

J. SAWYER.
Miners' Lamp.

No. 163,414.

Patented May 18, 1875.

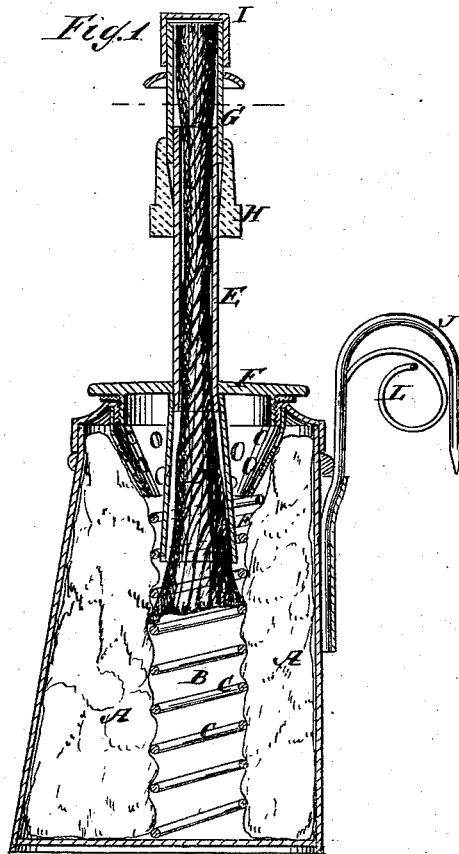
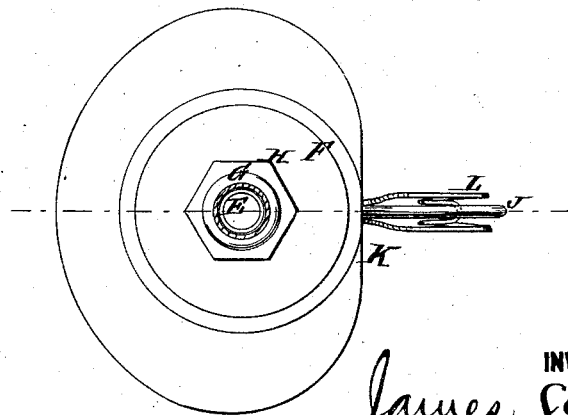


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES SAWYER, OF FREEBURG, ILLINOIS.

IMPROVEMENT IN MINERS' LAMPS.

Specification forming part of Letters Patent No. **163,414**, dated May 18, 1875; application filed March 20, 1875.

To all whom it may concern:

Be it known that I, JAMES SAWYER, of Freeburg, in the county of St. Clair and State of Illinois, have invented a new and Improved Miners' Lamp, of which the following is a specification:

The invention will be first fully described, and then pointed out in the claims.

Figure 1 is a sectional elevation of my improved lamp taken on the line *xx* of Fig. 2, and Fig. 2 is a plan view.

Similar letters of reference indicate corresponding parts.

A represents the sponge, with which the lamp is filled, except the well B in the middle, from which the sponge is held by a spiral wire, C, to allow the wick D to extend down into the lamp more or less, as may be required, say, to the middle. The lower end of the wick-tube E is funnel-shaped, and the wick is flared out thereat to the sides of the well, to touch the sponge, so as to draw the oil held in it. Only the oil which the sponge will contain is used, the rest being poured back into the can. The cap F is removable to fill the lamp, and a packing-washer, of rubber, is screwed on under the cap to keep a tight joint. G is a flame-regulator, consisting of a tubular sleeve on the upper end of the wick-tube, to slide up and down along the flame, and it has a rubber-spring ring, H, to hold it fast. I is a cap to close the top of the wick-tube when not

burning, to prevent the loss of oil. J is the hook for connecting the lamp to the hat of the miner, and L is a spring for securing it. The side K of the lamp, which bears against the hat or forehead of the miner, is made flat to rest steady, and prevent rolling about, as when made round.

With this improved lamp miners can safely burn gasoline and other light products of petroleum, which are much cheaper, and give better light, than the lard-oil commonly used.

The cap and wick are removed with the wick burning, to fill the lamp, and the oil contained in the wick will give light long enough to enable the lamp to be filled.

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

1. A miner's lamp, having sponge-filled body A, the central spirally wire bound well B, and the funnel-shaped neck-tube E, constructed and arranged as shown and described.

2. The combination of the adjuster G and the rubber ring, with the wick-tube, substantially as specified.

3. The combination of spring L, with the hook J, substantially as specified.

JAMES SAWYER.

Witnesses:

FRED. DARMSTATTER,
PHILIP CONRATH.