

(No Model.)

4 Sheets—Sheet 1.

C. F. A. RÖELL.
AUTOMATIC CANDLE EXTINGUISHER.

No. 434,297.

Patented Aug. 12, 1890.

Fig. 1.

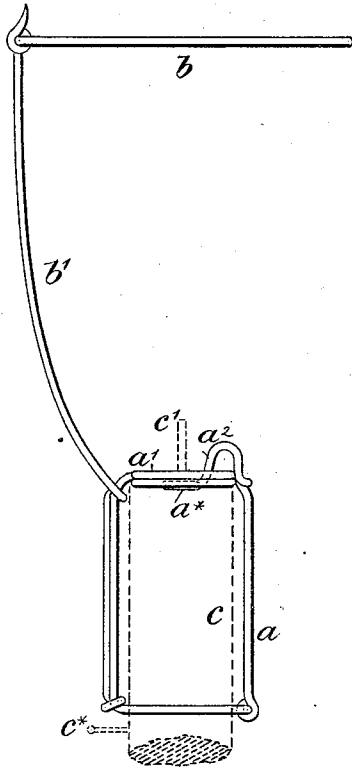


Fig. 3.

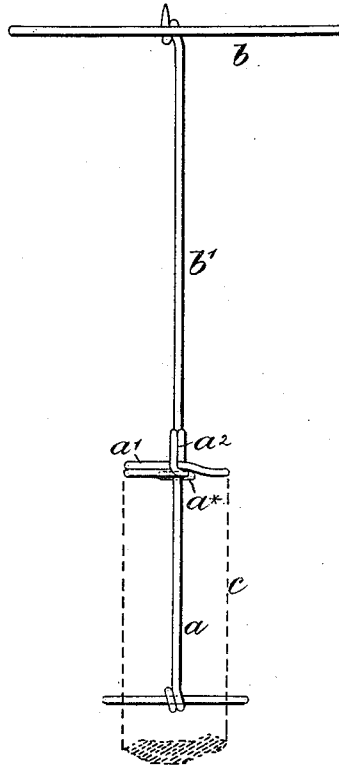
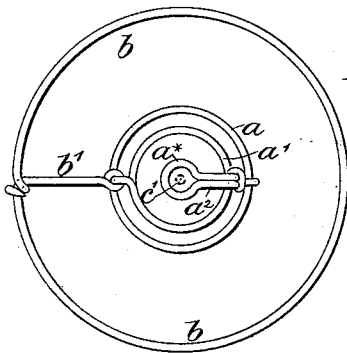


Fig. 2.



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Fig: 4.

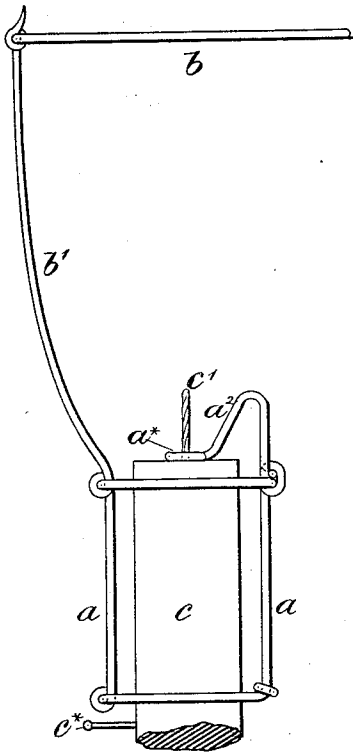


Fig: 6.

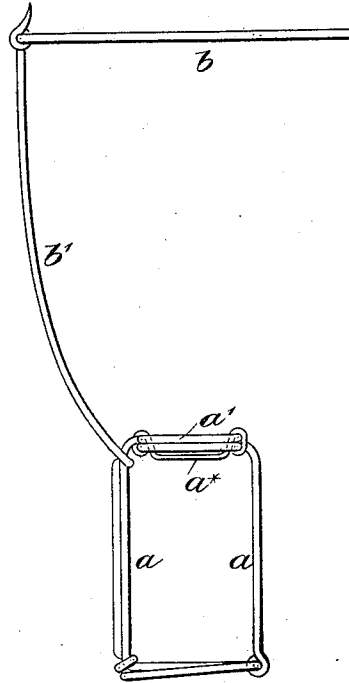


Fig: 5.

