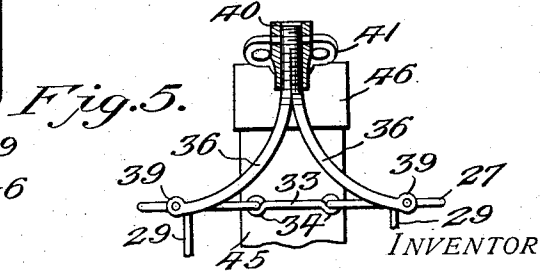
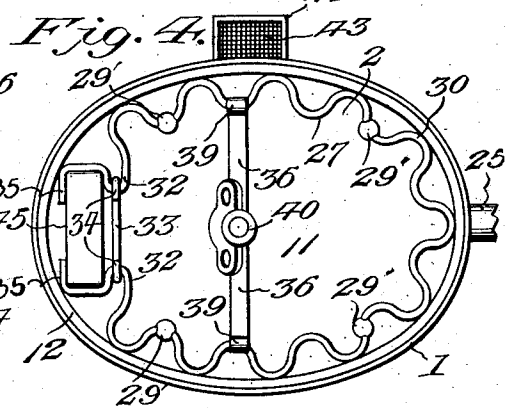
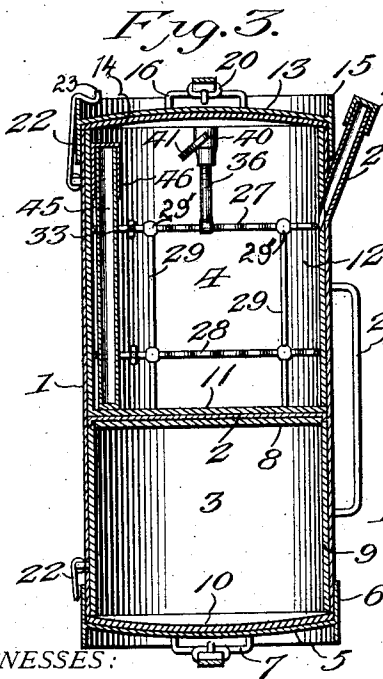
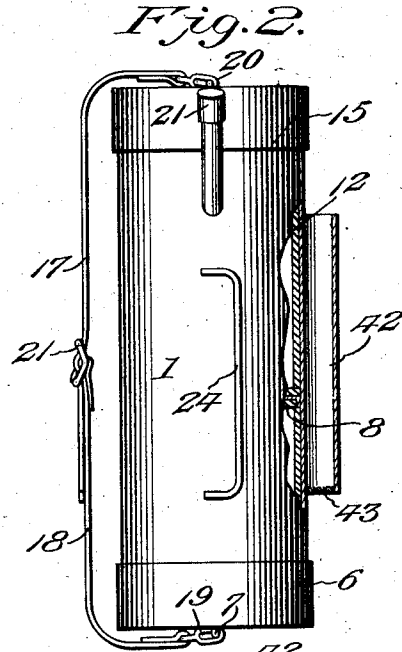
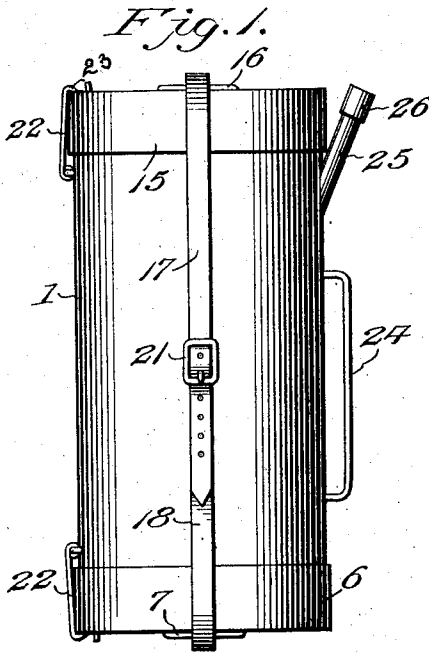


E. J. JOHNSON.
POWDER CAN.
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1,062,101.

Patented May 20, 1913.



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EDWARD J. JOHNSON, OF GRAYCREEK, COLORADO.

POWDER-CAN.

1,062,101.

Specification of Letters Patent.

Patented May 20, 1913.

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To all whom it may concern:

Be it known that I, EDWARD J. JOHNSON, a citizen of the United States, and a resident of Graycreek, in the county of Las Animas and State of Colorado, have invented certain new and useful Improvements in Powder-Cans, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to a case for carrying powder, fuses, and other material and devices used in blasting and more particularly to a case designed for use by miners, the primary object of the invention being to obviate all danger due to loss of the powder or fuses upon the floors of the galleries of the mine, explosion due to contact with exposed live wires, and also explosions due to concussion from an exploded charge.

