J. RAUTH.

FIREPROOF BOX FOR POWDER CANS.

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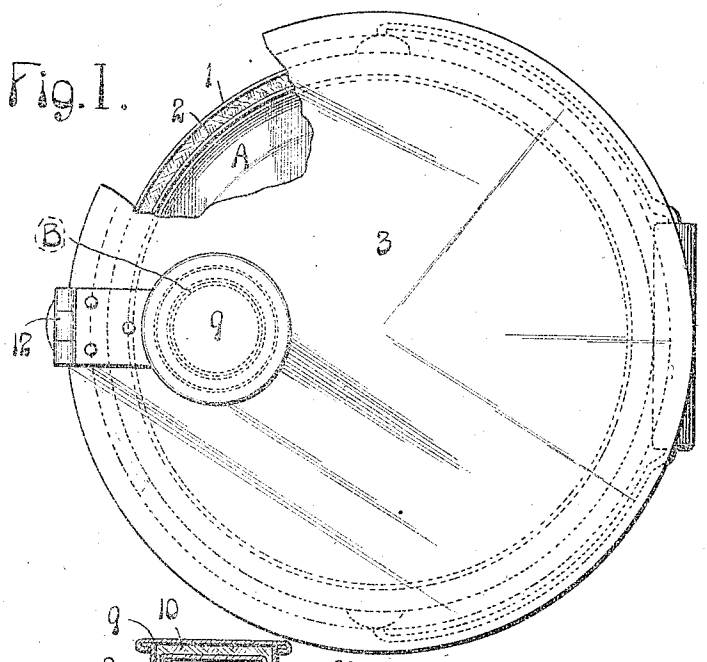
990,902.

Patented May 2, 1911.

Fig. I.



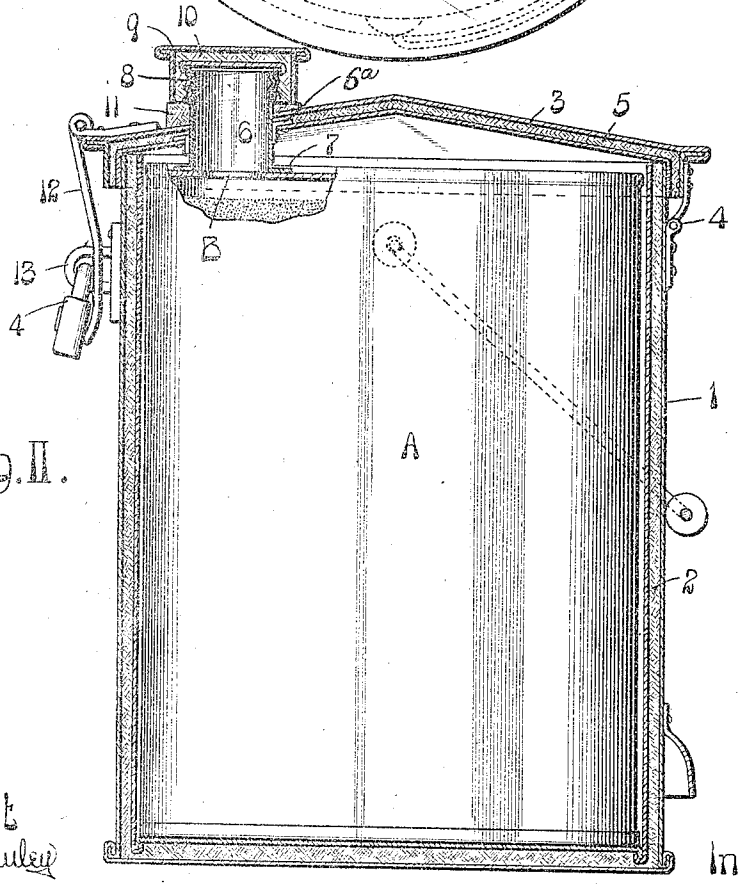


Fig. II.

Attest

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UNITED STATES PATENT OFFICE

JOHN RAUTH, OF BELLEVILLE, ILLINOIS.

FIREPROOF BOX FOR POWDER-CANS.

990,902. Specification of Letters Patent. Patented May 2, 1911.

Application filed February 12, 1910. Serial No. 543,481.

