

M. F. WILDAU.
LAMP CHIMNEY CLEANER.
APPLICATION FILED OCT. 10, 1912.

1,052,871.

Patented Feb. 11, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

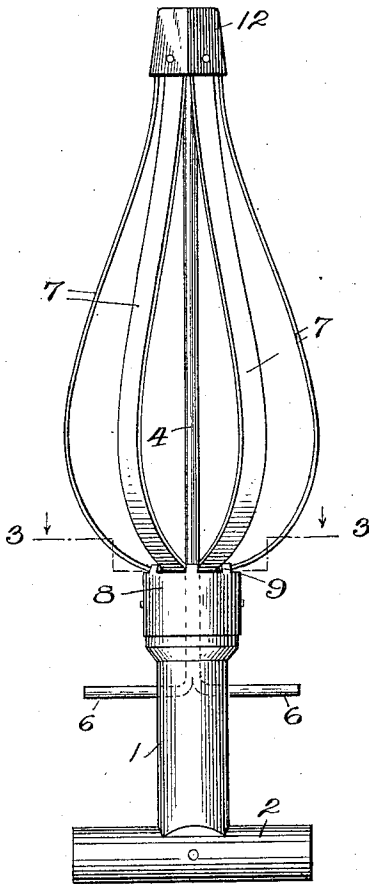


Fig. 2.

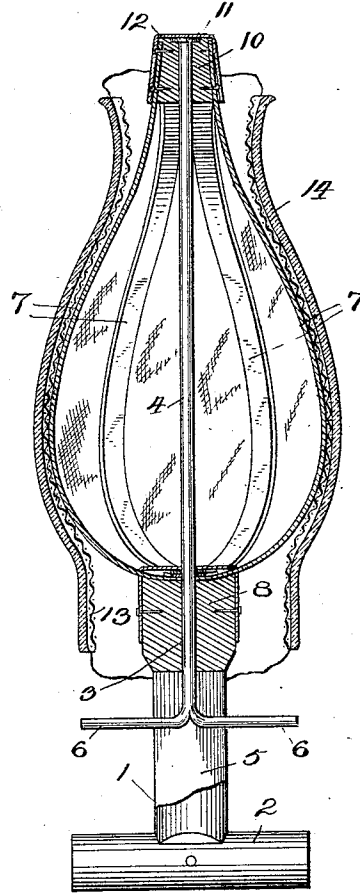


Fig. 3.

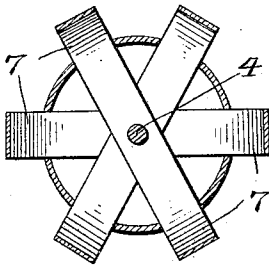
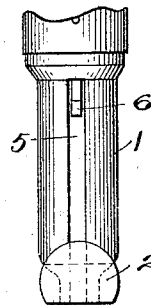


Fig. 4.



