

No. 620,017.

Patented Feb. 21, 1899.

S. COHN.

INCANDESCENT MANTLE AND METHOD OF MAKING SAME.

(Application filed Apr. 29, 1898.)

(No Model.)

Fig. 1.

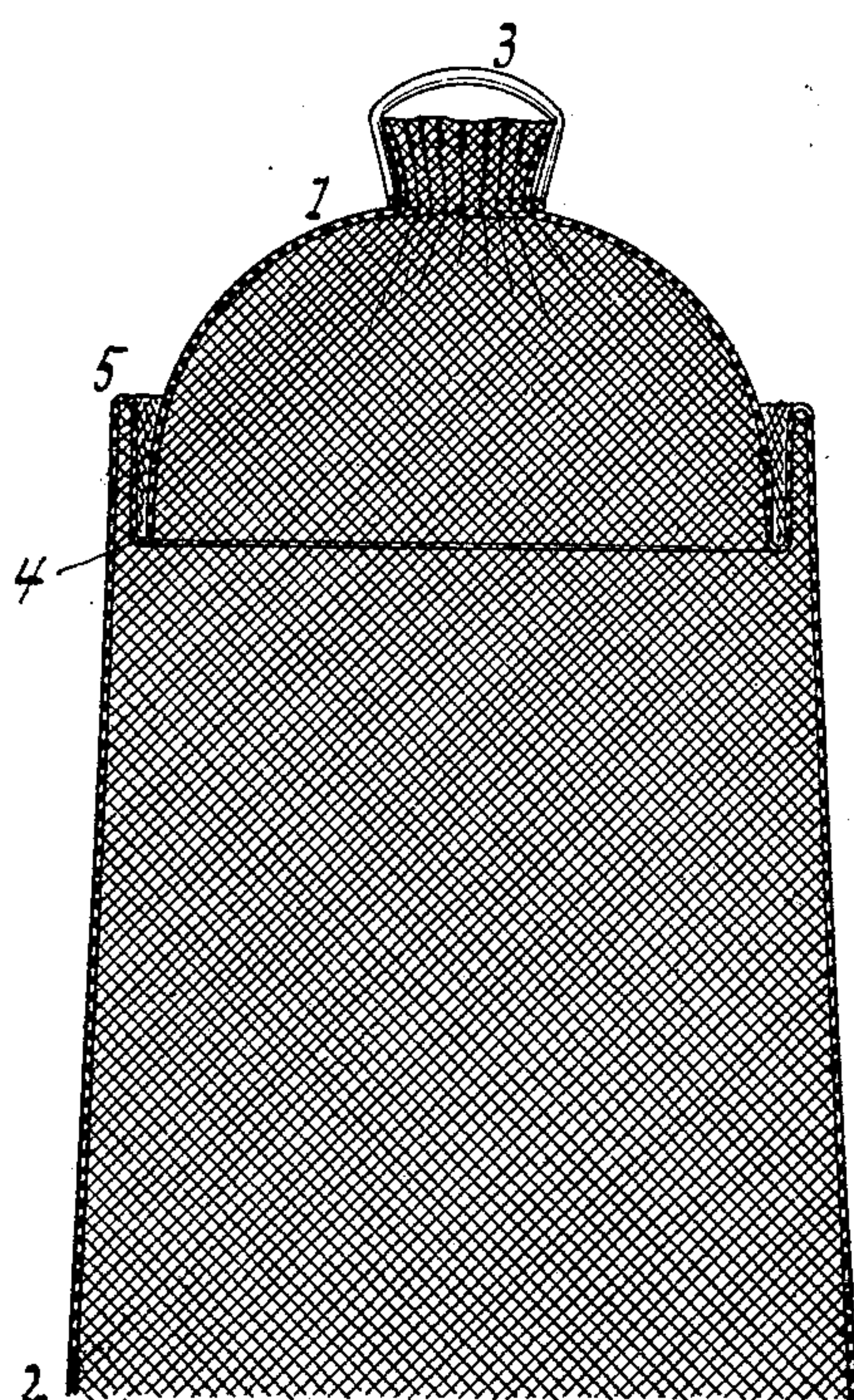
