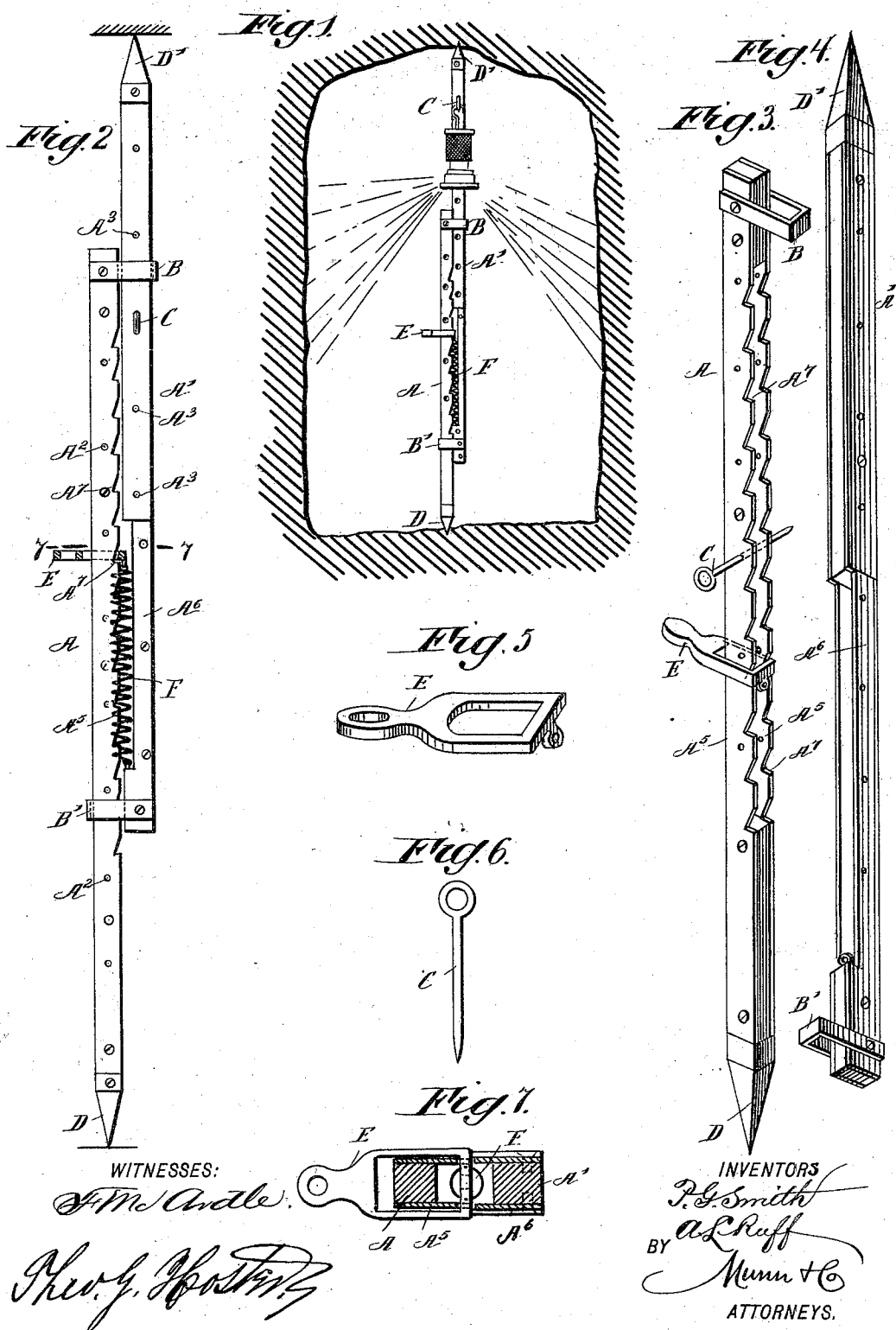


P. G. SMITH & A. L. RUFF.
HOLDER FOR MINERS' SAFETY LAMPS.

Patented Sept. 10, 1895.



UNITED STATES PATENT OFFICE.

PHILIP G. SMITH AND ABRAHAM LINCOLN RUFF, OF DICKERSON RUN,
PENNSYLVANIA.

