

(No Model.)

J. B. RODMAN & J. D. BINGHAM.

ARGAND CANDLE.

No. 284,486.

Patented Sept. 4, 1883.

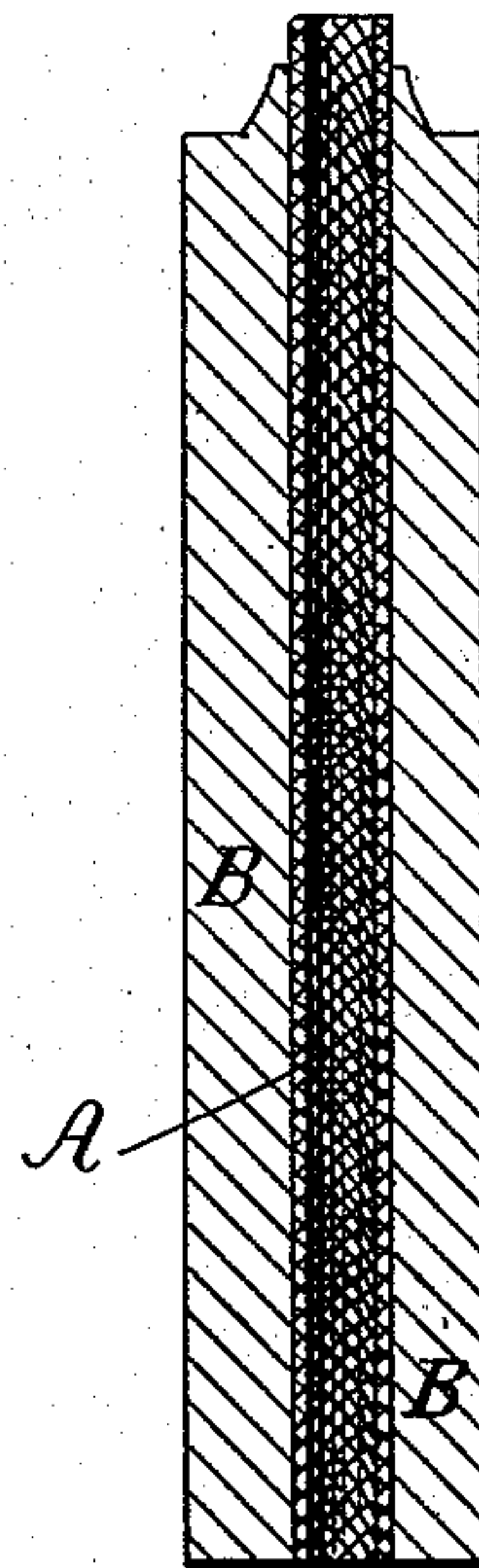
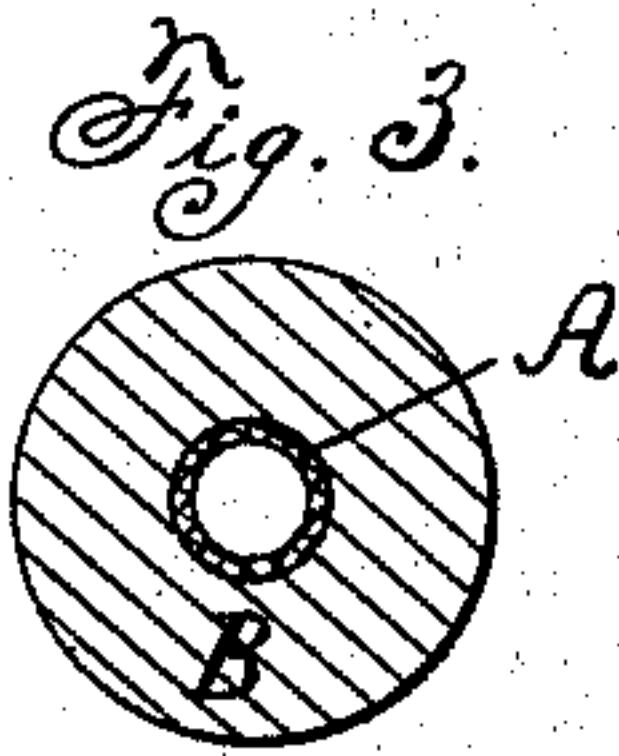
