R. FRENCH.

CARTRIDGE FILLER.

APPLICATION FILED MAR. 10, 1910.

970,318.

Patented Sept. 13, 1910.

Fig. 1

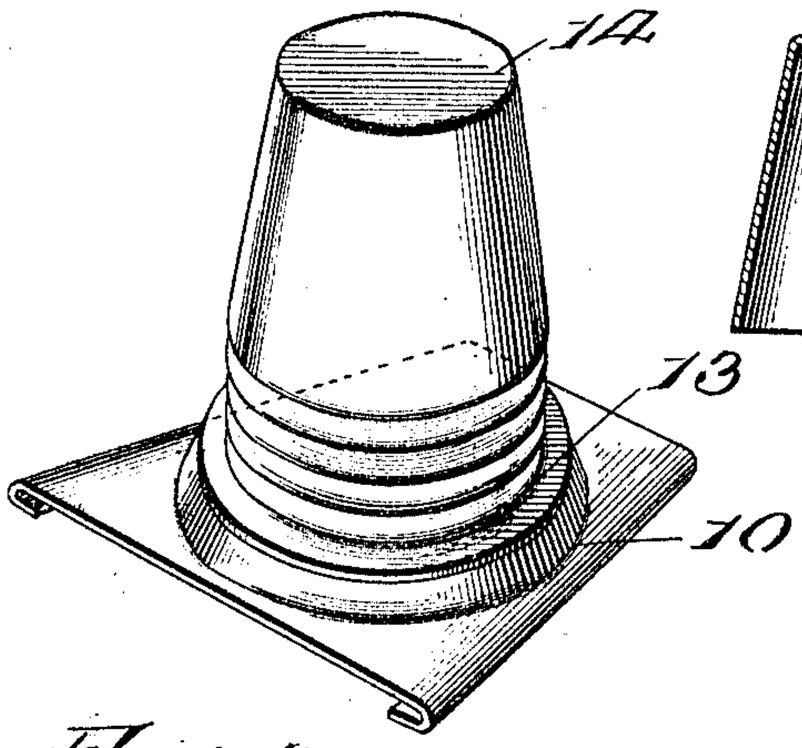


Fig. 6.

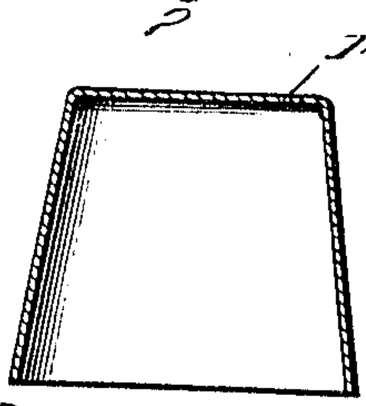


Fig. 2.

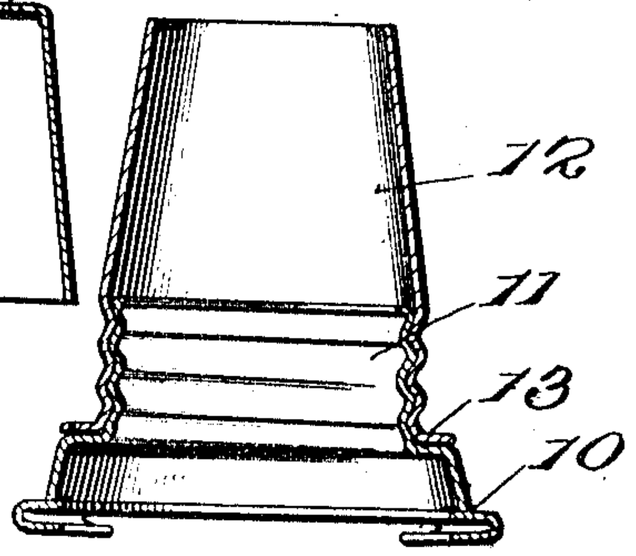


Fig. 3.