HOLDER FOR MINERS' SAFETY-LAMPS.

SPECIFICATION forming part of Letters Patent No. 545,918, dated September 10, 1895.

Application filed August 24, 1894. Serial No. 521,187. (No model.)

To all whom it may concern:

Be it known that we, PHILIP G. SMITH and ABRAHAM LINCOLN RUFF, of Dickerson Run, in the county of Fayette and State of Pennsylvania, have invented a new and Improved Holder for Miners' Safety-Lamps, of which the following is a full, clear, and exact description.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claim.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement as applied. Fig. 2 is an enlarged side elevation of the improvement with the pawl in section. Figs. 3 and 4 are perspective views of the post-sections. Fig. 5 is a perspective view of the pawl. Fig. 6 is a side elevation of the pin for supporting the lamp, and Fig. 7 is an enlarged sectional plan view of the improvement on the line 7 7 of Fig. 2.

The improved holder or support is provided with a post made in two sections, A and A', provided with the guides B and B', respectively, of which the guide B is secured on the section A and forms a guide for the upper part of the post-section A', while the other bearing B' is secured on the section A' and forms a guide for the lower part of the other section A. Thus the two post-sections are fitted to slide one on the other, so as to permit the miner to extend the said sections to increase or decrease the length of the post, to conveniently engage the ends of the posts with the top and bottom of the mine, as shown in Figs. 1 and 2. The sections A and A' of the lamp-support are provided with apertures A² and A³, located a suitable distance apart and adapted to receive an eye-pin C, on which the safety-lamp is hung, as illustrated in Fig. 1. It will be seen that by this arrangement the hook C may be located near the ground or higher up, as desired, and the lamp hung thereon, so as to cause the rays of light to fall to the place desired by the miner to facilitate his work.

The post-sections are preferably provided

with pointed ends D and D', respectively, to readily engage the roof and bottom of the mine to securely hold the post in place. The sides of the post-sections A and A' are lined with sheet-metal plates A⁵ and A⁶, respectively, of which the plates A⁵ are formed with notches A⁷ and the plates A⁶ are cut out for a short distance, as shown.

In order to hold the sections A and A' the desired distance apart we provide a locking-plate E to slide loosely on the section A and adapted to engage the said notches A⁷ on the section A. A spring F is attached at one end to the section A' at the inner face thereof, while the other end of the spring connects with the said plate E, so that when the latter is in contact with the desired notch A⁷ on the post-section A then the two posts A A' are forced apart in a downward and upward direction to hold their pointed ends D and D' in engagement with the roof and bottom of the mine.

In order to accommodate the spring and to permit of drawing the same apart the sections A A' are formed with grooves by extending the plates A⁵ and A⁶ (see Figs. 3, 4, and 7) for accommodating the spring and at the same time permitting the opposite faces of the two post-sections to come as close together as possible.

It will be seen that by the arrangement described the two sections A and A' are held the desired distance apart, so that their pointed ends engage the material forming the roof and bottom of the mine; and when it is desired to shift the post the operator disengages the plate E from its respective notch, so that the two sections A A' may be slid over and toward one another to shorten the post and permit of moving it to any other desired place, after which the two sections are slid apart to cause their pointed ends to again engage the roof and bottom of the mine. The plate is then raised to expand the spring, and the plate is engaged with the corresponding notch, so that the force of the spring holds the post-sections in engagement.

As previously described the pin C is engaged in one of the apertures A² or A³, so as to hold or support the lamp in the desired position. Heretofore miners were consider-

ably hampered in their work by being unable to properly support their lamps in the mine, but with the device described they are enabled to support the lamp in the desired position to facilitate their work.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

A miner's lamp holder, consisting of a post made in two sections mounted to slide one upon the other, one section being provided with a series of notches on its inner face, a locking plate adapted to engage the said

notches but movable independently of the other section, and provided with a projection for manual operation, and a spring located between the inner faces of the sections and connected to the said locking plate and to the section not engaged by the locking plate, substantially as described.

PHILIP G. SMITH.

ABRAHAM LINCOLN RUFF.

Witnesses:

FRANK H. RASBORO,

J. L. LENT.