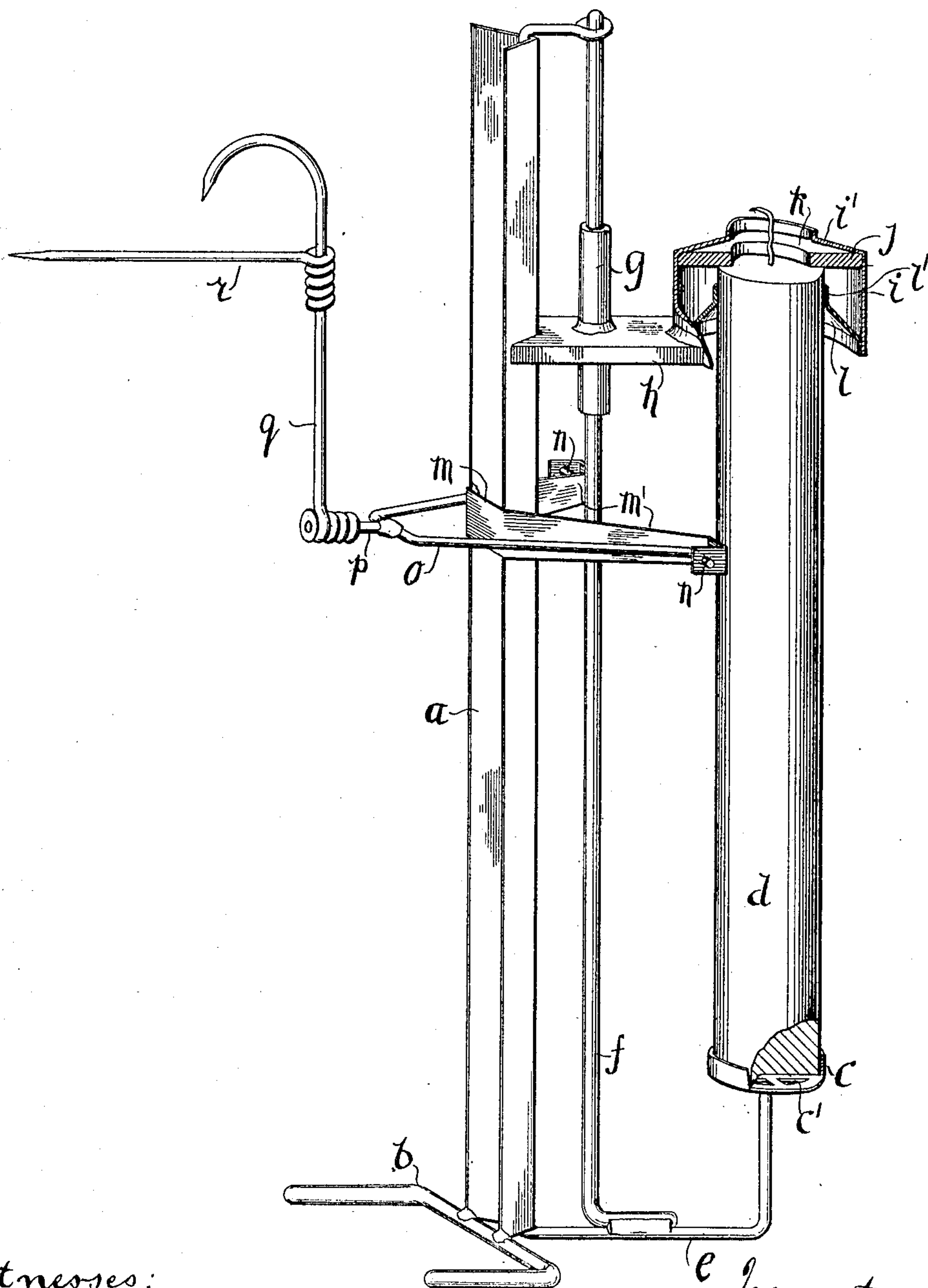


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CANDLE PROTECTOR.
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912,821.

Patented Feb. 16, 1909.



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UNITED STATES PATENT OFFICE.

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CANDLE-PROTECTOR.

No. 912,821.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, BENJAMIN FREDERICK HENRY DAWSON, a British subject, residing at 12 Thames road, Bertramstown, Johannesburg, in the Colony of the Transvaal, have invented a certain new and useful Candle-Protector, of which the following is a specification.

The present invention relates to candle protectors for use more particularly in situations where the candle is exposed to drafts or heat, tending to cause it to waste.

An object of the invention is to provide a protector having a gravity-operated cap for the candle which forms a well for retaining the wax melted by the flame and preventing its being wasted, which cap automatically follows the candle down as the latter is consumed.

A further object is to provide a protector of a cheap and simple construction, embodying such cap, a guide therefor and also carrying and fixing means; being thus adapted for use in mining and similar work.

The preferred constructional form of the invention is shown in the accompanying drawing. Therein *a* indicates a main frame standard bent up out of sheet metal to an angle section to obtain stiffness and form a guiding surface as hereinafter explained; *b* is a transversely disposed wire foot soldered thereto and having backwardly projecting wings which serve to steady the device when standing upon a horizontal surface and also when suspended from a support in the manner referred to below.

c is a socket in which the lower extremity of the candle *d* is supported and which is carried by an arm *e* soldered to the standard *a*.

f is a straight rod or wire suitably secured a short distance in front of the standard *a*. The purpose of this rod is to form a vertical guide and upon it is arranged to slide freely a sleeve *g*. To the sleeve is attached by a plate *h* the gravity-operated cap for the flame end of the candle. This consists of a metal cylinder *i* having an internal washer *j* made of hard papier-mâché or other comparatively non-conducting, non-absorbent and non-inflammable material. The internal diameter of such washer is less than the diameter of the candle, so that the washer rests upon the unmolten wax and forms with the inturned upper edge *i'* of the cylinder *i* a well *k* for holding the molten wax around

the flame and preventing its being wasted by overflowing or spilling.

