

No. 674,321.

Patented May 14, 1901.

A. H. STOW.

HOOK PLATE FOR LAMP HOLDERS OF MINERS' CAPS.

(No Model.)

(Application filed Nov. 7, 1899.)

2 Sheets—Sheet 1.

Fig. 1

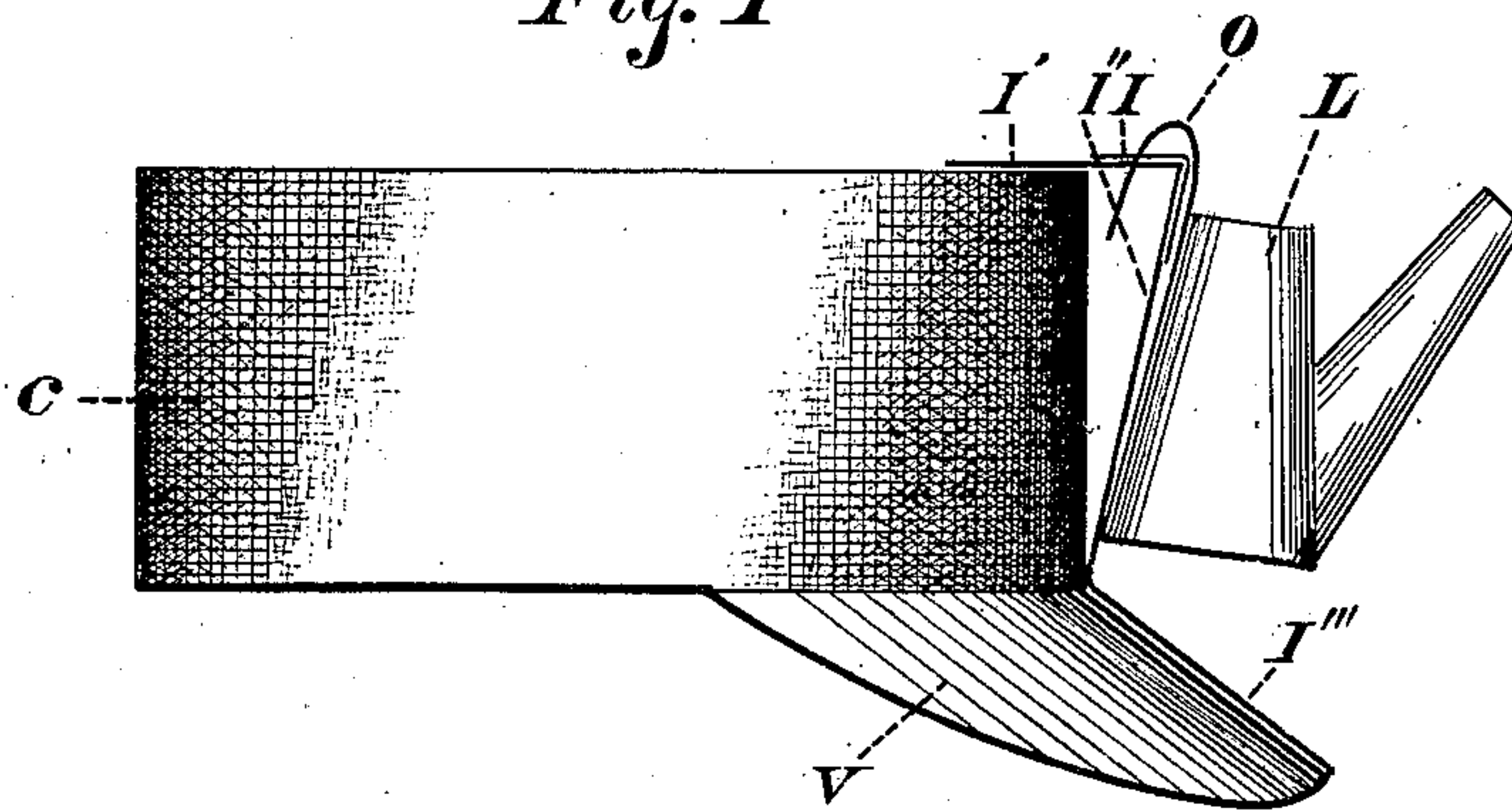


Fig. 2