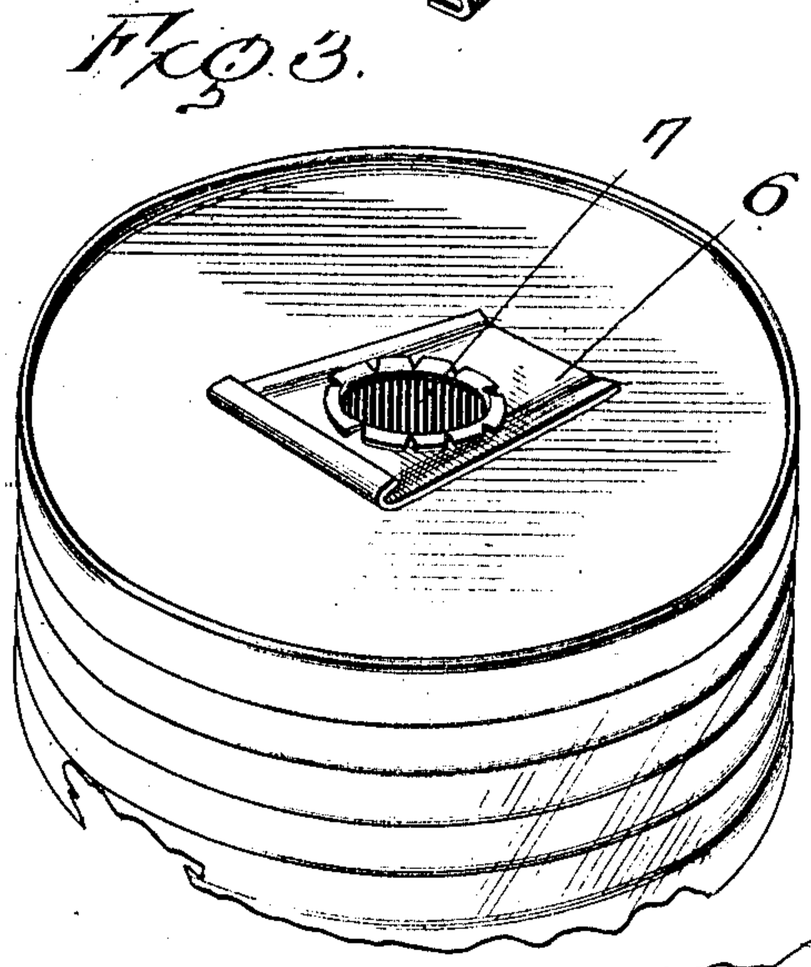


Fig. 4.

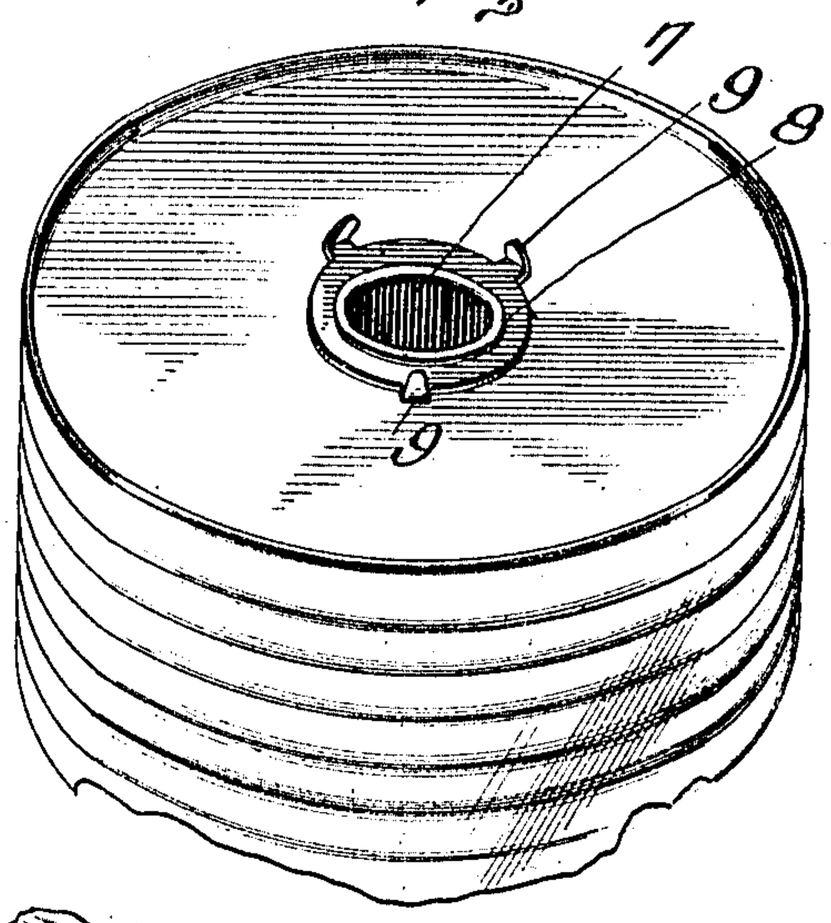
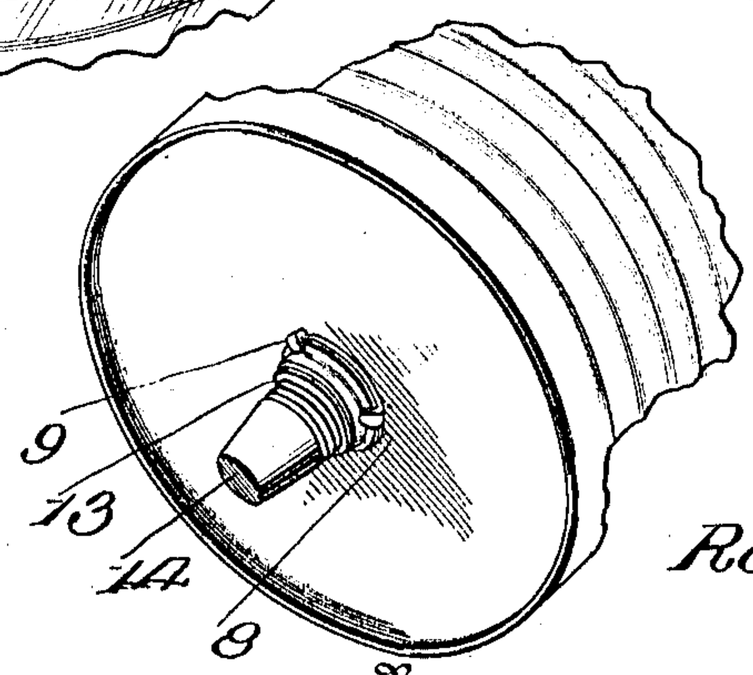


Fig. 5.



