Aug. 11, 1925. 1,549,618

A. SKODA

EXPLOSIVE CONTAINER

Filed May 24, 1923

FIG. 2.

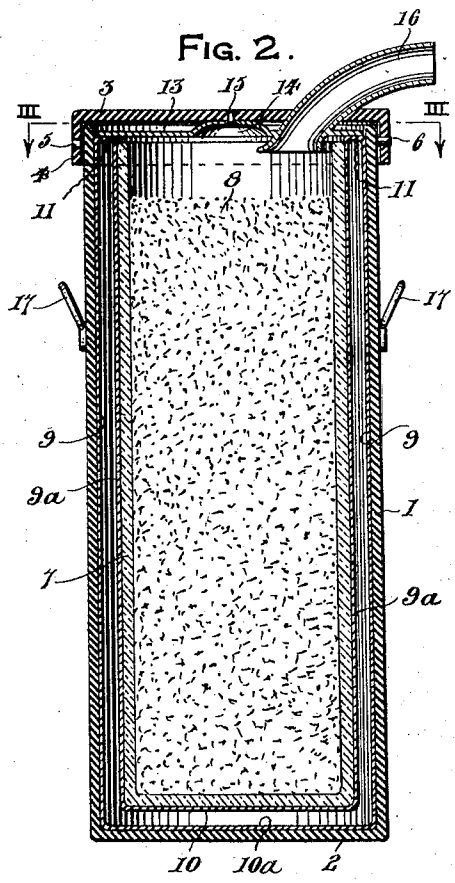


FIG. 1.

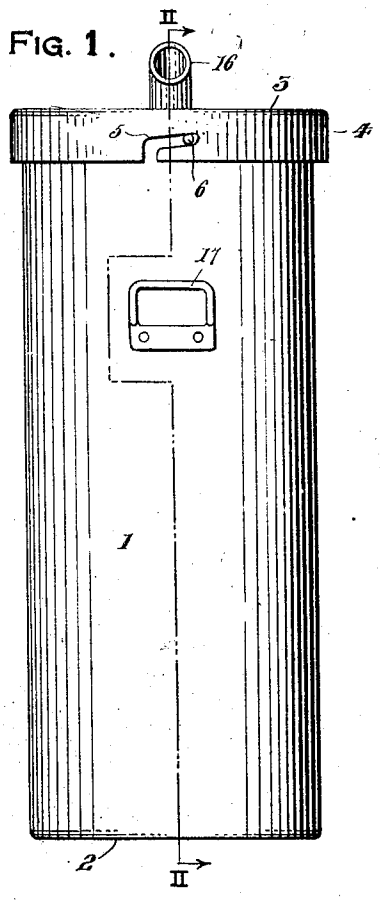


FIG. 3.

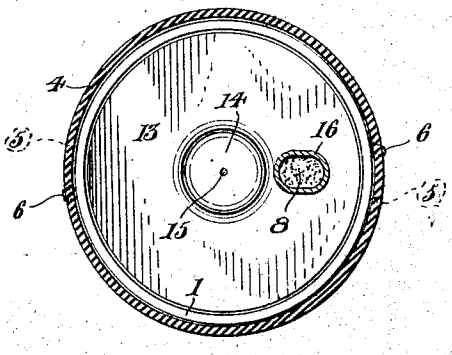
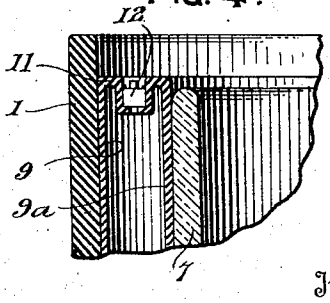


FIG. 4.



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UNITED STATES PATENT OFFICE.

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EXPLOSIVE CONTAINER.

Application filed May 24, 1923. Serial No. 641,173.

To all whom it may concern:

Be it known that I, ADAM SKODA, a citizen of Hungary, residing at Follansbee, in the county of Brooke and State of West Virginia, have invented certain new and useful Improvements in Explosive Containers, of which the following is a specification.

This invention relates to certain new and useful improvements in explosive containers and has for its primary object to provide a container adapted to be filled with a substance of an explosive nature and adapted to protect the material against accidental explosion during the handling thereof.

The primary object of the invention is to provide a container for explosive substances wherein an inner receptacle adapted to contain the explosive is spaced from an outer receptacle by an inflatable air cushion that maintains the inner and outer receptacles spaced at all times.

With the above and other objects in view as the nature of the invention is better understood, the same consists of the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawing and claimed.

In the drawing, wherein like reference characters designate corresponding parts throughout the several views,

Figure 1 is a side elevational view of an explosive container constructed in accordance with the present invention,

Figure 2 is a vertical sectional view taken on line II—II of Fig. 1 showing the spaced inner and outer sections of the container with the air cushion interposed therebetween and the pouring spout for the container carried by the removable cover,

Figure 3 is a horizontal sectional view taken on line III—III of Fig. 2, and

Figure 4 is a detail sectional view showing the double walled air cushion and the inflating valve therefor.

