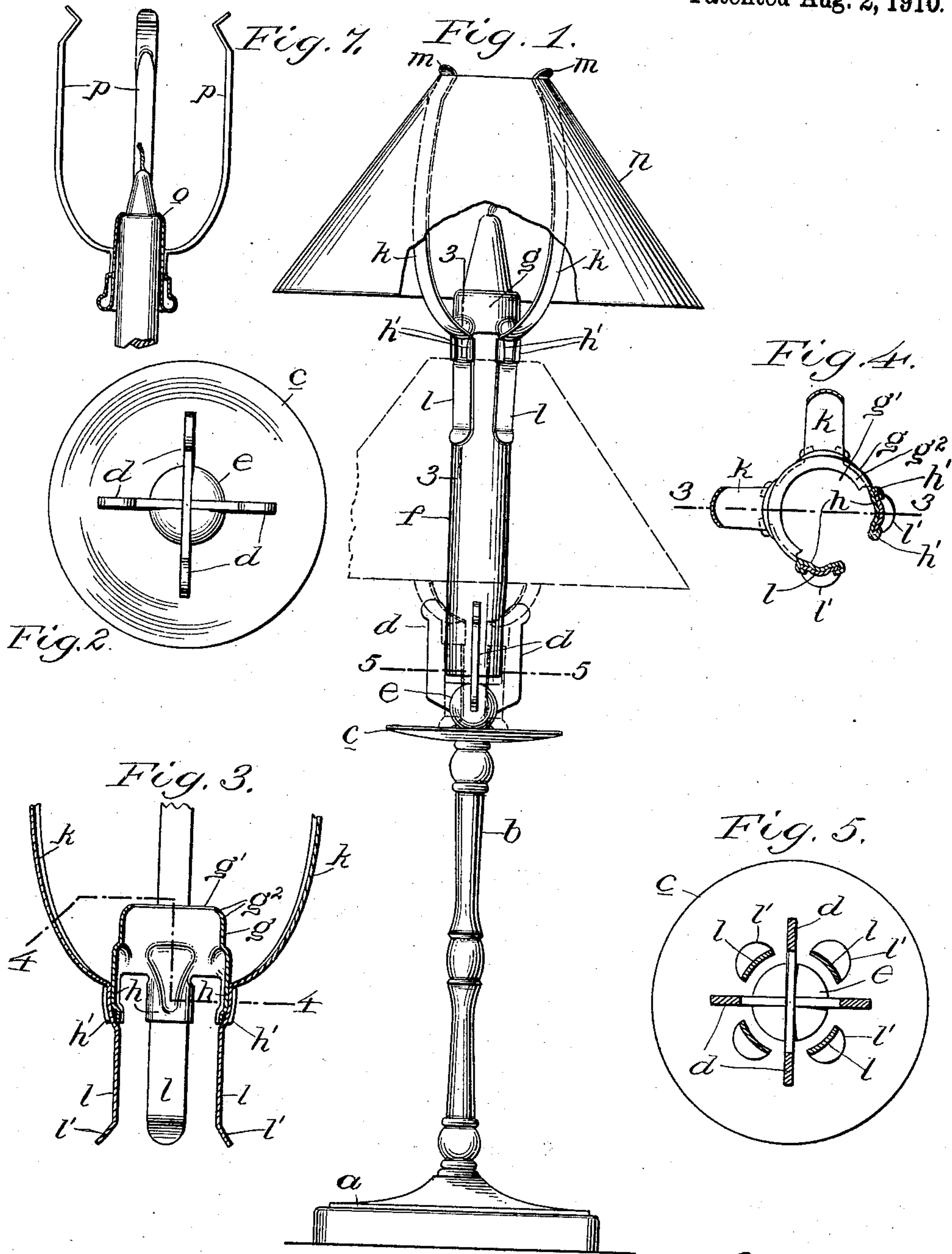


J. P. EUSTIS.
CANDLE LIGHT.
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966,185.

Patented Aug. 2, 1910.



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Fig. 6.

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UNITED STATES PATENT OFFICE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN P. EUSTIS, a citizen of the United States of America, residing at Newton, county of Middlesex, and State of Massachusetts, have invented certain new and useful Improvements in Candle-Lights, of which the following is a specification.

