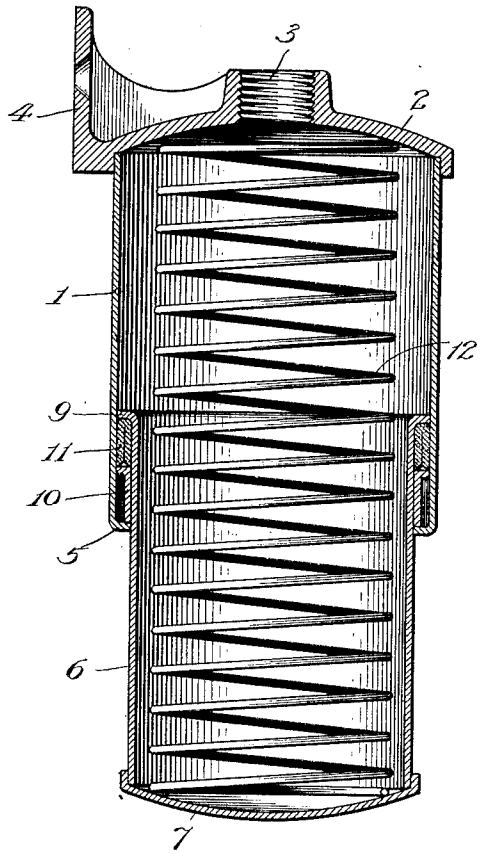
F. A. B. HOLMES.

METALLIC BULB.

APPLICATION FILED MAR. 3, 1913.

1,097,632. Patented May 26, 1914.



Attest:
Chas. H. Bull.
H. Emmerson

Inventor:
Frank A. B. Holmes,
By Robert Burns Atty.

UNITED STATES PATENT OFFICE.

FRANK A. B. HOLMES, OF CHICAGO, ILLINOIS.

METALLIC BULB.

1,097,632. Specification of Letters Patent. Patented May 26, 1914.

Application filed March 3, 1913. Serial No. 751,727.

To all whom it may concern:

Be it known that I, FRANK A. B. HOLMES, a citizen of the United States of America, and a resident of Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Metallic Bulbs, of which the following is a specification.

This invention relates to metallic bulbs adapted for general use as an air mover in the operation of atomizers, automobile horns and like appliances. And the present improvement has for its object to provide a simple and efficient structural formation and combination of an air mover whereby an efficient operation is attained and a very desirable and compact construction provided, all as will hereinafter more fully appear.

The accompanying drawing is a central section of a fixed bulb or blower, embodying the present invention.

Referring to the drawing, 1 represents the outer cylinder of the present appliance closed at one end by a closure head 2, and carrying the usual outlet nozzle 3. Said closure head 2 may have a lateral attaching bracket 4, when it is desired to use the same as a fixture, as for instance, the blower of an automobile horn. At its other end the outer cylinder 1 is formed with an inturned annular flange 5 for the purpose hereinafter described.

6 is the inner cylinder of the appliance, of a diameter corresponding with that of the bore of the inturned annular flange 5 of the outer cylinder 1, and adapted to have a sliding or telescoping movement in said bore. At one end the cylinder 6 is closed by a closure head or cap 7, which when desired may have an inlet opening (not shown), controlled by a valve or by the thumb of the operator, as usual in the ordinary operation of the appliance. At its other end said inner cylinder 6 is formed with an out-turned annular flange 9, the periphery of which is approximately the same as the inner diameter of the outer cylinder 1, and adapted to move in sliding contact therewith.

10 is an annular distance sleeve secured to the periphery of the inner cylinder 6, a short distance from the out-turned flange 9 thereof, and adapted in connection with said flange 9 to provide an annular chamber for the reception of an annular cup or other similar packing 11, by which the joint between the two telescoping cylinders 1 and 6, is rendered tight against leakage of air. In addition to the above described function, the distance sleeve 10 prevents the cylinders from moving so far apart as to lose their proper longitudinal alinement and become inoperative by a buckling between the cylinders.

12 is a coiled spring disposed in the interior of the appliance, with its opposite ends having abutment against the respective heads 2 and 7 of the cylinders 1 and 6, with a normal tendency to force said cylinders apart, after the usual compression by hand in actual use.

Having thus fully described by said invention, what I claim as new, and desire to secure by Letters Patent, is:—

A telescoping bulb comprising, an outer cylinder having a closed cap at one end and an inturned annular flange at the other end, a rodless piston consisting of an inner cylinder having a closure cap at one end and an out-turned flange at the other end, an annular distance sleeve of an L shape in cross-section secured to the inner cylinder a distance from its out-turned flange, an annular packing disposed between said distance sleeve and the out-turned flange, and a spring disposed in the interior of the cylinders with a tendency to force said cylinders apart, substantially as set forth.

Signed at Chicago, Illinois, this 27th day of February 1913.

FRANK A. B. HOLMES.

Witnesses:

ROBERT BURNS,

HENRY MOE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."