

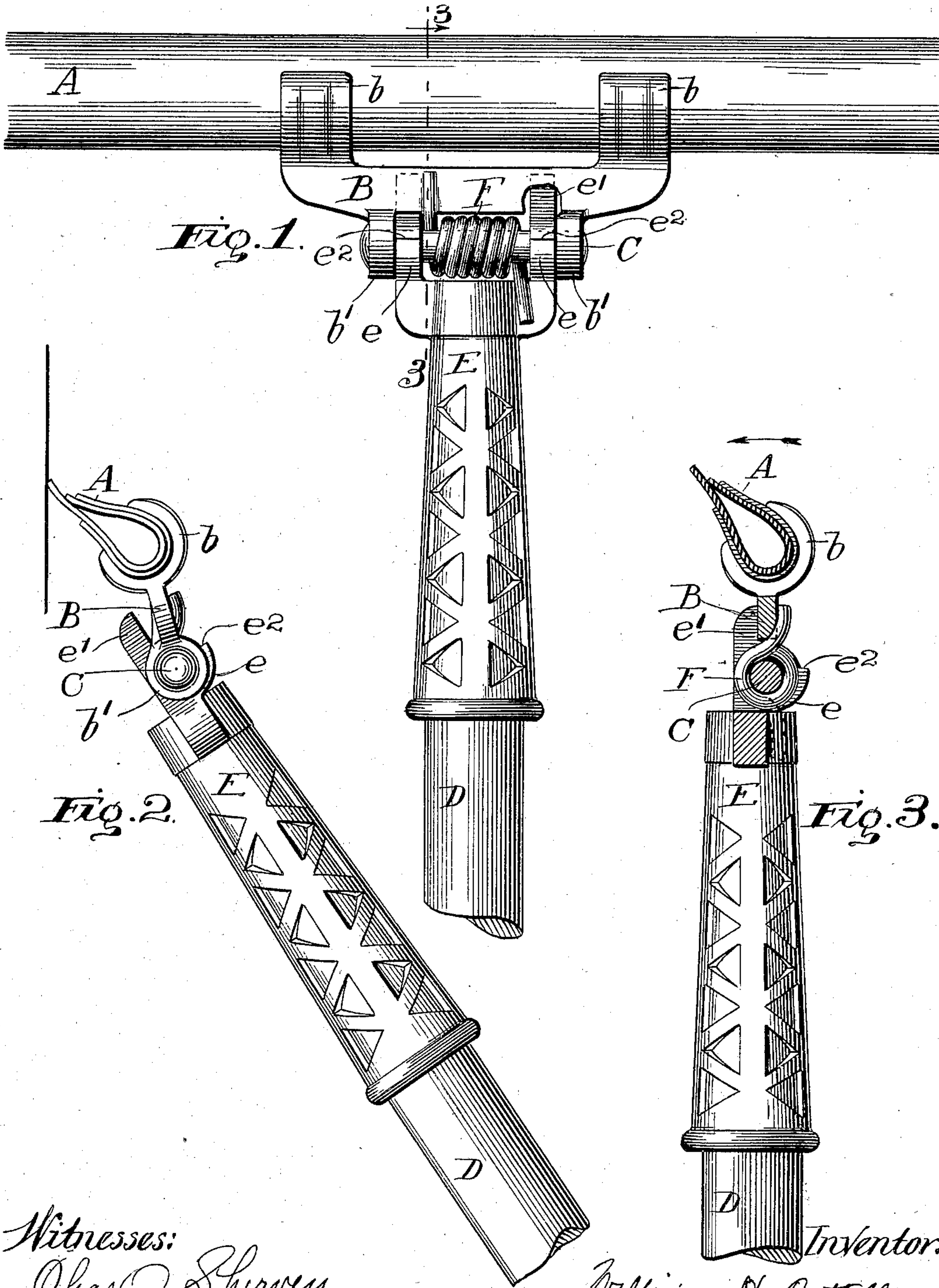
No. 731,338.

PATENTED JUNE 16, 1903.

W. H. CATTELLE.
WINDOW CLEANER.

APPLICATION FILED APR. 12, 1902.