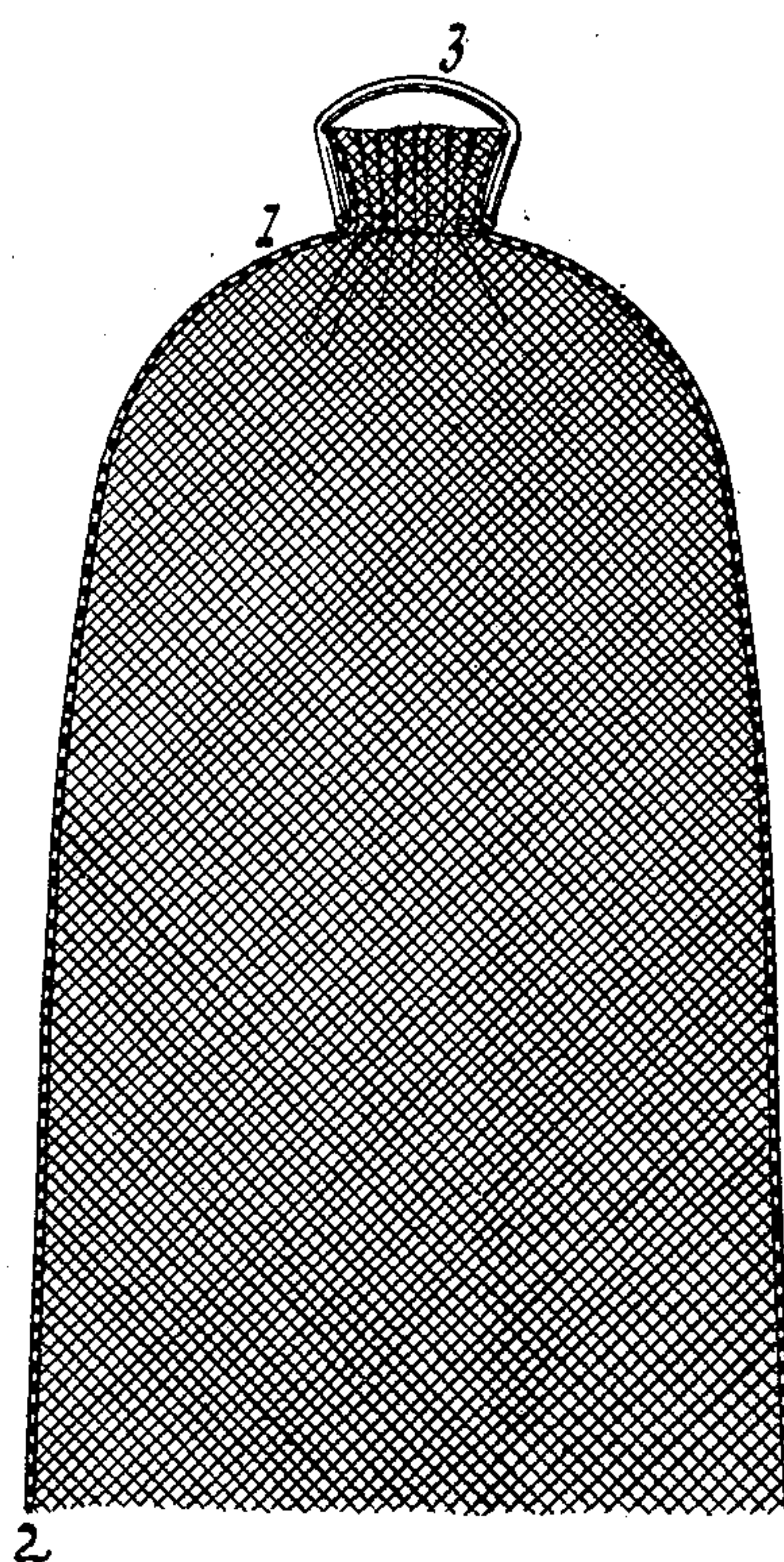


Fig. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## INCANDESCENT MANTLE AND METHOD OF MAKING SAME.

SPECIFICATION forming part of Letters Patent No. 620,017, dated February 21, 1899.

