

(No Model.)

M. S. LORSCH.

MEANS FOR SECURING MINERS' LAMPS TO HATS, CAPS, &c.

No. 324,131.

Patented Aug. 11, 1885.

Fig. 1.

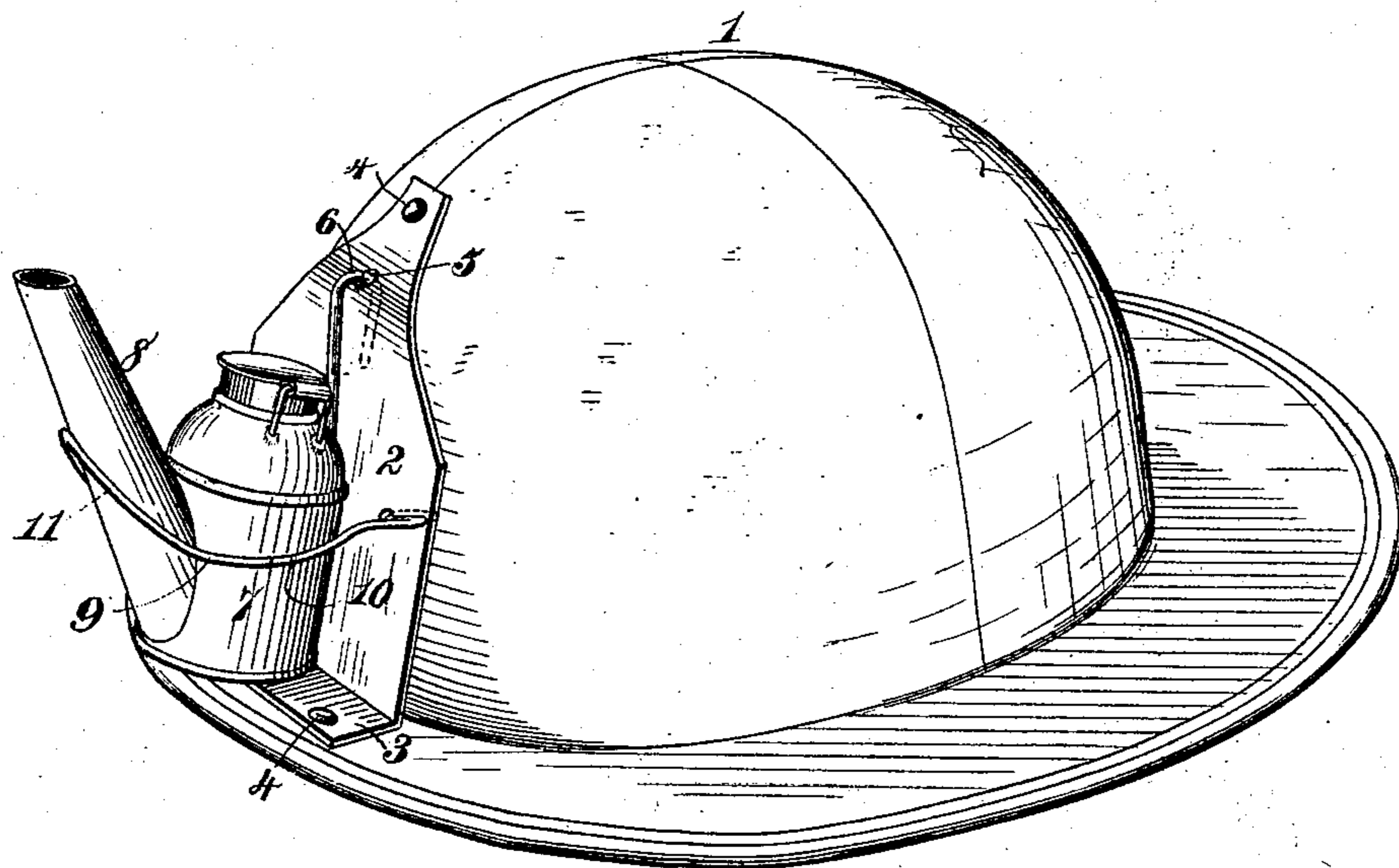


Fig. 2.

