

No. 660,573.

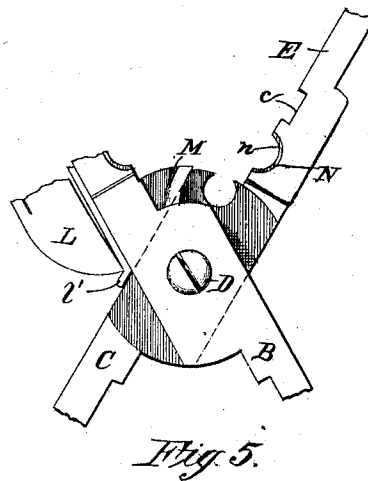
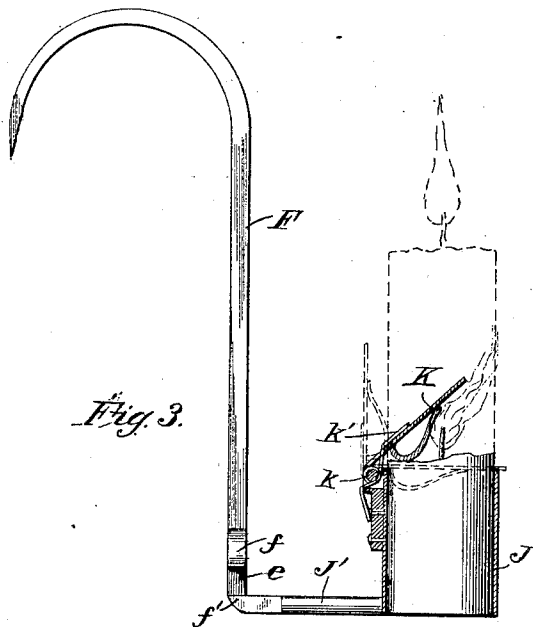
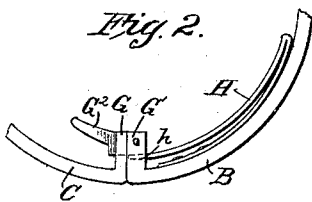
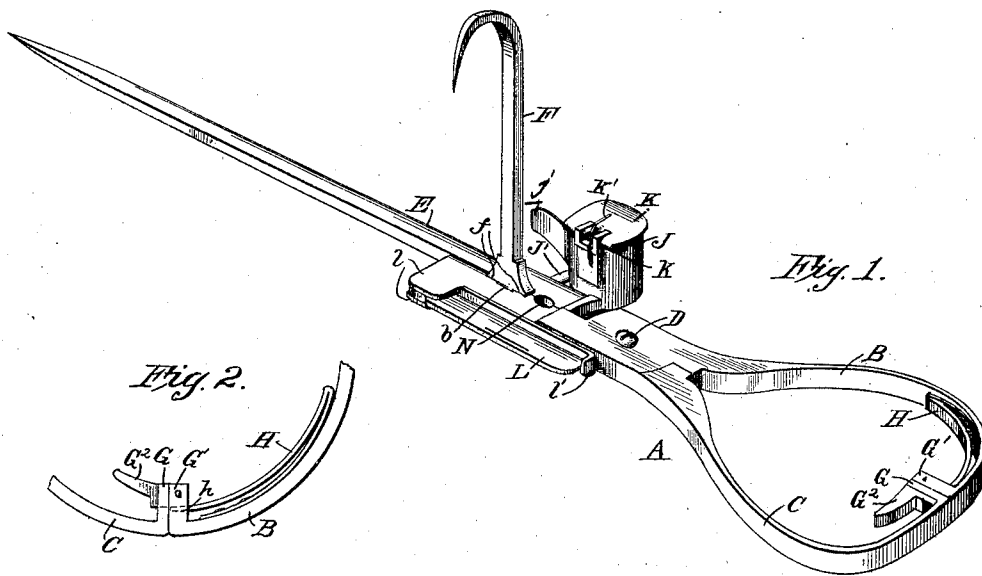
Patented Oct. 30, 1900.

F. HERBST.

MINER'S CANDLESTICK AND COMBINATION IMPLEMENT.

(Application filed May 23, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

FREDERICK HERBST, OF OURAY, COLORADO.

MINER'S CANDLESTICK AND COMBINATION IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 660,573, dated October 30, 1900.

Application filed May 23, 1900. Serial No. 17,656. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK HERBST, a citizen of the United States, residing at Ouray, in the county of Ouray and State of Colorado, have invented certain new and useful Improvements in Miners' Candlesticks and Combination Implements; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of devices commonly known as "miners' candlesticks," but which are in reality combination implements comprising not only means for supporting a candle, but also means capable of use in preparing cartridges, fuses, and the like, and also capable of other uses required of implements of this nature.

A primary object of the invention is the provision of new and novel means whereby a candle-support may be readily detached from or secured to the other portion of the implement.

The invention also relates to improved details and arrangements of parts to be hereinafter described, and definitely pointed out in the claims.

