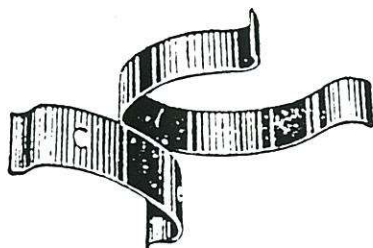


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## Detachable Lamp Clip



Patented

Takes the place of the spreader wires on the lamp. When used on the regulation miners cap the clip snaps onto to the tin shield of cap. If used on a hat the snaps can be cut off and clip fastened to hat by rivets or staples, and in this same manner the clip can be fastened to the lapel of a coat. The clip holds lamp securely and lamp can be snapped into place or removed with greatest ease.

List Price, Each 10c.

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**Figure 10.** Advertisement for the Detachable Lamp Clip shown on the back of a lamp instruction sheet.

1. Gregg S. Clemmer, *American Miners' Carbide Lamps*, (Tucson, Arizona: Westernlore Press, 1987), p. 69.
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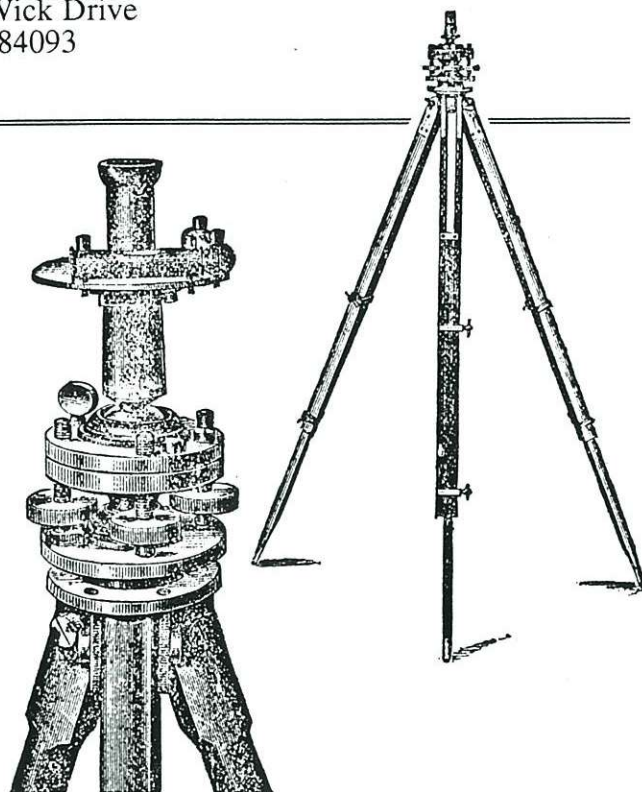
## UNDERGROUND SURVEYING: A CANDLE TRIPOD LAMP

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A previous MAC article (Issue No. 12, Summer 1991) described two types of tripod lamps which used small oil lamps as the light source. These lamps were used as target lamps and the surveying technique used was briefly described in that article.

A candle version of a tripod lamp was also manufactured and is illustrated in Figure 1. This surely must be one of the most elaborate precision candle holders ever manufactured! A candle is held in a long tube with two bubble levels mounted on the tube with the tube itself mounted on a ball and socket arrangement with levelling screws. The whole device was mounted on a tripod and was interchangeable with a transit. An example of an underground surveying kit consisting of a candle holder, two tripods, and a Lean's dial type transit was recently available on the market. The kit was made by E. T. Newton & Son of Camborne, Cornwall (England). The candle holder in Figure 1 is attributed to the same manufacturer.



**Figure 1.** Candle holder and tripod (From B. H. Brough's *A Treatise on Mine Surveying*, London, 1896)