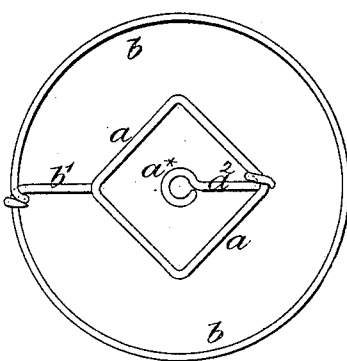
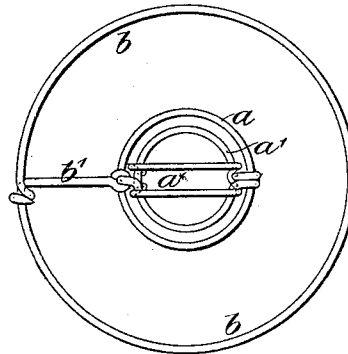


Fig: 7.



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Fig. 8.

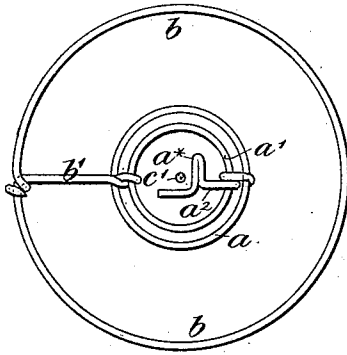


Fig. 9.

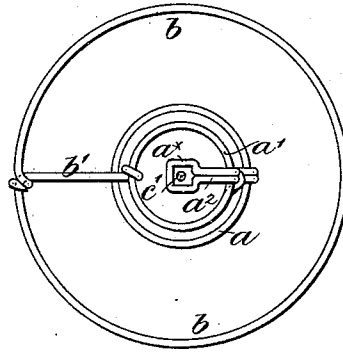


Fig. 10.

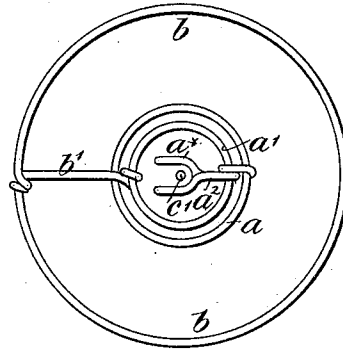


Fig. 11.

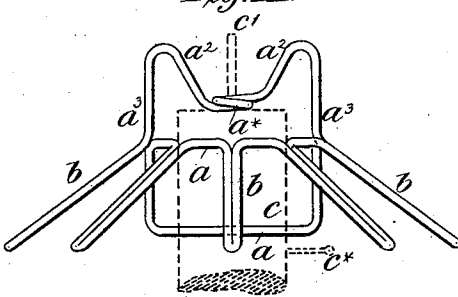


Fig. 12.

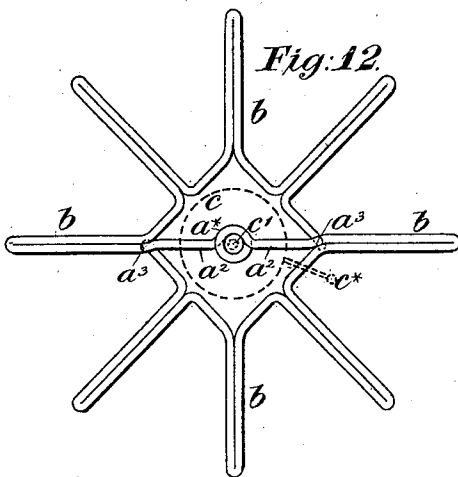


Fig. 13.

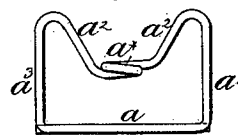
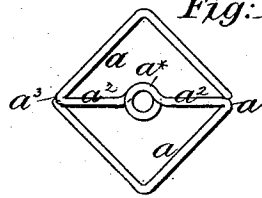


Fig. 14.



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Fig:17.

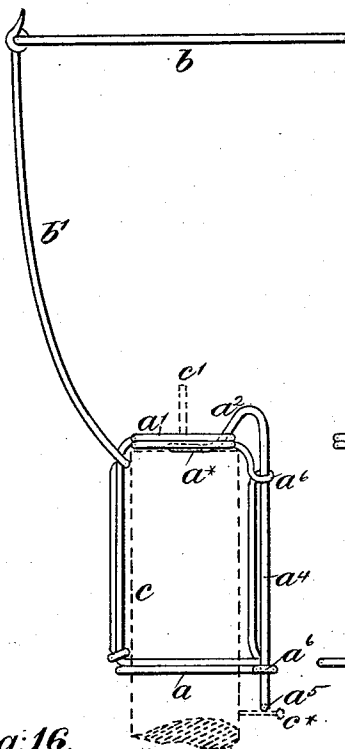
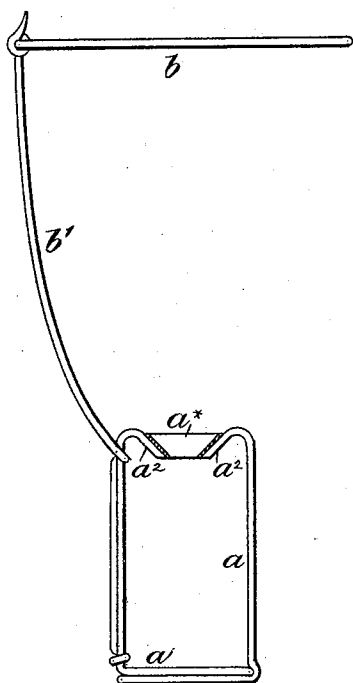


