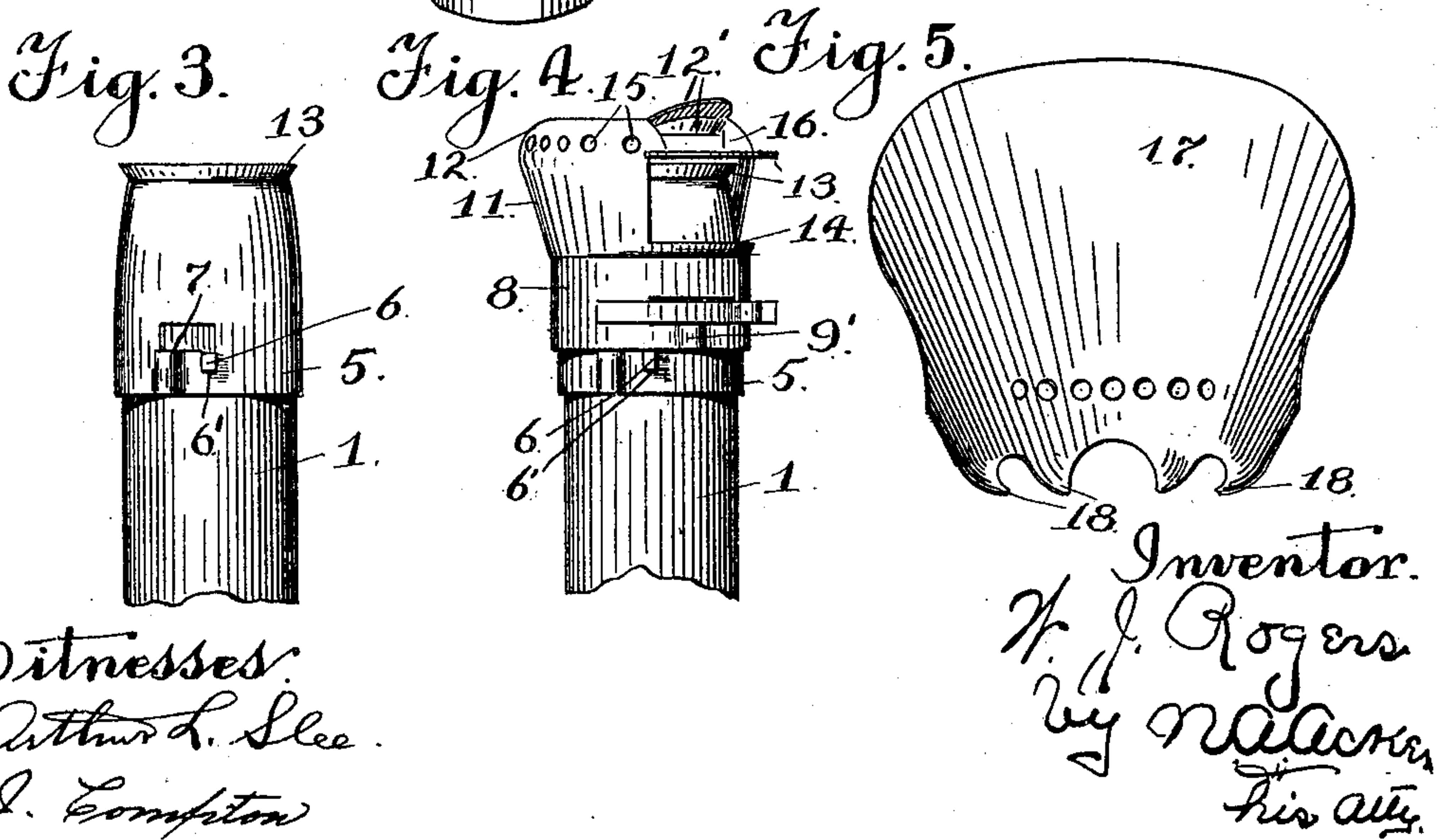
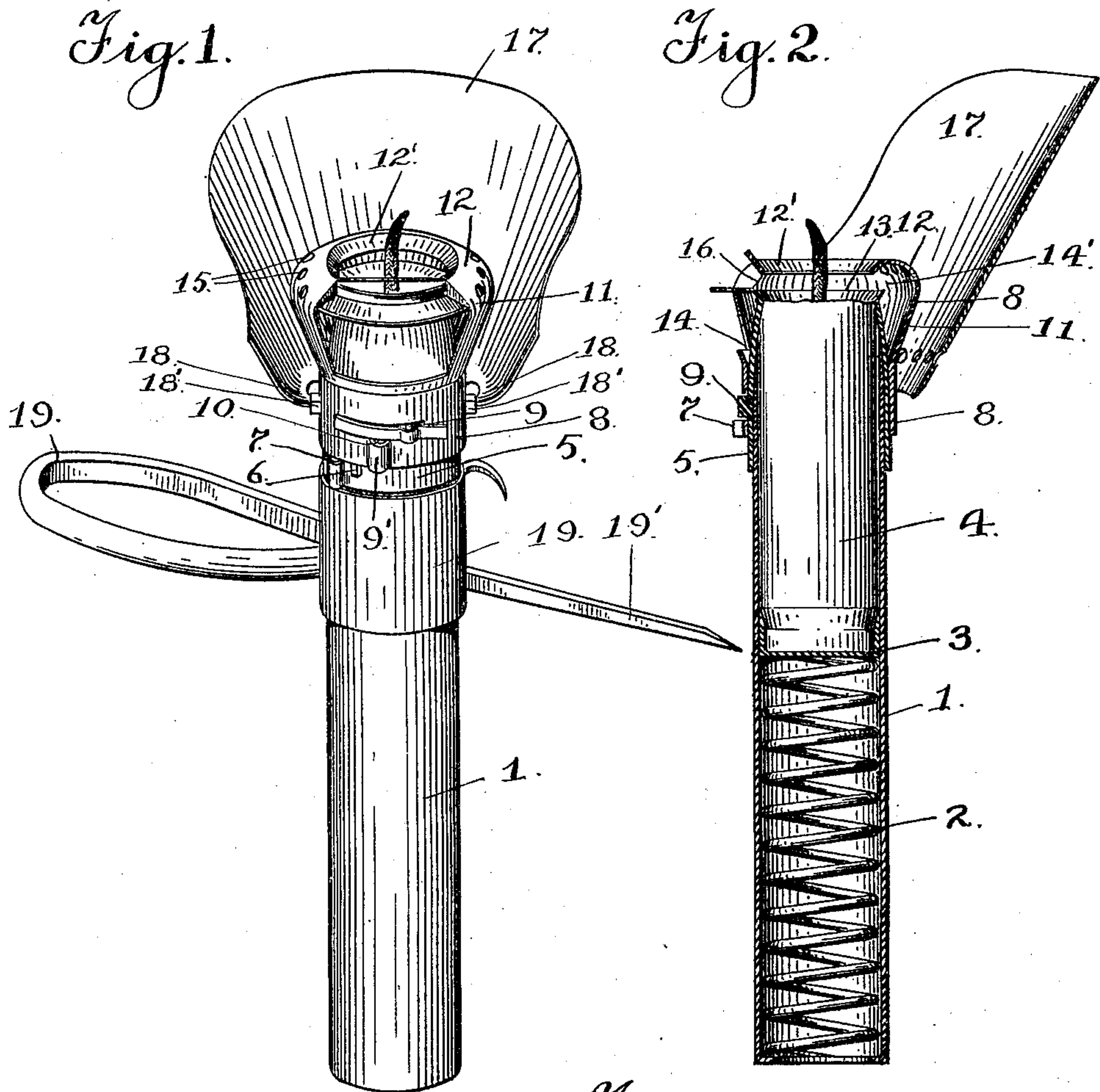