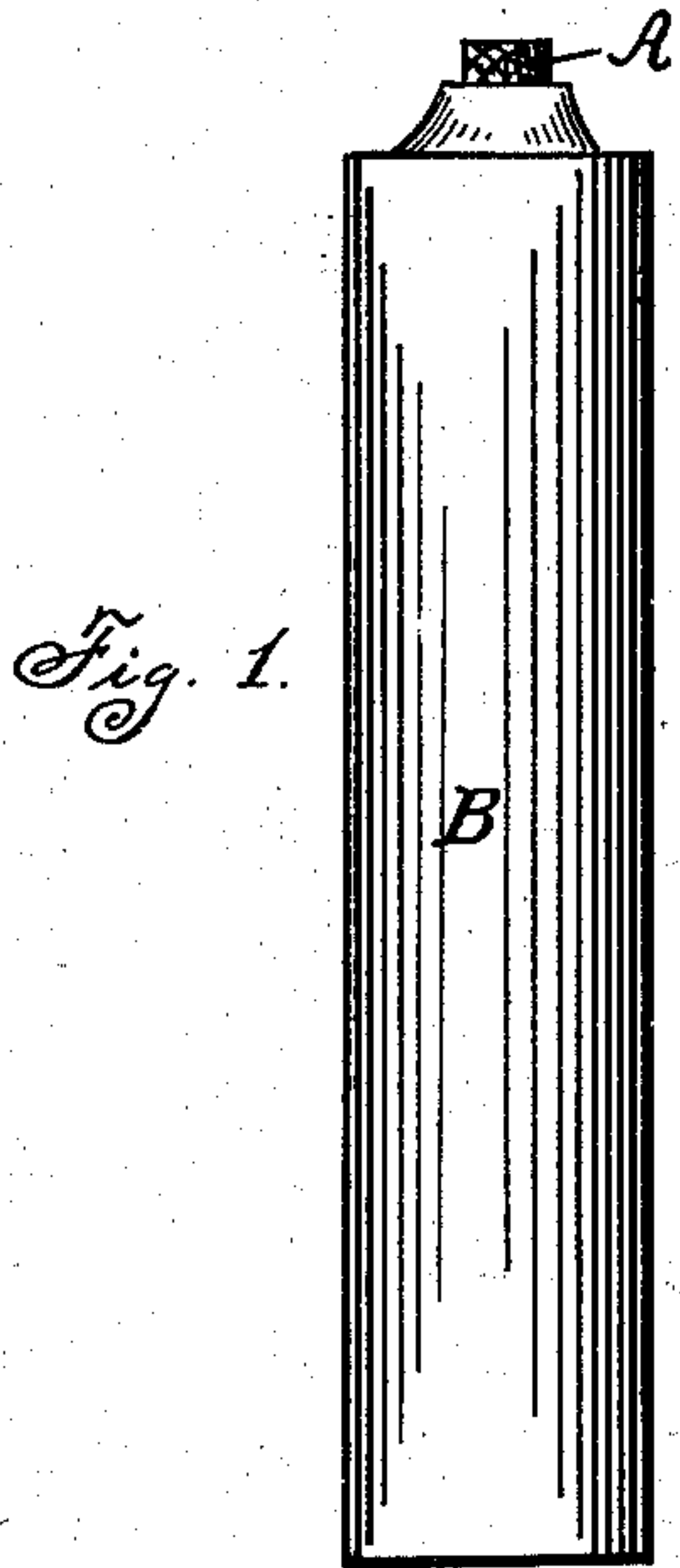
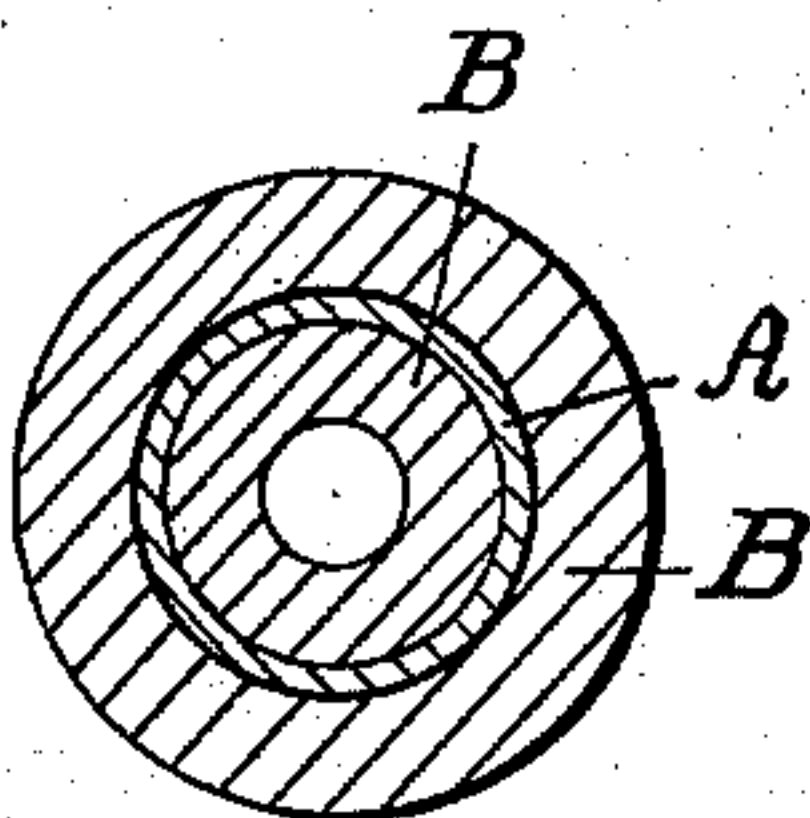