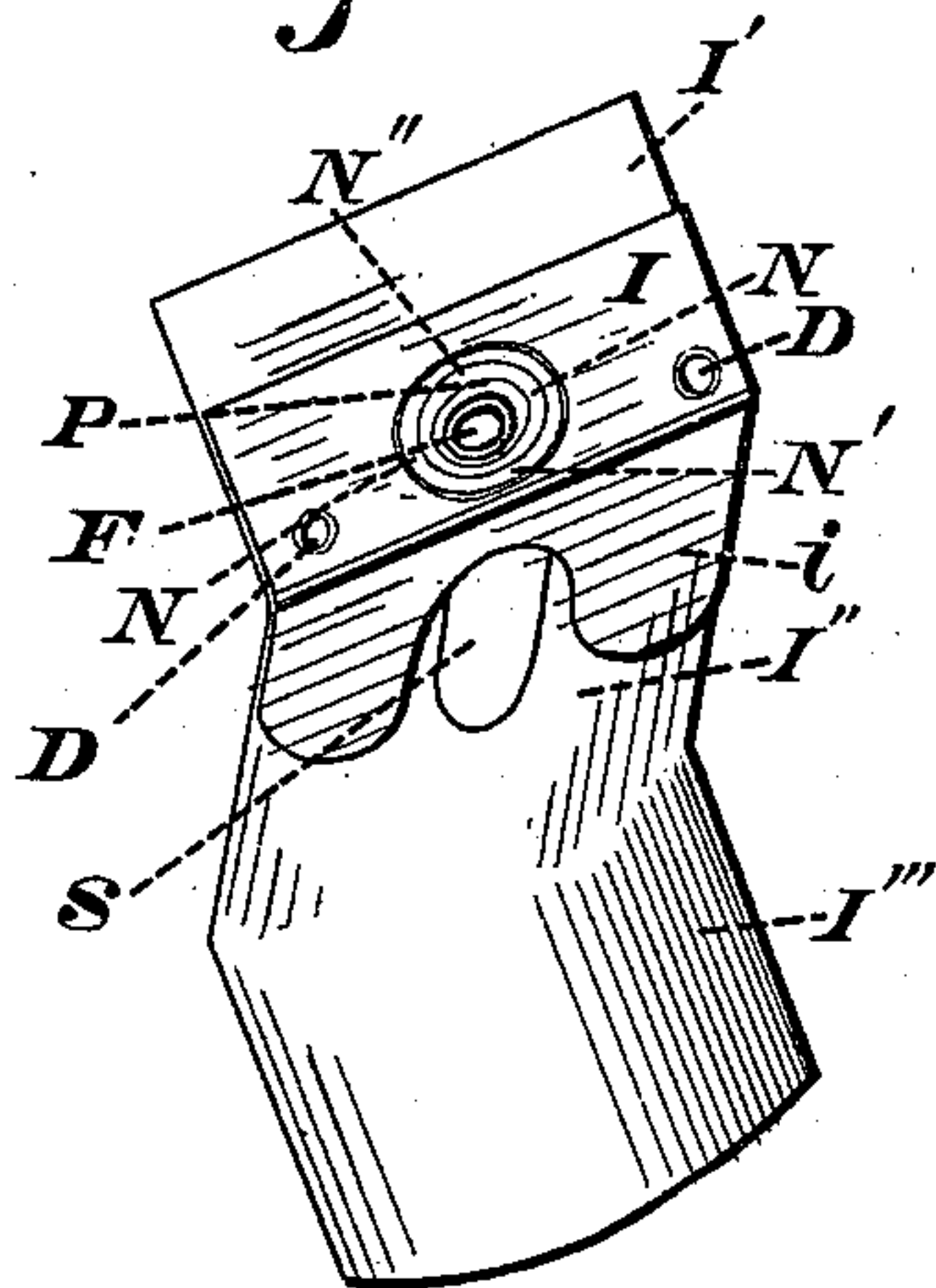


Fig. 3

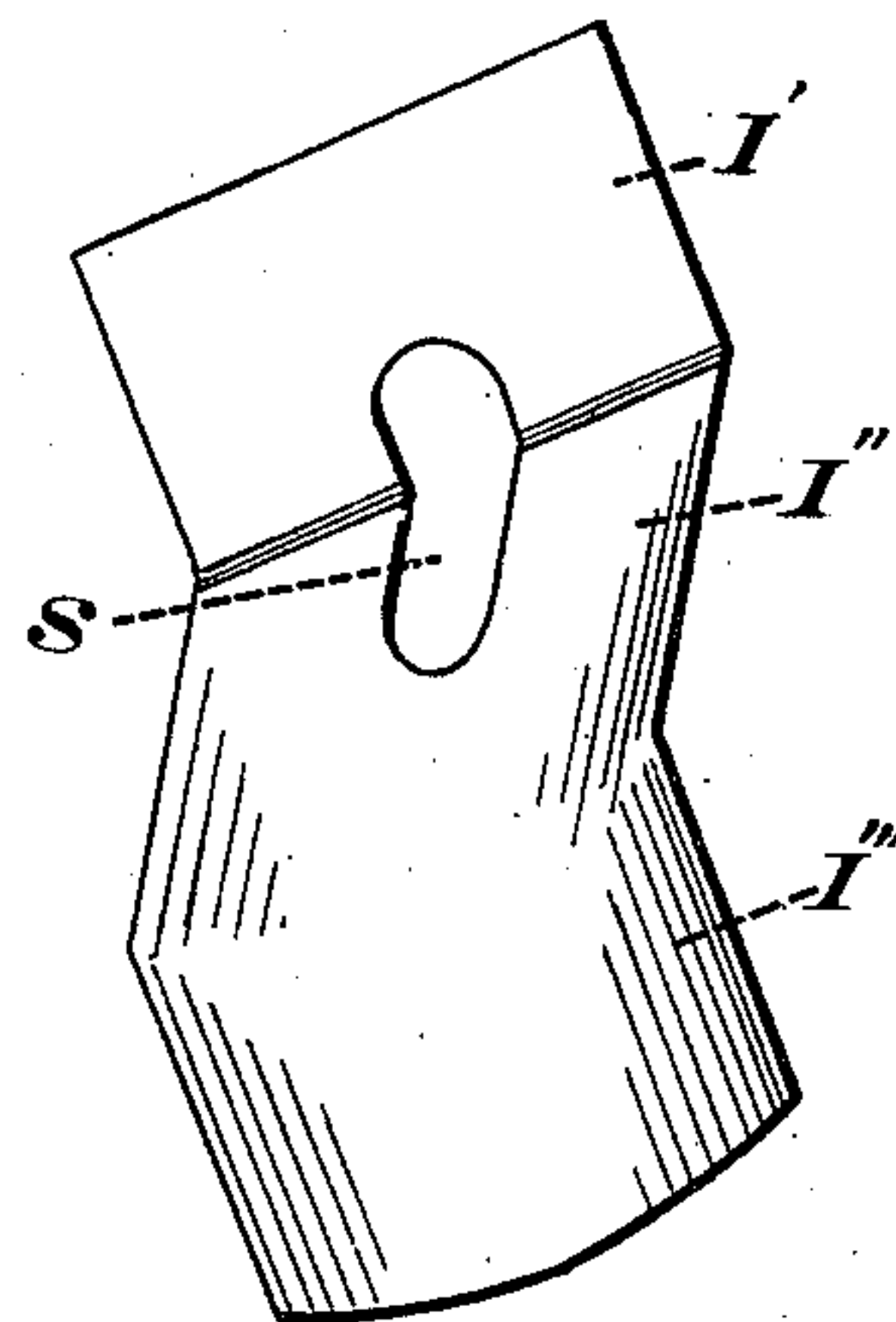
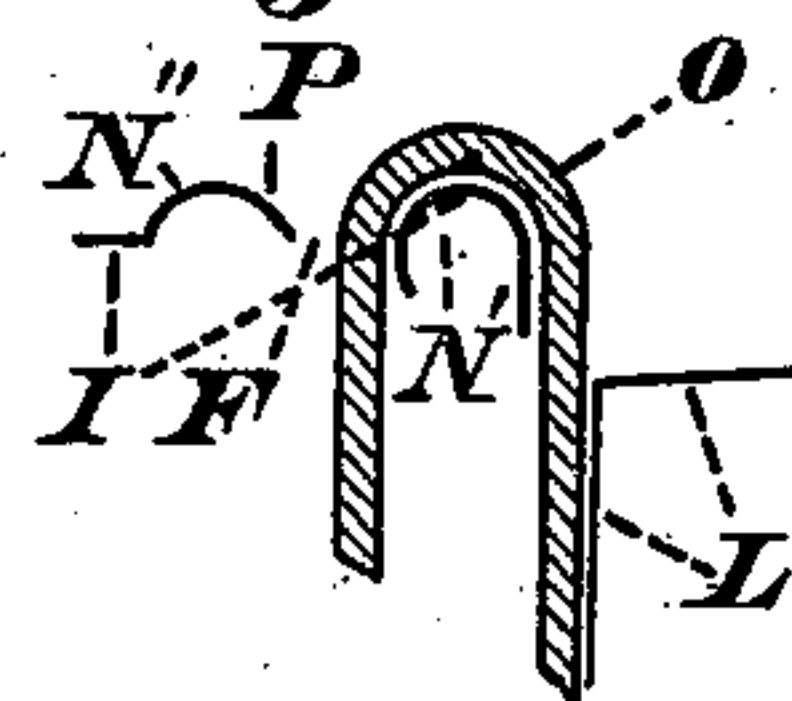


