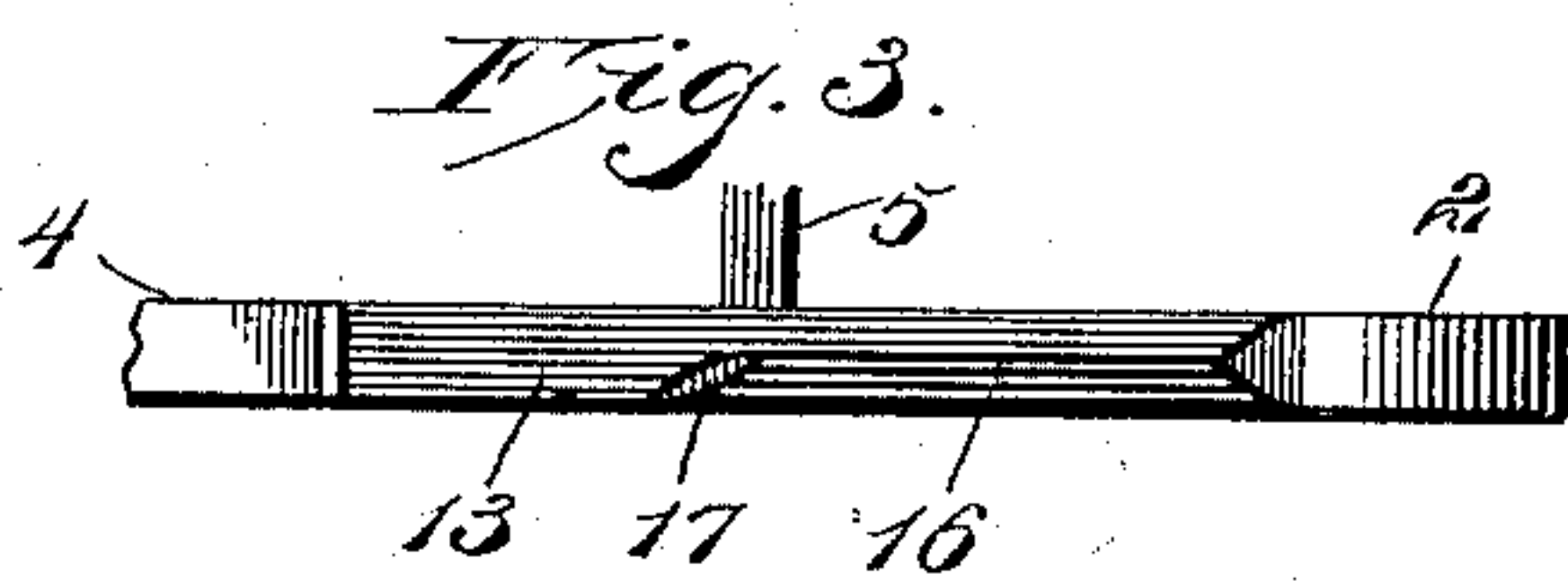
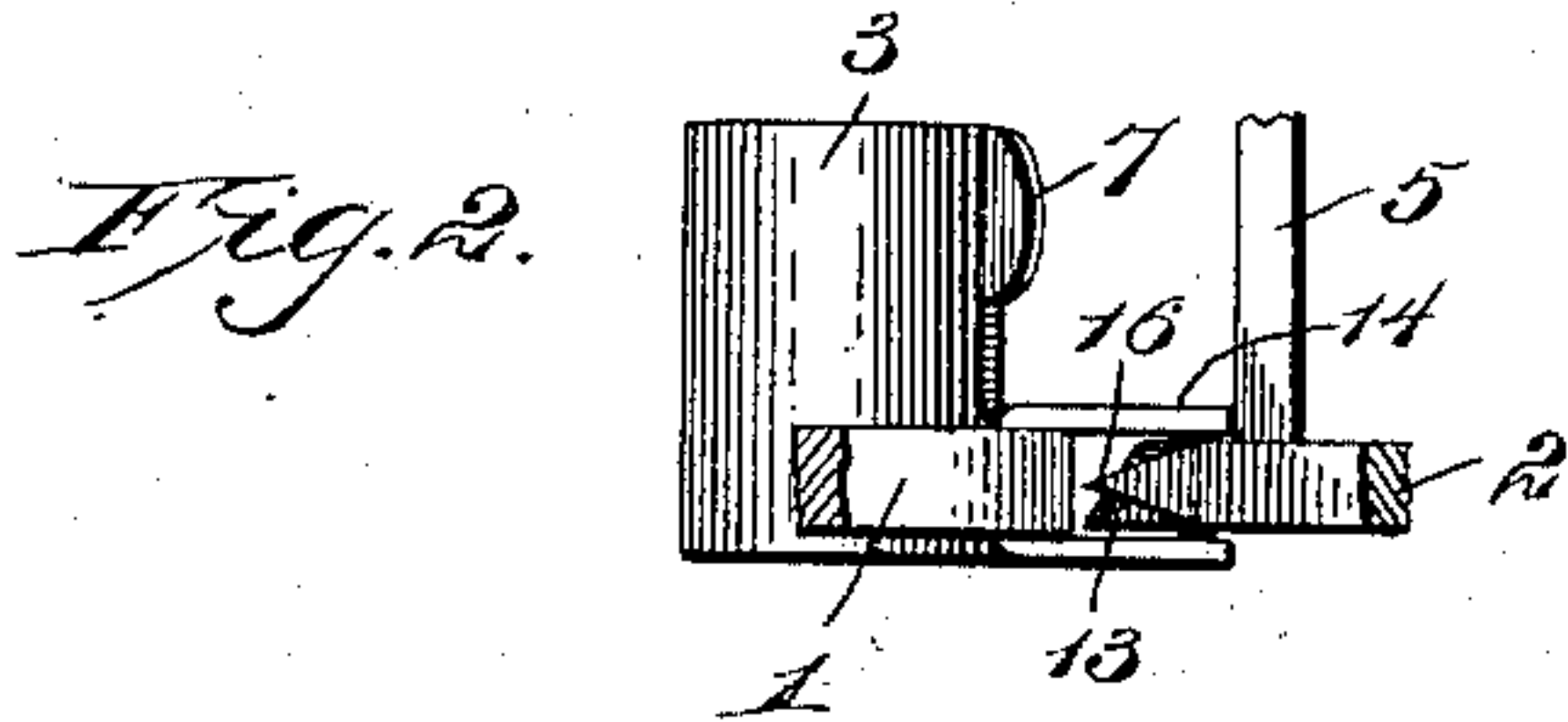