NO MODEL.



Witnesses:
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Att'y.

UNITED STATES PATENT OFFICE.

WILLIAM H. CATTELLE, OF CHICAGO, ILLINOIS.

WINDOW-CLEANER.

SPECIFICATION forming part of Letters Patent No. 731,338, dated June 16, 1903.

Application filed April 12, 1902. Serial No. 102,521. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. CATTELLE, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Window-Cleaners, of which the following is a specification.

My invention relates to certain new and useful improvements in window-cleaners. Its object is to produce a cleaner which will operate satisfactorily on windows of various heights and in all positions with reference to the surface of the glass.

To this end my invention consists in certain novel features of construction, which are fully shown in the accompanying drawings and described in this specification.

In the drawings, Figure 1 is a side elevation of my improved window-cleaner. Fig. 2 is an end elevation of the same, showing the cleaner forced backward a certain distance; and Fig. 3 is a section in the line 3 3 of Fig. 1, the cleaner being in its normal position.

Referring to the drawings, A is a window-cleaner proper of the ordinary type, consisting of a strip of rubber suitably held within a split metal tube. The cleaner proper is supported and held by two cleft ends *b* of a forked member B. The forked member B is provided with two ears *b' b'*, which are perforated to receive a suitable pin C.

D is the supporting-rod of the device, and it has upon its end a ferrule E. The ferrule E terminates in a forked piece having two projecting ears *e e*, which fit inside of the ears *b' b'* of the member B. The ears *e e* are also perforated to receive the pin C. By this pin, therefore, the cleaner A is pivoted upon the ferrule E. The pin C is surrounded by a coiled spring F, one end of which bears against the ferrule E and the other end of which bears against the forked member B, the force of this spring tending to rotate the cleaner in the direction shown by the arrow in Fig. 3. The projecting ears *e e* of the ferrule E are each provided with two lugs *e' e'*, which are adapted to engage the forked member B

and limit its rotation in both directions, the lug *e'* limiting its rotation in the direction of the arrow in Fig. 3 or its forward rotation and the lug *e'* limiting its backward rotation.

The operation of my device is substantially as follows: In cleaning the top of the window it is desirable to have the cleaner in about the position shown in Fig. 3 with reference to the rod; but in cleaning the bottom of the window it is desirable to have the cleaner from sixty to ninety degrees back of that position. As the operator draws the cleaner down the window the spring F holds the cleaner in continuous contact with it, and as the pressure upon the cleaner gradually increases the cleaner proper is rotated into and through the position shown in Fig. 2 to a position somewhat back of that. I consider that this rotation of the head of the cleaner is particularly desirable, as it permits the bottoms of windows to be cleaned with perfect ease and without changing the direction of motion.

Heretofore it has been customary to draw the cleaner down the window as far as possible and then draw the cleaner sidewise over the bottom of the window, so that the direction of its motion on the window was changed. This has always had a tendency to streak the window and prevent its being perfectly clean, and it is obvious that my device will prevent such results.

I claim as new and desire to secure by Letters Patent—

1. In a device of the class described, the combination with a head adapted to grasp a suitable swab and ears upon said head, of a ferrule adapted to secure said head to a supporting-rod, projecting ears upon said ferrule, means of connection between said two sets of ears, two sets of projecting lugs upon the ears upon said ferrule, said lugs being adapted to limit both the backward and forward spring of said head, and means for yieldingly pressing said head forward, substantially as described.

2. In a device of the class described, the combination with a swab and a head adapted to grasp the same, of a supporting-rod, a ferrule secured to the end thereof, projecting

members on said ferrule, a shaft pivoting said
projecting members on said ferrule and said
head together, and a coiled spring surround-
ing said shaft and adapted to exert pressure
5 on said head with respect to said rod, sub-
stantially as described.

In witness whereof I have hereunto set my

hand, at Chicago, in the county of Cook and
State of Illinois, this 7th day of April, A. D.
1902.

WILLIAM H. CATTELLE.

Witnesses:

CHAS. O. SHERVEY,
S. BLISS.