(No Model.)

C. H. SHAW.

SULPHUR CANDLE.

No. 437,252. Patented Sept. 30, 1890.

Fig: 1.

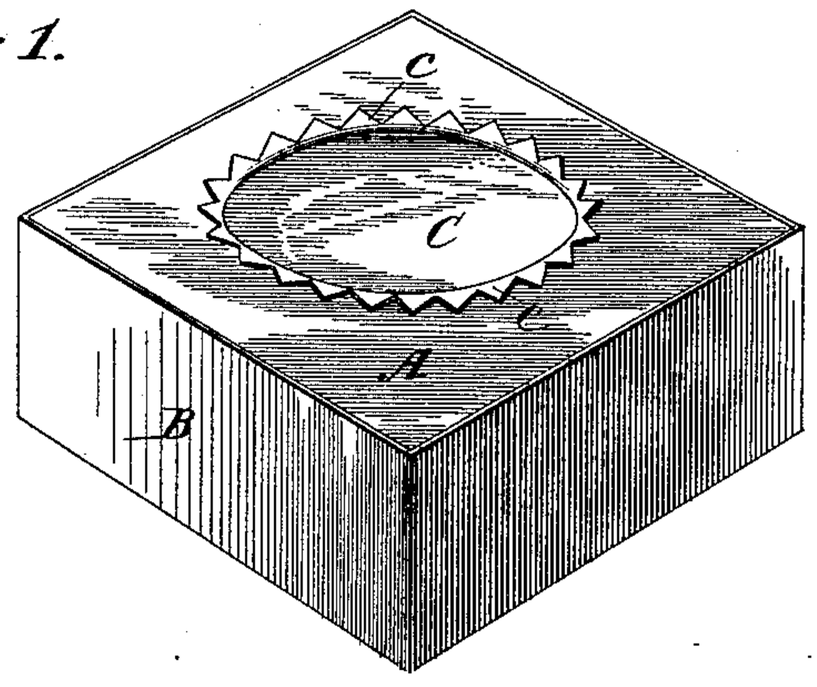


Fig: 2.

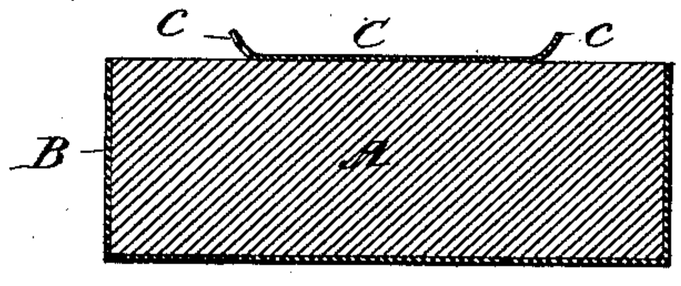


Fig: 3.

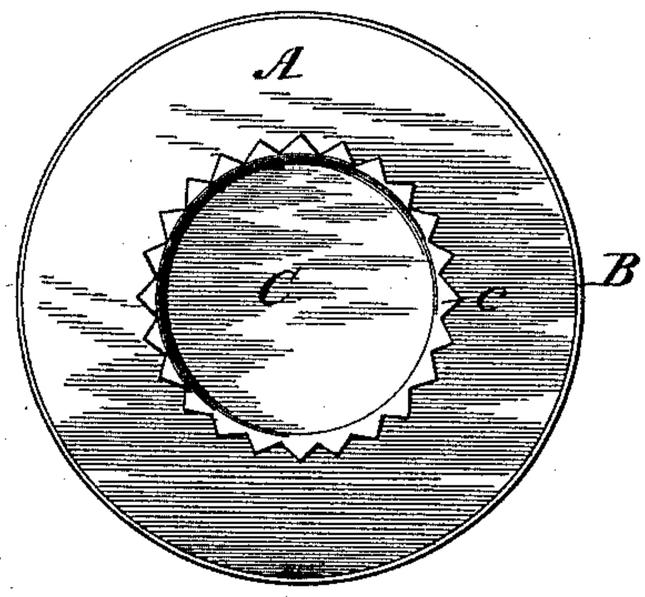


Fig: 4.

