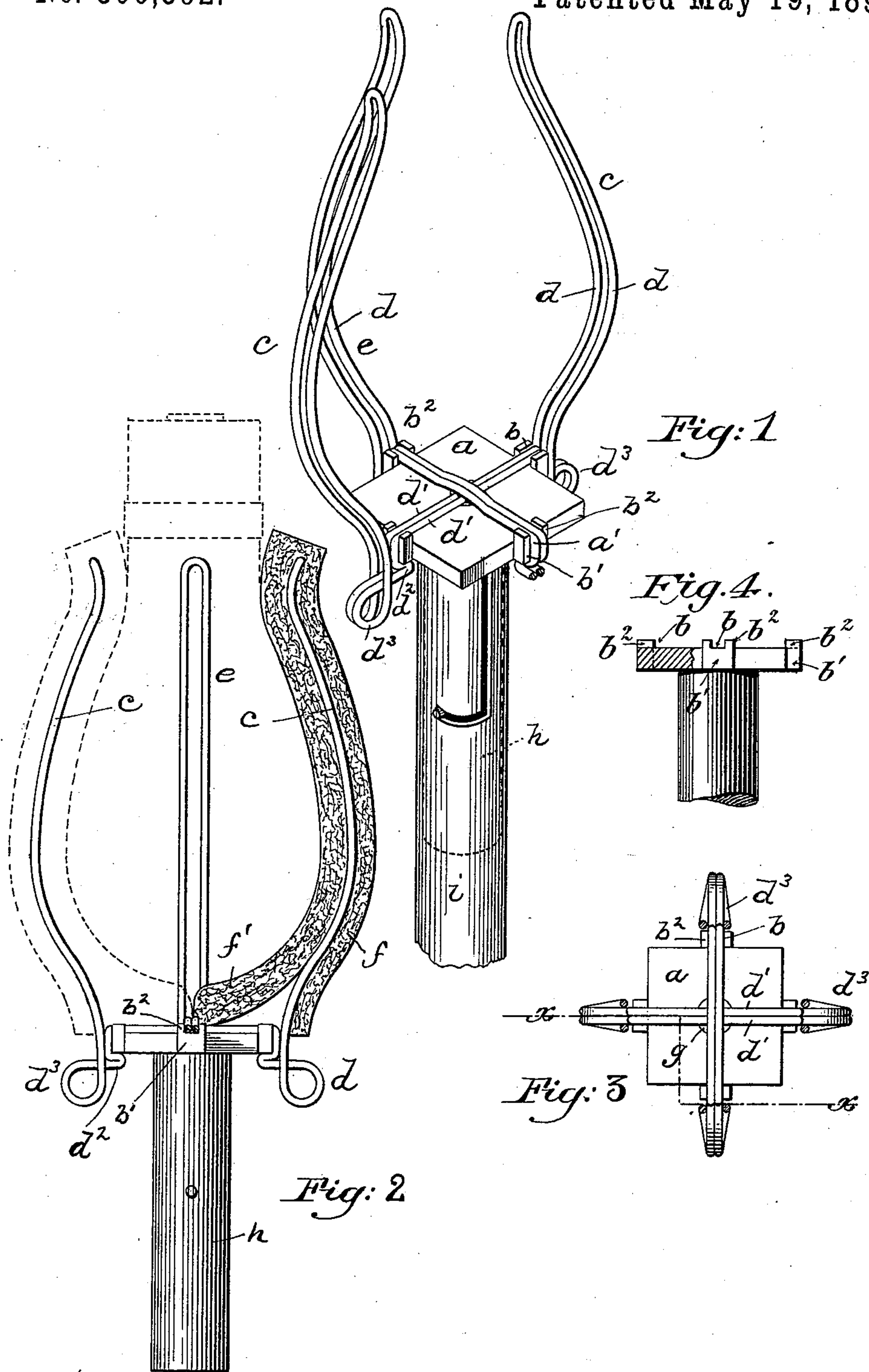


(No Model.)

J. F. MAIN.
LAMP CLEANING DEVICE.

No. 560,592.

Patented May 19, 1896.



Witnesses:
Arthur F. Randall,
C. C. Fletcher

Inventor:
J. F. Main
by Alex. Crossley
his atty

UNITED STATES PATENT OFFICE.

JACOB F. MAIN, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO EDWIN H. PHILLIPS, OF SAME PLACE.

LAMP-CLEANING DEVICE.

SPECIFICATION forming part of Letters Patent No. 560,592, dated May 19, 1896.

Application filed January 5, 1895. Serial No. 533,980. (No model.)

To all whom it may concern:

Be it known that I, JACOB F. MAIN, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Lamp-Cleaning Devices, of which the following is a specification.

The object of the invention is to provide a simple and cheap device for cleaning the bulbs of electric incandescent lamps. At this present time electricity has largely supplanted gas as an illuminating medium, and in all of the large hotels, factories, mills, and other establishments electric incandescent lamps are used. These are extremely fragile and, as a general rule, are placed beyond reach, so as to prevent breakage. In order to clean these lamps at the present time, they must be reached by hand and rubbed with a cloth, chamois-skin, or some other cleansing material. Care must be taken in cleaning such lamps not to press with too much force upon the lamps for, as aforesaid, the glass bulbs are of such friable nature that they are easily fractured and render the lamps useless.