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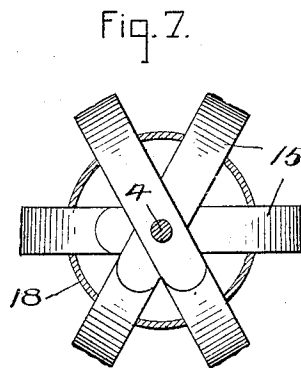
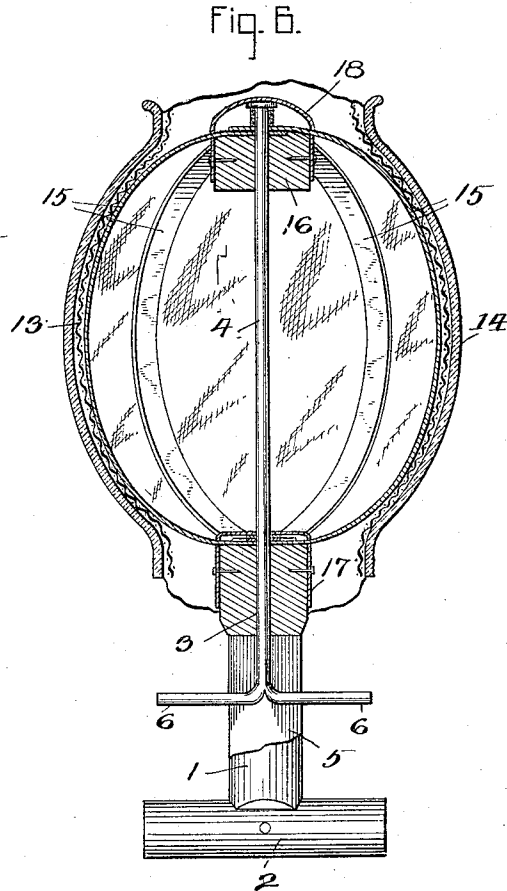
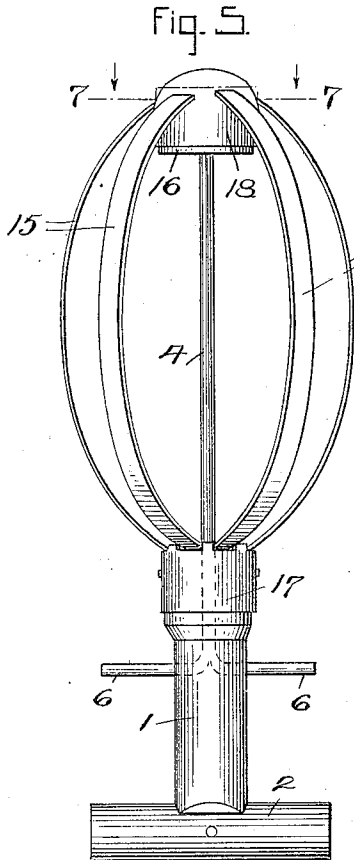
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE

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LAMP-CHIMNEY CLEANER.

1,052,871.

Specification of Letters Patent.

Patented Feb. 11, 1913.

Application filed October 10, 1912. Serial No. 724,951.

To all whom it may concern:

Be it known that I, MICHAEL F. WILDAU, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Lamp-Chimney Cleaners, of which the following is a specification.

This invention relates generally to the class of lamp chimney cleaners consisting of a skeleton elastic frame over which a cleaning cloth is placed and which is adapted to be expanded within the chimney and rotated therein for thoroughly cleaning its interior. The invention has more particular reference to cleaners of this kind comprising a series of longitudinal springs attached at one end to the handle of the device and conforming approximately to the chimney to be cleaned, and a rod sliding in the handle and attached to the opposite ends of the springs and operating to expand the same.

One object of my invention is to simplify the construction and reduce the cost of manufacture of such cleaners.

Further objects are to securely attach the springs to the handle by simple means and to so arrange them that they tend to bulge or expand against the chimney wall without the use of separate means for this purpose.

In the accompanying drawings: Figure 1 is a side elevation of one form of cleaner. Fig. 2 is a sectional elevation thereof showing the same expanded within a chimney. Fig. 3 is a transverse section on line 3—3, Fig. 1, on an enlarged scale. Fig. 4 is a fragmentary elevation of the handle of the cleaner at right angles to Fig. 1. Fig. 5 is a side elevation of a modified form and construction of the cleaner. Fig. 6 is a sectional elevation of said modified cleaner expanded within a globe or shade. Fig. 7 is an enlarged transverse section on line 7—7, Fig. 5.

Similar characters of reference indicate corresponding parts throughout the several views.

The main handle of the cleaner preferably consists of a longitudinal shank 1 and a cross piece 2 secured to its rear end. The upper portion of the shank is provided with an axial opening 3 in which slides a longitudinal expansion rod 4 while in the lower portion of the shank is formed a longitudinal slot 5 which receives transverse finger-pieces or handles 6 arranged at the lower end of said rod, these handles extending a

suitable distance beyond the sides of the handle-shank 1, as shown.

7 indicates the longitudinal springs forming the skeleton body of the cleaner and preferably consisting of thin flat strips of spring steel which approximately conform to the interior of the lamp chimney, globe or similar object to be cleaned. In their preferred construction, these springs are arranged in pairs and those of each pair consist of a single continuous strip of material bent or doubled at its middle, as shown in Fig. 3, thus materially simplifying the manufacture and assemblage of the springs and their attachment to the handle and the expansion rod. In the construction shown in Figs. 1 to 4, the bent middle portions of the spring-strips overlap one another and each strip is provided in said portion with an opening through which the expansion rod 4 passes. This rod thus performs the additional function of attaching the springs to the handle and holding them against radial displacement thereon.