Referring more in detail to the accompanying drawing, there is illustrated a container especially designed for explosives, the same including an outer casing 1 preferably formed of hard rubber and being of cylindrical formation having a bottom wall 2 and open at its upper end. The cover 3 for the outer container 1, formed of the same material, carries a depending annular flange 4 enclosing the upper edge of the outer section 1 and having bayonet slots 5 formed in the lower edges thereof that cooperate with pins 6 carried by the upper end of the section 1 as clearly shown in Figs. 1 and 2.

An inner casing or receptacle 7 for an explosive substance 8 is disposed within the outer receptacle or casing 1, the inner receptacle 7 being formed of such material as glass or the like and maintained in spaced relation to the outer receptacle 1 by an air cushion.

The air cushion is of double walled construction, embodying inner and outer side walls 9 and 9^a formed of soft rubber and carrying spaced bottom walls 10 and 10^a and closed at the upper end thereof as at 11 providing a central opening for the reception of the inner receptacle 7, the receptacle 7 contacting the inner wall 9^a of the air cushion, while the outer wall 9 of the air cushion lies in contact with the inner face of the outer receptacle 1 as clearly illustrated. The upper wall 11 of the air cushion is provided with a valve 12 to facilitate inflation thereof as shown in Fig. 4.

The cover 3 for the outer receptacle 1 carries a disk plate 13 having a central raised portion 14 that is secured to the cover 3 as at 15, the disk section 13 resting upon the upper end of the air cushion when the cover 3 is in position as shown in Fig. 2, the disk 13 carrying a pouring spout 16 that extends through an opening in the cover 3.

From the above detailed description of the device, it is believed that the construction and operation thereof will at once be apparent, it being noted that the outer receptacle 1 is provided with lifting handles 17 to facilitate transportation of the same, the explosive material 8 in the container 7 being spaced from the outer container 1 by the inflated air cushion, the air cushion between the inner and outer receptacles protecting the inner receptacle against shocks and jars.

It will be apparent, due to the forming of the air cushion structure from soft rubber, that a load on or within the inner casing 7, when there is no compressed air in the air cushion structure, will cause the said inner casing to drop or sag until the bottom walls 10 and 10^a engage each other. However, when air is forced into the cushion structure, it will endeavor to expand. The only

portion of the cushion structure that will permit expansion of the air, when the walls 10 and 10ª are in engagement, will be the top wall 11. As soon as any expansion occurs at this point, the inner casing 7 will be slightly elevated and will permit the air under compression to force or wedge itself between the walls 10 and 10ª. After the air is once admitted between the said walls 10 and 10ª, expansion will occur at this point and the inner casing will be raised until it is properly positioned in respect to the outer casing 1, as best illustrated in Fig. 2.

Another feature worthy of consideration is the manner in which the cover 3 is retained in place against accidental removal. It will be seen, by inspecting Figs. 2 and 4, that when the inner casing 7 is elevated into its proper position in respect to the outer casing 1, the top edge of the inner casing is spaced inwardly of the outer face of the wall 11 of the air cushion structure. This projecting portion of the air cushion structure forms in effect an annular resilient seat for the disk plate 13 of the cover 3. When the cover 3 is drawn into place on the outer casing 1, by the bayonet slots 5 and pins 6, the disk plate 13 will engage and slightly compress the said projecting portion of the air cushion structure. The compressing just referred to will, of course, cause the exerting of an outward pressure upon the disk plate 13, when the cover is in place, which will cause a frictional binding action to occur between the fins 6 and the inner edges of the slots 5. It further will be noted that the cover 3 and disk plate 13 must rotate in respect to the outer casing 1 to bring about the removal of the pins 6 from the slots 5. This frictional engagement of the disk plate 13 with the wall 11 of the air cushion structure will prevent unintentional movement of the cover 3 in respect to the outer casing 1, with the result that the cover will be held in place until it is desirable to remove the same.

While there is herein shown and described the preferred embodiment of the present invention, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

What is claimed as new is:—

1. In a container for explosives, an outer casing, an inner casing within the outer casing, an inflatable cushion structure between the walls of the inner and outer casings and projecting beyond the end of the inner casing to form an annular resilient seat, a cover for the outer casing, bayonet connections between the cover and outer casing, and means carried by the cover and adapted to frictionally engage and slightly compress the said resilient seat portion of the inflatable cushion structure to prevent unintentional rotation of the cover in respect to the outer casing.

2. In a container for explosives, a rigid cylindrically-shaped outer casing, a rigid cylindrically-shaped inner casing of less length and diameter than the outer casing, an inflatable cushion structure between the walls of the inner and outer casing and projecting beyond the edge of the open end of the inner casing to form an annular resilient seat, a cover for the outer casing, bayonet connections between the cover and outer casing, and a disk plate carried by and positioned within the cover adapted to frictionally engage and slightly compress the resilient seat formed by the air cushion structure, thereby preventing rotation of the cover in respect to the outer casing which would result in unintentional disconnection of the bayonet connections.

In testimony whereof I affix my signature.

ADAM SKODA.