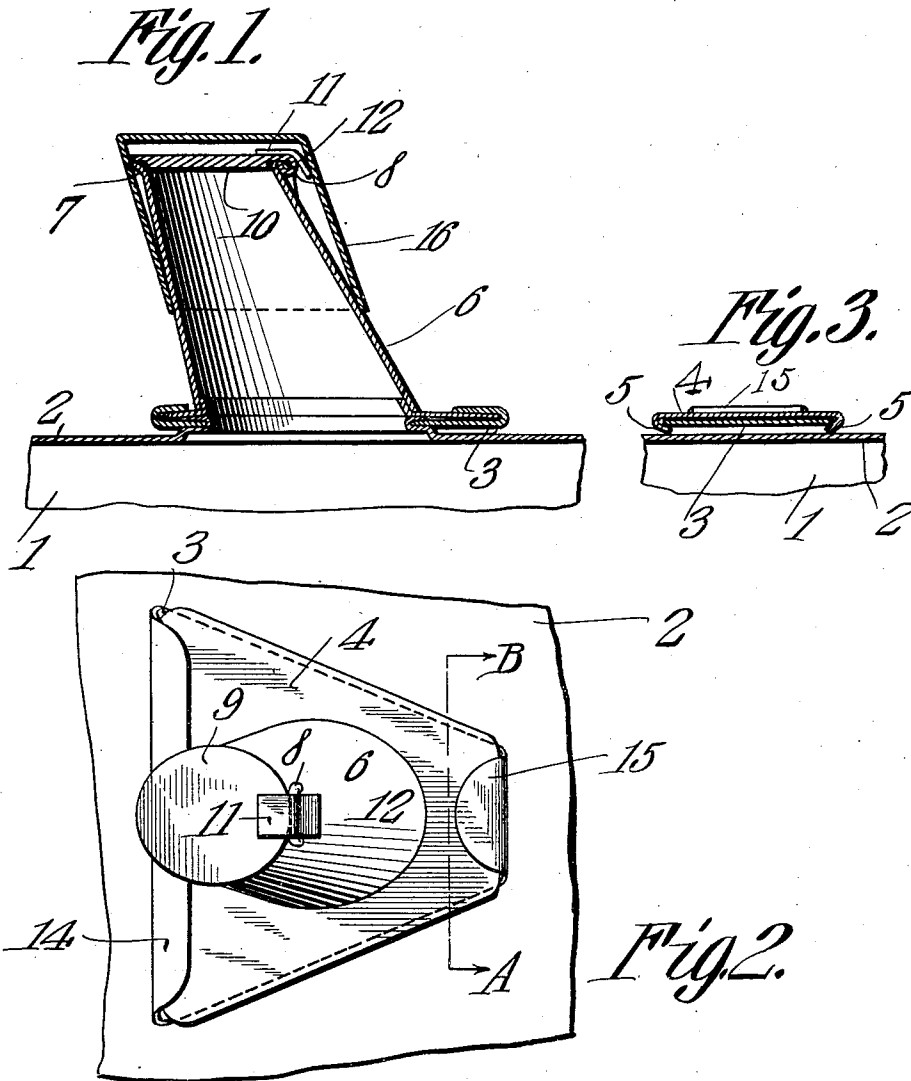


J. R. HUGHES.
POWDER CAN SPOUT.
APPLICATION FILED MAY 4, 1909.

977,095.

Patented Nov. 29, 1910.



Witnesses

E. J. Bennett
Mason B. Lawton

James R. Hughes. Inventor

Ca Snow & Co. Attorneys

UNITED STATES PATENT OFFICE.

JAMES R. HUGHES, OF UHRICHSVILLE, OHIO, ASSIGNOR OF ONE-THIRD TO JENNIE M. HUGHES, OF UHRICHSVILLE, OHIO.

POWDER-CAN SPOUT.

977,095.

Specification of Letters Patent.

Patented Nov. 29, 1910.

Application filed May 4, 1909. Serial No. 493,945.

To all whom it may concern:

Be it known that I, JAMES R. HUGHES, a citizen of the United States, residing at Uhrichsville, in the county of Tuscarawas and State of Ohio, have invented a new and useful Powder-Can Spout, of which the following is a specification.

The objects of the invention are, generally, the provision in a merchantable form of a device of the class above mentioned which shall be inexpensive to manufacture, facile in operation, and devoid of complicated parts; specifically, provision of a spout adapted to be assembled removably with a powder can, the said spout being adapted to dispense the contents of the powder can, means being provided for protecting the contents of the powder can against accidental ignition, both while the act of dispensing is taking place, and after it has been completed; other and further objects being made manifest hereinafter as the description of the invention progresses.

The invention consists in the novel construction and arrangement of parts hereinafter described, delineated in the accompanying drawings, and particularly pointed out in that portion of this instrument wherein patentable novelty is claimed for certain distinctive and peculiar features of the device, it being understood that, within the scope of what hereinafter is thus claimed, divers changes in the form, proportions, size, and minor details of the structure may be made, without departing from the spirit or sacrificing any of the advantages of the invention.

Similar numerals of reference are employed to denote corresponding parts throughout the several figures of the drawing.

