

C. C. MYRICK.

FUSE LIGHTER.

APPLICATION FILED DEC. 7, 1908.

928,685.

Patented July 20, 1909.

Fig. 1.

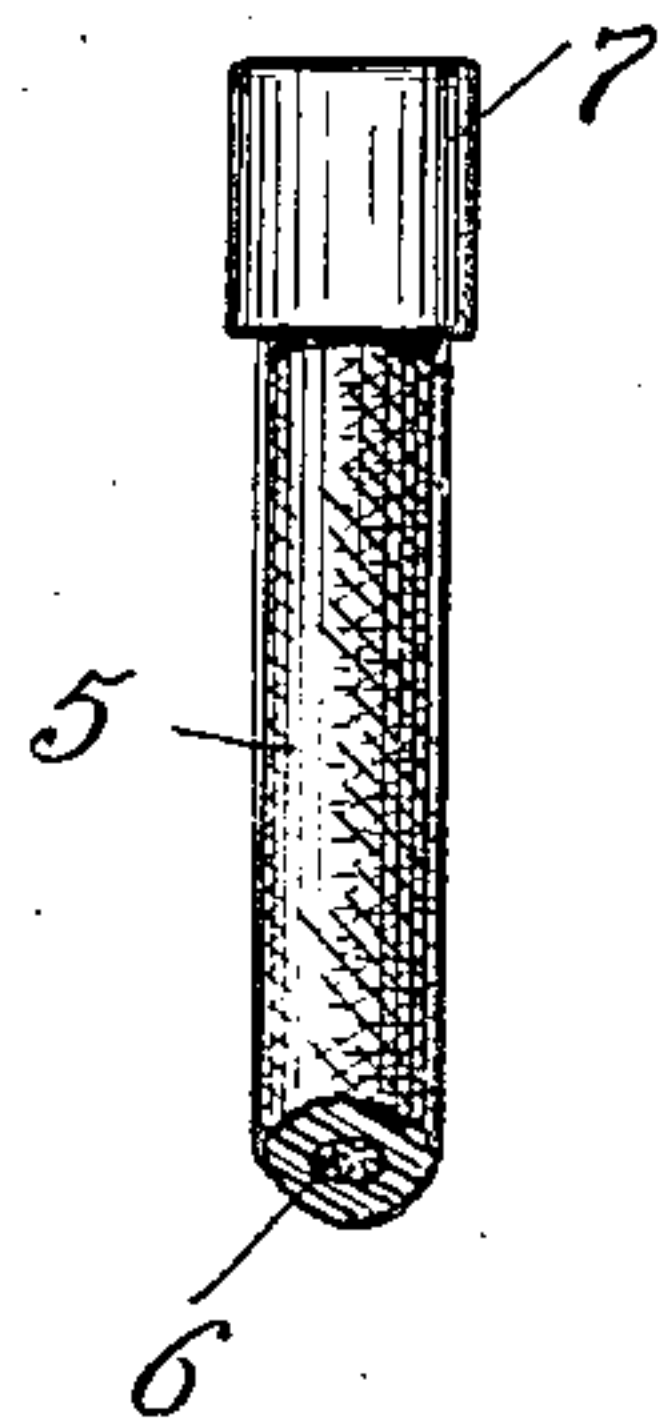


Fig. 2.

