

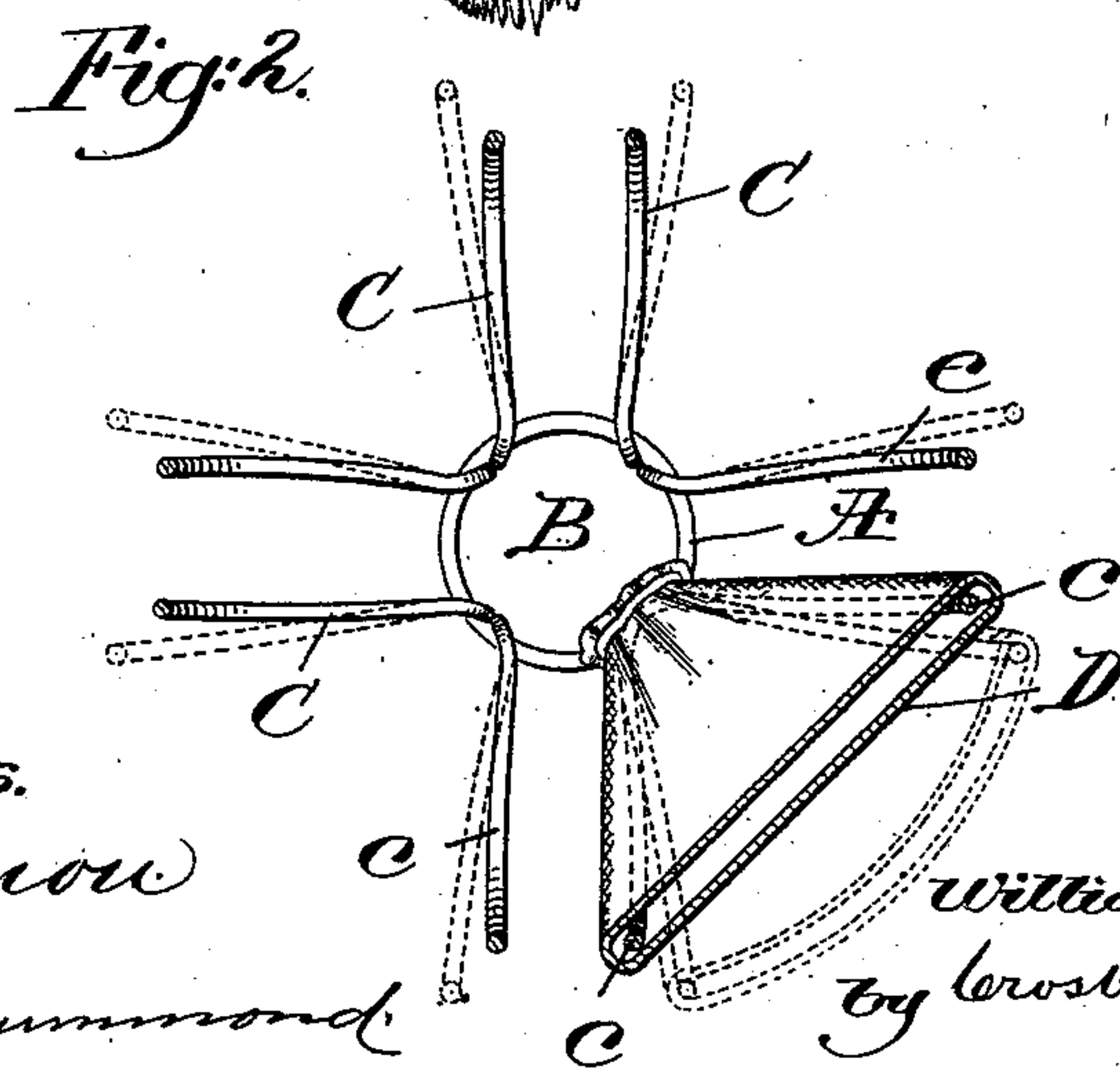
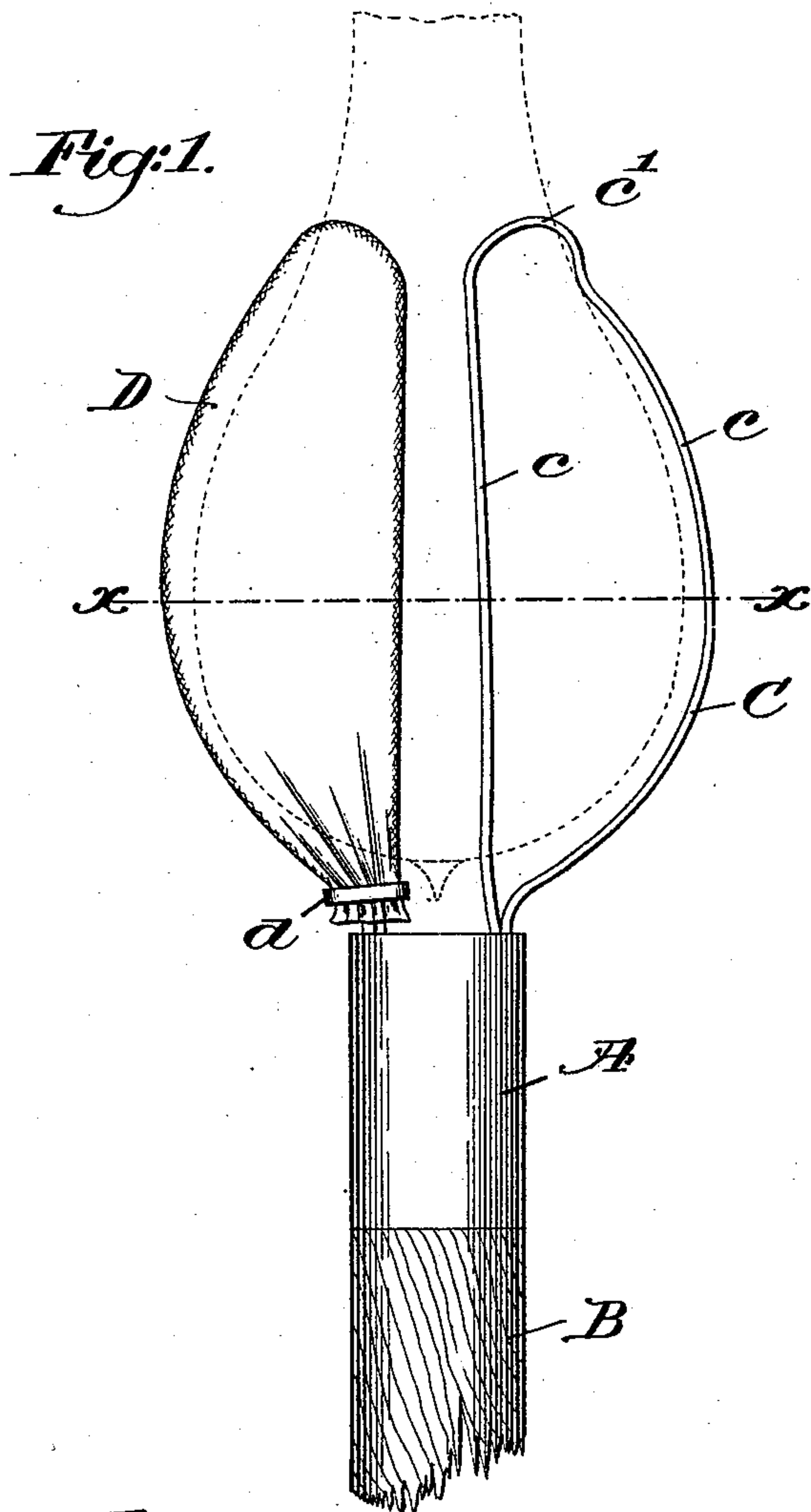
(No Model.)

