S. M. THURMAN.

ATTACHMENT FOR MINERS' CANDLESTICKS.

APPLICATION FILED NOV. 29, 1907.

908,821. Patented Jan. 5, 1909.

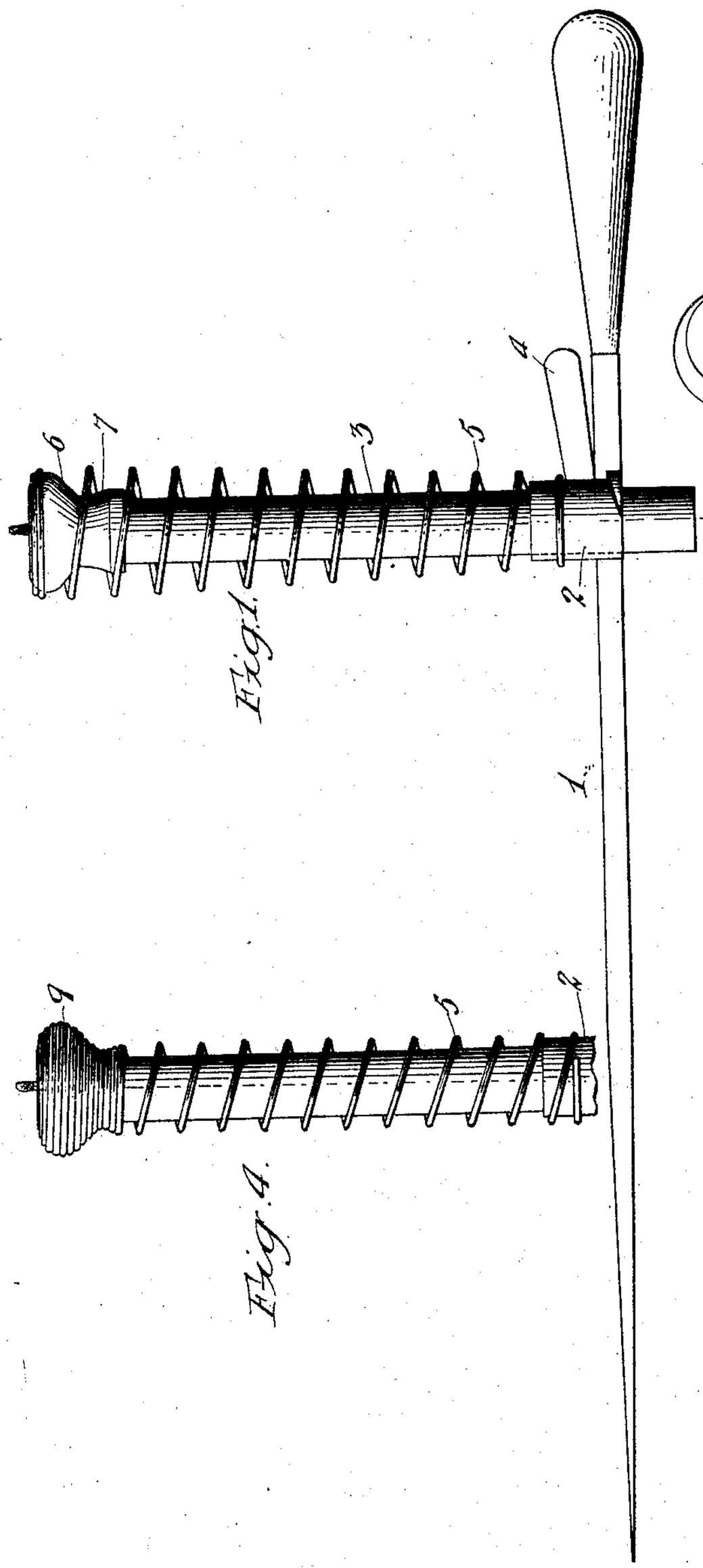

Fig. 1.

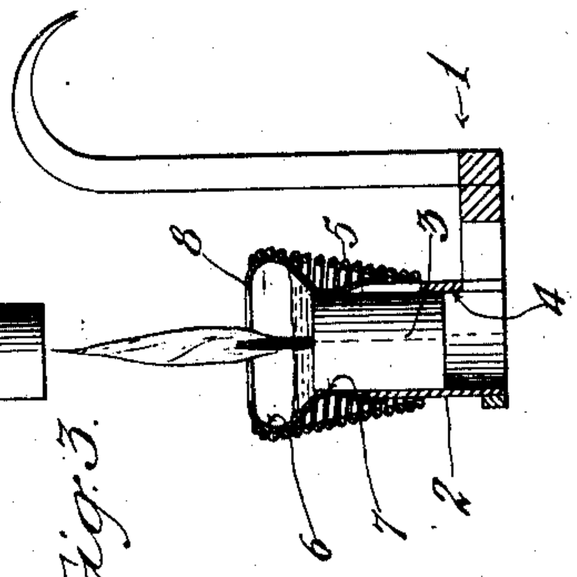

Fig. 3.