To all whom it may concern:

Be it known that I, JOHN RAUTH, a citizen of the United States of America, residing in Belleville, in the county of St. Clair and State of Illinois, have invented certain new and useful Improvements in Fireproof Boxes for Powder-Cans, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a fireproof box intended more particularly for use in mines, and whereby powder cans, while in use, may be thoroughly protected against the access of fire thereto to prevent explosion of the powder. It is a well known fact that in the use of powder cans in mines there are frequent explosions due to powder cans used in the mines being exposed unprotected so that in the event of fire in the mines, the fire has direct access to the cans to cause explosion of the powder therein with disastrous results. By my improvement, I so protect the can as to lessen the danger of such explosions, even in the presence of a strong fire.

Figure I is a top or plan view of my fireproof box with a powder can therein, the lid of the box being partially broken away. Fig. II is a vertical section through the fireproof box with a powder can shown therein, partly in elevation and partly in vertical section.

In the accompanying drawings: A designates a powder can of any ordinary construction and in the top of which is a mouth B.

1 designates the body of my fireproof box within which the powder can is placed, this body being a double-walled structure comprising an outer shell and a lining. Between the shell and lining is a filling 2 of fireproof insulating substance, preferably asbestos, the filling being extended continuously throughout the vertical walls and bottom of the body. This filling serves to efficiently insulate the interior of the body of the box from the exterior of the box so that it is difficult for sufficient heat to penetrate to the powder can located within the body to cause explosion of the powder in such can.

3 designates a double non-conducting lid or closure hinged to the body 1 at 4, and which comprises outer and inner members separated from each other with a filling 5 of insulating substance that may be similar to the filling 2 that enters into the structure of the body of the box.

The lid 3 has mounted therein a spout 6, which is firmly secured to the lid by a flanged collar 6^a riveted to the spout 6 and to the inner member of the lid, and is adapted to register with the mouth B of the powder can when the lid is closed; and to provide for the existence of a close joint between the inner end of the spout and the body of the powder can, I furnish the spout with an annular flange 7 which seats upon the top of the powder can, as seen in Fig. II. The spout 6 projects above the lid 3 and is provided at its upper end with a screw thread 8 that receives a cap or stopper 9. This cap or stopper is made with double walls, and between its walls is a filling 10 of insulating material that prevents the passage of heat in any material degree through the cap or stopper to the spout, and the inner wall or lining of the cap or stopper is screw threaded to fit the screw thread of the spout. Around the spout 6, above the lid, is a collar 11 of insulating material that prevents the passage of heat between the lid and spout through the orifice in which the spout is located.

For the purpose of preventing the opening of the lid of my fireproof box while it is in use with a powder can therein in a mine, or any other place where it may be used, I provide for the locking of the lid to the body of the box, this locking being preferably performed by the employment of a hasp 12 hinged to the lid and adapted to be placed in engagement with a staple or eye 13, to which a padlock 14 may be applied to hold the hasp in engagement with the staple or eye.

In the practical use of my fireproof box, a powder can is placed therein at any point where there is safety in handling the can, and upon the closing of the lid, the box is locked until the powder car has been emptied by the extraction of the powder therefrom through the spout 6 of the box, which extraction is readily permitted upon the removal of the cap or stopper 9, which may be immediately replaced after the desired quantities of powder have been taken from the can.

I claim:

1. A box for powder cans comprising a body having an outer shell, a lining and insulating substances between the outer shell

and the lining, a lid capping the body, comprising an outer member, an inner member and an insulating substance between the members, a threaded spout rigidly attached to and extending through the lid and having an annular flange at its lower end adapted to seat around the mouth of a powder can in the box, a collar of insulating material on the lid surrounding the spout, and a screw-threaded cap for the spout having inner and outer walls, and a lining of insulating material between said inner and outer walls, the walls of said cap seating on the collar.

2. In a device of the character described, the combination with a non-conducting receptacle, of a powder can removably disposed within said receptacle, said can being provided with a discharge opening in the top wall thereof, a non-conducting closure for said receptacle provided with a spout having its outer end projected from said closure, and its inner end covering said discharge opening when the closure is closed, and a non-conducting cap for the outer end of said spout.

3. In a device of the character described, the combination with a non-conducting receptacle provided with a non-conducting closure therefor, of a powder can removably disposed within said receptacle and having a discharge opening, a discharge spout in said closure adapted to be moved into and out of position registering with the opening in said powder can, and means for locking said closure in closed position when the powder is being used, said discharge spout for the closure being provided with a non-conducting cap.

In testimony whereof, I have hereunto affixed my signature, this 7th day of February, 1910.

JOHN RAUTH.

In the presence of—
HENRY NICKLAR.
DAN J. COFFEY.