

R. CORNELIUS.

Lard Lamp.

No. 3,030.

Patented April 6, 1843.

Fig. 3

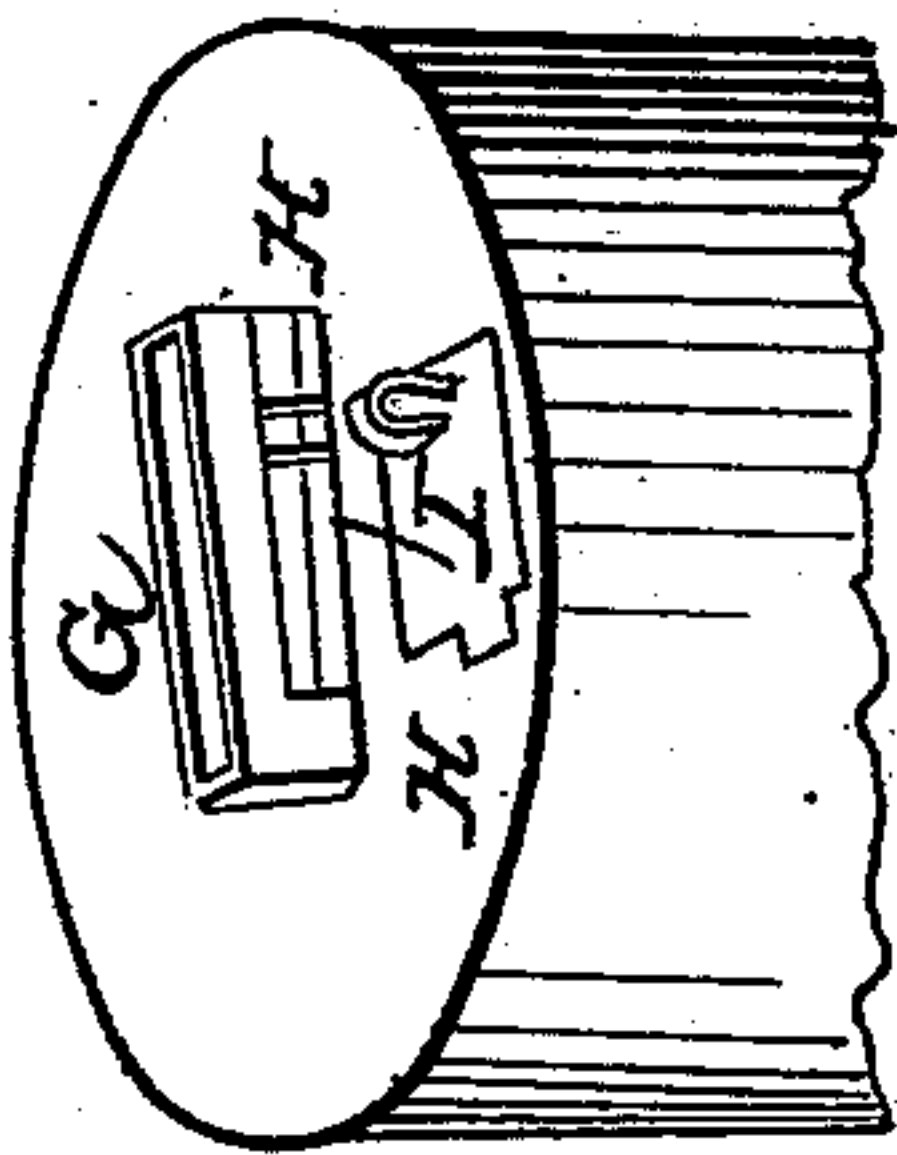


Fig. 1

