

A. S. HAMILTON.  
 DETONATOR MAGAZINE.  
 APPLICATION FILED AUG. 20, 1912.

1,060,979.

Patented May 6, 1913.

Fig. 1.

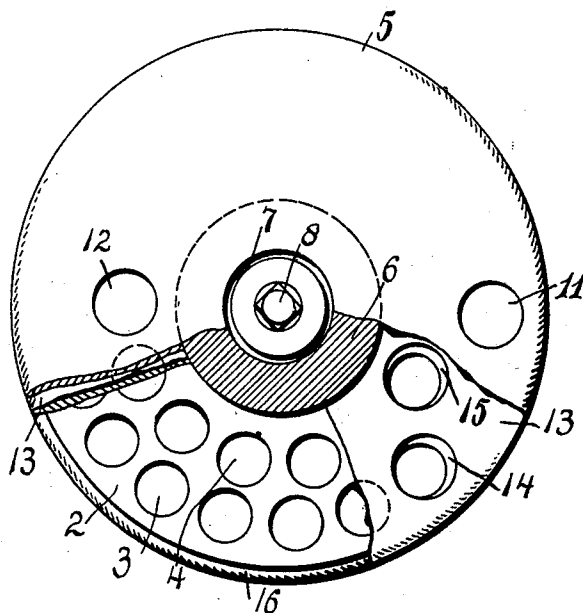
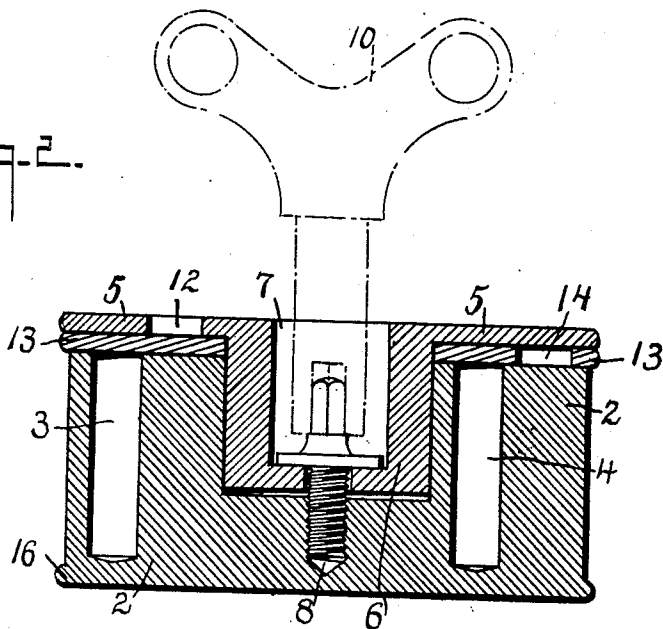


Fig. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ABRAM S. HAMILTON, OF NANAIMO, BRITISH COLUMBIA, CANADA.

DETONATOR-MAGAZINE.

1,060,979.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed August 20, 1912. Serial No. 715,972.

*To all whom it may concern:*

Be it known that I, ABRAM S. HAMILTON, citizen of the Dominion of Canada, residing at Nanaimo, Vancouver Island, in the Province of British Columbia, Canada, have invented a new and useful Detonator-Magazine, of which the following is a specification.

This invention relates to a magazine for holding detonator caps such as are used for firing blast charges, and is designed as an improvement of that on which an application for patent was filed on the 18th August, 1911 under Serial No. 644793 and patented 15 September 10, 1912, #1,038,355.

There are several States where the miners are permitted to carry their own detonator caps. The improvement, which is the subject of this application, has been devised to provide a simple and compact detonator magazine holding a day's supply that may be carried by the individual miner and charged and cared for by himself. Miners will be willing to thus protect themselves against a class of accidents which is common where these powerful caps are carried promiscuously on the person.

The improvement is chiefly directed to the substitution of a rotatable apertured plate for the key operated shutter of the magazine aperture in the above referred to application.

The invention is particularly described in the following specification, reference being made to the drawings by which it is accompanied, in which:

Figure 1 represents the magazine in plan, a portion of the cover plate being removed to reveal the shutter plate and a portion of the shutter plate removed to show the cap receptacles of the magazine, and Fig. 2 is a vertical section, the removable securing key being indicated in position by dot and dash lines.