Fig. 4



Fig. 5



WITNESSES:

J. H. Clark
E. A. Worthington

INVENTOR

Audley H. Stow

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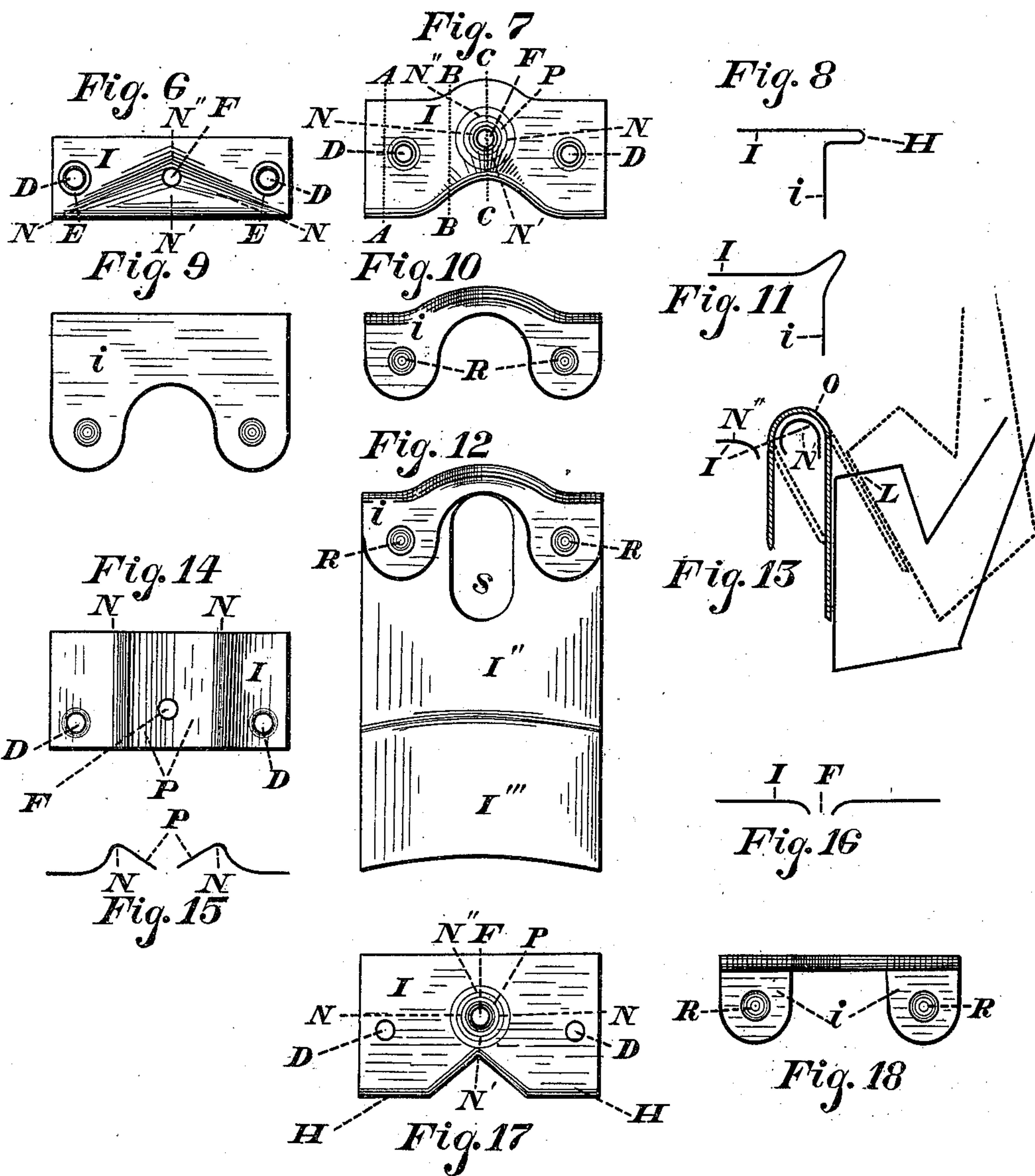
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G. H. Clark
G. A. Worthington

