

UNITED STATES PATENT OFFICE.

GEORGE W. CHILDS, OF SEELEYVILLE, INDIANA.

CLOSURE FOR POWDER-CANS.

940,128.

Specification of Letters Patent.

Patented Nov. 16, 1909.

Application filed October 14, 1908. Serial No. 457,683.

To all whom it may concern:

Be it known that I, GEORGE W. CHILDS, a citizen of the United States, residing at Seeleyville, in the county of Vigo and State of Indiana, have invented new and useful Improvements in Closures for Powder-Cans, of which the following is a specification.

My invention relates to closures for powder cans and analogous devices; and it has for its object to provide a simple, inexpensive and efficient closure, susceptible of ready application to a can, and of use on a number of cans in succession, and one adapted to serve the additional function of a funnel and in that way facilitate the discharge of powder from the can.

With the foregoing in view, the invention will be fully understood from the following description and claim when the same are read in connection with the drawings, accompanying and forming part of this specification, in which:

Figure 1 is a perspective view of a powder can equipped with the closure constituting the best practical embodiment of my invention of which I am cognizant. Fig. 2 is an enlarged detail section, taken diametrically through the closure. Fig. 3 is a horizontal section taken in the plane indicated by the line 3—3 of Fig. 2, and showing the opening left in the head of the can when the original closure means thereof is removed.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which:

A is a powder can having in its head *a* an opening *b* of the conventional character or of any other kind consonant with the purpose of my invention. The wall of the opening *b* is shown in Fig. 3 as provided with equi-distant, inwardly extending projections; the same being for the engagement of the original closure (not shown) of the can. Said projections, however, have nothing whatever to do with my invention, and the opening *b* may, as before stated, be an opening such as shown or an opening of any other suitable character, without affecting my invention.

B is the tubular body or major-portion of my novel closure. The said body is preferably of metal, is flanged at *c* to bear on and rest snug against the can head, and is provided with an upper reduced portion *d* and an exterior shoulder *e* at the lower end of said reduced portion.

In addition to the tubular body B, the closure comprises connectors C, and a removable cap D; the latter being of a size to snugly fit over and frictionally engage the upper reduced portion *d* of the body so as not to be liable to accidental displacement.

As shown in Fig. 2 the connectors C are in the form of spring strips which are preferably arranged diametrically opposite each other and are connected at their upper ends to the body B, and provided at their lower ends with tapered heads *f*, the latter to pass through the opening *b* in the can head *a* and assume positions immediately below said head with a view of holding the flanged base of the body B tightly down on the head. The connectors are also provided at intermediate points of their length with finger-pieces E which extend radially outward through apertures *g* in body B and terminate in heads *h*.

As will be readily understood by reference to Fig. 2, the connectors C tend to spring outwardly, and consequently serve to effect connection of the body B to the can head in such manner that there is no liability of the body being accidentally released during the use of the can. It will be noticed, however, that when the user of the device by pressing inwardly on the finger-pieces E moves the connectors C inwardly sufficiently far for the heads *f* of the latter to clear the wall of the opening *b*, the closure device as a whole may be removed from the can. Also when the connectors are pressed inwardly and moved downwardly through the opening *b* and then released, they will immediately re-assume the positions shown in Fig. 2 and re-establish the connection.

It will be gathered from the foregoing that my novel closure may be used on a number of cans in succession; also, that when the cap D is removed powder may be poured through the tubular body B after the manner of a funnel. It will further be noted that a tight joint is effected between the can head and the body B and a similar joint between the body B and the cap D, and consequently when the latter is in position on the body there is absolutely no liability of fire reaching the interior of the can through the closure. From this it follows that my improved closure is adapted to fully meet mining regulations concerning the care of powder no matter how strict the latter may be.

As before stated the construction herein

illustrated and described constitutes the best practical embodiment of my invention of which I am aware, but it is obvious that in the future practice of the invention such
5 changes or modifications may be made as fairly fall within the scope of my claimed invention.

Having described my invention, what I claim and desire to secure by Letters-Pat-
10 ent, is:

The herein described closure for powder cans, comprising a tubular body having an outwardly extending horizontal flange at its lower end, adapted to bear on the head of a
15 can, around an opening in said head, a removable cap on the tubular body, resilient connectors fixedly connected at their upper ends to the inner side of the tubular body and extending through the lower end of the

body and having outwardly-directed heads 20 at their lower ends and below the lower end of the body; the said heads having downwardly and inwardly inclined outer sides and also having horizontal upper sides separated from the under-side of the body 25 flange by a space of a size to snugly receive the head of the can, and finger-pieces fixed to and extending outwardly from the connectors, at intermediate points in the length thereof, and also extending loosely through 30 apertures in the wall of the tubular body.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE W. CHILDS.

Witnesses:

DONALD R. HINKLE,
GEORGE BARKER.