W. O. NILES.

CLEANER FOR INCANDESCENT LAMP BULBS.

No. 539,537.

Patented May 21, 1895.



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## CLEANER FOR INCANDESCENT-LAMP BULBS.

SPECIFICATION forming part of Letters Patent No. 539,537, dated May 21, 1895.

Application filed April 13, 1894. Serial No. 507,340. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM O. NILES, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Cleaners for Incandescent-Lamp Bulbs, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In public halls and stores employing large numbers of incandescent electric lamps, usually hung at a considerable distance above the floor level, it is difficult and sometimes practically impossible to reach and dust or clean the outsides of the same frequently, as they should be cleaned or dusted, in order that the incandescent filament within shall furnish the maximum lighting power.

This invention has for its object the production of a novel and useful cleaner for reaching, and dusting or cleaning the bulbs referred to, from the floor without the use of step-ladders and the like.

My invention comprehends a cleaner for incandescent lamp bulbs and the like, consisting of a portable pole adapted to be carried in the hand; a head mounted on the end of said portable pole, a plurality of arms projecting from said head, each bow-shaped in form to embrace and substantially conform to a bulb, one or more of said arms being resilient to enable said cleaner to be pushed upon and withdrawn from a bulb; and a cleaning face applied to one or more of said arms, substantially as will be described.

Other features of my invention will be hereinafter described and pointed out in the claims.