At the present time, it is customary for miners to carry their blasting powder in any convenient receptacle in which it is exposed to any sparks which may be created within the mine, and the fuses carried may be set off by such sparks or by contact with a live wire, or by concussion caused by a nearby blast, depending upon the character of the fuse.

Considering the fact that a miner must work under varying conditions, necessitating the use of different grades or kinds of blast powder, and different kinds of fuses, the present invention aims to provide a carrier for such material which may be employed for all such purposes.

In short, the invention aims to provide a case which may be employed for the purpose of carrying any and all kinds of blasting material and devices used by miners.

With these and other objects in view the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and finally pointed out in the appended claims, it being further understood that changes in the specific structure shown and described may be made within the scope of the claims, without departing from the spirit of the invention.

In the accompanying drawings forming a part of this specification and in which like numerals of reference indicate similar parts in the several views: Figure 1, is a side elevation of the carrying case embodying the present invention. Fig. 2, is a similar view looking at another side thereof, parts being

broken away. Fig. 3, is a vertical transverse sectional view through the case. Fig. 4, is a top view with the lid removed. Fig. 5, is a detail vertical sectional view through the upper portion of the frame for supporting the sticks of powder or dynamite within the case.

In the drawings, the body of the case is illustrated as elliptical in form in cross section, although it may be cylindrical, rectangular, or of any other cross sectional outline, and is indicated by the numeral 1. This body is open at both ends and is divided substantially midway between its ends by means of a partition 2, whereby to form a paper and fuse compartments 3 and 4, the purpose of which will be presently fully explained. That end of the body of the device which constitutes the open end of the compartment 3, is closed by a cap 5, having a rim 6, which not only fits frictionally over the said end of the body, but also projects slightly beyond the outer face of the head of the cap, as shown in Fig. 3, of the drawings. The said head of this cap is provided with a handle 7, by means of which it may be readily removed. For a purpose to be presently explained, the side of the partition which forms the bottom of the compartment 3, is lined or faced with rubber or some other material which is a non-conductor of electricity and also a shock absorber, as indicated by the numeral 8, and the inner surface of that portion of the body 1, which forms the wall of this compartment is lined with similar material, as indicated by the numeral 9. Also the inner side of the head of the cap 5, is so lined, as shown at 10.

That side or face of the partition 2, which forms the bottom of the compartment 4, is faced with rubber or some other material 11, similar to that employed in facing the walls of the compartment 3, and the inner surface of that portion of the body 1, which forms the wall of the compartment 4, is similarly faced as at 12. The compartment 4, is closed by means of a cap 13, fitted frictionally thereon and faced upon its inner side as at 14, with material such as that heretofore mentioned. The rim 15, of this cap is similar in construction to the rim of the cap 5, in that it not only fits the end of the compartment which the cap is designed to close, but also projects beyond the head of the cap. The cap 13, like the cap 5, is provided with a handle 16, which may be

grasped for the purpose of removing the said cap, and as a means for holding the caps in place upon their respective ends of the body of the device, straps 17 and 18, are connected by means of snap hooks 19 and 20, shown in Fig. 2, with the handles 7 and 16, respectively, and are adjustably connected with each other by means of a buckle 21. As an additional means for securing the caps in place, a latch 22, is pivoted to the body 1, near each of the caps and has a hooked end 23, engaged over the projecting edge portion of the rim of the respective cap, as clearly shown in Figs. 1 and 3 of the drawings. It will be readily understood, of course, that by swinging back either of the latches 22, the respective cap may be removed, the straps 17 and 18, having of course, been first separated. A handle 24, is secured upon one side of the body 1, and by it the device may be readily carried from place to place.

In some localities, giant powder and the ordinary black powder are used in blasting operations, whereas in other localities, stick powder and dynamite are used, and while the carrier embodying the present invention is adapted for use in carrying either combination of blasting materials mentioned above, it is, as thus far described, particularly well adapted for carrying giant powder and black powder. When so used, the compartment 4, is filled with the giant powder to be used, and the compartment 3, with the black powder, and in order that the giant powder may be readily filled into the hole bored for its reception, the compartment 4, is provided with a spout 25, which extends at an angle therefrom in the general direction of the open end of this compartment, as clearly shown in Fig. 3, of the drawings. This spout is provided with a closure cap 26.