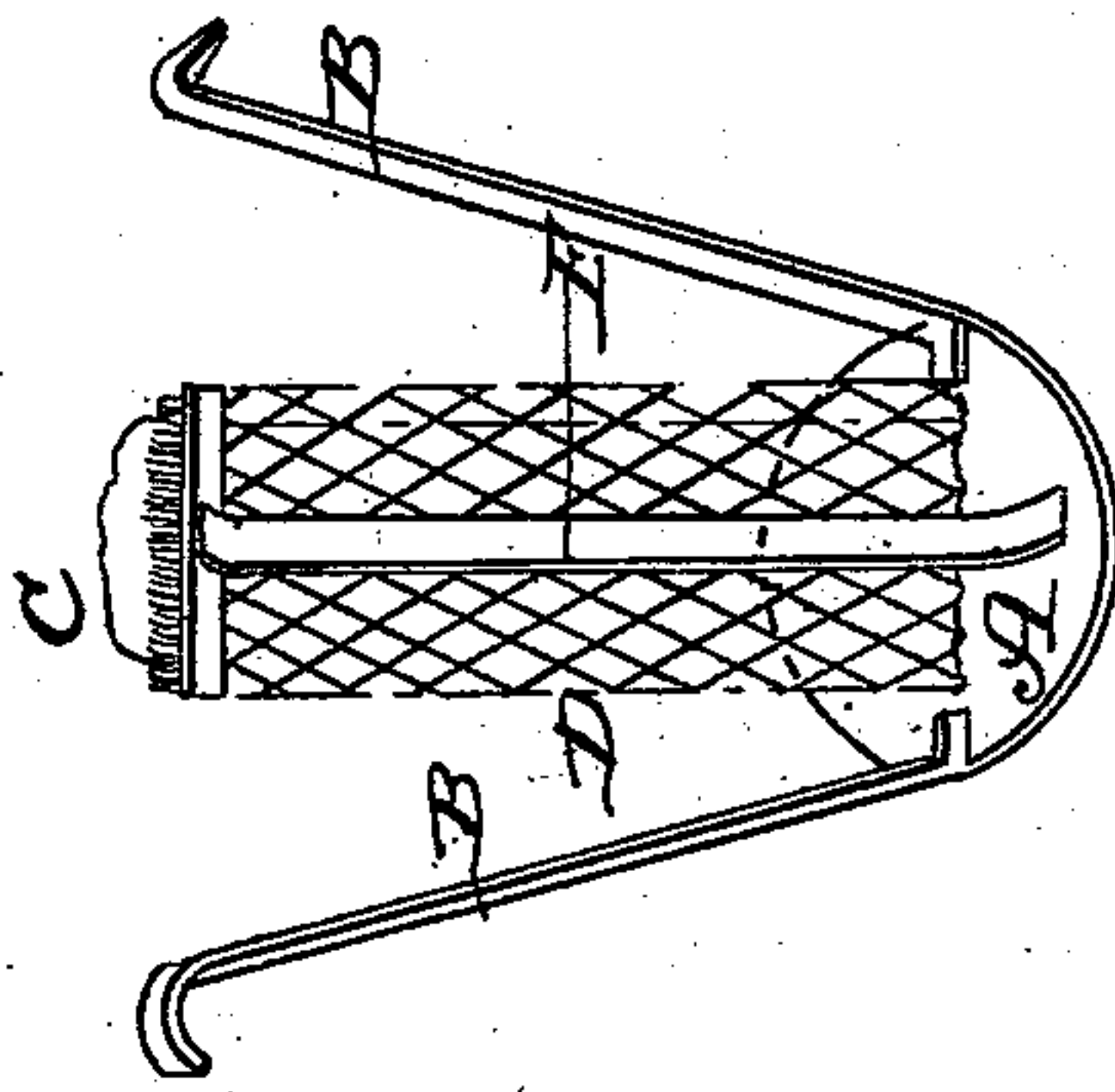
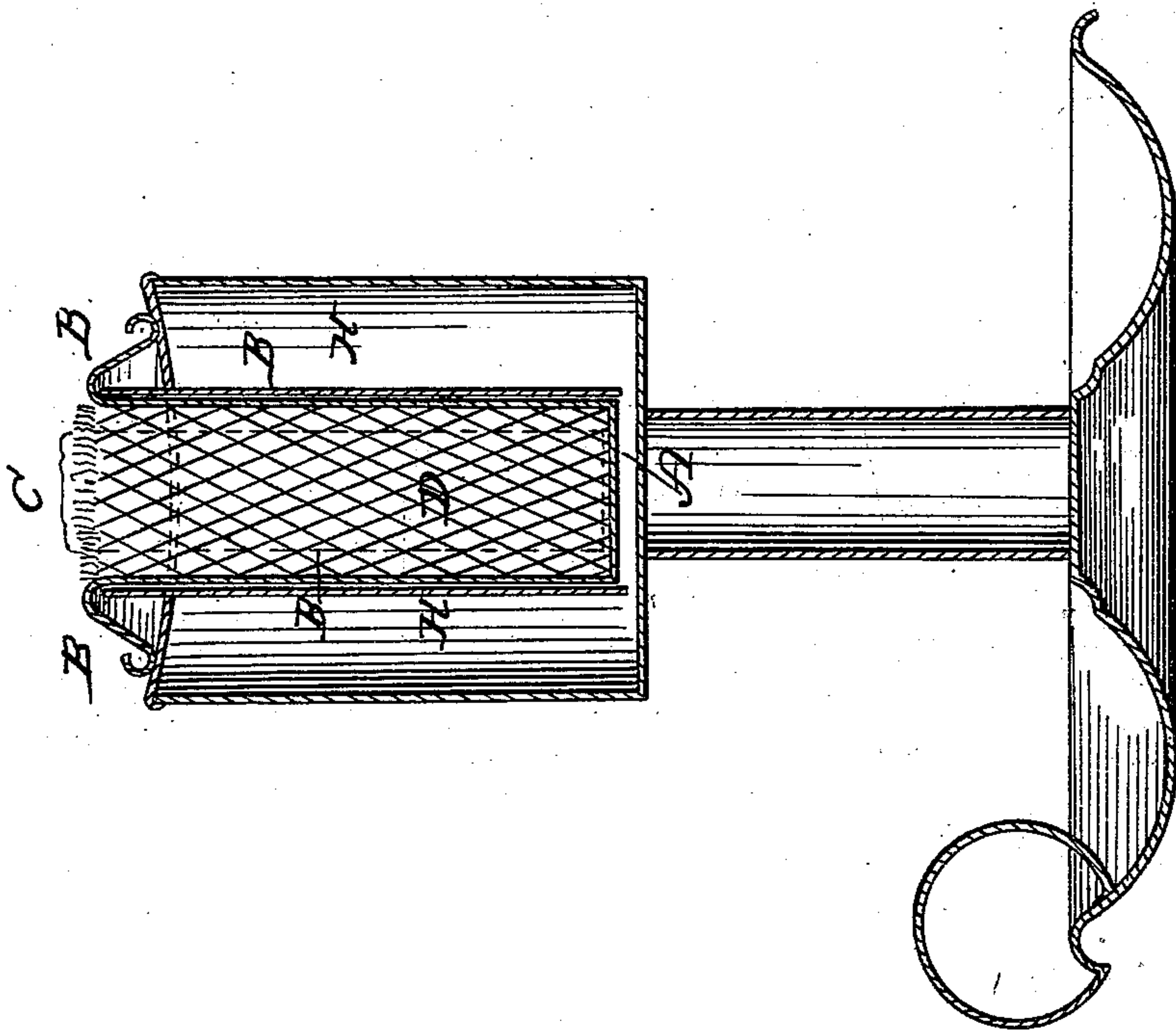