Fig. 18.

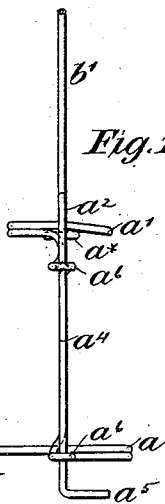
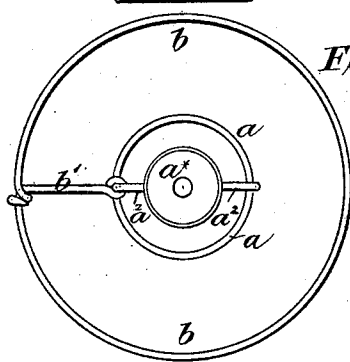


Fig:16.



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UNITED STATES PATENT OFFICE.

CORNELIS F. A. RÖELL, OF LONDON, ENGLAND.

AUTOMATIC CANDLE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 434,297, dated August 12, 1890.

Application filed January 8, 1890. Serial No. 336,316. (No model.)

To all whom it may concern:

Be it known that I, CORNELIS FREDERIK ALEXANDER RÖELL, of 13 Langham Street, London, in the county of Middlesex, England, 5 Jonkheer of the Kingdom of Holland, a subject of the King of Holland, have invented certain new and useful Automatic Candle-Extinguishers, of which the following is a specification.

10 My invention relates to a device for automatically extinguishing a candle-flame at any predetermined point; and it consists in combining with a candle-shade support or carrier or a cone or skeleton frame, a small ring, fork, 15 triangle, two parallel bars, or other like simple device in such manner that it normally encircles or partly encircles the wick beneath the flame and follows the level of the candle, but is adapted to be automatically brought 20 into action at any predetermined point by arresting its downward movement while the candle and wick continue to burn away, when as the flame cannot follow the wick past the extinguishing device it will thus be extin- 25 guished.

In another application, Serial No. 336,317, of even date herewith, I have described, shown, and claimed another construction of support or holder for a similar form of extinguisher. 30 In order that the said invention may be more clearly understood and readily carried into effect, I will proceed, aided by the accompanying drawings, more fully to describe the same.

35 In the drawings, Figure 1 is an elevation of a skeleton cone or frame and shade support or carrier having my extinguisher applied thereto. Fig. 2 is a plan thereof, and Fig. 3 is an elevation taken at right angles 40 to Fig. 1. Fig. 4 is an elevation of a modified form of skeleton cone or frame and shade-support, and Fig. 5 is a plan thereof. Fig. 6 is an elevation representing a candle-shade support provided with a modified form of ex- 45 tinguisher, and Fig. 7 is a plan thereof. Figs. 8, 9, and 10 are plans of a candle-shade support of a similar kind to that represented at Figs. 6 and 7, but showing various modified forms of extinguishers applied thereto. Fig. 50 11 is an elevation representing a modified form of candle-shade support provided with my extinguisher, and Fig. 12 is a plan thereof.

Fig. 13 is a side elevation of a simple form of skeleton cone or frame without a shade-support but having my extinguisher applied thereto, 55 and Fig. 14 is a plan thereof. Fig. 15 is an elevation representing a candle-shade support provided with a modified form of extinguisher, and Fig. 16 is a plan thereof. Fig. 17 is an elevation representing a candle-shade 60 support, showing a modification in the method of mounting the extinguisher. Fig. 18 is an elevation at right angles to Fig. 17.

In the various figures like parts are indicated by similar letters of reference. 65

Referring to Figs. 1, 2, and 3, *a* represents a skeleton cone or frame, which is formed of wire bent into the required shape.

b represents the ring or shade-carrier, which is supported by a standard *b'*, fixed to the cone 70 *a*, so that as the cone *a* by its own gravity follows the level of the candle *c* as it burns away it carries with it the ring or shade-carrier *b*, and thus maintains the shade in a given position in relation to the candle. The 75 upper part of the skeleton cone *a* is provided with a supporting-ring *a'*, which rests upon the candle *c* and sustains the cone or frame *a* in the desired position.