In these drawings 2 represents a cylindrical magazine box having drilled from one face two circles 3 and 4 of cap receptacles, the axes of which are parallel to the axis of the box. In the same face of the box 2, as that in which are the cap receptacles, the box is provided with an axial recess for the reception of a hub 6 projecting from the face of the cover plate 5. This cover plate is secured to the box by a shouldered screw 8 having a square end for the securing key 10, the squared end of the screw being re-

cessed as at 7, within the hub 6 of the cover plate. The cover plate 5 is provided with two apertures 11 and 12 radially corresponding respectively with the outer and inner rings 3 and 4 of the cap receptacles. Between the cover plate 5 and the apertured face of the box 2 a shutter plate 13 is rotatable on the hub 6 of the cover plate, which shutter plate is provided with apertures 14 and 15 radially corresponding with the rings 3 and 4 of the cap receptacles. The edges of the cover plate 5 and the shutter plate 13 project slightly beyond the cylindrical part of the box 2 and these edges are milled to afford facility for rotating them by the finger grip. The bottom of the box may also have a milled edge 16 affording a better facility for grip.

It will be noticed that the hub 6 of the cover plate does not bottom in the recess of the box 2 so that the cover plate and the interposed shutter plate may be tightened securely by the screw 8 against rotation.

In use the screw 8 is slackened and the shutter plate and cover plate are rotated until either of the apertures 11 or 12 and 14 or 15 are in alinement with a cap receptacle of either ring 3 or 4 when a detonator cap can be removed. When the cap is extracted either plate may be rotated to blind the apertures and the screw 8 tightened to secure the box in the closed position. The apertures are so pitched in the cover plate and shutter plate that only one cap can be removed at a time.

In comparison with the patent above referred to, it will be noted that the device differs in the substitution of the freely rotatable shutter plate 13 for the spring controlled and key operated shutter of the previous patent. In dispensing with the spring I am enabled to reduce the size of the magazine and to simplify its construction, and rendering it suitable for the purpose explained in the preamble. It will be noticed also that in the prior application the central screw acted simply as a means for holding the cover plate on the box while leaving it free to turn as on a pivot; while in the present application the central screw is also the securing means by which the box may be locked to prevent accidental loss of the detonator caps or the removal of them by unauthorized parties.

Having now particularly described my invention, I hereby declare that what I

claim as new and desire to be protected in by Letters Patent, is:

1. A detonator magazine, comprising the combination with a cylindrical box having  
5 detonator receptacles drilled from one end face, of a cover plate and a shutter plate each rotatably mounted on the end face, each having an aperture radially corresponding to the apertures in the box each  
10 of said plates projecting beyond the wall of the box to afford a finger engagement.

2. A detonator magazine, comprising the combination with a cylinder having cap  
15 holding receptacles drilled from one face and parallel to its axis, of a cover plate and a shutter plate each rotatably mounted concentric with the cylinder, each plate having an aperture radially corresponding to each  
20 circle of cap receptacles and means for securing the plates to the cylinder each of said plates projecting beyond the wall of the box to afford a finger engagement.

3. A detonator magazine, comprising the combination with a cylinder having cap  
25 holding receptacles, of a cover plate rotatably mounted over the receptacles said cover plate having a hub fitting a corresponding recess in the cylinder and apertures drilled to radially correspond with  
30 each circle of cap receptacles in the cylinder, a second plate freely rotatably mount-

ed on the hub of the cover plate between it and the face of the cylinder and having apertures corresponding with those of the cover plate but at different angular distances apart, and means for securing these plates together and on the face of the cylinder.

4. A detonator magazine, comprising the combination with a cylinder having cap  
40 holding receptacles, of a cover plate rotatably mounted on the face in which are the receptacles, said cover plate having a hub fitting a corresponding recess in the cylinder and the hub recessed for the head  
45 of an axial securing screw and provided with apertures radially corresponding to the cap receptacles, a shutter plate freely rotatable on the hub of the cover plate between that plate and the face of the cylinder and provided with apertures registering radially with those of the cover plate  
50 but at a different angular distance apart, and an axial screw by which the plates may be clamped to the face of the box.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ABRAM S. HAMILTON.

Witnesses:

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JAS. R. MCKINNELL.