My invention relates to candle-lights of the class in which a shade is employed, and the main object of the invention is to provide an efficient and practical candle-light.

Further objects are to provide a candle-light with a shade-holder particularly adapted for use with candles; to provide a shade-holder which engages with the inner side of the upper edge of the shade in such way that the shade is positively held in a predetermined position upon the holder; to provide a shade-holder which does not have to be frequently adjusted relatively to the tip of the candle, but which gravitates and lowers automatically as the candle is consumed; and to provide a shade-holder with candle-tip receiving means, preferably provided with means for interlocking with complementary members formed by the socket which receives the candle, so that when the candle has been consumed down to and within the socket the shade-holder and shade will still remain in position and will not topple over.

These being some of the objects in view, my invention consists of certain features of construction and combinations of parts to be hereinafter described and then claimed with reference to the accompanying drawings showing desirable forms of the invention, and in which—

Figure 1 is a side elevation of the preferred form of candle-light, showing in full lines the position of the shade and shade-holder upon an unburned candle and also in dotted lines the position of the shade and shade-holder when the candle has been consumed; Fig. 2 is a top view of a candle-stick, constructed in accordance with the present invention; Fig. 3 is a detail longitudinal section on line 3—3, Fig. 1; Fig. 4 is a detail transverse section on line 4—4, Fig. 3, some of the parts being in elevation; Fig. 5 is a transverse section on the line 5—5, Fig. 1, assuming that the shade and shade-holder have been lowered to the dotted line position in Fig. 1; Fig. 6 is a detail side elevation of one of the fingers of the candle-

holding socket; and Fig. 7 is a longitudinal central section of a modified form of the invention in connection with a candle-tip.

Referring to Figs. 1 to 6 of the drawings, the candle-stick proper is shown as comprising a base *a*, a stem *b*, a dished remnant-plate or table *c*, and a socket for receiving the lower end of a candle, comprising a plurality of upwardly projecting fingers *d* preferably spaced at equal distances apart and composed of flat strips of metal arranged edgewise toward the center of the group of fingers. Said fingers extend outwardly and upwardly from a ball-like portion *e* located at the center of the plate *c*. The said fingers are preferably provided at their inner edges with suitable protuberances or ridges *d'*, shown in detail in Fig. 6, which enter or plow into the substance of the lower end of a candle, such as *f*, when the same is pushed down in the socket. Candle-tip receiving means are provided composed of a metallic shell or cap *g* which has a large wick-opening *g'*, Figs. 3 and 4, formed and defined by the inner edge of an inturned top guard-lip *g*² of the cap or shell, which lip rests upon the tip or top of the candle *f* while the tapered end of a new candle may extend through the said opening *g'*. The said cap or shell *g* forming the tip-receiving means, provides a well or pocket for the hot melted wax or tallow of the candle, and there are affixed to or supported by said tip-receiving means certain metallic parts to be described which tend to cool the shell or cap and retard the melting of the candle and thus, with the assistance of the guard-lip *g*², prevent the melted wax or tallow from flowing out of the well formed within the same. Extending downwardly from the lower part of the cap or shell *g* are preferably integral dished or humped portions stamped up from the cap or shell and forming a plurality of lugs *h*, having side lips or wings *h'*. Suitable metallic strips *k—l* are arranged around the said cap or shell *g* to extend in a vertical direction and are placed flat against the said lugs *h*, and over the edges and upon the outer surfaces of the said strips the side lips or wings *h'* are bent so as to attach and secure the strips to the cap or shell. This manner of securing the strips is clearly shown in Fig. 3. The upper portions *k* of the same strips *k—l* are curved outwardly away from the cap or shell *g*, but for the greater portion of their length