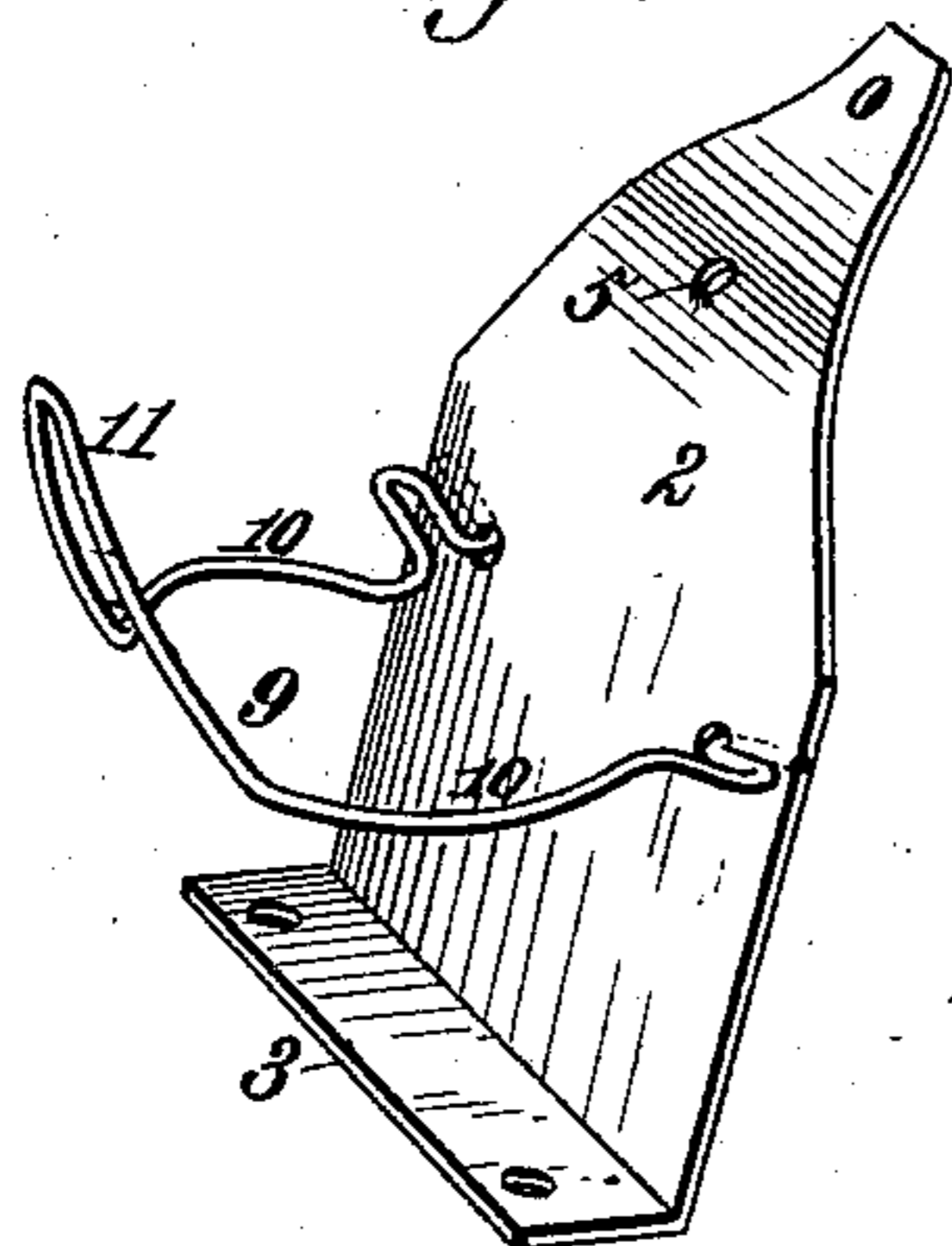
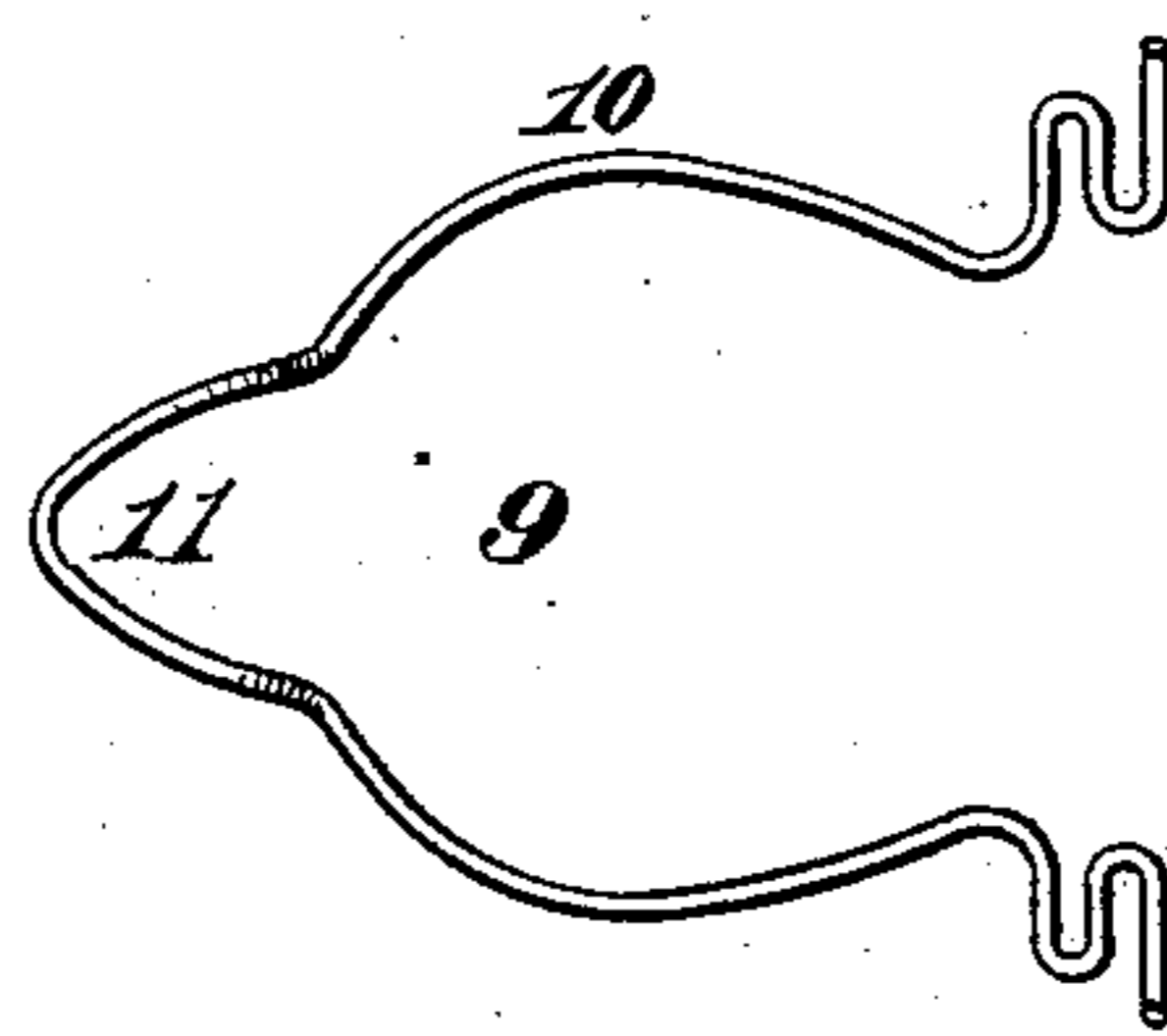