INVENTOR

Audley H. Stow

UNITED STATES PATENT OFFICE.

AUDLEY H. STOW, OF MATEWAN, WEST VIRGINIA.

HOOK-PLATE FOR LAMP-HOLDERS OF MINERS' CAPS.

SPECIFICATION forming part of Letters Patent No. 674,321, dated May 14, 1901.

Application filed November 7, 1899. Serial No. 736,208. (No model.)

To all whom it may concern:

Be it known that I, AUDLEY H. STOW, a citizen of the United States, residing at Matewan, in the county of Mingo and State of West Virginia, have invented a new and useful Hook-Plate for the Lamp-Holders of Miners' Caps, (Hats,) of which the following is a specification.

My invention relates to improvements in the hook-plates of lamp-holders for miners' caps, (hats.)

The lamps generally used by miners consist of an oil cup or reservoir having on one side a spout for the wick and on the opposite side a hook for attaching the lamp to its holder or support. The horizontal top part of the holder, that extending back over the cap, is commonly covered with a portion or strip of sheet metal, this sheet-metal covering being the hook-plate. The hook-plate and the underlying top part of the holder are provided with one or more perforations or holes, by means of which and through the insertion of the lamp-hook in same the lamp is held in its proper position with regard to the holder, the holder being suitably attached or secured to the front of the cap. It often becomes necessary for the miner during his usual vocation to remove his lamp and replace it quickly with the hand alone that holds the lamp without assistance from the other hand, which with the hook-plates or holders in use at present often becomes a provokingly slow operation, owing to the difficulty in finding the proper hole with the end of the lamp-hook; and the object of my invention is to overcome this difficulty in quickly replacing the lamp in its holder. I attain this object by the holder illustrated in the accompanying drawings, in which—

Figure 1 is a side view of miner's cap, holder, and lamp. Figs. 2 and 3 are views in perspective of the holder. Figs. 4 and 5 are sections at right angles to each other through the hook-plate. Figs. 6 and 7 are views from above of different forms of hook-plates; Fig. 8, a section through one form of hook-plate; Figs. 9 and 10, views from in front of different forms of hook-plates; Fig. 11, a section through one form of hook-plate; Fig. 12, a view from in front of the holder, showing one form of hook-plate in position; Fig. 13, a section through

one form of hook-plate and lamp; Fig. 14, a view from above of one form of holder; Figs. 15 and 16, sections through different forms of holders; Fig. 17, a view from above of another form of holder; Fig. 18, a view from in front of one form of holder.

Similar letters refer to similar parts throughout the several views.

The miner's lamp L, Fig. 1, is of the usual construction, being provided with an attaching-hook O. The holder consists, essentially, of a horizontal top piece I', Figs. 1, 2, 3, &c., which extends back over the cap C, and a more or less vertical front piece I''. A third piece or part, the vizor-plate I''', is a desirable and usual addition, the three pieces or parts being commonly made from a single blank of sheet metal partly covered with a somewhat soft material resembling leather, the hook-plate I being added in part to protect the soft material from being worn away by the lamp-hook.

The hook-plate I, Figs. 2, 8, 9, &c., has preferably two ears or flaps *i* extending down over the front piece I''. The said flaps, however, may be omitted, the hook-plate in any case being suitably attached by rivets, eyelets, lapped edges, or otherwise in its proper position with regard to the holder, as in Figs. 1, 2, and 12.