A metallic cone *l* extends from the lower edge of the cylinder and encircles the candle *d* below the washer *j*, its upper edge *l'* being made cylindrical for a short distance to give a comparatively long surface in contact with the candle. Such cone serves two purposes; firstly it catches and retains any molten wax which may pass under the washer *j*, and secondly it softens and pares off any excrescences upon the exterior of the candle which would otherwise impede the descent of the cap. The cone receives sufficient heat for this latter purpose from the cylinder *i*, the upper edge *i'* of which is as illustrated turned in fairly close to the flame so as to be moderately heated thereby.

The plate *h* is continued backwards beyond the sleeve *g* and is bifurcated to loosely embrace the standard *a* for the purpose of preventing lateral movement of the cap and keeping it centrally over the socket *c*.

The socket *c* is preferably provided with apertures *c'* in the bottom thereof, to the end that when the candle becomes so far consumed as to be completely inclosed by the cap and being heated to melting point thereby, the molten wax may escape through the perforations in the socket and so cause the flame to be automatically extinguished.

To the standard *a* is soldered a yoke *m* having forwardly projecting arms *m'* the ends of which are turned backwards as shown. Such ends are perforated to receive the pintles *n* formed by the outwardly bent extremities of a wire bail *o*, the line of such pivots being substantially coincident with the center of gravity of the whole device. A pin *p* is soldered to the bail and upon it is secured in a freely revoluble manner a hook *q*. To the shank of such hook a spike *r* is secured to turn thereon somewhat stiffly. The bail, hook and spike serve for carrying the candle, affixing it to convenient supports such as beams or crevices in rock faces, suspending it from trucks, and for similar purposes. The wings of the foot *b* serve to steady the device and keep it vertical when hanging from the hook or the spike; similarly the stiffly jointed spike may be employed as a strut when the device is hung by the hook.

I claim as my invention:—

1. In combination, a candle, a gravity

acting cap associated with the wick end of the candle, said cap comprising a casing surrounding the candle and provided with a non-metallic washer engaging the upper end
 5 of the candle to support the cap and provided with a centrally disposed aperture to accommodate the wick, said cap having an upper wall projecting inwardly above the washer and provided with a centrally dis-
 10 posed aperture to accommodate the wick, said upper wall and washer forming a well, said cap projecting downwardly from the washer and having an inwardly projecting flange engaging the candle below the wick
 15 end thereof.

2. In combination, a candle, a gravity acting cap associated with the wick end of the candle, said cap comprising a casing provided with a non-metallic washer engaging
 20 the upper end of the candle and supporting the cap and provided with a centrally disposed aperture for the wick, said casing having an upper wall extending inwardly above the washer and forming therewith a well,
 25 said casing projecting downwardly from the washer and having an inwardly projecting upwardly inclined portion engaging the candle and forming with said casing a second well.

3. In combination, a candle, and a gravity acting cap associated with the wick end of said candle, said cap being provided with a well located above the wick end of the candle and a second well located below the wick end
 35 thereof and adapted to receive the drippings from said wick end, said second well having a wall heated by said first mentioned well and engaging the periphery of the candle for the purpose set forth.

4. In combination, a candle, a gravity acting cap associated with the wick end of the candle and provided with a well located above said wick end, and a non-metallic member forming a part of said well and rest-
 45 ing on and surrounding the wick end of said candle.

5. In combination, a candle, a gravity acting cap associated with the wick end of the candle formed of heat conducting mate-
 50 rial, the upper end of the cap extending inwardly toward the wick, and means car-

ried by the cap engaging the candle below the wick end thereof to remove projections formed thereon, said means being heated from said inwardly extending portion. 55

6. In combination, a candle, a support for the lower end of said candle, a gravity acting cap associated with the wick end of said candle having an extension, means asso-
 60 ciated with the extension for guiding the same, and means associated with the extension for holding the same in prescribed relation to the support.

7. In combination, a candle, a support for the lower end of said candle, a gravity acting cap associated with the wick end of said candle and having an extension, a rod pro-
 65 jecting through said extension to guide the cap, and a guide engaging said extension for maintaining the cap in vertical alinement with the support. 70

8. In combination, a candle, a support for the lower end of said candle, a gravity acting cap associated with the wick end of said candle, an extension for said cap having a V-
 75 shaped outer end and a sleeve intermediate said end and cap, a rod projecting through said sleeve, and a V-shaped guide engaging said extension.

9. In combination, a candle, and a gravity acting cap associated with the wick end of said candle, said cap comprising a wall of non-inflammable, non-heat conducting mate-
 80 rial surrounding the wick and engaging the wick end of the candle and supported thereby, and a wall overhanging said first mentioned wall and forming therewith a well. 85

10. A gravity acting cap comprising in combination, a body portion surrounding the flame end of a candle, said body portion
 90 being provided with an inwardly projecting member, and a non-metallic non-heat conducting member supported on the part of the candle and surrounding the wick and forming with said member the well. 95

In testimony whereof I affix my signature in presence of two witnesses.

BENJAMIN FREDERICK HENRY DAWSON.

Witnesses:

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