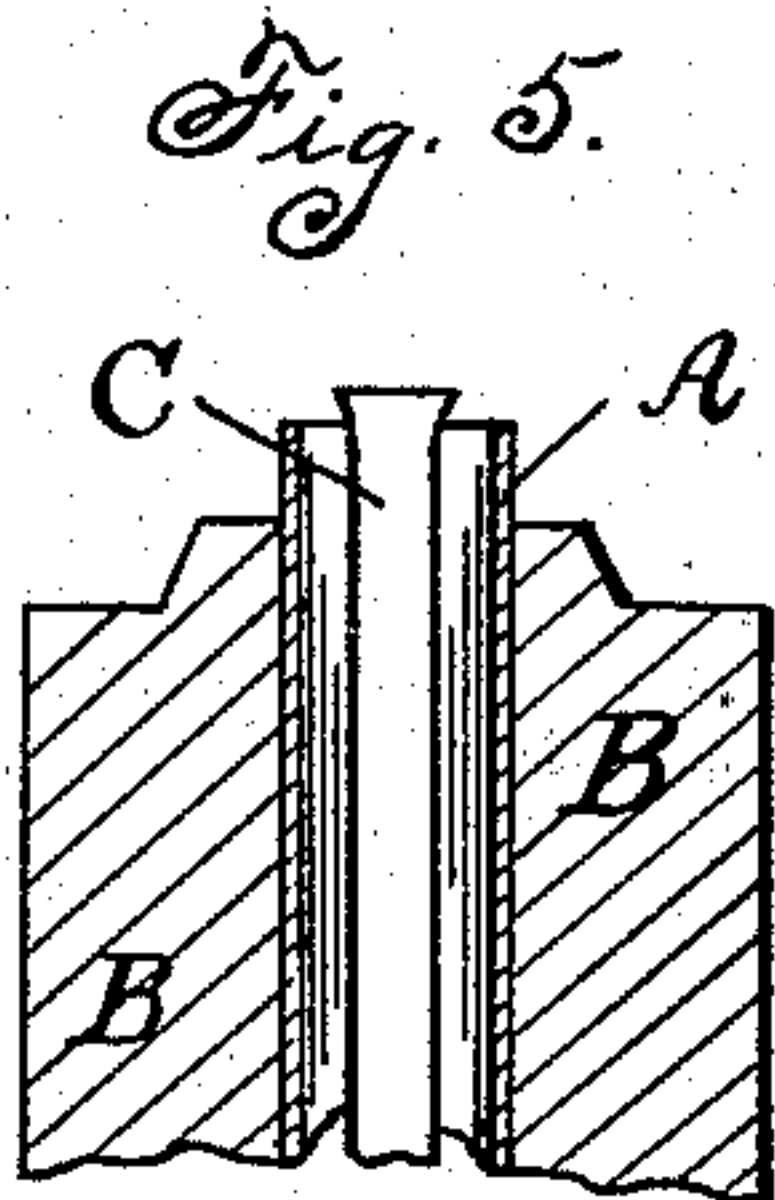
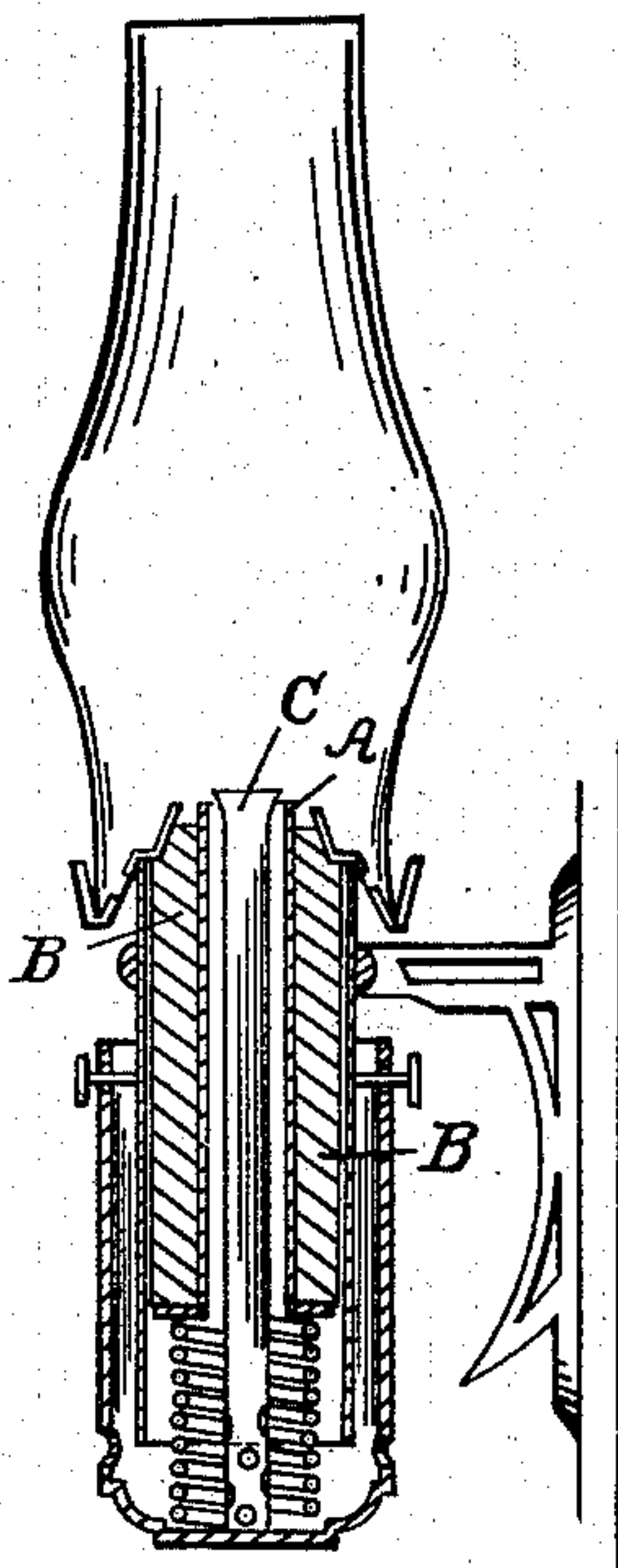


