No. 800,613. PATENTED SEPT. 26, 1905.

W. H. HAYES.

POWDER CARTRIDGE FILLER.

APPLICATION FILED MAR. 31, 1905.

Fig. 1

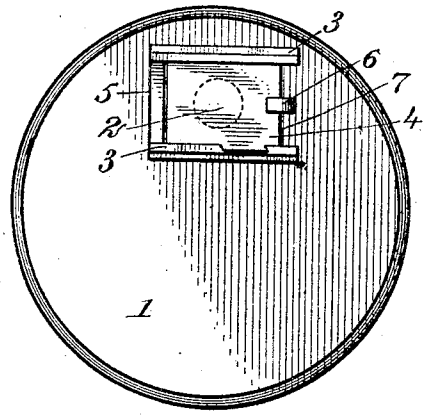


Fig. 2

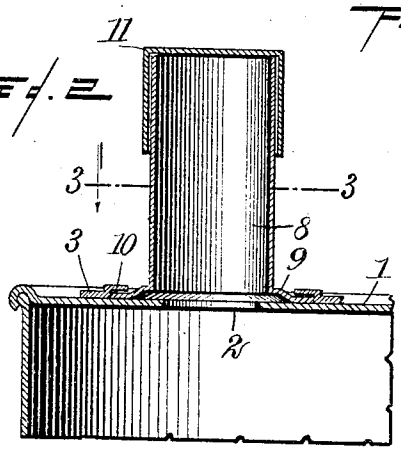


Fig. 3

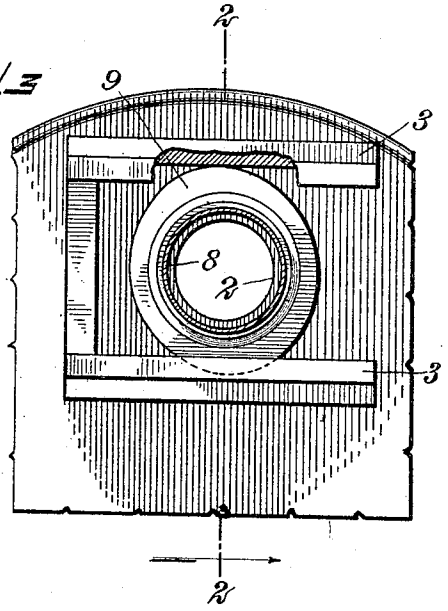
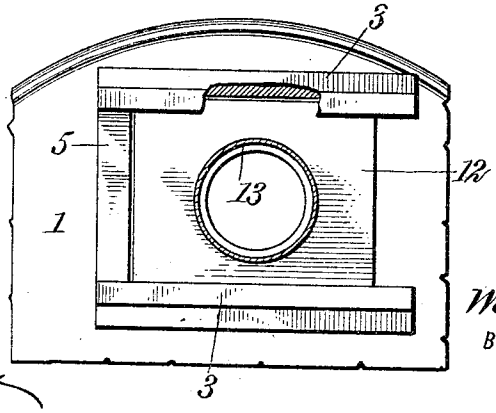


Fig. 4



WITNESSES:

John J. Kittle

F. D. Cummer

INVENTOR

Walter H. Hayes

BY

ATTORNEYS

UNITED STATES PATENT OFFICE.

WALTER H. HAYES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF SEVEN-TENTHS TO JOHN M. KENNEDY, JR., OF PHILADELPHIA, PENNSYLVANIA.

POWDER-CARTRIDGE FILLER.

No. 800,613. Specification of Letters Patent. Patented Sept. 26, 1905.

Application filed March 31, 1905. Serial No. 253,197.

To all whom it may concern:

Be it known that I, WALTER H. HAYES, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Powder-Cartridge Filler; of which the following is a full, clear, and exact description.

This invention relates to powder handling; and the object of the invention is to facilitate the removal of powder or similar explosive from canisters.

The invention is expected to be especially valuable in connection with the filling of cartridges to be used for blasting.

The primary object of the invention has been to prevent dangerous explosions.

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

Figure 1 represents a powder can or canister in plan, showing the same before the application of my invention. A portion of this view is broken away, as will appear. Fig. 2 is a vertical central section taken at the opening through which the powder is to be removed and showing my device applied to the can. This view is taken substantially upon the line 2 2 of Fig. 3. Fig. 3 is a plan of a portion of the upper head of the can, certain parts being broken away and others shown in section upon the line 3 3 of Fig. 2; and Fig. 4 is a view similar to Fig. 3, but representing a modified construction.

Referring more particularly to the parts, 1 represents the upper head of a canister or can of common form. The head of such a can is usually provided with an opening 2, as represented in Fig. 1, which is usually circular in form, as shown. Adjacent to this opening on each side cleats 3 are provided which afford means for closing the opening with a sliding plate 4. As shown in Fig. 1, this plate slides up against a stop-cleat 5 and is held against removal by a strap 6, of pliable metal, which is attached to the head and bent up over the rear edge 7 of the plate, as will be readily understood.

I provide a spout 8, which is of cylindrical form, as shown in Fig. 2, and attached to which is a base-plate 9. This base-plate, as indicated in Fig. 3, is preferably of oval or elliptical form. Before applying the spout the strap 6 would be broken off or destroyed, and the plate 4 would be removed by sliding the same away from the stop 5. The minor axis of the base-plate 9 of the spout is sufficiently small to permit the same to be inserted easily in the recesses 10 under the cleats 3. The major axis, however, is great enough to enable the collar to be jammed in position if rotated so as to place the major axis of the plate substantially at right angles to the cleats. In applying the invention the spout would of course be centered substantially over the opening 2 and would then be rotated, as suggested, so as to lock the same in position. The outer extremity of the spout 8 is preferably provided with a removable cap 11, which operates normally as a closure for the spout, as will be readily understood. It has, however, an additional function in facilitating the removal of the last few grains of powder which are ordinarily removed from the can with difficulty. In this connection the operation would consist in inverting the can and shaking the same violently in all directions until the residue of powder had fallen through the opening into the cap, after which the cap would be removed and the powder emptied from it into the cartridge. The spout evidently affords means for pouring the powder from the can with great facility, and when one can has been emptied the spout may be readily applied to the next.

In Fig. 4 there is illustrated a form which the invention may take in which the oval or elliptical base-plate 9 is replaced by a substantially rectangular plate 12, said plate being substantially similar in form and construction to the plate 4, referred to above. This plate 12 would be provided with a spout 13, which would have all of the functions of the spout 8, described above. In connection with the spout 13 a cap would be used similar to the cap 11, and the operation of the invention would be substantially the same in other respects, with the exception that I do not provide means for locking the plate 12 against removal. This may not be necessary in some instances, and this form of the invention is expected to be most useful under these circumstances.

In practice the spouts 8 and 13 would be of cylindrical form and formed with a side seam; but this side seam is preferably not soldered,

but simply consists of a crimped and rolled seam.

In practice it is now very common for miners and others to make a hole with an ordinary pick near the edge of the can-head for the purpose of facilitating the removal of the last grains of powder from the can. In doing this they often cause an explosion, resulting in loss of life and physical injury. The use of this invention is not only a great convenience, but also prevents any necessity for endangering the lives of the workmen in the manner referred to.

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

A powder-can having a pair of oppositely-disposed cleats and an opening in the head therebetween, in combination with a spout having an oval base-plate, said base-plate being adapted to jam with its major axis substantially at right angles to said cleats.

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

WALTER H. HAYES.

Witnesses:
GEO. W. GARRETT,
GUS F. SCHAFFER.