

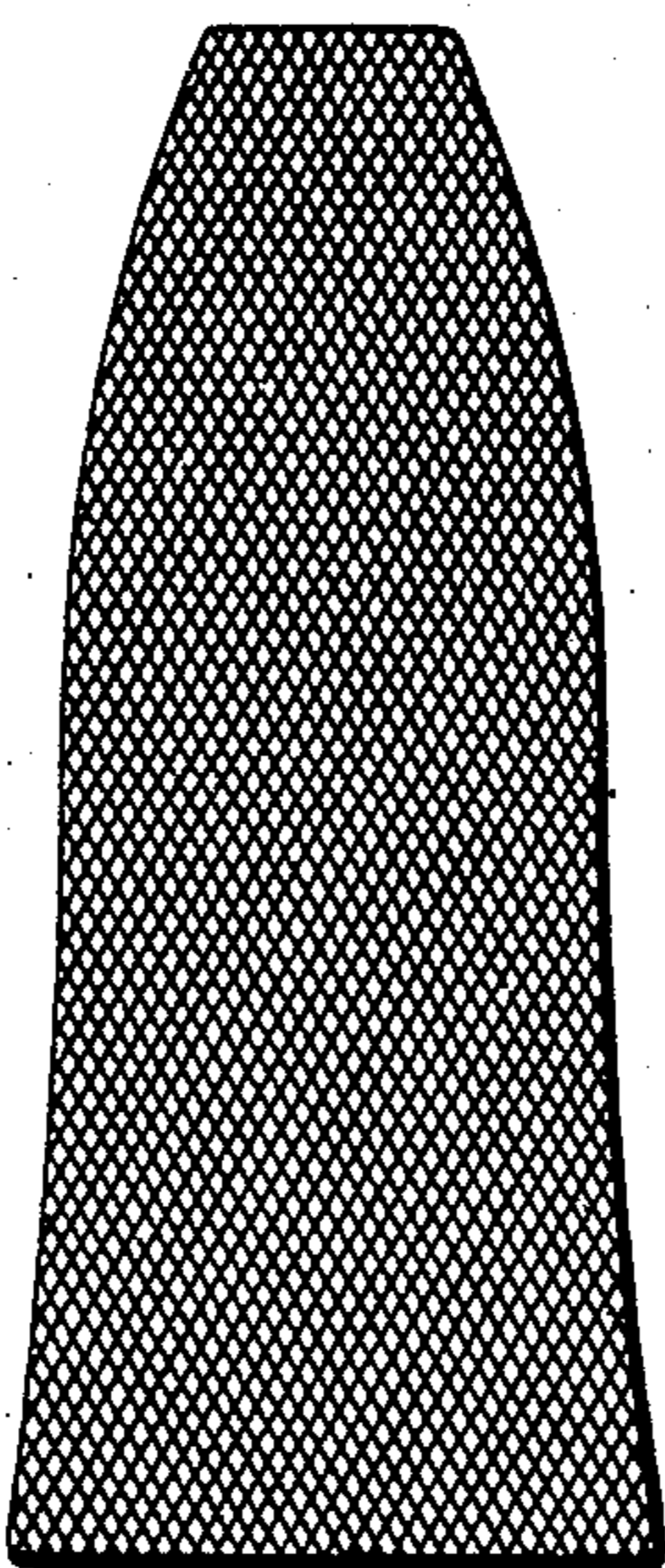
(No Model.)

L. HARTMAN.

MANUFACTURE OF MANTLES FOR INCANDESCENT GAS BURNERS.

No. 577,187.

Patented Feb. 16, 1897.



Witnesses

Chas. Wahlers
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MANUFACTURE OF MANTLES FOR INCANDESCENT GAS-BURNERS.

SPECIFICATION forming part of Letters Patent No. 577,187, dated February 16, 1897.

Application filed November 11, 1896. Serial No. 611,776. (No model.)

To all whom it may concern:

Be it known that I, LEOPOLD HARTMAN, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in the Manufacture of Mantles for Incandescent Gas-Burners, of which the following is a specification.

10 My invention relates to the manufacture of mantles, also known as "hoods," for incandescent gas-burners; and its objects are more particularly directed to the preservation of the mantles in transportation.

15 Prior to my invention this object has been sought to be attained by coating the mantle with various substances of a nature to stiffen the article. The mantle thus prepared, however, has the disadvantage, in consequence of its stiffness, of being liable to be crushed and destroyed by any careless handling to which it may be subjected in transportation. With a view to overcome this disadvantage I have adopted a substance to be applied to the mantle as a preservative, which, while imparting to the mantle the required strength to resist its breakage in ordinary handling, shall render the article pliable or elastic, and which at the same time may be burned off in the initial use of the mantle on the lamp. The substance which I have found best adapted to this purpose is a solution of guncotton, preferably in amylacetate, with or without the addition of a solution of white shellac or other similar gum or gums.

35 In carrying out my invention I dissolve the guncotton in the amylacetate in the proportion of about four ounces of guncotton to one gallon of amylacetate and coat the previously burned-off and completed mantle with this solution, or in lieu of coating the same I immerse the mantle therein, the effect being to thoroughly impregnate the fibers of the structure of the mantle with the solution, and due to the elastic or semielastic nature of the guncotton thus employed the mantle is rendered of that condition and thus adapted to preserve its shape and integrity in the ordinary handling to which it may be subjected in transportation. This guncotton solution at the same time is readily burned off from the mantle when the latter is applied to use

on the desired burner, so that the film of the solution constitutes only a temporary ingredient of the mantle.

55 In order to permit of regulating the degree of elasticity of the mantle thus prepared, I have found it expedient to add to the solution of guncotton the before-mentioned solution of white shellac, and when such is used I generally follow the proportions of about one-tenth to one-twentieth part of shellac to one part of guncotton. The solvent which I employ for the shellac is alcohol or ether, and the proportion of this solvent may be as one-tenth part of shellac to one part of alcohol or ether. It may be here remarked that instead of the shellac I may use any other gum or gums, as mastic, possessing similar properties, and also that the proportions of any or all of the ingredients herein named may be varied without departure from my invention.

75 In the accompanying drawing I have represented in side view a mantle or hood embodying my invention, it being composed of a network of earthy material, and which by the application thereto of my solution is rendered of an elastic character.

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

80 1. In the manufacture of incandescent mantles, the step herein described, which consists in impregnating the same as a temporary ingredient, with a solution of guncotton for strengthening and rendering the same elastic, as specified.

2. In the manufacture of incandescent mantles, impregnating the same as a temporary ingredient, with a solution of guncotton in amylacetate, for the purpose specified.

90 3. In the manufacture of incandescent mantles, impregnating the same as a temporary ingredient, with a solution of guncotton and a gum, as white shellac, for the purpose specified.

95 4. As a new article of manufacture, an incandescent mantle, the body of which is impregnated as a temporary ingredient, with a solution of guncotton, substantially as and for the purpose herein described.

LEOPOLD HARTMAN.

Witnesses:

CHARLES G. COE,
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