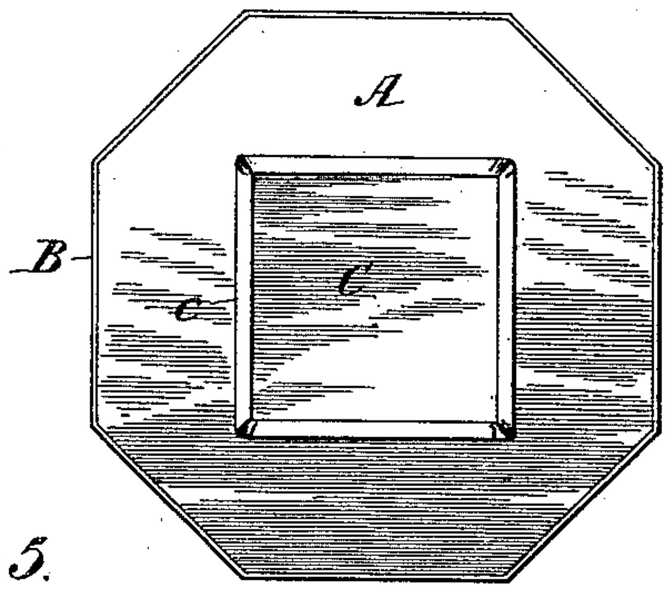
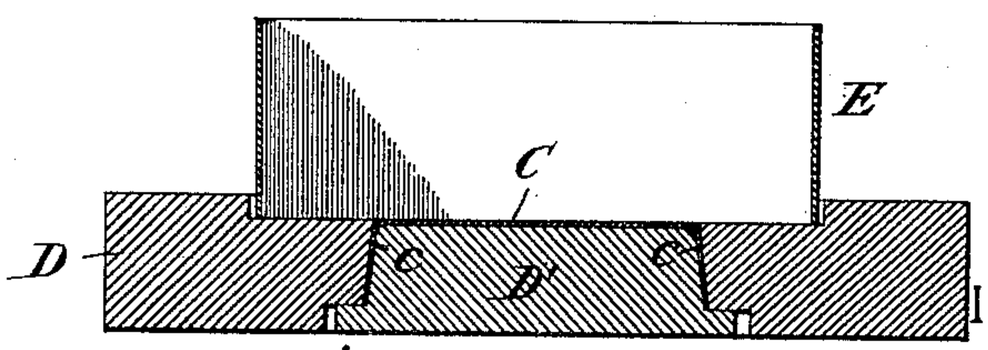


Fig: 5.



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UNITED STATES PATENT OFFICE.

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SULPHUR CANDLE.

SPECIFICATION forming part of Letters Patent No. 437,252, dated September 30, 1890.

Application filed November 7, 1889. Serial No. 329,508. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. SHAW, a citizen of the United States, residing in Brooklyn, Kings county, New York, have invented certain new and useful Improvements in Disinfectants, of which the following is a specification.

My invention relates to sulphur candles for use in disinfecting; and the object of my invention is to facilitate the burning of the sulphur or compound of sulphur with other material. These candles are ordinarily made by melting the sulphur and pouring it into a mold of the proper shape and size to form a block of sulphur of the desired size, and while in a molten state fibrous material of a disintegrated character is mixed with the sulphur to form a wick. In some cases, also, the candle has been provided with bits of cord or like wicking arranged radially in the top of the block with their ends turned upward for igniting.

I find that candles thus constructed are apt to be extinguished by the drowning or smothering of the ignited particles of fibrous material in the molten sulphur surrounding them, and that to assure the continued ignition and complete combustion of the sulphur, it is important to provide the block or piece of sulphur with a sheet-like or boat-like wick, made from any suitable wicking material and adapted to float flatwise on the surface of the sulphur during ignition. An integral wick of this character having sufficient area to insure stability will maintain the ignition of the sulphur until all of it is burned, and will enable any one, however unskilled he may be, to use the candle.

In carrying out my invention, with the above object in view, I provide the block or piece of sulphur which forms the body of the candle with a casing or box of tin or the like, and with a sheet-like wick made from some suitable wicking fabric—as cotton-flannel, for example—said fabric being secured flatwise to the upper surface of said block and having sufficient area to float like a boat on the upper surface of the sulphur after the latter has become ignited and its upper surface becomes liquid. For convenience in setting fire to the wick, some portion of the latter, and preferably the margin, will be turned up so as to stand free above the surface of the block. If the margin be turned up all around, as it will be by preference, the wick will have the form of a pan or tray and will float the better therefor.