Application filed April 29, 1898. Serial No. 679,235. (No model.)

*To all whom it may concern:*

Be it known that I, SIGMUND COHN, a citizen of the United States, residing at New York, in the county and State of New York, have  
5 invented new and useful Improvements in Incandescent Mantles and Method of Making the Same, of which the following is a specification.

An impregnated mantle when burned will  
10 shrink or contract. When a mantle has been suitably folded or creased, impregnated, and burned, the fold or crease on extending or opening can be made to compensate for the shrinkage arising by burning, as set forth  
15 in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 shows a mantle creased or folded prior to burning. Fig. 2 shows a mantle after having been burned and shrunk and the fold or crease having extended or opened up.

A mantle 1 2 is shown with a loop or attachment 3, by which the mantle can be suspended or applied in position. An impregnated mantle can be shortened, as by a fold or crease 4 5, and when burned such fold or crease will open and such extension or expansion can be made to compensate for the shrinkage caused by the burning. This result can  
30 be effected by a fold or crease or by a number of folds or creases run transversely or longitudinally, or in both directions, as seen fit. As the fold or crease automatically opens or extends on the burning of the mantle  
35 handling or shifting of the latter can be avoided. After the mantle has been folded or creased and impregnated it can be suspended or applied in its permanent position. Upon then being burned the fold or crease extends  
40 and effects compensation, as described. The rod or carrier sustaining the mantle need, therefore, not be shifted or disturbed when the mantle is burned and jarring or destruction of the latter is avoided.

45 In carrying out the invention the following method has been found practical: The mantle is saturated or impregnated with the refractory matter. After impregnation the mantle can be shortened or narrowed in suitable manner, as by one or more creases longitudinal or  
50 transverse, or both, as the mantle is to be nar-

rowed or shortened, or both. The crease or fold can be made to remain or kept from premature opening by being pressed or in other suitable way, as by stitching or pasting with  
55 material which will burn out or loosen. The folded or creased mantle is suspended or applied at the height or position which the finished mantle is to occupy. Upon burning such mantle the non-refractory parts are destroyed and the fold or crease opens or straightens, the mantle thus opening or smoothing  
60 itself and assuming or remaining in the required position clear from the bottom of the burner.

65 In practice it has been found of advantage previously to burning to coat or provide the mantle with a combustible. For example, a solution of gum or wax applied to the mantle, or in which the mantle has been dipped previous to burning, will cause such burning to take place rapidly, effectively, and practically without smoke.

In carrying out the invention the mantle has been first impregnated with the refractory  
75 substance, then dipped in the wax solution or combustible, then folded or creased, then placed in position or suspended over its burner, and then burned, such series of steps having been found to result satisfactorily.  
80 By this arrangement the mantle can be kept clear from the bottom or base of the burner, so that spotting or soiling of the mantle is avoided. To avoid shifting, it has been necessary heretofore to bunch the bottom 2 of  
85 the mantle about the base of the burner and the contact with the burner has resulted in the mantle being spotted or soiled. By a fold or crease, as 4 5, which keeps the mantle clear from the burner-base, such soiling or dis-  
90 advantage is avoided.

What I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described method of making incandescent mantles, consisting in impreg-  
95 nating the mantle and folding or creasing the same intermediate its top and bottom preparatory to burning, whereby when the impregnated and folded or creased mantle is burned the fold or crease is caused to open  
100 and unfold and compensate for the shrinkage caused by burning.

2. The herein-described method of making incandescent mantles, consisting in impregnating the mantle with refractory substance, coating the impregnated mantle with a combustible, and creasing or folding the mantle intermediate its top and bottom preparatory to burning, whereby when the mantle is burned the fold or crease is caused to open and unfold and compensate for the shrinkage caused by burning.

3. As a new article of manufacture an incandescent mantle loosely folded or creased

at a point between its bottom and the point at which it is adapted to be suspended, whereby when the mantle is burned the fold or crease is caused to open and unfold and compensate for the shrinkage caused by burning.

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

SIGMUND COHN.

Witnesses:

W. C. HAUFF,

E. F. KASTENHUBER.