Fig. 4.

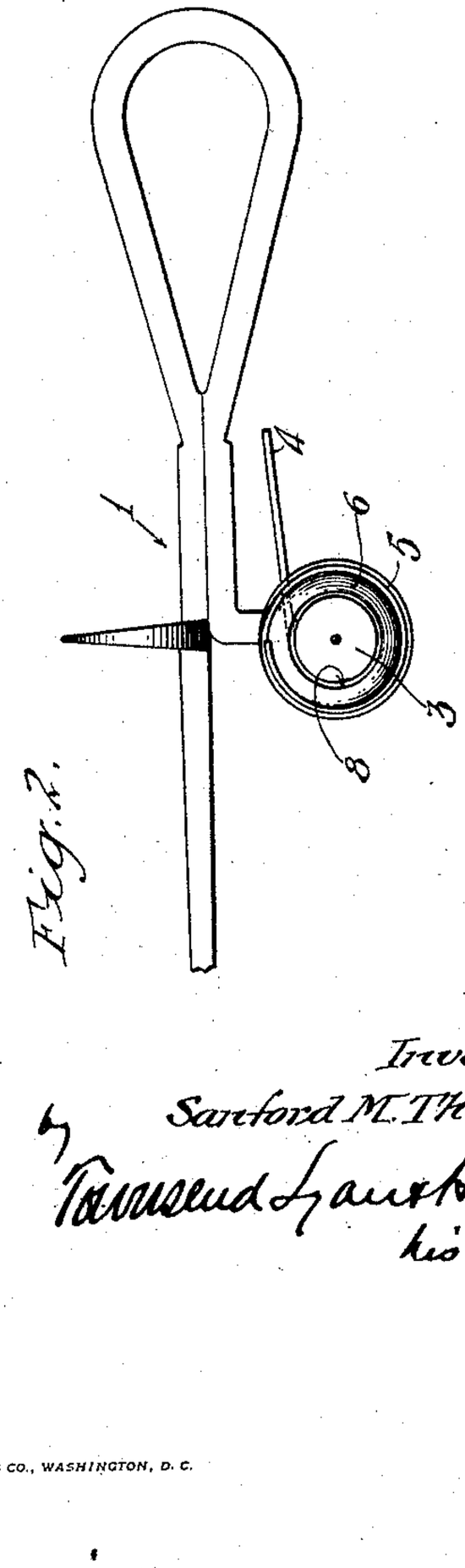

Fig. 2.

Witnesses:-
Louis W. Gratz.
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his attys

UNITED STATES PATENT OFFICE

SANFORD M. THURMAN, OF LOS ANGELES, CALIFORNIA.

ATTACHMENT FOR MINERS' CANDLESTICKS.

No. 908,821. Specification of Letters Patent. Patented Jan. 5, 1909.

Application filed November 29, 1907. Serial No. 404,436.

To all whom it may concern:

Be it known that I, SANFORD M. THURMAN, a citizen of the United States, a resident of Los Angeles, county of Los Angeles, and State of California, have invented a new and useful Attachment for Miners' Candlesticks, of which the following is a specification.

The principal object of the invention is to provide simple, cheap and efficient means for saving the melted material of the candle until it is consumed, instead of permitting it to be lost or wasted as is usually the case.

Another object is to provide means for protecting the candle against breakage when projected through the holder, and also to hold the parts in their proper position before the candle has been inserted.

In the accompanying drawings, which illustrate the invention:—Figure 1 is a side elevation of a miner's candlestick provided with my attachment and with a candle projected through the stick. Fig. 2 is a broken top plan view of the same. Fig. 3 is a vertical, transverse, sectional view through the holder, showing the attachment collapsed, or in its closed position with a candle therein which has been nearly consumed. Fig. 4 is a side elevation of a different form of my attachment.

Referring more particularly to the drawings, which are for illustrative purposes only and, therefore, are not drawn to any particular scale; 1 indicates a miner's candlestick, which may be of any desired form, and provided with a thimble 2 through which a candle 3 is inserted in the usual manner, said thimble being preferably formed of flexible material and provided with the usual thumb-piece 4 by which it may be slightly opened or expanded for the insertion or removal of the candle. Secured to or mounted upon the top of the thimble in any desired manner is the lower end of a coil spring 5, which is provided at its upper end with a cup or thimble adapted to engage with the upper end of a candle to catch and retain the melted grease or material until the same shall have been consumed.

In the drawings, the cup is shown in the form of a thimble 6 which has its lower portion substantially cylindrical or slightly flaring, as shown at 7, to engage with the upper end of a candle and prevent its being drawn downward by the spring until after the candle has been slightly warmed or softened by the heat from the blazing wick.

The upper portion of the thimble is expanded to form a cup of sufficient capacity to hold the melted material, and the upper edge is preferably drawn inward as shown at 8, to form an inwardly extending lip or rim to prevent the melted material from being thrown out of the cup when the candlestick is turned sidewise, or when its pointed end is being driven into a timber for the purpose of holding it.