In the accompanying drawings an embodiment of the invention is illustrated, and in hereinafter referring to the same like reference-letters designate corresponding parts in the several figures.

Figure 1 is a perspective view of the implement complete. Fig. 2 is a detail view showing the lock for securing the two parts of the handle together. Fig. 3 is a view showing the candle-holder detached, with the candle applied thereto so as to show the candle-extinguisher; and Fig. 4 is a detail sectional view.

Referring more specifically to the drawings, A designates the handle portion, which is formed of two members B and C, pivotally connected at D. One of said members has an elongated extending portion E, pointed at its end, as is ordinary in devices of this character. On the inner edges of the extended jaw portions of the two members of the han-

dle are angular notches *b c*, which are adapted to engage when in closed position with the neck *e*, formed on the supporting-hook F. To each side of this neck are formed shoulders *f f'*, adapted to rest, respectively, on the upper and lower surfaces of the jaw portions of the handle members, as will be clearly seen from the drawings. The two members of the handle portion are secured in closed position by a lock, now to be described. The member C of the handle has an inturned portion G, provided with a suitable recess, and the member B has a corresponding inturned portion G', pivoted to which is the dog or catch G², adapted to engage the notched portion G. This dog or catch has a rectangular shank, and in order to hold the same in open or closed position I provide a spring H, which is of a shape to lie closely against the inner edge of the member B and is formed of a continuous piece of sheet spring metal riveted at one end to handle member and formed by a return-bend into the bearing *h*, adapted to project beneath the dog or catch and exert sufficient pressure on the bottom or end of the same to retain it in closed or open position, as may be desired. The candle-support is provided with the usual pocket J, supported by the arm J', extending outwardly from the hook portion, and has a laterally-extending handhold or support *j*. The candle-supporting pocket is provided with an extinguisher K, which is of a shape to fit the top of the pocket and is pivoted to one edge thereof, as shown at *k*. A spring *k'* has a constant tendency to force the extinguisher inward and downward, so that whenever the candle is burned down sufficiently the cover will close thereon to entirely extinguish the flame, or, as primarily would be the case, shade the light to such an extent as to notify the user that a new candle is needed. The pocket in this instance is formed simply by rolling a piece of sheet metal, and having no bottom the candle is held in any desired position by the bearing or shoulder formed on the inner surface of the extinguisher, the spring *k'* exerting sufficient pressure thereon to hold a candle in the pocket. This shoulder also serves the purpose of normally keeping the extinguisher away from engagement with the surface of the candle. The jaw portion of the member B of the han-

dle is provided with the ears *l*, in which is pivoted a knife-blade *L*, normally lying flush against the edge of said member *B*, and so mounted as to contact therewith at the point 5 only of the blade, so that the edge of the knife will not be impaired. To protect the point of the blade, the flange *l'* is provided on the member *B* and is of such size to cover the point of the blade. This knife is primarily designed for use in slitting powder. 10 Near the pivotal point of the two members of the handle *I* provide a fuse-cutter *M*, the same comprising a knife-edge on one of the members and a U-shaped opening on the opposite member, through which the fuse is adapted to be passed. By this arrangement a shearing action is effected. Between this fuse-cutter and the notches for supporting the candle-holder, I provide a crimper *N*, the 20 same being formed, as shown in Fig. 4, with the flanges *n* on the oppositely-disposed edges of the clamping-jaws. From this arrangement it will be seen that an efficient miner's tool is provided wherein the candle-support 25 is readily detachable from and may be used independently of the other portion of the tool, as in the case when it is desired to make explosive cartridges and the like, and it will also be seen that by this improved tool a cartridge may be readily made by the user, the 30 knife being used to slit the giant powder, the cutter *M* to cut or trim the fuse, and the crimper *N* to properly secure the fuse to the exploder.

35 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a miner's tool having recessed pivoted jaws, of a candle-support, comprising a hook member having a 40 neck adapted to be engaged by and clamped

between the recessed portions of said jaws, means for supporting a candle on said hook portion, and means for locking the jaws together, substantially as described. 45

2. In combination with a miner's tool, a candle-support, comprising a hook member, a pocket thereon, a spring-pressed extinguisher pivotally secured to the upper edge of the pocket, and a shoulder or projection 50 on the bottom of said extinguisher adapted to engage the surface of a candle to normally retain the same in the pocket, and the extinguisher away therefrom, substantially as described. 55

3. In combination with a miner's tool, having pivoted jaws, of a detachable candle-support adapted to be confined between said jaws, of handle portions on the jaws, a dog or catch pivoted to one member of the handle 60 portion and adapted to engage the other member for locking the handle portions in closed positions, and a spring for retaining the dog or catch in closed or open position, substantially as described. 65

4. In combination with a miner's tool having pivoted jaws, of a detachable candle-support adapted to be confined in said jaws, handles on said jaws, and means for locking said jaws together comprising a dog having 70 a squared bottom and end pivoted to one of said members and adapted to engage the opposite member, and a spring adapted to engage the bottom or end of the dog to hold the same in closed or open position, substantially 75 as described.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK HERBST.

Witnesses:

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