In the drawings, Figure 1 represents in side elevation a cleaner embodying my invention, one of the cleaning-faces only being shown and the pole upon which the head is mounted being broken off; and Fig. 2, a cross-section taken on the line  $x x$ , Fig. 1, only one of the cleaning-faces being shown in position.

Referring to the drawings, A, is a head, preferably in the form of a socket, adapted to be mounted on the end of a pole B of such length as will enable the lamp bulbs to be conveniently reached from the floor or other point of access.

The head A is, in the present instance of my invention, shown as provided with four resilient arms C, each shown as formed of a  $\cap$ -shaped loop of resilient wire  $c$  having the ends of its two wire members rigidly attached at the base of the arm to the said head A, see Fig. 1, said loop being made wider at its middle along the dotted line  $x x$ , than at its ends, in order that the several loops or arms together may fully embrace and practically cover a globe, as will be described, said loops or arms at their upper or free ends being turned back slightly, as at  $c'$ , to enable the cleaner to be applied to a bulb. Upon one or all of these resilient arms C, I place a mitten D of felt or other suitable soft material adapted for cleaning purposes, the same, as shown, being caught together and held by a rubber band  $d$  at the base of the arm to prevent the said mitten from being withdrawn.

When it is desired to dust or clean a lamp bulb, the operator, grasping the lower end of the pole B, pushes the four flaring ends  $c'$  of the resilient arms directly against the rounded end of the lamp bulb, the latter acting to spread the arms and permit the latter to pass up and over the bulge of the bulb and close in at the neck of the latter, the said arms thereby embracing and practically covering the entire bulb. The pole is then rotated to cause the cleaning face or faces of the mittens to wipe the surface of the bulb, to remove therefrom all dust and dirt, after which, the device is withdrawn or pulled from the globe, the arms C in each case, by their resiliency, yielding to permit the device to be applied and removed at will.

By referring to Fig. 2, the full lines represent the normal position of the mitten when the device is not in use; but when the device is sprung over a lamp bulb, the mitten assumes a curved shape, as shown in dotted lines, thereby hugging the bulb, and presenting thereto a greater bearing or cleaning surface than would be presented were the cleaning surface maintained always straight or in a plane, as in full lines in Fig. 2, for in the latter instance, the said surface would bear upon the bulb only in a vertical line at the center of the surface.

The great utility of my device lies, first, in



the cleaning or dusting face with which each arm is provided, and in the resiliency of one or more of the arms which enables the device to be pushed directly against the end of a bulb and to yield sufficiently to enable it to spring over and about the bulb and be thereby retained in position while it is rotated, and yield sufficiently to enable it to be withdrawn directly from the bulb in a direction opposite to that in which it was pushed thereupon.

The cleaning mittens referred to being pliable, *i. e.*, of a yielding or pliable fabric or substance, may be turned around on the arms of the cleaner in order that fresh portions of the mitten surface may be presented to the bulbs to be cleaned as the said mitten surface becomes gradually filled with dust by extensive use.

I have herein shown all four of the arms as of like construction, and resilient, but it is evident the number of arms may be varied at will, and any one of the arms may, if desired, be made rigid and unyielding, in which case, the remaining arm or arms would be required to yield sufficiently to enable the device to be pushed upon and about a bulb in the manner described.

While I prefer the construction of arms herein shown, *viz.*,  $\cap$ -shaped wire arms, yet my invention is not restricted in this respect, for any resilient arms, of whatever construction, may be employed to advantage, and yet be within the scope of this invention.

By the term "rigidly attached to the head" hereinafter employed in the claims, is meant such attachment as compels any movement of the arms necessary to permit the device to

be pushed upon and withdrawn from a bulb to take place entirely, or substantially so, through the resiliency of one or more of the arms, and not through any flexible or pivot connections of the arms with the head.

I claim—

1. The herein described cleaner for incandescent lamp bulbs and the like, the same consisting of a head; a plurality of resilient  $\cap$ -shaped wire arms rigidly attached at one of their ends to said head, and shaped substantially as described to fit the said bulb, and to enable the said arms to be pushed thereupon and to be withdrawn therefrom; and a cleaning face applied to one or more of said arms, substantially as described.

2. In a cleaner for lamp bulbs and the like, a head provided with a plurality of endwise projecting arms, each comprising two wire-like members, one or more of said arms being resilient, whereby the said cleaner may be pushed upon and withdrawn directly from a bulb, and a fabric cleaning face applied to one or more of said arms and stretched from one to the other of its wire-like members, whereby said face is capable of adapting itself to varying curvatures or exteriors of lamp bulbs, substantially as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WM. O. NILES.

Witnesses:

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