In the accompanying drawings, Figure 1 shows my invention in transverse section; Fig. 2 shows the same in top plan; and Fig. 3 is a section on the line A—B of Fig. 2.

In the accompanying drawings, the numeral 1 denotes a powder can of ordinary construction, provided with a lid 2. The central portion of a strip 3 is attached to the lid 2, the edges of the strip 3 being spaced apart from the lid 2. This strip 3 and the lid 2 are provided with aligned apertures through which the powder passes as it flows from the can. The sides of this strip 3 con-

verge, the general shape of the strip being triangular.

In carrying out my invention, I provide a quadrilateral base plate denoted by the numeral 4. This base plate 4 is of the same general shape as the strip 3, its converging sides being overbent to form clips 5 adapted to engage in sliding relation, the converging sides of the strip 3.

The base plate 4 is provided with an aperture alined with the aperture in the strip 3 and in the lid 2 of the can, and, surrounding this aperture in the base plate, and rising from the said base plate, is a spout 6, inclined at an angle to the plane of the lid 2 of the can, so as to overhang the wide, outer end 14 of the strip 3 and diminished in diameter at its upper extremity. The upper extremity of the spout 6 is peripherally outbent to form a lip 7 over which the powder flows as it is poured from the can.

The spout 6 carries, upon that side which is adjacent the center of the can 1, an eye 8 with which is hingedly connected a lid 9. This lid 9 is weighted centrally upon its lower face, as denoted by the numeral 10, in order that it may normally rest upon the lip 7, closing the upper end of the spout 6. Mounted upon the upper face of the lid 9 is a strip of metal constituting a stop 11. This stop 11 is terminally extended beyond the periphery of the lid 9 and is overbent as denoted by the numeral 12, above the hinged union between the lid and the spout, to engage the said spout when the lid 9 is raised, whereby the said lid is prevented from moving backward to such an extent that its center of gravity would lie without the contour of the spout 6, in which position the weight of the lid would be inoperative to cause it to move normally into a closed position upon the top of the spout 6. A tubular cap 16, closed at its upper end, is provided, and this cap 16 is adapted to be slipped downward over the upper extremity of the spout 6, securely housing the lid 9, the hinged union between the lid and the spout 6, and the stop 11.

By way of explanation, I will state that when the can 1 is received, filled with powder, the opening in the lid is normally closed by a slide. After this slide (not shown) has been removed, the base plate 4 carrying the

spout 6, is slid into place upon the strip 3, the clips 5 engaging the sides of the strip 3, ultimately in wedging relation, and positioning the spout 6 over the aperture in the powder can. The inner end of the strip 3 is then overbent as denoted by the numeral 13, to engage the base plate 4, thereby wedging the said base plate more firmly upon the strip 3. The outer end of the base strip 3 is then bent to overhang the base plate 4, as denoted by the numeral 14, the said plate having been wedged firmly in position before the portion 14 is thus overbent. The portion 14, therefore, without interfering with the wedging relation between the base plate 4 and the strip 3, serves as a closure along one edge of the structure, whereby powder may be prevented from sifting from the can. When the spout is thus in position upon the powder can, the can and its contents are ready for use. The cap 16 may be removed and the can tilted, the lid 9, when the spout 6 is inclined below the vertical, swinging away from the end of the spout and permitting the outflow of the powder from the can. As soon, however, as the can is brought into a horizontal position, the lid 9 will close the end of the spout 6 and will rest more and more securely thereon, as the can is uptilted into a vertical position. It will thus be seen that the spout is at all times normally closed by the lid, saving only the case when the powder is actually flowing from the can. It is therefore impossible to set down the can with the spout open, and equally impossible for sparks from the miner's lamp or from any other source, to find their way into the interior of the can 1. The cap 16 tapers to its upper extremity, and may be wedged firmly upon the spout 6, and when the cap 16 is so mounted, the powder can may be inverted bodily without spilling its contents. The shape of the spout is well adapted to direct the flow of powder from the can 1 into cartridges and other

small objects, the possibility of accidentally spilling the powder being reduced to a minimum.

It will be seen that the device includes no springs or other mechanism liable to become accidentally deranged, and that, with the exception of the lid 9, there are no moving parts in the device which, through their movement and consequent friction, would tend to ignite any powder grains with which they might come in contact.

The device is simple in construction, and is well adapted to withstand the hard usage which a device of the class described must of necessity receive in mines, quarries, and other places where explosives are commonly employed. The device is simple in its operation and is not likely to become deranged through the unskilful handling of ignorant or careless persons. A miner may readily stow the device of my invention in his pocket, and by a simple operation convert an ordinary powder can into a receptacle in which powder may be safely housed, and from which it may without danger be dispensed.

Having thus described my invention what I claim as new and desire to protect by Letters Patent is:

A device of the class described comprising an approximately triangular strip adapted to be secured adjacent its middle portion to a can; a quadrilateral plate having elements arranged to be slid into wedging position upon two of the edges of the strip; and a spout mounted upon the plate and inclined at its top toward the third edge of the strip.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JAMES R. HUGHES.

Witnesses:

B. BALDWIN,
EDNA MANN.