Fig. 2





# UNITED STATES PATENT OFFICE.

ROBERT CORNELIUS, OF PHILADELPHIA, PENNSYLVANIA.

## LARD-LAMP.

Specification of Letters Patent No. 3,030, dated April 6, 1843; Antedated April 1, 1843.

*To all whom it may concern:*

Be it known that I, ROBERT CORNELIUS, of the city of Philadelphia, in the State of Pennsylvania, have invented certain improvements in the manner of forming and arranging the metallic support of wicks for ordinary lamps intended for the burning of lard and other concrete fatty matters; and I do hereby declare that the following is a full and exact description thereof.

In the lamps hitherto constructed for the burning of lard, and other fatty substances, the general aim has been to conduct a large portion of the heat produced by the flame immediately into the body of the lamp, so as to produce a complete fusion of the lard &c; and when this has been effected, there has, necessarily, resulted such a diminution of heat at the point of ignition as has interfered materially with the intensity of combustion upon which the brilliancy of the light is dependent. In my lamp, under its various forms, a principal aim has been to conduct no more heat down from the flame than is necessary to fuse the lard in the vicinity of the wick; and this I have effected to such extent as to obtain a light from lard equally intense with that usually obtained from the best sperm oil.

In the accompanying drawing, I have shown two modifications of my wick support, the first being merely the wick, and the parts necessary to sustain it when placed within a common cup; the second, a common hand lamp, having a wick similarly arranged.

Figure 1, represents the wick and its support as ready to be inserted in any suitable cup, or vessel, containing lard, &c.

A, is a metallic plate to which is attached the two arms, B, B, which may consist of strips of tin plate, that are to rest on the edges of the cup. From the center of the piece A, a flat plate of copper rises, the top of which is shown at C, and upon this a hollow wick, D, may be slipped. E, is a strip of metal borne up against the wick by a spring piece, F, there being a similar support on the opposite side. The wick, D, although shown as standing below the top of the strip, C, is to be on a level with, or a trifle above, it, when the lamp is in use; and under this arrangement, the lard in the immediate vicinity of the wick will be sufficiently fused to ascend by capillary attraction, while the portion of heat conducted down by it will be but small. The use of

the strips, E, is merely to keep the wick in contact with the plate, C; and it is not necessary that the wick should actually encompass this plate, as a strip of cotton flannel, or other analogous substance, on each side of it will answer equally well. This wick may be raised with the most perfect facility.

Fig. 2, represents a section through a common hand lamp, within the body of which the wick is inserted, instead of putting it into a common cup. In this case, instead of the plate A, shown in Fig. 1, the spring strips, B, B, say three sixteenths of an inch wide, are in one piece, and their lower part, A, has the strip of copper C, fastened to it. When the wick is in place, surrounding the plate of copper, C, the whole may be forced down into the lamp, through the concrete lard, without disturbing the wick, the bottom, A, making a free passage for it. The wick is guided, and held in place, by passing it into the square tubular opening G, Fig. 3, in the top of the lamp; the edges, H, H, of which constitute grooves that embrace the edges of the wick, which, however, is exposed on each side to the lard, the opening I, being continued down its whole length. The general arrangement of this lamp is, manifestly, the same with that shown in Fig. 1. Instead of a flat plate, such as is shown at C, a row of wires, or small tubes, may extend up from the bottom A, of the wick-holder, and perform the same office with the plate.

Having thus fully described the nature of my invention in the manner of forming and arranging the metallic support of wicks for ordinary lamps, which are intended for the burning of lard, and other concrete fatty matters, what I claim therein as new, and desire to secure by Letters Patent, is—

The so arranging of the metallic plate which supports the wick, and by which the requisite amount of heat is to be conducted downward, as that no more heat shall be carried off by it, or by the parts to which it is appended, than shall be requisite to fuse the lard in the neighborhood thereof; the same being effected by placing the metallic plate C, within the wick, and by combining the respective parts with each other substantially in the manner herein set forth.

ROBERT CORNELIUS.

Witnesses:

THOS. P. JONES,  
JOHN HITE.