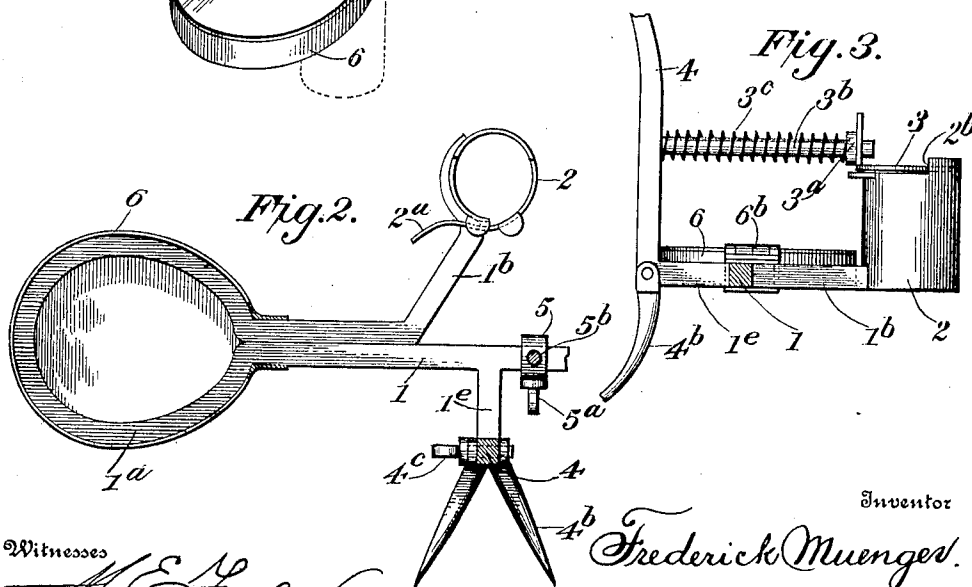
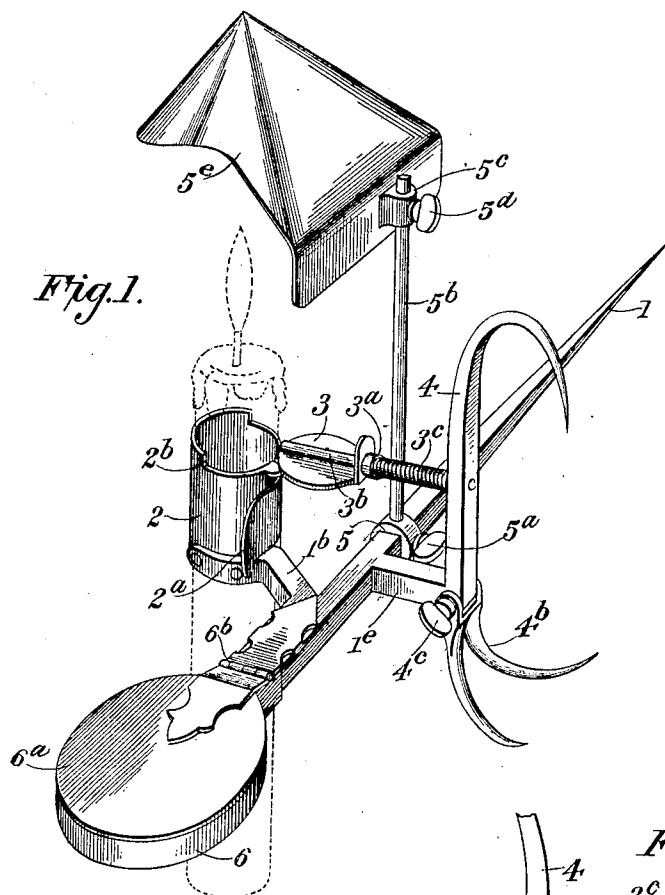


F. MUENGER.
MINER'S SAFETY CANDLESTICK.
APPLICATION FILED MAY 26, 1908.

906,449.

Patented Dec. 8, 1908



Witnesses

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UNITED STATES PATENT OFFICE.

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MINER'S SAFETY-CANDLESTICK.

No. 906,449.

Specification of Letters Patent.

Patented Dec. 8, 1908.

Application filed May 26, 1908. Serial No. 435,023.

To all whom it may concern:

Be it known that I, FREDERICK MUENGER, of Hill City, in the county of Pennington and State of South Dakota, have invented certain new and useful Improvements in Miners' Safety-Candlesticks; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

This invention is an improvement in miners' candle-sticks, and its object is to provide a candle-stick having (1) a convenient match receptacle; (2) an improved candle-holder; (3) a novel snapper or extinguisher for putting out the candle when it burns too low, but doing so in such manner that the miner's attention will be called to the candle by the gradual diminution of the light; (4) a novel adjustable scrap-hook whereby the candle can be readily adjusted to vertical position; and (5) a novel adjustable shield or guard to protect the candle from dripping water.

The invention consists in the novel construction and combination of parts in the candle-stick, substantially as illustrated in the drawings, and hereinafter more fully described and claimed.