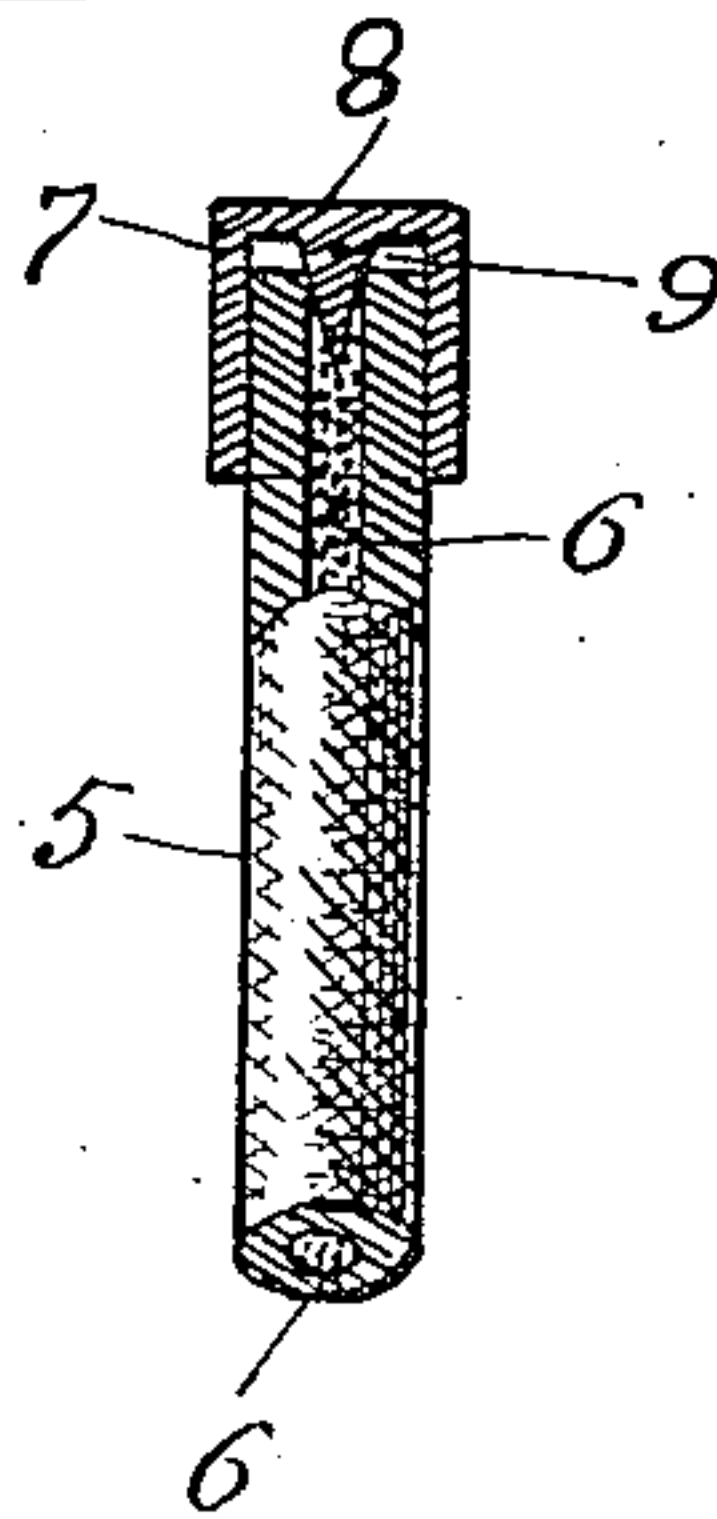
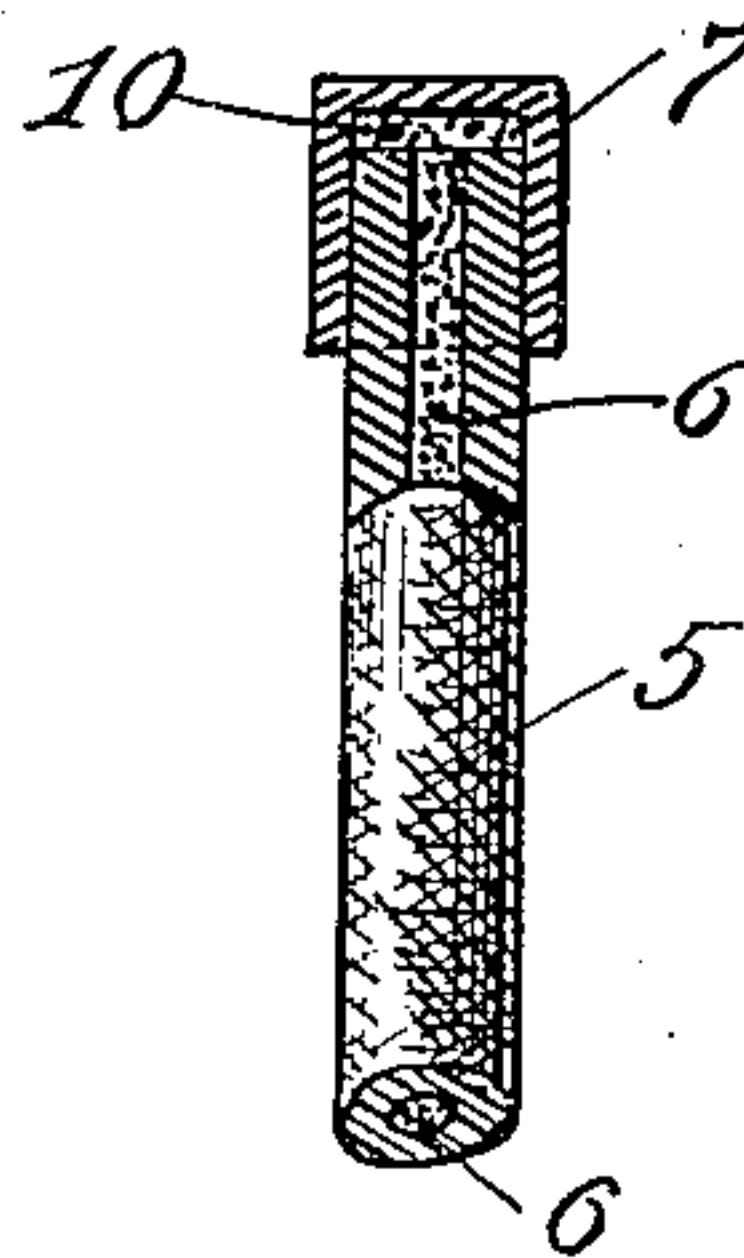


Fig. 3.