Fig. 3.



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UNITED STATES PATENT OFFICE.

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MEANS FOR SECURING MINERS' LAMPS TO HATS, CAPS, &c.

SPECIFICATION forming part of Letters Patent No. 324,131, dated August 11, 1885.

Application filed April 22, 1885. (No model.)

To all whom it may concern:

Be it known that I, MOSES S. LORSCH, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Means for Securing Miners' Lamps to Hats, Caps, &c., of which the following is a specification.

The object of the present invention is to provide simple and reliable means for securing miners' and other lamps to hats or other articles of head or body wear and preventing them from working loose by jars or other causes.

The invention involves the attachment to a hat or analogous article of a metallic plate, which is secured in place by rivets or other strong fastening devices, and is provided with an eye or opening for the reception of a hook on the lamp. Furthermore, the invention consists in providing a bail-shaped wire frame which possesses a sufficient degree of elasticity or springiness to bear upon the lamp and the burner-tube encircled by said frame and prevent the lamp from being jarred loose or disengaged from the supporting-plate on the hat.

In the accompanying drawings, Figure 1 is a perspective view showing a miner's lamp secured to a hat by my improved fastening devices. Fig. 2 is a detail view of the supporting-plate and the manner of applying the bail thereto. Fig. 3 is a detail view showing the entire shape of the lamp-holding bail or frame.