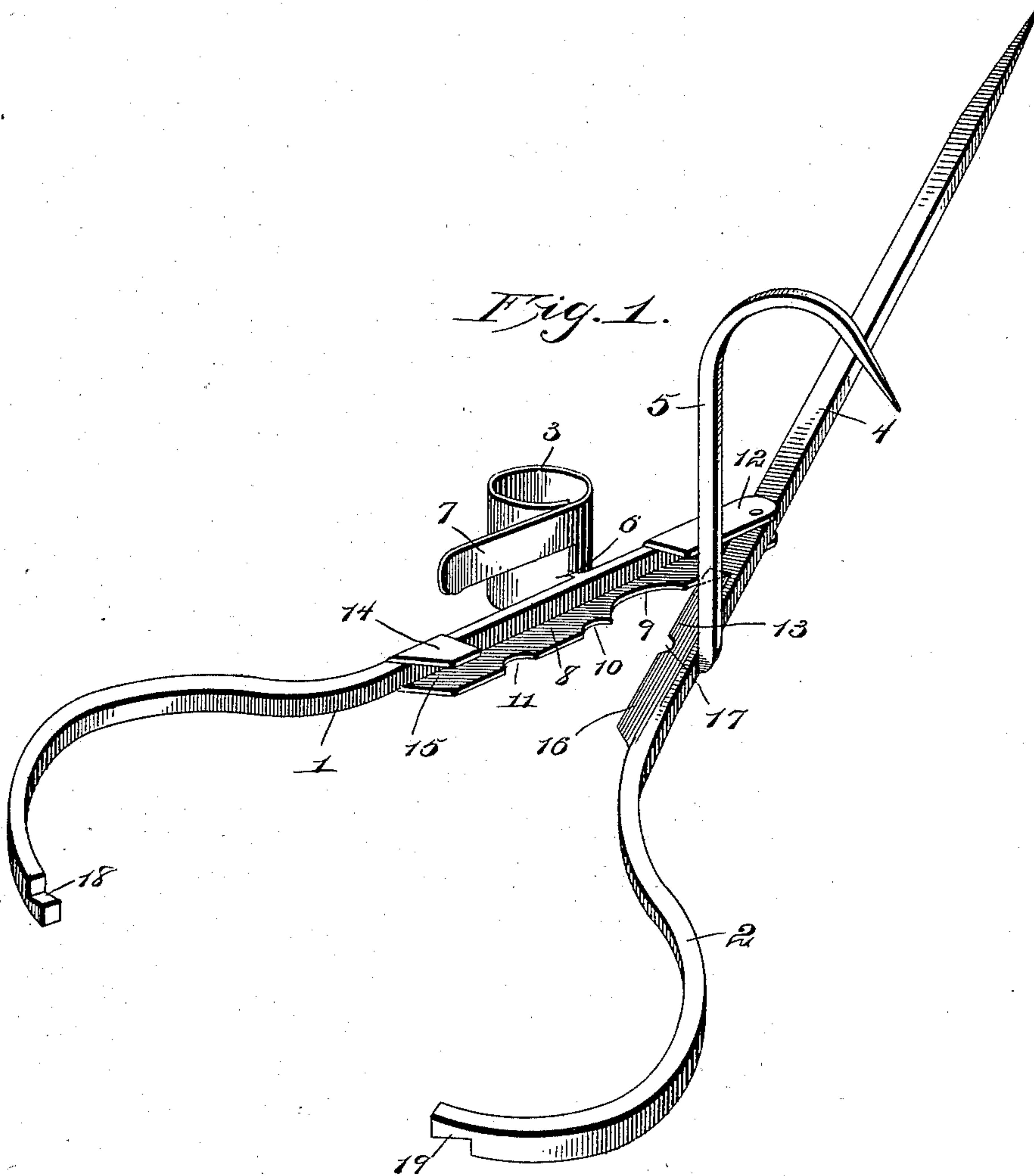