My invention therefore consists in a simple device having movable fingers covered with some cleansing material, which can be sprung outward and then closed into place around the bulb, so that by rotating the handle to which the fingers are fastened the bulb will be thoroughly cleaned, the arms pressing the cleansing material against it.

It will be understood that my invention is not limited to the form hereinafter described, as it may be embodied in other devices more or less differing from the one shown.

For the purposes of illustration I have shown one form of cleaner on the drawings, of which—

Figure 1 is a perspective view of my device. Fig. 2 is a side elevation, and Fig. 3 a plan view, of the handle or holder, the wires being shown in section. Fig. 4 is a partial vertical section on the line $x x$, Fig. 3, of the holder with the wires removed.

a indicates the holder or casting, of any suitable shape or desired dimensions, it being shown in the drawings as rectangular with a square-top face. Projecting outward from each side and flush with the top face of the holder is a flange b' , with side walls b^2 extending above the said top face of the holder, the

flange together with its side walls forming a short groove or guide b , extending outward beyond the side of the casting.

The movable fingers carry the cleansing material and may be of any desired shape or may be constructed of any material desired. In the device shown in the drawings the opposing fingers c are made of one piece of wire, doubled for additional strength, and having its ends joined together. The double wires d of the fingers c are each bent to have a flat portion d' , which extends from the outer edge of one flange b' to the outer edge of the diametrically opposite flange b' , the two wires lying side by side in the groove or guide b . They are bent down and under the flanges b' , as at d^2 , thus forming a spring-lock by which they are held in place. From this point they are bent outward and are curled around to form the springs $d^3 d^3$ and then upward to form the finger c . The two opposing fingers c are bent so that each forms the side of an oval, and they fit closely around the glass bulb of the lamp. The ends of the fingers are bent slightly outward, so that they can be easily slipped over the end of the bulb.

The wires of the fingers $e e$ are bent, so as to have spring-locks d^2 , springs d^3 , and straight portions d' , similar to those into which the wires d of fingers c are bent.

The fingers $c c e e$ are removable from the holder a , as will be readily understood by bending back the locking portions of the wires at d^2 . The fingers may be covered by any cleansing material, and such material may be secured or clamped to them in any suitable way. I prefer to employ an elongated bag f , of felt, chamois-skin, soft cloth, or other material, closed at one end and as wide as the finger which it is to cover. It can be slipped easily in place and is readily removable for the purpose of substituting another one when it has become soiled.

The bags or coverings f for the fingers cover the fingers throughout their entire length and are provided with extensions f' , which extend to the center of the top face of the holder, the two extensions of the opposing bags meeting and covering the top face, so that the cleaner can be forced on the lamp-bulb without danger of breakage. Thus the entire surface of the bulb may be effectually cleaned.

It is frequently necessary to remove the coverings from the finger for the purpose of substituting new ones, as after they have been used for a time they become soiled and unfit
 5 for use until cleansed. Hence, as above said, they are easily removed independently of each other.

The holder or casting *a* may be secured to a handle in any preferred way. In the drawings I have shown the holder as secured by a
 10 screw *g* to a cylindrical handle *h*, which latter is adapted to be detachably fastened on the end of a pole or stick *i*, so that the cleaner may be used on lamps which are some distance
 15 from the floor.

When it is desired to use the device for cleaning the lamps, it is placed in front of the lower end of the lamp, (the fingers being normally separated at the ends,) and force being
 20 exerted to press the handle longitudinally of the lamp the fingers will separate and slip over the bulb, the springs holding them close against it. Then by rotating the handle the covering material on the fingers will effectively
 25 remove all dust, dirt, and other foreign matter from the bulb. Then the device is removed by merely drawing it longitudinally away from the lamp.

Having thus explained the nature of the invention and described a way of constructing
 30 and using the same, though without attempt-

ing to set forth all of the forms in which it may be made or all of the modes of its use, it is declared that what is claimed is—

1. A device for cleaning the exterior surface of an electric-light bulb, having a handle,
 35 a holder secured thereto, wire fingers each bent down to grasp said holder, bent to form a spring, and then bent upward to form a bulb-inclosing portion, and a covering for
 40 each of said fingers, substantially as set forth.

2. A device for cleaning the exterior surface of an electric-light bulb having a holder, resilient fingers each formed of a double wire
 45 secured to the holder, and formed into a spring near its point of attachment thereto, said fingers having their outer ends bent outward at the ends and a removable covering
 50 for each finger consisting of a tubular bag completely covering said finger, and provided with an extension at its lower end to cover a portion of the holder, substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of
 55 two subscribing witnesses, this 17th day of December, A. D. 1894.

JACOB F. MAIN.

Witnesses:

MARCUS B. MAY,
 C. C. STECHER.