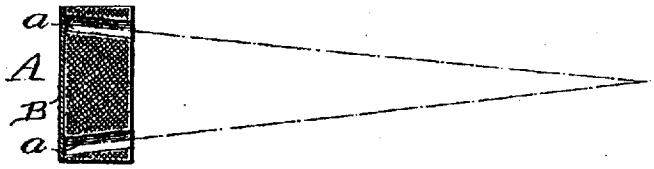


Fig. 3.

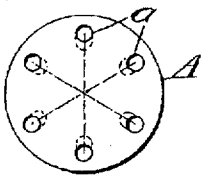


Fig. 4.

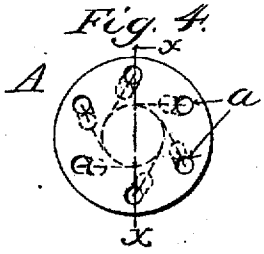


Fig. 5.

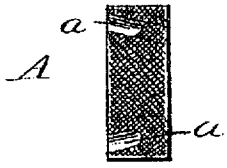
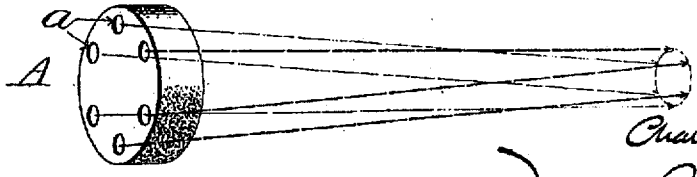


Fig. 6.



Witnesses

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No. 776,921. Patented December 6, 1904.

UNITED STATES PATENT OFFICE.

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WAD FOR MULTIMISSILE CHARGES.

SPECIFICATION forming part of Letters Patent No. 776,921, dated December 6, 1904.

Application filed August 8, 1904. Serial No. 219,974. (No model.)

To all whom it may concern:

Be it known that I, CHARLES LA DOW, a citizen of the United States, residing at Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Wads or Separators for Multimissile Charges, of which the following is a specification.

This invention consists in a wad or separator to be used between the powder or propelling charge and the shot or other multimissile projectile charge of a gun of any character or size to control and determine the concentration or the spreading of the projectile charge. The wad is reversible and will cause concentration or spreading according to the way it is placed between the propelling and projectile charges.

Briefly described, the wad or separator consists of a circular body of any suitable or usual material having holes or perforations extending from face to face and approaching more nearly to the central axis of the body on one than on the other face. The holes may be in alinement with the axis of the wad or so arranged that their several axes shall focus at a common point in the projected axis of the wad, or they may be oblique to such projected axis, but fall within a smaller circle on one face of the wad than on the other.

In the accompanying drawings, Figure 1 is a perspective view of my improved wad or separator with lines indicating the axes of the perforations and showing their common focal point; Fig. 2, a sectional view of the same; Fig. 3, a face view thereof with dotted lines indicating the inward inclination of the perforations or passages; Fig. 4, a similar face view of a wad or separator, showing the perforations or passages drawing toward each other from one toward the other face of the wad, but not meeting in the extended or projected axis of the wad, or, in other words, touching a circle smaller than that in which their centers lie in the wad itself; Fig. 5, a section on the line x x of Fig. 4, and Fig. 6 a diagrammatic perspective view of the same wad.

The present invention is one of many specific embodiments of an invention or discovery made by me, the basic principle of which is that if a portion of the gases incident to combustion or explosion of the powder or propelling charge be directed and delivered to the central or axial portion of a multimissile charge said charge will on emerging from the gun tend to spread or scatter, whereas if a portion of such gases be directed and delivered to the circumference or circumferential portion of the projectile charge there will be a concentration or holding together of the missiles. In this way I am enabled to effect at will either wide or close shooting—that is to say, I can cause the shot or missiles to distribute over a larger or a smaller circle or area at given distance.

The purpose of the present invention is to produce a wad or separator by which either result may be produced at will, and this is attained by providing the wad or separator with holes, openings, or passages, which with one face turned toward the shot or projectile charge converge toward the axis thereof in a forward direction, but which placed with the other face foremost diverge toward the periphery or circumference of the projectile charge. This will be readily understood upon referring to the drawings, wherein—

A indicates a wad or separator having a series of symmetrically-spaced holes, perforations, or passages a extending from face to face. In Figs. 1, 2, and 3 these holes or passages are represented as tending toward a common center or focal point, or, in other words, as each in a common plane with the axis of the wad, and this is the preferred arrangement. In Figs. 4, 5, and 6 the wad A is shown with like holes, perforations, or passages a, which though converging do not have their axes tending to a common focal point. The result of this arrangement is to produce a substantially spiral arrangement, and as a consequence there will be a tendency more or less appreciable or pronounced to set up a turning or twisting motion of the charge, which, generally speaking, is believed to be helpful more particularly to the spreading action. The essential or important point, however, is that the gases of the propelling charge are by the oblique passages directed and delivered either to the axial or to the cir-

cumferential portion of the projectile charge. according to the placing of one or the other face of the wad forward. This wad may be used alone or in combination with others, and a thin covering B may be applied to either or to both faces of the wad to retain the powder and shot in their proper places preparatory to fixing the charge, though this is optional.

The wad is preferably made of considerable thickness and of the well-known paper-faced felt, such as now commonly employed for ordinary wads. It may be used in fixed ammunition or in loose loading and with any class of multimissile charge, whether shot, grape-shot, canister, or other.

Being reversible, the wad may be used to cause either close or wide shooting at will and dispenses with the necessity of keeping two classes or styles and avoids the undue accumulation of one and depletion of another class incident to the use of two.

Having thus described my invention, I claim—

1. A wad or separator for use in connection with multimissile projectiles, having converging openings or passages extending from face to face.

2. As a new article of manufacture, a reversible wad consisting of a body of suitable material adapted to fit the bore of a gun, and provided with a series of holes, perforations or passages extending from face to face, and more nearly approaching each other at one than at the other face.

3. A wad, consisting of a body of suitable material, having a series of holes, perforations or passages extending through it from face to face, and approaching more nearly to each other at one than at the other face, but having their axes arranged eccentric to each other or without common focal point.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES LA DOW.

Witnesses:

WILLIAM W. DODGE,

FANNIE WISE.