

W. H. MEEK.  
FUMIGATING CANDLE AND PROCESS OF MAKING THE SAME.  
APPLICATION FILED JUNE 10, 1915.

1,222,883.

Patented Apr. 17, 1917.

FIG. 1.

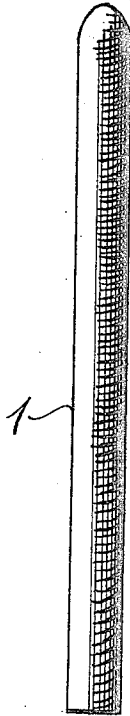


FIG. 2.

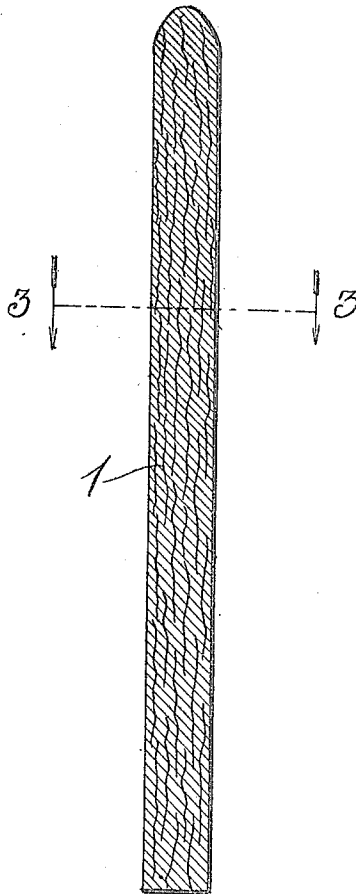
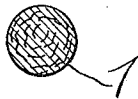


FIG. 3.



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# UNITED STATES PATENT OFFICE.

WALTER H. MEEK, OF LOUISVILLE, KENTUCKY.

FUMIGATING-CANDLE AND PROCESS OF MAKING THE SAME.

1,222,883.

Specification of Letters Patent. Patented Apr. 17, 1917.

Application filed June 10, 1915. Serial No. 33,326.

*To all whom it may concern:*

Be it known that I, WALTER H. MEEK, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Fumigating-Candles and Processes of Making the Same; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to fumigating candles for disinfecting purposes and the method of making them.

The main object of the invention is to provide a candle of this character having a base constructed to render it peculiarly adapted for the absorption of antiseptic or germicidal bodies which are susceptible of volatilization by heat.

Another object is to provide a base of this character, the combustibility of which is such that when the candle is lighted and the flame blown out, combustion will continue without flame and the glowing ember is enabled to maintain a temperature sufficiently high to volatilize the active germicidal or antiseptic substances with which the base may be impregnated.

Another object is to provide a candle of this character the base of which it is constructed having its fibers coated with a varnish-like substance for retarding the volatilization of the germicidal agent thus preventing volatilization below a predetermined temperature.

Another object is to provide an improved process for producing a candle of this character.

With these and other objects in view, the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings:

Figure 1 represents a side elevation of a candle constructed in accordance with this invention;

Fig. 2 is a longitudinal section thereof.

Fig. 3 is a transverse section taken on the line 3-3 of Fig. 2.

The candle 1 constructed in accordance with this invention is composed of a suitable fibrous material such as cotton, in any form, felt and the like which is first treated

as hereinafter described and then saturated with a suitable antiseptic or germicidal agent and compressed into candles of any desired sizes and shapes.

The improved process of making this candle consists in first taking raw cotton and freeing it from oil and other foreign bodies and making it as pure and absorbent as practicable by means of alkaline baths and thorough rinsings, whereby the cotton is converted into pure cellulose as nearly as possible. It is then dried and when burned for the purpose intended, its freedom from irritating cell contents renders the gases evolved less acrid than the gases evolved from other organic substances which could be used for such a purpose, and the character of its fiber also renders it peculiarly adapted for the absorption of other bodies.

This cotton treated as stated above is then subjected to a bath in a solution of potassium nitrate and then dried. This bath of potassium nitrate increases the combustibility of the cotton to such an extent that when the material is lighted and the flame blown out, combustion is enabled to proceed without flame and the glowing ember produced enabled to maintain a temperature sufficiently high to volatilize the active germicidal or antiseptic substances with which the cotton may be impregnated, as hereinafter described. This potassium nitrate treatment also minimizes the amount of uncombined carbon given off when the combustion of the cotton takes place.

After treating the cotton in the potassium nitrate bath and drying it, it is saturated with a solution of benzoin, storax and balsam tolu, to which solution any desired volatilizable antiseptic or germicidal agent may be added.

The material so treated is then dried at a low temperature. The benzoin, tolu and storax are in themselves antiseptic and germicidal and they saturate and coat the fibers of the cotton with varnish-like substances which serve to retard the volatilization of the germicidal agent with which the material may also be saturated at a temperature of less than 122° Fahrenheit.

The material thus prepared is then compressed into candles of convenient sizes and shapes and this compression still further aids in retarding the loss by evaporation at ordinary temperatures, that is, below 122° Fahrenheit of the active ingredients of the

candle. It is of course understood that care must be taken to avoid carrying this compression to the extent of arresting completely the combustion of the candle when in operation.

When the candles have been formed as above described and one of them is lighted and the flame blown out, combustion proceeds and the volatilizable constituents of the benzoin, storax and tolu are volatilized simultaneously with the other active germicidal ingredients which may be added to the solution during the treatment of the cotton. When thus volatilized, these constituents are deposited as an antiseptic film upon germ-laden or other surfaces with which they may come in contact and when so deposited, fix and hold any bacteria which may otherwise have escaped the influence of the germicidal gases given off by the material in combustion and prevent such germs or bacteria from blowing about in the air until the full germicidal effect is produced by the gases or by the film itself.

This material affords a simple, convenient and effective method of volatilizing disinfectants or antiseptics and when it is lighted and the flame blown out, it requires no external heat to enable it to fulfil its purpose, it being complete within itself.

It is to be understood, that the invention is not restricted to the use of any particular

antiseptic or germicide agent in combination with the benzoin, storax and tolu.

I claim as my invention:

1. A base for a fumigating candle composed of raw cotton having all essential oils and foreign substances removed therefrom, the fibers thereof being impregnated with resin gums capable of volatilization and with means for preventing the base from bursting when ignited into rapid combustion with the production of flame.

2. A process of producing a base for a fumigating candle which consists in subjecting raw cotton to alkaline baths and thorough rinsings thereby converting it into substantially pure cellulose free from oils and other foreign bodies, then drying the so treated cotton and subjecting it to a bath of potassium nitrate, then drying it again, then saturating it with a solution of benzoin, storax and balsam tolu, and finally drying the resulting product at a low temperature and compressing it into convenient shapes and sizes.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WALTER H. MEEK.

Witnesses:

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