they extend substantially upright. For the greater part of the length of each portion k of said strips the same is longitudinally channeled, or curved in cross section, so as to stiffen and strengthen the same, while the upper end of each of said portions k is bent angularly to form an outwardly acting jaw m . The said strip portions k constitute spring or expanding shade supporting arms provided with the described jaws which are adapted to engage the inner side of the upper edge of a suitable shade such as n . The arms k are preferably upwardly extended and bent laterally from the cap g in such way that the outwardly presented recesses of the jaws are located above said cap at a distance greater than that to which they are located to one side of said cap. It will be observed that the angularly bent jaws m of the arms of the shade-holder act in an outward direction upon the shade and grip and hold the same positively in such position that the shade hangs properly from its upper edge. The strip portions or arms k being of sheet metal provide wide points of contact between the jaws and the shade, which material is preferable to, and more satisfactory than, wire. By fixing the shade in position upon the shade-holder, the shade does not have to be adjusted during burning of the candle, and this is due to the fact that the shade always maintains a substantially fixed position relative to the flame of the candle. This relatively fixed position of flame and shade is obtained because of the fact that the shade-holder is supported from the candle-tip receiving cap or shell which in turn is supported by the candle. The described shade-holder has the additional advantage that it will firmly hold either round, square or hexagon shades squarely and centrally.

In Fig. 7 a modification of the invention is illustrated in which the candle-tip receiving means consists of a tapering cap or shell o from which the shade-supporting arms p rise. This is the simplest form wherein a shade-holder constructed in accordance with this invention is illustrated in the drawings, but this modification does not include an important feature which is also comprehended within the invention as claimed. The feature referred to is clearly illustrated in Figs. 1, 3 and 5, and consists of a plurality of downwardly extending anti tip-over members or fingers for the parts supported by the same formed by the lower portions l of the before-described metallic strips $k-l$, which members or fingers are provided with out-turned ends l' . These downwardly extending members or fingers l may lightly grasp the candle as shown, but it is not necessary that they contact with the candle. The said members or fingers l correspond in number with the fingers d and are further-

more spaced apart to correspond with the spaces between the socket fingers d so that the same may be inserted between the said socket fingers and be supported thereby. In the use of a shade-holder, combined with the said interlock-members or fingers l and the socket composed of upwardly projecting fingers d , care is taken that in placing the shade-holder upon the candle the said members or fingers alternate with the fingers of the candle-socket, or in other words, that the said members or fingers are in line with the spaces between the fingers d . The result will be that when the candle is consumed down to a short stub the lower ends of the members or fingers l enter between the upper ends of the socket fingers d , and the shade and shade-holder consequently gravitate until the entire candle-stub within the socket fingers is consumed or melted, the said members or fingers being now in their lowermost position. The lower ends of the said members or fingers are preferably long enough to rest upon the remnant-plate c of the candle-stick, but this is not essential.

An important feature of the proper relative spacing of the members or fingers l to the socket fingers d is that when the enmeshing or engaging is taking place or is complete there are open spaces through which the melted material of the stub flows onto the remnant-plate so that the socket is entirely cleared and is ready to receive another candle. An advantage incident to the interjecting of portions attached to the shade-holder between portions attached to the candle-stick is that when the candle is nearly consumed the shade-holder and shade are maintained in position upon the candle-stick and will not fall off the stick, if care is taken that in the adjustment of the shade-holder upon the candle the members or fingers are placed in line with the spaces between the fingers of the socket.

Obviously some features of the invention may be used without others, and other obvious parts added or parts altered, without departing from the scope and spirit of the invention.

I am aware that prior to my invention it was old in the art to provide globe or shade-holders for gas fixtures with upwardly extending spring arms which engaged the bottom or lower edge of a globe or shade, but such arms are comparatively short and could not support the globe or shade from its upper edge around the flame, and, furthermore, have not that resiliency due to considerable vertical extension which is desirable where shades of candle-lights are to be supported from their upper edges. I therefore do not claim such old construction.

What I claim as new is,—

1. In a candle-light, a candle-tip receiving cap having an inturned top guard-lip,

whereby said cap is adapted for support by a candle-tip, and a plurality of outwardly-acting laterally bent spring arms rising from said cap, each of said arms extended upwardly above the cap to a distance greater than the distance to which it is bent laterally away from said cap, and said arms being provided at their free ends with means for positively engaging the upper edge of and rigidly supporting a shade.

2. In a candle-light, an apertured candle-tip receiving cap, and a plurality of outwardly-acting shade-supporting spring arms, rising from said cap, and provided at their upper free ends with outwardly presented shade-grasping jaws, said grasping jaws being located above said cap at a distance greater than that to which they are located to one side of said cap.