No. 662,565.

Patented Nov. 27, 1900.

A. & J. HOWARD.  
MINER'S CANDLESTICK.  
(Application filed May 14, 1900.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

ALFRED HOWARD AND JOSEPH HOWARD, OF OURAY, COLORADO.

## MINER'S CANDLESTICK.

SPECIFICATION forming part of Letters Patent No. 662,565, dated November 27, 1900.

Application filed May 14, 1900. Serial No. 16,667. (No model.)

*To all whom it may concern:*

Be it known that we, ALFRED HOWARD and JOSEPH HOWARD, citizens of the United States, residing at Ouray, in the county of Ouray and State of Colorado, have invented new and useful Improvements in Miners' Candlesticks, of which the following is a specification.

This invention relates to that class of devices known as "miners' candlesticks" and in which, in addition to a candle-socket, a piercing-stick, and a suspending-hook, is combined means for cutting fuses and for crimping caps thereon.

The objects of the invention are to give increased facility of operation to such devices by a construction which will be simple and durable and also to provide a special cutting edge for splitting fuses between the pivoted members composing the cutters of the tool.

The invention therefore consists in the novel features and in the arrangement and construction of parts, as will be hereinafter fully described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a view in perspective of the improved candlestick; Fig. 2, a section view looking from the end and showing the position of the rear cutting edge within its receiving-channel in the opposite member; and Fig. 3, a view in elevation of that portion of the cutting member having the cutting edges.

As is common to devices of this character, the present invention comprises the two pivoted members 1 and 2, which together form the handle thereof, one of the members having a candle-socket 3 attached to its outer side and the other member continuing beyond the pivotal point to form a spear or pointed stick 4, that may be readily forced into the earth, wood, or crevices to sustain the candle in a vertical position, while the usual hook 5 is adapted to suspend the tool and maintain it in the proper position for the burning candle. The candle-socket 3 is constructed of metal so cut and bent as to form a split cylinder with a base-overlapping portion 6, which is firmly attached to member 1, and an upper overlapping portion 7 of the unattached side, which provides a thumb-lever for expanding the socket to receive a candle and hold same by the contraction of the socket.

The essential features of novelty of the invention reside in that portion of the device designed for cutting fuses, lengths, splitting the ends of fuses, and crimping caps thereon. To this end the member 1 is provided with a flange 8, arranged at right angles to and extending along the under edge of the main part of said member between the handle thereof and the pivots and is provided with semicircular notches 9, 10, and 11, each having a special function, which will be hereinafter set forth. The said member 1 at its pivot end is formed with a short flange 12, projecting from its upper side, so as to form, with said base-flange 8, a short groove, into which the member 2 is firmly pivoted and its cutting edge 13 held and guided, so as to make close contact with flange 8. The member 1 is also formed with a small flange or projection 14 above the flange 8 and terminating at the same point of said member's length to form a recess or channel 15 to receive and firmly hold therein a portion of the fuse inserted lengthwise, so the said fuse will be engaged by the cutting edge 16, which is formed, as shown in Fig. 2, by beveling the member 2 from both sides, so as to bring the cutting edge centrally of the channel when the members are brought together. Intermediate the cutting edges 13 and 16 is formed a notch 17, corresponding in size to and adapted to register with notch 10, the purpose of which notch is to hold a fuse-cap between them and by compression crimp the same on the fuse.

The notch 9 is beveled from the under side of the flange and its curve extends the length of the cutting edge 13, thus permitting the use of the entire cutting edge and holding the fuse against displacement during the operation of cutting. The notch 11 is designed for cutting purposes where, from the nature of the cutting, there is required some play between the supporting-notch and the cutting edge—as, for instance, the cutting of a fuse on a lengthwise slant.

The handle portions of the members 1 and 2 are notched at their meeting ends to form overlapping projections 18 and 19, respectively, with inwardly-inclined engaging faces, which, in order to make the engagement, require the members to be slightly sprung apart. The pulling apart of the han-



dles in opening will overcome the natural spring of these parts, while for all practical purposes the handles will remain firmly held together.

5 Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

10 A miner's candlestick comprising a piercing member having a cutter, and a coacting member pivoted thereto having a lateral, under flange, a lateral top flange at one end, and a lateral top flange opposite one portion of the cutter, the former member having a portion

of its cutting-blade adapted to engage with said under flange, and a portion having its 15 cutting edge adapted to enter between said opposite top flange and said under flange, substantially as described and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

ALFRED HOWARD.

JOSEPH HOWARD.

Witnesses:

E. A. KIRSHER,

E. C. KELLOGG.