In connection with the casing and its compartments, as previously described, there is provided a frame which is adapted to be removably fitted within the compartment 4, and support therein sticks of dynamite or powder, and this frame will now be described. The frame is preferably formed of resilient wire and comprises an upper stick holding member 27, a lower stick holding member 28, and the upright standards 29, which, as will be presently explained, hold the members 27, and 28, in spaced relation and serve to support these members above the bottom of the compartment 4. Each of the members 27 and 28, is formed of a single strand of wire bent, except at its ends, to form convolutions 30, each member conforming in general outline to the contour of the side wall of the compartment 4. The spacing and supporting standards 29, are in the form of straight strands of wire secured as indicated by the

numeral 29', to corresponding ones of the convolutions 30, of the two members 27 and 28, as clearly shown in Figs. 3 and 4, of the drawings. The upper ends of the members 29, preferably terminate at the convolutions of the member 27, although the said members 29, are extended past the member 28, and rest at their lower ends upon the facing 11, for the bottom of the compartment 4, as shown in Fig. 3, thereby spacing the said member 28, from the said bottom of the compartment. The wire forming end of the members 27 and 28, is bent near each end to form an open eye 32, and a link 33, connects the said eyes of each of the said members, the link being formed with elongated eyes 34, at its ends, engaging the eyes 32, as shown in Fig. 4, of the drawings. Beyond the eyes 32, the ends of the wires forming the members 27 and 28, are bent to hook form, as indicated at 35, for a purpose which will be presently fully explained.

As before stated, the members 27 and 28, are formed of resilient wire, and they have a tendency to expand so that the outwardly presented convolutions thereof will bear against the lining of the wall of the compartment 4, in the manner shown in Fig. 4, of the drawings. In order to readily remove the frame from the said compartment, it is therefore necessary that some means be provided for contracting the said members thereof. This means consists of two arms 36, connected and threaded at their ends to form oppositely curved members having terminal eyes 39, by means of which they are secured to the oppositely located middle convolutions of the upper member 27, of the frame, as shown in Fig. 4. A thumb nut 40, is threaded upon this shank and has a pivoted thumb piece 41, thereon, by means of which it may be turned to contract the arms 36, to allow the holder to be readily removed.

As a matter of convenience, an extra paper file container 42, is secured upon one side of the casing or body 1, and has a wire bottom 43, and an open upper end. It will be understood that the bottom of the match container is formed of wire, so that moisture will not collect in the said bottom. There is also provided a squib holder and cap case which is held by the frame members 27 and 28, and which comprises a tubular body 45, provided at its upper end with a removable closure 46.

As before stated, when the device is used to carry giant and black powder, the compartments 3 and 4, are filled. However, when the device is to be used in carrying stick powder or dynamite, the frame shown in Figs. 3, 4 and 5, is arranged within the compartment 4, and the sticks of powder or dynamite are inserted between the convolu-

tions 30, and the lining of the wall of the said compartment. In so arranging the frame, the thumb nut 40, is turned to contract the frame and the same is then inserted into the said compartment, after which the thumb nut is turned so as to permit the frame to expand within the compartment and hold the said sticks of powder or dynamite against the said lining 12. Before turning the thumb nut to allow the frame to expand, the fuse holder, properly filled, is disposed between the hooked ends 35, of the frame members 27 and 28, as shown in Fig. 4, of the drawings.

From the foregoing description it will be readily understood that due to the provision of the rubber or other lining, which is a non-conductor of electricity and an absorber of shocks, the blasting materials carried within the case will be effectually protected, and inasmuch as the compartments of the case are closed, sparks cannot enter and explode the contents. It will also be understood that the fuse holder is held between the hooked ends of the members 27 and 28, and can therefore not come in contact with the blasting material carried in the compartment 4.

It will further be understood that the device embodying the present invention may be readily carried from place to place and is adapted to contain blasting material for use in practically any locality and under practically any conditions.

Having thus described my said invention, what I claim as new and desire to secure by United States Letters Patent is:

1. In a device of the class described, a casing, a holding frame arranged therewithin

and comprising a normally expanded convoluted body bearing against the wall of the casing, a split threaded shank having its split portions connected to opposite sides of the said body, and a nut threaded upon the shank and rotatable to contract the arms and to allow them to expand.

2. In a device of the class described, a casing, a normally expanded article supporting frame arranged within the casing, the said frame including a convoluted body cooperating with the wall of the casing to hold an article to be supported, the ends of the body being bent to form article gripping hooks, and means for contracting the body.

3. In combination, a casing, an upper holding frame comprising a normally expanded convoluted member bearing against said casing, a split threaded shank having its split portions connected to opposite sides of said member, a nut threaded upon said shank to contract said arms, standards secured at their upper ends to said member, and a lower counterpart holding frame comprising a normally expanded convoluted member bearing against said casing and secured to said standards a suitable distance above the bottom of said casing, the ends of both of said members being bent to form article gripping hooks, as and for the purpose set forth.

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

EDWARD J. JOHNSON.

Witnesses:

J. F. WARGOANI,

I. J. DORICK.