3. In a candle-light, candle-tip receiving means conformed and adapted for support by a candle-tip, and carrying a plurality of outwardly-acting shade-grasping and supporting arms, said arms being of longitudinally channeled sheet metal.

4. In a candle-light, candle-tip receiving means conformed and adapted for support by a candle-tip, and carrying a plurality of outwardly-acting arms provided at their normally free upper ends with angularly bent outwardly presented shade-gripping jaws, said jaws being located above said means, at a distance greater than that to which they are located to one side of said means.

5. In a candle-light, the combination, of candle-tip receiving means conformed and adapted for support by a candle-tip, and carrying a plurality of outwardly-acting shade-grasping and supporting arms having freely acting upper ends located above said means at a distance greater than that to which they are located to one side of said means, with a shade removably engaged at and within its upper edge by the freely acting upper ends of said arms.

6. In a candle-light, candle-tip receiving means, and a plurality of arms extending upwardly therefrom and having means providing a detachable direct engagement with a shade, but constructed to positively grip the shade and sustain it rigidly in position, said engaging means being located above said candle-tip receiving means at a distance greater than that to which it is located to one side of said candle-tip receiving means.

7. In a candle-light, the combination, of candle-tip receiving means conformed and adapted for support by a candle-tip, and carrying a plurality of outwardly-acting sheet-metal shade supporting arms provided with angularly bent shade-gripping jaws, with a shade removably engaged at and within its upper edge by the said jaws.

8. In a candle-light, a shade-holder hav-

ing candle-tip receiving means conformed and adapted for support by a candle-tip, combined with members or fingers extending from said receiving means, and having outwardly bent lower ends, the space surrounded by said members or fingers being of the approximate diameter of a candle.

9. In a candle-light, candle-tip receiving means conformed and adapted for support by a candle-tip, and carrying a plurality of outwardly-acting shade-grasping and supporting arms, combined with anti-tip-over members or fingers for said parts, extending from said candle-tip receiving means and spaced a less distance apart than said arms.

10. In a candle-light, an apertured candle-tip receiving cap carrying a plurality of outwardly-acting shade-grasping and supporting arms, combined with anti-tip-over members or fingers for said parts, extending from the lower edge of said cap.

11. In a candle-light, the combination of candle-tip receiving means, means carried thereby for holding a shade, and anti-tip-over members for said parts depending from said candle-tip receiving means and having outwardly bent lower ends, the space surrounded by said members being of the approximate diameter of a candle.

12. In a candle-light, the combination of candle-tip receiving means, means carried thereby for holding a shade, and a plurality of anti-tip-over members or fingers for said parts, extending downwardly from said candle-tip receiving means and having outwardly bent lower ends.

13. In a candle-light, the combination of an apertured candle-tip cap, a series of upwardly-extending outwardly springing shade-holding and engaging arms thereon, and a series of oppositely extending anti-tip-over members or fingers, for said parts, on said cap.

14. In a candle-light, the combination of an apertured candle-tip cap, a series of upwardly-extending, outwardly acting, spring shade-holding arms thereon, and a series of oppositely extending anti-tip-over members or fingers, for said parts, on said cap, each finger being a continuation of one of said arms.

15. In a candle-light, the combination of a candle-holding socket, a shade-holder, and a plurality of anti-tip-over members, said socket comprising parts within which said members are adapted to be inserted.

16. In a candle-light, the combination, with means for holding a candle, comprising a plurality of candle-engaging fingers forming a holding socket, of a shade-holder, and a plurality of anti-tip-over members or fingers thereon spaced relatively to and adapted to enter between the said candle-engaging fingers to prevent the tipping over of the shade-holder.

17. In a candle-light, the combination, with means for holding a candle, comprising a plurality of candle-engaging fingers forming a holding-socket, of a shade, a shade-
5 holder, and a plurality of anti-tip-over members or fingers thereon spaced relatively to and adapted to enter between the said candle-engaging fingers to prevent tipping over of the shade-holder and shade.
- 10 18. In a candle-light, the combination of candle-holding means, comprising a candle-holding socket, a candle inserted in said
socket, a gravitating shade-support having candle-tip receiving means resting upon the tip of the candle, and spaced anti-tip-over 15 members on said tip-receiving means, said socket comprising parts between which said members are adapted to be inserted when the candle is consumed.

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