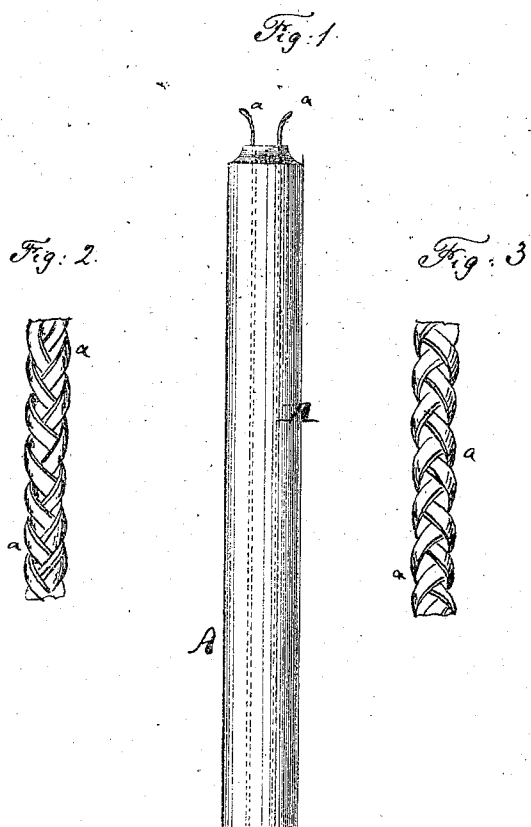


H. Ryder's Candle.

No. 120,105.

Patented Oct. 17, 1871.



Witnesses:

Chas. Nida
L. S. Mabee

Inventor:

H. Ryder
PER *Munnell*
Attorneys.

UNITED STATES PATENT OFFICE.

HENRY RYDER, OF NEW BEDFORD, MASSACHUSETTS.

IMPROVEMENT IN CANDLES.

Specification forming part of Letters Patent No. 120,105, dated October 17, 1871.

To all whom it may concern:

Be it known that I, HENRY RYDER, of New Bedford, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Candles; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 represents a side view of my improved candle. Figs. 2 and 3 are detail views of opposite sides of the wick.

Similar letters of reference indicate corresponding parts.

This invention relates to a new manner of arranging wicks in candles, with the object of enlarging the flame and utilizing to the fullest extent the combustible material of the candle. The invention consists in so applying two or more braided wicks to one candle that, without the aid of other devices or substances, their burning ends will turn away from each other.

In braided flat wicks A A the opposite faces differ from each other by having the strands *a a* on one side converge downwardly, as in Fig. 2, while on the opposite side they converge toward the upper end, as in Fig. 3. When one end of such a wick is ignited, the same will be bent to one side, *i. e.*, to that on which the strands converge upwardly toward the flame. This bending is effected by the position of the strands, for, when the same are burnt where they meet on top, their upper ends are liberated, and will bend under the influence of the heat, while on the other side, where the strands converge downwardly, they are always held at and braced by the lower junctions. The heat tends to twist and curve the burning wick, whose strands, when

it becomes disintegrated on one side, will, on just that side, bend in a direction where they are unopposed, and draw the entire burning portion of the wick to the same side. Thus when a candle, A, carrying two wicks, *a a*, as in Fig. 1, is so constructed that those sides of wicks where the strands converge upwardly are on the outer sides, the burning ends of such wicks will both be bent or curved outwardly, as indicated in the drawing. The flame is thereby enlarged, and the consumption of oxygen consequently increased, so that the quality of light is also improved.

The candle may be of suitable shape, size, and material. More than two wicks may be arranged in one candle, and all so placed that the contracting side will be the outer.

I am aware that single-braided wicks are old in their application to candles, and that the effect of turning the wick outwardly thereby is equally well known; and I am also aware that it is an old device to wind spirally a cord about the wick, to more effectually produce the desired turn; but I disclaim all of these.

What I desire to protect by Letters Patent, is—

The combination, in one candle, of two or more common braided wicks, arranged with relation to each other as described, so that, while burning, they will spread outwardly in opposite directions, and thereby produce a broader and more uniform flame, and give a maximum of light from a given weight of material.

The above specification of my invention signed by me this 8th day of September, 1870.

HENRY RYDER.

Witnesses:

GEO. W. MABEE,
L. S. MABEE.

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