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN B. RODMAN AND JUDSON D. BINGHAM, OF FORT LEAVENWORTH,
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ARGAND CANDLE.

SPECIFICATION forming part of Letters Patent No. 284,486, dated September 4, 1883.

Application filed April 27, 1882. (No model.)

To all whom it may concern:

Be it known that we, JOHN B. RODMAN and JUDSON D. BINGHAM, of Fort Leavenworth, in the State of Kansas, have invented a new and
5 useful Improvement in Argand Candles; and we declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use it, reference being had
10 to the accompanying drawings, which form a part of this specification.

Our invention relates to a candle made upon the Argand principle, wherein a supply of air can be fed from within to the center of the
15 flame, as will be hereinafter more fully set forth, and specified in the claim.

Heretofore in the manufacture of candles they have been made with a central wick, about which tallow, stearine, paraffine, or other material is molded. So, also, the candle has been
20 made with a central orifice, through which the wick is subsequently drawn, or with a central orifice, through which a wick-tube for containing a wick may be inserted.

Our invention consists in a tubular candle provided with a tubular wick, in combination with means for supporting the same and permitting the passage of a current of air from its base to its top, as hereinafter particularly described, and then specifically pointed out in
30 the claim.

In the drawings, Figure 1 is a view in elevation; Fig. 2, a longitudinal central section; Fig. 3, a cross-section of a candle embodying
35 our invention. Fig. 4 represents the device as applied to a car-lamp. Fig. 5 represents variations of the invention.

In carrying out our invention, A represents a tubular wick.

40 B is the tallow or other material which forms the body of the candle.

In manufacturing candles of this character the tubular wick may be suspended within the candle-mold and the material poured in about
45 the wick, in the usual manner, and be permitted to cool.

The material of which the wick is composed may be sufficiently impervious to prevent the liquid tallow or other material from passing
50 through its meshes, and thus fill up the interior of the tube; but we prefer, generally, to slip

a suitable mandrel into the tubular wick and retain the mandrel within the wick until the tallow shall have set, after which the mandrel can be withdrawn, and the tubular space is
55 thus left free and open.

We would also have it understood that we propose to make these candles, usually, with a single tubular wick of greater or less diameter, but do not limit ourselves solely to a single wick, for we may locate side by side two
60 or more similar tubular wicks in the same candle for special purposes where a stronger light is required.

A candle of this character, in order to work
65 upon the Argand principle, is used with a candlestick permitting the admission of air at its base, so that the air may pass through the candle from its base to its top. So, also, we propose in some instances to employ a lamp-chimney
70 surrounding the top of the candle, the entire quantity of air necessary for combustion being permitted to pass in through the tubular wick, or a part of the air entering through the wick, and additional supply permitted to
75 enter about the bottom of the lamp-chimney in the usual way.

A candle of this character is particularly applicable to car-lamps, carriage-lamps, and the like, where the candle is fed upward as rapidly
80 as it is burned away, thus maintaining the flame or light always at the same point.

We show in Fig. 4 a car-lamp in which air is adapted to pass up through the wick-tube, and also in about the bottom of a lamp-chimney.
85

It is also apparent that in use the candle material might run through and into the tubular space, stopping up the air-passage. We propose, therefore, in instances where this is liable to occur, to employ a central metallic tube,
90 C, adapted to pass freely down through the tubular space in the candle. This metallic tube may form a part of the lamp in which the candle is to be burned. This will insure at all
95 times the supply of air up through the center of the candle. The top of this tube may be plain, or may be bell-shaped. Such a construction is shown in Fig. 5. In this same figure is also shown a candle in which the wick
100 has tallow or candle material both upon its inside and outside, and with a tubular space at

the middle, either for the direct passage of air or for the passage of a metallic tube for conveying the air.

What we therefore claim is—

- 5 A candle provided with a hollow tubular wick, in combination with a stationary central air-tube to insure an open air-passage in the candle from its base to its top, and means for automatically elevating the candle about the
10 stationary tube, substantially as described.

In testimony whereof we sign this specification in the presence of two witnesses.

JOHN B. RODMAN.
JUDSON D. BINGHAM.

Witnesses:

W. M. PINKSTON,
A. D. F. FAELEY.