In said drawings—Figure 1 is a perspective view of the complete device with the candle-shield in position. Fig. 2 is a part plan, part horizontal sectional view with hinged cover removed. Fig. 3 is a vertical sectional view partly broken away.

The device comprises a main supporting member preferably made of steel and having one end 1, pointed as usual, and its other end preferably bent upon itself to form a loop 1^a, and at the extremity of the return bend portion is a laterally projecting portion 1^b to which is attached a circular spring-plate 2 which forms the candle-holder, the free end 2^a of this plate projecting at one side as shown, so as to form a thumb-piece 2^a by which the holder can be readily expanded so as to permit the insertion of a candle therein; and when the thumb-piece is released the natural contraction of the spring closes said holder upon the candle. The upper side of this holder 2 may be slightly cut away as shown at 2^b above the thumb-piece 2^a, and opposite this cut-away portion is an extinguisher 3 which may be attached to a sleeve 3^a slidably mounted on a rod 3^b, which is at-

tached to the main hook 4, which lies in a plane at right angles to the supporting member, and is connected thereto by a lateral branch 1^c in the usual manner.

Between the hook 4 and sleeve 3^a, upon rod 3^b, is interposed an expansion-spring 3^c which acts to project the extinguisher 3 over the holder 2, when the candle burns down below the top of the holder.

Pivotally connected to the lower end of hook 4 is a bifurcated scrap-hook 4^b, and when the holder is suspended by the hook 4 from a projection said scrap-hook can be adjusted so that its point rests against the surface against which the holder is suspended, and bring the candle to a vertical position. The scrap-hook can be fastened in adjusted position by means of a thumb-screw 4^c which also serves as the pivot connecting the scrap-hook to the hook 4.

Upon the supporting member is movably attached a slide 5 which can be fastened thereto by a screw 5^a, and from which rises a rod 5^b, on which rod is a slide 5^c that can be fixed in position by screw 5^d, and said slide carries a metal hood or shield 5^e which can be adjusted over the candle, as indicated in Fig. 1, to protect the same from dripping water when the candle-stick is used in damp or leaky mine passages.

The loop 1^a is preferably inclosed on sides and bottom by a metal casing 6, forming a box, which can be closed by a cover 6^a hinged to the support at 6^b, said box forming a receptacle for matches and also forming a convenient hand-hold for manipulating the candle-stick. In some cases the receptacle 6 could be attached to the end of the support without the necessity of forming the loop 1^a within the receptacle.

In operation the candle-holder 2 is opened by pressure on the thumb-piece 2^a and a candle inserted therethrough to the desired position, the extinguisher 3 being drawn back out of the way, and being held back by contact with the side of the candle; the extinguisher also assists in retaining the candle in the holder by its lateral pressure there-against.

The candle-stick can be fastened to the wall of the mine either by point 1 or hooks 4, 4^b, as is most convenient to the miner. If it is used in a damp place the shield 5^e can be adjusted over the candle so as to protect it from dripping water. When the candle

burns down to the holder 2, the spring 3^e will begin to move extinguisher 3 inward, over the holder, and gradually put out the candle, before it burns entirely out of the holder; but this extinguishing action takes place so slowly that the miner's attention will be attracted by the diminution of the light, and he can raise the candle again before it is entirely extinguished and thus be saved the trouble of relighting it.

The receptacle 6, may be made watertight, so that matches therein will always be conveniently at hand in case the candle is extinguished, and this combination of a match box with the candle-stick is a great practical convenience.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. A miner's candle-stick comprising a member provided with a spud at one end, and a match receptacle at the other end, an intermediate candle-holder at one side, a hook opposite the candle-holder, and a scrap-hook adjustably attached to the bottom of said hook, a rod attached to said hook and projecting toward the holder, an extinguisher slidably mounted on said rod, and a spring for moving said extinguisher toward the holder.

2. A miner's candle-stick comprising a member provided with a spud at one end, and a match receptacle at the other end, an intermediate candle-holder at one side, a hook opposite the candle-holder, and a scrap-hook adjustably attached to the bottom of said hook, a rod attached to said hook and projecting toward the holder, an extin-

guisher slidably mounted on said rod, and a spring for moving said extinguisher toward the holder; with a drip shield adjustably connected to said member to protect the candle from water.

3. In a miner's candle-stick, the combination of a supporting member, a candle holder, an adjustable rod on said member, and a shield adjustably attached to said rod to protect the candle from drippings from the wall of the mine.

4. In a miner's candle-stick, the combination of a member having one end pointed, its other end bent to form a hand-hold for the candle-stick, and a box inclosing the bent portion to form therewith a match receptacle, a candle-holder attached to said member, a hook adjacent the holder, a rod thereon, an extinguisher slidably mounted on the rod, and a spring for moving the extinguisher toward the holder.

5. The herein described miner's candle-stick, comprising a supporting member, a candle-holder attached thereto, a hook attached to the said member adjacent the candle-holder, an adjustable scrap-hook attached to the base of the said hook, means for fastening the scrap-hook in adjusted position; and a drip shield connected to said member to protect the candle from water.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

FREDERICK MUENGER.

Witnesses:

F. E. REDDISH,
CHAS. BAUER.