The hook-plate I, Figs. 2, 6, 7, &c., which may usually be described as consisting mostly of a nearly or quite horizontal body, is so constructed that the hole F intended for the lamp-hook O is situated in a depression P, which converges downward toward the said lamp-hook hole in order that the lamp-hook when placed in any part of the depression may be readily guided into the said hole by a simple downward motion of the hand holding the lamp. The lamp-hook hole F, with its surrounding depression P, is formed in the horizontal body of the hook-plate, Figs. 2, 6, 7, &c. The depression P, surrounding the hole F, is preferably somewhat elongated as much as or even more than shown in Fig. 2, but may also be very much elongated, as in Fig. 6. The said depression may be considered as due to and formed by surrounding ridges N N' N'', Figs. 2, 6, 7, &c. In fact, my invention may be more clearly defined if described as consisting in placing certain ridges

around or about or adjacent to the said lamp-hook hole F.

While the depression or ridge surrounding the lamp-hook hole F, Fig. 2, is preferably continuous with itself, as shown, forming a somewhat circular figure, yet it is not at all essential that the said depression or ridge be continuous. The hole F may be surrounded by two or more separate depressions or ridges, as in Fig. 14.

What may be called the "longer axis" of the cap is that extending from the side of the cap opposite the center of the visor to the center of the visor and holder. Prolonged in a forward direction it would pass through the body of the lamp and spout.

The essential feature of my invention is that portion of the depression P, Figs. 2, 6, 7, &c., which extends parallel with the longer axis of the cap. Figs. 14 and 15 illustrate the essential features alone, which are the side ridges N N, the hook-plate I being so placed on the holder that the said side ridges and their resulting depression P extend in a direction parallel with the longer axis of the cap. As an extreme a single side ridge alone may be used.

In the effort to attach the lamp to its holder the hand holding the lamp readily pushes the hook O as far back as the body of the lamp will permit it to go. With the hook in this position the hole F, Fig. 14, having been properly placed a simple downward motion of the hand holding the lamp will readily guide the lamp-hook into the hole F, provided the lamp-hook falls anywhere between the two side ridges N N, and for this reason that portion of the depression P, Fig. 2, between the hole F and the front edge of the hook-plate, which is the front part of the depression or a front ridge N', is in no wise essential or necessary, although a desirable addition.

Were all lamp-hooks of exactly the same width or spread there would be no object in a depression or ridge back of the hole F and which is the back part of the depression or a back ridge N''. Owing to a slight variation in the width or spread of hooks a back ridge is a desirable addition, although the same end may be accomplished by making the hole F larger.

The relative size, proportion, or elevation of either of the side ridges, the front ridge, and the back ridge compared with any or all of the others may be varied largely until they graduate the one into the other—as, for instance, the back ridge may be made higher than the others, having a uniform slope forward at right angles with the longer axis of the cap, or the slope of such a back ridge may be more and more concentric forward and toward the lamp-hook hole until it becomes round, circular, or fan-shaped. The top of the back ridge instead of being sharp, or nearly so, may be flattened and extended backward considerably, as for the insertion of the holes for the wick-raising implement,

or the top of the back ridge may be extended back horizontally without a break over the cap to which it may be suitably united, in which case the lamp-hook hole would appear to be situated in a somewhat irregularly-shaped groove along the front edge of what is apparently the hook-plate, although it is in reality the bottom of the groove that is the hook-plate and not the top of the ridge. In a similar way either of the side ridges or both may be made either more or less prominent than either of the others, or the front ridge may also be varied.

The continuous ridge, the preferred form, evidently consists of two side ridges N N, a front ridge N', and a back ridge N'', all combined or blended in one, in view of which the resulting continuous ridge may be properly described and designated as "the ridges" or simply "ridges."

The hole F, Fig. 6, may appear at first sight to be surrounded by only a front ridge N' and back ridge N''. The surrounding ridge or depression is, however, continuous, the side ridges N N being relatively short.

The hook-plate instead of having a somewhat square corner or angle between the horizontal portion I and the vertical part i, as in Fig. 1, may be extended forward in a loop or fold H, Fig. 8, which is a section through the hook-plate I, Fig. 7, along the line A A. This fold or loop may be inclined upward in the middle, as shown by Fig. 11, which is a section through the hook-plate along the line B B, Fig. 7. This upward bending of the fold H, Fig. 8, will form a recess which will assist in guiding the body of the lamp to its proper position for the insertion of the lamp-hook. This upward bending, as shown in Fig. 7, will also assist the depression P in guiding the lamp-hook O into the hole F. Fig. 10 is a front view of this form of hook-plate; Fig. 12, a front view of same attached to holder. The fold H may also be upwardly inclined along its entire length; but as such is not of itself a new or novel device. It is to be noted that the fold thus described forms but a single ridge. The fold may also be cut in the middle and turned down, as in Figs. 17 and 18. Neither is this latter form alone of itself either new or novel, although the addition of side ridges to either form makes the combination both new and novel I take it.