Witnesses

H. A. Williams.

L. B. Baker.

Inventor

Robert French

By

Dudley, Reavis & Phelps

Attorneys

UNITED STATES PATENT OFFICE.

ROBERT FRENCH, OF HILLSBORO, ILLINOIS.

CARTRIDGE-FILLER.

970,318. Specification of Letters Patent. **Patented Sept. 13, 1910.**

Application filed March 10, 1910. Serial No. 548,418.

To all whom it may concern:

Be it known that I, ROBERT FRENCH, a citizen of the United States, residing at Hillsboro, in the county of Montgomery and State of Illinois, have invented certain new and useful Improvements in Cartridge-Fillers, of which the following is a specification.

This invention relates to a safety device for use in mines in connection with the filling of blast cartridges from powder cans.

The principal object of the invention is the construction of what may be termed a cartridge filler in a manner such that it may be attached to commercial powder cans of various makes and to so construct the device that when applied to a can it may serve also to cover the outlet from the can and thereby safeguard the contents thereof.

To this end the invention consists in the structure and combination of parts substantially as hereinafter described and claimed.

In the accompanying drawings which form a part of this specification, Figure 1 represents a complete cartridge filler shown in perspective; Fig. 2 represents a vertical, transverse, medial section thereof; Figs. 3 and 4 represent in perspective the upper ends of two powder cans of commerce, showing different forms of closure attachments; and Fig. 5 represents a powder can like that seen in Fig. 4 with the cartridge filler of this invention applied thereto, and Fig. 6 is a sectional view of the cap employed for closing the pouring opening in the can.

To make a cartridge filler universally applicable it is necessary that it be capable of attachment to all the closure securing means of the powder cans of commerce. One form of closure attaching means in common use is indicated in Fig. 3, and consists of a plate 6 secured about the opening 7 of the can, the edges of which plate converge toward one end as indicated. To this plate the closure is secured. Another can in common use has its closure securing means formed substantially as indicated in Fig. 4, wherein a plate, as 8, is secured at the outlet 7, which plate has lugs 9 formed integral therewith for holding the closure in place. The cartridge filler in question has therefore a plate, as 10, with downwardly and inwardly bent converging edges adapted to slide into engagement with the converging edges of the plate 6 of the can in Fig. 3. In this plate 10 is an opening provided with a screw-threaded nipple 11 which comes into alinement with the opening 7 when the plate 10 is located upon the can in Fig. 3. Fitted to the nipple 11 is a nozzle 12, flanged at its lower edge, as indicated at 13, for close engagement with the plate 10. Through this nozzle the powder is poured from the can into the cartridge. A cap, as 14, is fitted to the nozzle 12 for closing the opening in the can after pouring the powder therefrom.

In adapting the cartridge filler just described to the can shown in Fig. 4 the nozzle 12 is removed from the plate 10 and placed over the opening 7 of said can and the lugs 9 bent up over the flange 13, thereby securing it snugly in place over said opening. Powder may then be poured through the nozzle into the cartridge and after pouring the can may be closed by placing the cap 14 upon the nozzle.

The cartridge filler as shown in Fig. 1 is therefore adaptable to either form of can illustrated and when sold to a mine using the form of can seen in Fig. 3 the filler in its entirety, as seen in Fig. 1, will be used, and when sold to a mine using the cans illustrated in Fig. 4 the plate 10 will be discarded and the nozzle 12 with its cap used. Obviously the plate 10 may have other forms than that illustrated whereby to render the filler applicable to cans provided with other forms of closure securing means.

The invention claimed is:—

1. An article of manufacture consisting of a cartridge filler constructed for application to various powder cans of commerce and comprising a plate formed and adapted for attachment to the ordinary closure-securing means on certain makes of powder cans and provided with a screw nipple, a flanged nozzle, screw-threaded for attachment to said nipple, said flange being of a form and size adapting it for attachment to the ordinary closure securing means on other makes of powder cans, and means for closing the nozzle after use, thereby closing the powder can in both instances.

2. An article of manufacture consisting of a cartridge filler constructed for application to various powder cans of commerce and comprising a plate provided with downwardly recurved, converging edges, whereby it is adapted to be slid into engagement with

a corresponding plate secured to the outlet of one form of powder can said slidable plate having a nipple projecting therefrom to come into alinement with said outlet, a nozzle removably connected to said nipple and having a flange formed for attachment to the closure-securing means on another make of powder can, and a cap fitted to the nozzle whereby to close either make of powder can after use.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT FRENCH.

Witnesses:

JOHN L. DWYER,

ED MARSHALL.