In order that my invention may be the better understood, reference may be had to the accompanying drawings, illustrative thereof, wherein—

Figure 1 is a perspective view of the sulphur candle embodying my invention, and Fig. 2 is a transverse vertical mid-section of the same. Figs. 3 and 4 are plan views of candles embodying my invention. These views are merely designed to illustrate other forms of the block or piece of sulphur and of the wick attached thereto. Fig. 5 is a sectional view of the mold I prefer to employ in making my candle.

A represents the block of sulphur, which will have or need have no fibers in its mass, but may be a simple solid mass or block of pure sulphur with a flat upper surface.

B is the box which contains the block. This box may be of tin or of any suitable material. I prefer that it shall not project above the upper surface of the block A.

C is the wick, which may be of any wicking fabric, as cotton-flannel, for example. This wick will lie flatwise on the top of the block of sulphur A, and be secured thereto in any convenient manner. The mode of attachment I prefer to employ will be explained hereinafter. I prefer to turn up the margin *c* of the wick all around, and to serrate its edge, as shown in Figs. 1 and 3, as this enables it to be ignited the more conveniently. When the wick is ignited, and the temperature has risen to the proper height, the sulphur will melt at the surface and about the wick, thus setting the latter afloat, and the extended sheet-like character of the wick will prevent it from being submerged in the molten mass and the flame thus extinguished. As the sulphur burns away the floating wick will of course descend, as the surface of the sulphur becomes lower. I prefer to cement the wick C to the top of the block of sulphur by the

aid of the sulphur itself, and this attachment I prefer to effect at the time of molding the block, as I will describe with reference to Fig. 5, which shows the molding apparatus.

D is the base-piece of the mold, and E is the matrix thereof, which will have a square, circular, or polygonal form, as may be desired. In the base-piece D is an aperture corresponding to the contour of the wick, and in this aperture will be loosely fitted a plug D′.

In the process of molding a candle a piece of wicking fabric is cut to the proper size and shape to form a wick C, and this wick is placed on the plug D′ and the latter pushed up and into the aperture in the base-piece D, as seen in Fig. 5. The matrix E is then placed in position on the base and the molten sulphur poured in. After the sulphur has become cool and solid the plug D′ is removed and the block of sulphur taken out. The wick C will then be found adhering to the surface of the block of sulphur and cemented thereto by the latter. This means of attachment is better than mucilage, as the latter would tend to impede combustion; but readily-combustible cements might be employed.

I prefer the method last described, for the reason that the margin of the wick is formed so as to stand up by the forcing of said wick up into the base-piece with the plug D′.

Fig. 3 shows the application of my invention to a candle or block having a circular contour, and Fig. 4 shows it applied to a candle of polygonal contour. In this latter view the wick is represented as of rectangular form and without serrations in its margin *c*.

I prefer to employ a block of sulphur that is flat on its upper face, to which the wick is attached; but this face of the block might be slightly convex or slightly undulating without materially affecting its burning.

Having thus described my invention, I claim—

1. A disinfectant-candle comprising sulphur in the form of a block, having a wick of sheet-like or boat-like form attached to its upper face and resting flatwise thereon, whereby when the sulphur becomes liquid said wick will float in a stable manner thereon.

2. A disinfectant-candle comprising sulphur in the form of a block, having a wick of sheet-like or boat-like form attached to its upper face and resting flatwise thereon, said sheet-like wick having its margin turned up in whole or in part so as to project above the general level of said wick.

3. A disinfectant-candle comprising sulphur in the form of a block, having a wick of suitable material of sheet-like or boat-like form resting flatwise on the upper surface of the same, said wick being cemented to the block by means of the sulphur, substantially as set forth.

4. A disinfectant-candle comprising sulphur in the form of a block, having an integral wick of sheet-like or boat-like form made from suitable material and attached flatwise to the upper surface of the block, said wick being wholly above the surface upon which it rests.

5. A disinfectant-candle comprising a block of sulphur, having attached to its upper surface an integral wick of sheet-like or boat-like form, said wick having an upturned and serrated margin to form salient lighting-points.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

CHARLES H. SHAW.

Witnesses:
HENRY CONNELL,
J. D. CAPLINGER.