In order that the lamp may still retain its upright position when the miner bends his head down, a slot S, Fig. 2, may be cut in the front piece I' and extending up and over into the top piece I', as in Fig. 3, but may be varied in shape largely. As will be seen in Fig. 13, the slot will permit the free end of the hook to pass through, thus enabling the lamp to retain its upright position. As shown in Fig. 13, the front ridge is somewhat cylindrical in shape, the better to enable the lamp to swing forward freely.

An almost if not a necessary addition to a lamp-holder is a wick-raising implement, usu-

ally and preferably a horseshoe-nail. A special hole or holes D D are provided to carry this nail and are preferably also surrounded by depressions, as in Figs. 2, 6, 7, and 14.

5 The hook-plate I has heretofore been attached to the horizontal top piece I' by rivets. It may be with advantage attached by means of eyelets E E, Fig. 6, which thus serve as holes for the wick-raising implement.

10 It happens occasionally that the miner wishes to carry his lamp rather at the side of the cap instead of in front, in which case the holes D D, Figs. 6, 7, and 14, may serve as secondary lamp-hook holes.

15 Instead of the hook-plate I being used in combination with the horizontal top piece I', as in Figs. 1, 2, &c., the said top piece may be omitted and the hook-plate extended back over the cap, so as to form an improved top
20 piece, and may properly be designated and considered as such, or, on the other hand, the separate hook-plate may be omitted, the said top piece being so fashioned and constructed as itself to form said improved hook-plate and
25 may in this latter event be properly designated and considered as such. The combined hook-plate and top piece may also be looked upon as either an improved hook-plate or as an improved top piece, which is made up of a
30 combination of materials.

Where the separate hook-plate and top piece suitably united are used, the top piece I' is preferably made flat, as in Fig. 3, but may conform wholly or in part to the ridges,
35 &c., in the hook-plate. The slot S may also be omitted, the only essential feature being that the surface, whether of metal or other material, upon which the lamp-hook falls in the effort to place the lamp in the holder have
40 side ridges surrounding the lamp-hook hole.

Any suitable material or materials or combination of materials—such as sheet metal, leather, rubber, canvas, papier-mâché, or similar composition—may be used in making
45 either the hook-plate I, the top piece I', the front piece I'', or the vizor-plate I''' or any combination of them. Leather, suitably prepared papier-mâché, or other material may be either backed or covered with sheet metal, or
50 both, or used alone, or sheet metal may be used alone.

The hook-plate, top piece, front piece, and vizor-plate may all be in one piece or in a number of distinct parts suitably joined and fastened together.

55 The improved hook-plate may be used in combination with other forms of holders with other devices, for strengthening the holder and guiding the lamp to its proper place, such as the vertical ribs or ridges along the front
60 piece, illustrated in my application filed August 17, 1899, Serial No. 727,613.

I do not limit myself to the exact forms or dimensions shown in the accompanying drawings, which, however, illustrate the principle
65 underlying my invention.

I am aware that prior to my invention forwardly - projecting and upwardly - inclined hook-plates have been known and that the
70 lamp-hook hole has heretofore been placed in a depression. I therefore do not claim either of these devices broadly; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. A hook-plate I for the lamp-holders of
75 miners' caps, consisting of the combination, substantially as hereinbefore set forth, of a horizontal portion or body, and a perforation in same for the miner's lamp-hook, the said perforation being adjacent to one or more
80 ridges.

2. A hook-plate I for the lamp-holders of miners' caps or hats, consisting of the combination, substantially as hereinbefore set forth,
85 of a horizontal body, and the side ridges N N, a suitable lamp-hook hole F being provided in proper relation and position with regard to the said side ridges, between the said side ridges, as explained.

3. A hook-plate I, for the lamp-holders of
90 miners' caps, consisting of the combination of a horizontal body and a lamp-hook hole in same, the said lamp-hook hole being placed in a depression formed by surrounding ridges, substantially as hereinbefore set forth.

95 In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

AUDLEY H. STOW.

Witnesses:

H. D. HITER,
W. Z. WHITE.