No. 819,379.

PATENTED MAY 1, 1906.

W. J. ROGERS.  
CANDLE LAMP.

APPLICATION FILED JULY 22, 1905.



Witnesses:  
Arthur L. Slee.  
J. Compton

Inventor.  
W. J. Rogers  
by *W. J. Rogers*  
His atty.



# UNITED STATES PATENT OFFICE.

WILLIAM J. ROGERS, OF SAN JOSE, CALIFORNIA.

## CANDLE-LAMP.

No. 819,379.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed July 22, 1905. Serial No. 270,855.

*To all whom it may concern:*

Be it known that I, WILLIAM J. ROGERS, a citizen of the United States, residing at San Jose, in the county of Santa Clara, State of California, have invented certain new and useful Improvements in Candle-Lamps; and I hereby declare the following to be a full, clear, and exact description of the same.

The present invention relates to that type of candle-lamps employed by miners for illuminating purposes while working in tunnels of quartz-mines, although the herein-after-described candle-lamp is equally as well adapted for use wherever an open or flame-exposed lamp may be employed.

The object of the invention is to materially increase the illuminating power of a candle-lamp, while at the same time providing against the rapid consumption of the candle, due to the excessive melting of the same adjacent the flame, also by the provision of a securing-shield preventing the lowering or hanging of the candle-flame while the lighted candle is exposed to a draft or current of air.

To comprehend the invention, reference should be had to the accompanying sheet of drawings, wherein—

Figure 1 is a perspective view of the candlestick held within an ordinary candle-support for securing the same to the timbers of a mine-tunnel. Fig. 2 is a vertical transverse section of the candlestick. Fig. 3 is a detail view of the securing or lock collar. Fig. 4 is a similar view of the air-draft thimble for supplying the requisite oxygen to the flame of the candle and directing an air-current to maintain cool the upper end portion of the securing-collar, so as to prevent the excessive melting of the candle; and Fig. 5 is a detail view of the shield detached from the air-draft thimble.