WITNESSES.

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UNITED STATES PATENT OFFICE.

CLIFFORD C. MYRICK, OF GLOBE, ARIZONA TERRITORY, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO AMERICAN FUSE LIGHTING CO., OF LOS ANGELES, CALIFORNIA, A CORPORATION OF CALIFORNIA.

FUSE-LIGHTER.

No. 928,685.

Specification of Letters Patent.

Patented July 20, 1909.

Application filed December 7, 1908. Serial No. 466,317.

To all whom it may concern:

Be it known that I, CLIFFORD C. MYRICK, a citizen of the United States, residing at the city of Globe, county of Ghila, and Territory of Arizona, have invented new and useful Improvements in Fuse-Lighters, of which the following is a specification.

In blasting in mines and quarries after the holes are drilled in the rock and loaded with blasting material, a fuse is placed in each hole in contact with the charge of blasting material with which the hole is loaded and tamping is put around the fuse which is cut to the proper length before being placed in the hole to enable the operator to light the fuse and then to get far enough away from the hole before the explosion takes place. The common method of igniting or firing the fuse is to split the end of the fuse with a knife so as to open the powder duct that runs through the fuse and then light it with a match or candle. Where there are a number of fuses to be lighted an operator gets nervous and oftentimes one or more fuses will not be lighted and consequently the charges of explosive material in the holes will not be exploded. It often happens that there is more or less water dripping in a mine and this makes it difficult to ignite the fuses.

It is the object of my invention to provide suitable means secured upon the end of the fuse before the same is placed in the hole to enable the operator to instantly light the fuse when ready without wasting any time whatever in splitting the end of the fuse, and also to provide means to instantly light the fuse notwithstanding any moisture that may be dripping in the mine. I accomplish this object by the device described herein and illustrated in the accompanying drawings, in which;

Figure 1 is a side elevation of a fragment of a fuse with one of my improved fuse lighting caps in position on the end of the fuse. Fig. 2 is a like view showing the cap and the end of the fuse in central section. Fig. 3 is a view similar to Fig. 2 of a modified form of cap.

In the drawings 5 is a fuse and 6 is the powder duct thereof, the fuse and duct being of ordinary construction.

7 is a fuse lighting cap of inflammable material which fits snugly upon the end of the fuse which is to be lighted. This cap is preferably made of celluloid as that is a material which is impervious to water and which is highly inflammable. In the center of the head 8 and projecting into the interior of the cap is a firing pin 9 which is preferably cone shaped and registers with and enters the powder duct 6 of the fuse when the cap is placed in position thereon. This firing pin is of the same composition as the cap and is intended to lead the fire into the powder duct in the fuse. In the form illustrated in Fig. 3 this firing pin is omitted. When caps of this latter kind are used I prefer to place a small quantity of powder in the cap before it is placed on the end of the fuse, which powder will be held in contact with the end of the fuse by the cap as shown in Fig. 3 when the cap is in position for use.

When the fuse is to be used where there is moisture about the rock that is to be blasted, the junction between the outer end of the cap and the fuse can be covered with grease or other material to make a water tight seal between the cap and the body of the fuse.

By the use of my improved fuse lighting cap an operator can prepare the fuses of the required length and place the caps thereon at his leisure and when the fuse is placed in the hole and tamped it is ready to be lighted, and a miner with a candle can light three or four times as many fuses in the same length of time when the fuses are equipped with my caps than he could light if the same were to be lighted in the common method of lighting such fuses. Another advantage is that every fuse will be positively lighted.

Having described my invention what I claim is:

1. A fuse lighter comprising a cap of inflammable waterproof material having a

central firing pin integral with the head thereof, said cap being adapted to snugly fit upon the end of the fuse and the firing pin to enter the powder duct in the fuse.

- 5 2. A fuse lighter comprising a cap of inflammable waterproof material adapted to snugly fit upon the end of the fuse in combination with an explosive fusible material in the end of said cap adapted to lie within

the end of the cap and upon the end of the fuse when the same is in position for use.

In witness that I claim the foregoing I have hereunto subscribed my name this 27th day of November, 1908.

CLIFFORD C. MYRICK.

Witnesses:

I. E. HARPHAM,

S. B. AUSTIN.