The reference-numeral 1 designates a hat or cap designed for the use of miners and others. To the front of this hat or cap I attach a metallic plate, 2, which is curved so as to conform to the body portion of the hat, and is provided in the present instance with a bottom flange, 3, resting upon the brim of the hat. In a brimless article of head-wear such flange would not be required. The plate 2 is secured in position by rivets 4, which extend through the plate and the material of the cap. Other strong and safe fastening devices may, however, take the place of such rivets. A hole or eye, 5, made at the top of the plate 2, is intended for the reception of the attaching-hook 6, projecting from the back of an ordinary miner's lamp, 7, which is generally made with the inclined burner-tube 8. My invention re-

lates solely to holding the lamp in position upon the hat or cap, and hence the shape of the fastening device should be in conformity with the shape of such lamp. In the present instance I make use of a bail-shaped frame, 9, which is made of wire or rod metal, and is so bent or shaped that it will possess two lateral curved branches, 10, which embrace the body of the lamp, and are joined in front by V-shaped or converging branches or arms designed to receive the burner-tube, as is clearly seen in Fig. 1. The rear portions of the curved lateral branches of the frame 9 are bent first at right angles in an outward direction, then at right angles in an inward direction, and then again at right angles in an outward direction. In this manner the inner terminals of the frame 9 approximate an S shape, as is indicated more fully in Fig. 3. The plate 2 is provided with holes for the passage of the outer arms of the S-shaped terminals 12 of the frame 9, such outer arms then lying against the rear face of the plate 2, as is seen in Fig. 2.

As is shown in the drawings, the front converging portion, 11, of the bail-shaped frame 9 extends in an upward and outward direction, so as to follow and conform to the position and shape of the burner-tube. The middle arm of the S-shaped terminals of the bail rest against the front of the plate 2, and more particularly the direct bearing points upon said plate are the arms lying against the rear face of the plate 2 and the angles formed at the junction of said outer arms with the middle arms of the S-shaped terminals.

It is evident that when a bail-shaped frame of the above description is attached to a supporting-plate, as shown, its movement in a vertical direction is limited by the peculiar shape of the inner terminals. For this reason the bail cannot drop down and become released from the lamp after the latter has been fitted in position. The frame or bail may also be described as a bow-shaped spring in which the action or pressure is in an upward direction, so that the converging outer portion in particular will constantly bear upon the burner-tube, notwithstanding the jars to which the lamp is subjected during use.

It is obvious, when the bail or frame is made of a metal sufficiently strong to bend

the metal attaching-plate 2 in the act of depressing said bail in order to insert the lamp, that the plate 2 will then become a spring, and upon the removal of the downward pressure upon the bail cause the latter to spring in an upward direction and hold the lamp by its tension. When the plate 2 is made of stiffer metal than tin, and the bail is made of suitably-strong metal wire, the elasticity inheres in the bail itself. In either case, however, the function of the bail is to hold the lamp firmly in place by exerting a constant upward pressure upon the same.

I am aware that a miner's lamp has been provided with a pointed hook to engage a cap, and with an attached wire bent into the form of a hook to enter a socket formed by inner and outer facings secured to the cap, the outer facing having an attached coiled spring for encircling and holding the base of the lamp. Such, therefore, I do not claim.

What I claim is—

1. As a means for securing a miner's lamp to a hat, cap, or other object, the combination, with a supporting-plate, of a bail-shaped frame comprising two lateral curved branches adapted to grasp the body of the lamp, said lateral branches being joined in front by converging arms formed to receive the wick-tube and having inner S-shaped terminals connected with the supporting-plate, an aperture

formed in the latter, and a hook rigidly mounted upon the lamp and engaging with said aperture, substantially as described.

2. The combination, with a miner's hat or cap, of a metallic supporting-plate having a flanged lower edge and provided with openings or sockets, a bail-shaped frame having its arms converging outwardly and their inner ends, formed as hooks, engaging the openings or sockets of the metallic plate, and a lamp embraced by the bail and having its wick-tube extending between and supported by the converging arms of the bail, substantially as described.

3. The combination of the metallic supporting-plate having openings or sockets and a laterally-projecting flange at its base with the bail-shaped frame for embracing the lamp-body and having its arms converging outwardly to receive and support the wick-tube of the lamp, and the inner ends of the arms provided with hooks engaging the openings or sockets in the supporting-plate, substantially as described.

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

MOSES S. LORSCH.

Witnesses:

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S. LORSCH.