The numeral 1 is used to designate the body of the candlestick, within which is held the usual feed-spring 2. One end of this spring is secured to the under face of the socket 3, into which is fitted the lower end of the candle 4. The candle after being depressed within the body 1 is held therein by the lock-collar 5. This collar fits over the upper end portion of the candle 4 and slips onto the upper end portion of the body portion 1, being held locked thereto by means of the lateral projections 6, which projections enter within the bayonet-slots 7 in the lower end portion of the lock-collar 5.

Over the collar 5 is fitted the draft-

thimble 8, which is held locked thereto by the lateral projection 9 of the lock-collar fitting within the bayonet-slot 10 of the draft-thimble. The lower edge of the draft-thimble rests on the projections 6, and thus holds the said collar 5 locked against movement until the thimble 8 has been released, for the collar 5 cannot be released until the same has been depressed to take the projections 6 from within the seats 6', which seats constitute a downward extension of the bayonet-slots 7 of the said collar.

So long as the lower edge of the thimble 8 bears on the projections 6, fitting through the bayonet-slots 7 of the collar, the said collar cannot be depressed to take the projections 6 from within the seats 6'. This can only be accomplished after the thimble 8 has been turned to place the vertical opening 9' of the bayonet-slot 10 in line with the projection 9 of the lock-collar 5.

The upper portion 11 of the thimble 8 is outwardly flared and the upper edge thereof inwardly turned to form a circular flange 12, to which flange is united a beveled ring 12', which when the parts are properly locked is adjacent the outturned circular flange 13 of the lock-collar. A portion of the upper flared wall of the thimble 8 is cut away, which cut-away portion forms a draft-opening 14, through which air is admitted into the annular chamber 14'. From this chamber the air escapes through the outlet-openings 15 of the thimble, serving to steady the flame of the candle, while the air contained within the chamber 14' tends to maintain cool the upper part of the lock-collar. Air is also admitted directly to the upper edge of the candle through the draft-opening 16, formed by flattening the ring 12' for a portion of its circumference. By means of the double-draft opening formed in the thimble 8 the requisite air is admitted for the production of the desired flame, and at the same time sufficient air is introduced to maintain cool the metal surrounding the upper edge of the candle, thus prolonging the life of the candle by providing against the rapid melting thereof.

To protect the flame while the candle is moved from place to place or against air-currents and at the same time reflect the light, there is provided a shield 17. This shield may be of any suitable shape and of any desired material. It partially embraces the circumference of the thimble and projects a given distance thereabove. This



shield or reflector is preferably hinged to the thimble, the ears 18 thereof fitting over the projections 18' of the said thimble. The object of thus hinging the shield to the thimble is to permit of the said shield being swung into and out of position, for at times it may be desired not to use the shield as a reflector. By thus connecting the shield to the thimble danger of the same being misplaced or lost is provided against.

When used within a mine-tunnel, the candle-lamp is preferably held in position by means of the supporting-frame 19, the tang 19' of which sticks into seams of the rock or into the timbering of the tunnel.

Having thus described the invention, what is claimed as new, and desired to be protected by Letters Patent, is—

1. A miner's candle-lamp, the same comprising a tubular body, a spring-projector located therein, a socket for the candle carried thereby, a lock-collar fitted to the outer end portion of the tubular body, an air-draft thimble detachably fitted to the lock-collar, a double-draft air-opening in the thimble, and outlet-openings in said thimble for the escape of air outside of the sphere of the flame.

2. A miner's candle-lamp, the same comprising a tubular body, a spring-projector located therein, a socket for the candle carried

thereby, a lock-collar fitted to the outer end portion of the tubular body, an air-draft thimble detachably fitted to the lock-collar, a double-draft air-opening in the thimble, outlet-openings in said thimble for the escape of air outside of the sphere of the flame, and a shield secured to and carried by the air-draft thimble.

3. A miner's candle-lamp, the same comprising a tubular body portion, a spring-projector located therein, a socket for the reception of a candle carried thereby, lateral projection extending from the upper portion of the body, a lock-collar fitted on the said body, bayonet-slots therein engaged by the said lateral projections, an air-draft thimble carried by the lock-collar, a bayonet-slot in said thimble, lateral projection on the collar which fits in the said slot, an air-draft opening in said thimble, and a series of outlet-openings therein for the escape of the admitted air.

In testimony whereof I have hereunto affixed my signature in the presence of witnesses.

WILLIAM J. ROGERS.

Witnesses:

THOS. BODLEY,  
J. C. KEANE.