From the upper part of the cone or frame 80 *a* projects an arm *a²*, which toward its end is curved downwardly and carries a small ring *a**, or it might be a fork, two sides of a right-angle triangle, two parallel bars, or other like simple device, as hereinafter described, 85 in such manner that it normally encircles or partly encircles the wick *c'* of the candle beneath the flame and follows the level of the candle *c* as it burns away. This small ring *a** constitutes an extinguisher and is adapted 90 to be automatically brought into action at any predetermined point by arresting its downward movement while the candle *c* and wick *c'* continue to burn away, when as the flame cannot follow the wick past the ex- 95 tinguishing device *a** it will thus be extinguished.

In order to operate the extinguisher *a**, a pin *c** is inserted in the candle *c* at a suitable point, leaving part thereof projecting in 100 such manner that it will engage and arrest the descent of the cone or frame *a* and consequently of the extinguisher *a**, and thus prevent the flame following the wick, as herein-

before described, or the extinguisher a^* may be operated by reason of the skeleton cone in its descent coming against the candlestick.

The above description of the method of operating the extinguishing device also applies to the whole of the examples hereinafter given.

In the example given at Figs. 4 and 5 the arrangement of parts is similar to that hereinbefore described; but in this case the large supporting-ring a' is dispensed with. The extinguishing-ring a^* performs that office, and the cone or frame a is generally of a rectangular shape.

In the example given at Figs. 6 and 7 the arrangement of parts is similar to that represented with respect to Figs. 1, 2, and 3; but in this case the small ring a^* is substituted by two parallel bars, which inclose the wick c' and constitute the extinguishing device a^* .

At Figs. 8, 9, and 10 I have represented several modified forms of extinguishing devices a^* , carried by skeleton cones a , similar to that represented at Figs. 6 and 7, and the action of these extinguishing devices is precisely similar to that hereinbefore described with respect to the small ring a^* .

In the modification represented at Figs. 11 and 12 the skeleton cone or frame a is somewhat similar to that represented at Figs. 4 and 5; but in this case the ring or shade, carrier b , supported above the cone a , is dispensed with and a number of downwardly-inclined arms b , projecting radially from the sides of the cone or frame a , are employed in lieu thereof to support the shade. The extinguishing-ring a^* is in this example carried by the ends of two arms a^2 , projecting from vertical supports a^3 , arranged one on each side of the cone or frame a .

In the example given at Figs. 13 and 14 I have shown a simple skeleton cone or frame provided with an extinguishing device a^* , similar to that lastly hereinbefore described, but without a shade-carrier b .

In the example given at Figs. 15 and 16 I have shown as the extinguishing device a cupped or conical ring a^* , attached in an inverted position to a skeleton cone or frame a .

In the example given at Figs. 17 and 18 the arm a^2 of the extinguisher is fixed upon a descending rod or shaft a^1 , which is mounted with capability of vertical and rotary motion in bearings a^3 , formed upon the cone or frame a , and is formed at its lower end with a foot

a^4 . By this arrangement of parts the extinguisher a^* may be raised and turned out of the way when not required, while when in position for use it may be actuated by the foot a^4 , in the descent of the cone or frame a engaging a pin c^* (inserted in the candle) or other stop or the candlestick.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. An automatic extinguisher for candles, consisting of a small ring or its equivalent located at the exposed portion of the wick of the candle beneath the frame, and an adjustable projection by which it is held suspended while the candle and wick burn away, substantially as herein shown and described, and for the purpose stated.

2. In combination with a candle cone or frame, an extinguishing device located at the exposed portion of the wick beneath the flame and normally resting upon and following the level of the candle, and an adjustable projection by which it is held suspended while the candle and wick burn away, all in manner substantially as herein shown and described, and for the purpose stated.

3. In combination with a candle cone or frame, a shade-carrier having an extinguishing device located at the exposed portion of the wick beneath the flame and normally resting upon and following the level of the candle, and an adjustable projection by which it is held suspended while the candle and wick burn away, all in manner substantially as herein shown and described, and for the purpose stated.

4. In combination with a candle cone or frame, an extinguishing device carried by an arm attached to a rod capable of vertical and rotary motion in bearings carried by the cone or frame, such extinguishing device being adapted to inclose or partly inclose the wick beneath the flame and normally rest upon and follow the level of the candle, and a projection by which it is held suspended while the candle and wick burn away, all in manner substantially as herein shown and described, and for the purpose stated.

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Witnesses:

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F. W. WOODINGTON,

Both of 27 Southamption Buildings, London.