Secured to the upper end of the handle-shank 1 is a ferrule 8 having at or near its upper edge a series of radial slots 9, each of which receives the lower portion of one of the springs. The latter are snugly fitted in these slots, so as to be firmly held against lateral or pivotal movement on the rod 4. The upper ends of the springs are fastened to the upper end of the expansion rod 4, preferably through the medium of a wooden block 10 suitably connected with the rod, so that the upper ends of the springs are compelled to move downward or toward the handle with the rod. In the construction shown, the rod has a head 11 countersunk in the block 10, and the latter and the upper ends of the springs are covered by a cap 12 secured to the block.

In the use of the cleaner, a suitable cleaning cloth 13 is placed over its springs after which it is inserted in the chimney 14 to be cleaned, the springs contracting sufficiently to enter the base of the chimney. Grasping the cross piece 1 of the handle and placing the fingers of the same hand over the finger-pieces 6 of the expansion rod 4, the user now pulls the latter toward said cross piece. As the upper ends of the springs take part in this movement, they are further expanded or bulged and caused to press the cleaning cloth tightly against the interior of the

chimney on all sides, whereby upon rotating the cleaner in the chimney, the latter is thoroughly cleaned. Upon releasing the finger-pieces 6, the springs contract to their former position, returning the rod 4 to its initial position and permitting the easy withdrawal of the cleaner from the chimney.

As best shown in Fig. 2, the lower portions of the springs which abut against the front end of the shank 1, preferably extend outwardly from the shank substantially at right angles thereto. By this arrangement, the lower bowed portions of the springs tend to bulge out against the swell of the chimney, upon pulling the expansion rod 4 giving them a much greater range or freedom of expansion than would be the case if their lower ends were fastened to the sides of the handle-shank, or arranged substantially parallel therewith. This advantage is obtained without the use of separate expansion means in addition to the rod 4.

In the modified construction shown in Figs. 5-7, the springs 15 of the cleaner are bowed or bulged throughout their length, so as to form collectively when expanded, a skeleton body of approximately spherical shape suitable for cleaning a globe or shade of that form. For this purpose the upper ends of the springs are overlapped and superposed upon a block 16 carried by the expansion rod 4, instead of being secured to the side walls of the corresponding block 10, shown in Figs. 1 and 2. The upper portions of the springs as well as their lower portions are thus arranged substantially at right angles to said expansion rod and tend to expand and bulge against the globe 14, as explained in connection with the lower portions of the springs in the construction illustrated in Figs. 1 and 2. In this modification, the springs may be formed integral in pairs as in the first described construction. Their lower portions are held from lateral displacement by a slotted ferrule 17 similar to the ferrule 8, and their upper ends

are held in place by a similar cap or ferrule 18 secured to the block 16. The operation of this modified cleaner is the same as that of the cleaner first described.

In both embodiments of the invention herein shown and described the number of parts is reduced to a minimum, enabling the device to be produced at comparatively small cost.

I claim as my invention:

1. A lamp chimney cleaner, comprising a handle, an expansion rod slidable lengthwise in said handle, and longitudinal springs attached at their upper ends to said rod and provided in their lower portions with openings through which said rod passes.

2. A lamp chimney cleaner, comprising a handle, an expansion rod slidable lengthwise in said handle, longitudinal springs attached at their upper ends to said rod and provided in their lower portions with openings through which said rod passes and means for holding the springs against lateral movement on said rod.

3. A lamp chimney cleaner, comprising a handle, an expansion rod slidable lengthwise of said handle, a ferrule applied to the handle and having radial slots, and springs attached at their upper ends to said rod and having their lower portions arranged in said slots.

4. A lamp chimney cleaner, comprising a handle, an expansion rod slidable lengthwise in said handle, a ferrule secured to said handle and having radial slots, and springs attached at their upper ends to said rod, the lower portions of the springs passing through said slots and having openings through which said rod passes.

Witness my hand this 8th day of October, 1912.

MICHAEL F. WILDAU.

Witnesses:

C. F. GEYER,
ANNA HEIGIS.