As shown in the drawings, the spring is made in the form of a spiral which gradually decreases from the top to the bottom, so as to permit of the thimble being inserted thereinto, with one or more contracted coils above the greatest diameter of the cupped portion of the thimble and its lower end is of such a diameter as to be rigidly secured to the thimble 2, yet permitting the lower end of the thimble 6 to telescope into or fit over the upper end of the thimble 2, as shown more particularly in Fig. 3.

Instead of constructing the attachment as above described, it can be formed from a single piece of wire wound into a close spiral with the upper end formed cup shape, as shown at 9 in Fig. 4, which would then be dipped into a suitable melted material to secure the coils together and thereby prevent them from becoming separated. In this manner the cup can be formed without the thin sheet-metal thimble 6, as heretofore described, thereby cheapening the construction and yet causing it to retain the melted candle material in the same manner as though the thimble were employed.

A portion of the coil directly below the cup can be given a suitable shape or diameter to cause it to engage with the candle and prevent the downward movement of the cup faster than the candle burns away, while the lower end of the coil can be secured to the thimble upon the candlestick in the same manner as though the upper end were provided with a separate cup.

By constructing the device from metal there is no danger of burning any part of it by the flame of the candle, nor of its rotting, or deteriorating from the exposure to which it would be subjected, as with rubber, &c., and by contracting the ends of the coil above and below the thimble, the latter can not be accidentally separated from the coil and lost,

as might happen with separable parts, and by having a continuous coil from top to bottom the attachment is always in operative condition and there is no danger of any of its parts becoming detached, one from the other, as could happen with springs that are detachably engaged upon hooks.

In using a candlestick with the attachment secured thereto, as above described, the candle is inserted from the bottom of the thimble in the usual manner and pushed upwardly as far as may be desired. As the candle passes through the thimble in this manner, its upper end engages with the upper thimble or cup of the spring and carries it upward by opening the coils of the spring, as shown in Fig. 1.

The friction between the candle and the candlestick will hold the candle against being drawn downward by the spring, and the friction between the upper thimble and the candle will be sufficient to retain it in position until the candle has been softened by the heat, the strength of the spring being comparatively weak.

As the upper end of the candle is consumed, the spring gradually contracts and draws the upper thimble downward, thereby affording a receptacle at the base of the blaze to retain all the melted material that is apt to be produced by the flickering and waving blaze, or in case the candle should stand at an angle while it is burning.

In addition to drawing the thimble downward as the candle is consumed, the spring also affords more or less protection for the candle when it is projected upward through the thimble on the candlestick and assists in holding it upright, and especially when being used in places of high temperature when the candle is softened to a greater or less extent. The spring also affords a means for holding the two thimbles in contact before the candle has been inserted, or when the candle has been substantially consumed, except the length of the two thimbles, as shown in Fig. 3.

In addition to forming a cup or receptacle and a guard for the candle, my attachment also serves as a warning that the portion of the candle above the lower thimble has been nearly consumed by dimming the light on account of the blaze gradually moving down into the upper thimble as the candle is being consumed and the upper thimble has reached the limit of its downward movement, or is resting upon, or within, the upper end of the lower thimble.

Owing to the fact that the melted material is held around the wick, the flame from the candle will be brighter than without such retention, owing to the greater ease with which the hot melted material can be drawn up into the wick.

Having described my invention, I claim:—

1. In an attachment for miners' candlesticks, a coiled spring having a cup at its upper end which is adapted to engage with the upper end of a candle, a portion of the spring at the cup being of an increased diameter with the coils toward the top of the cup decreasing in diameter, and the lower portion of the spring being of a less diameter than the portion at the cup and adapted to fit upon a candlestick and hold the attachment in position.

2. In an attachment for miners' candlesticks, a coiled spring having its upper end of increased diameter and its lower end adapted to engage with a candlestick and hold the attachment in position, and a thimble within said upper end, provided with means for engaging with the upper end of a candle, the coils at both ends of the spring being of a less diameter than the thimble to prevent the accidental removal thereof.

3. In an attachment for miners' candlesticks, a coiled spring having its upper end of increased diameter and its lower end adapted to engage with a candlestick and hold it in position, and a thimble within said upper end, the top of which is provided with an inturned lip and the lower portion is contracted to engage with the top of a candle, the top coils of said upper end of the spring being of less diameter than the thimble and adapted to engage with said inturned lip.

4. The combination with a miner's candlestick provided with a thimble, of a coiled spring secured at its lower end to said thimble, and a thimble secured in the upper end of said spring adapted to engage with a candle, the adjacent ends of said thimbles being adapted to telescope with each other when the spring is collapsed.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 21st day of November, 1907.

SANFORD M. THURMAN.

In presence of—
W. S. Boyd,
Frank L. A. Graham.