

No. 665,409.

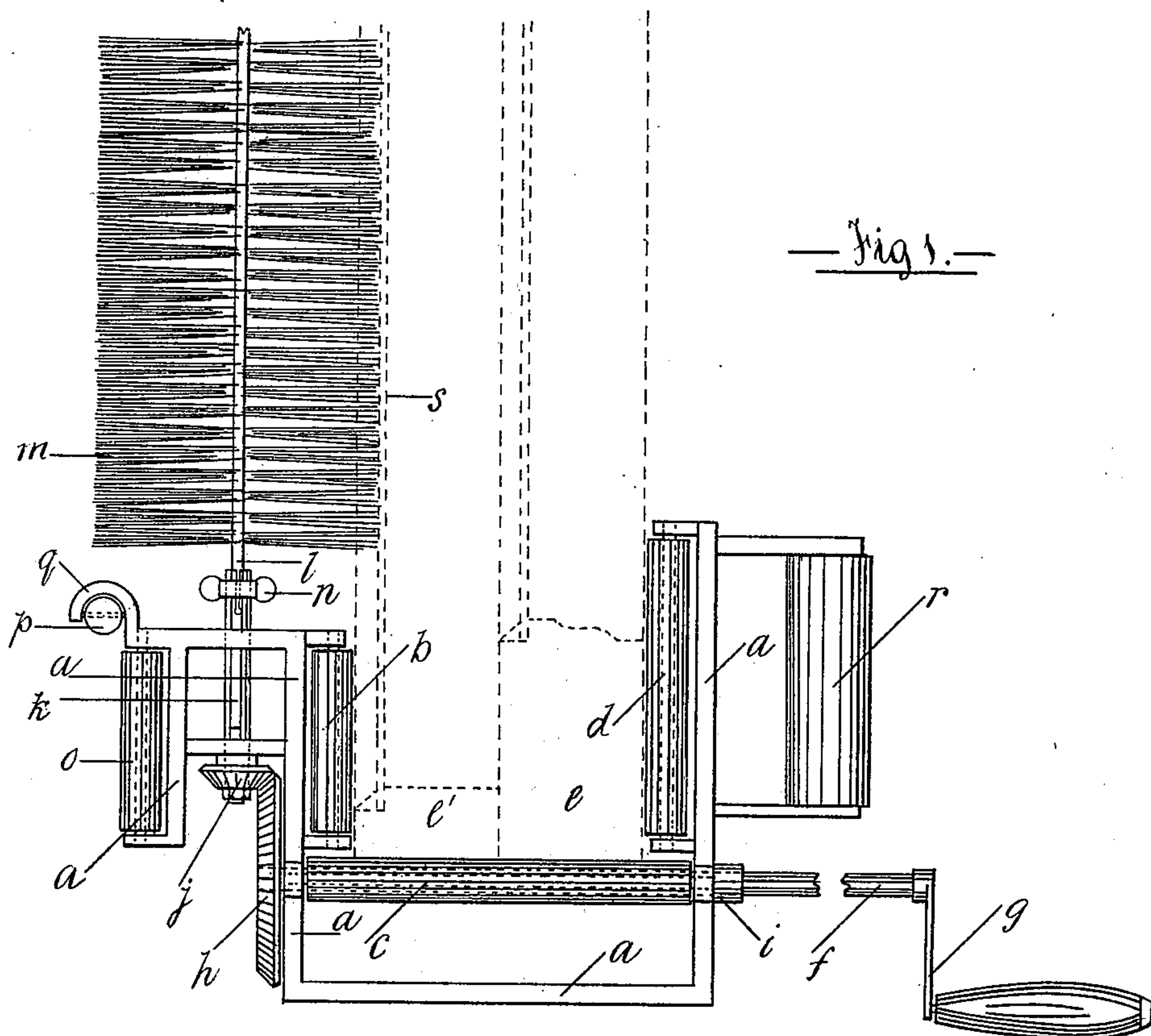
Patented Jan. 8, 1901.

H. CRUMP.
WINDOW CLEANING APPARATUS

(Application filed Sept. 24, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:—

William Crossley.

George Griffiths

Inventor

Harry Crump

per Hughes Young.

Attorneys.

No. 665,409.

Patented Jan. 8, 1901.

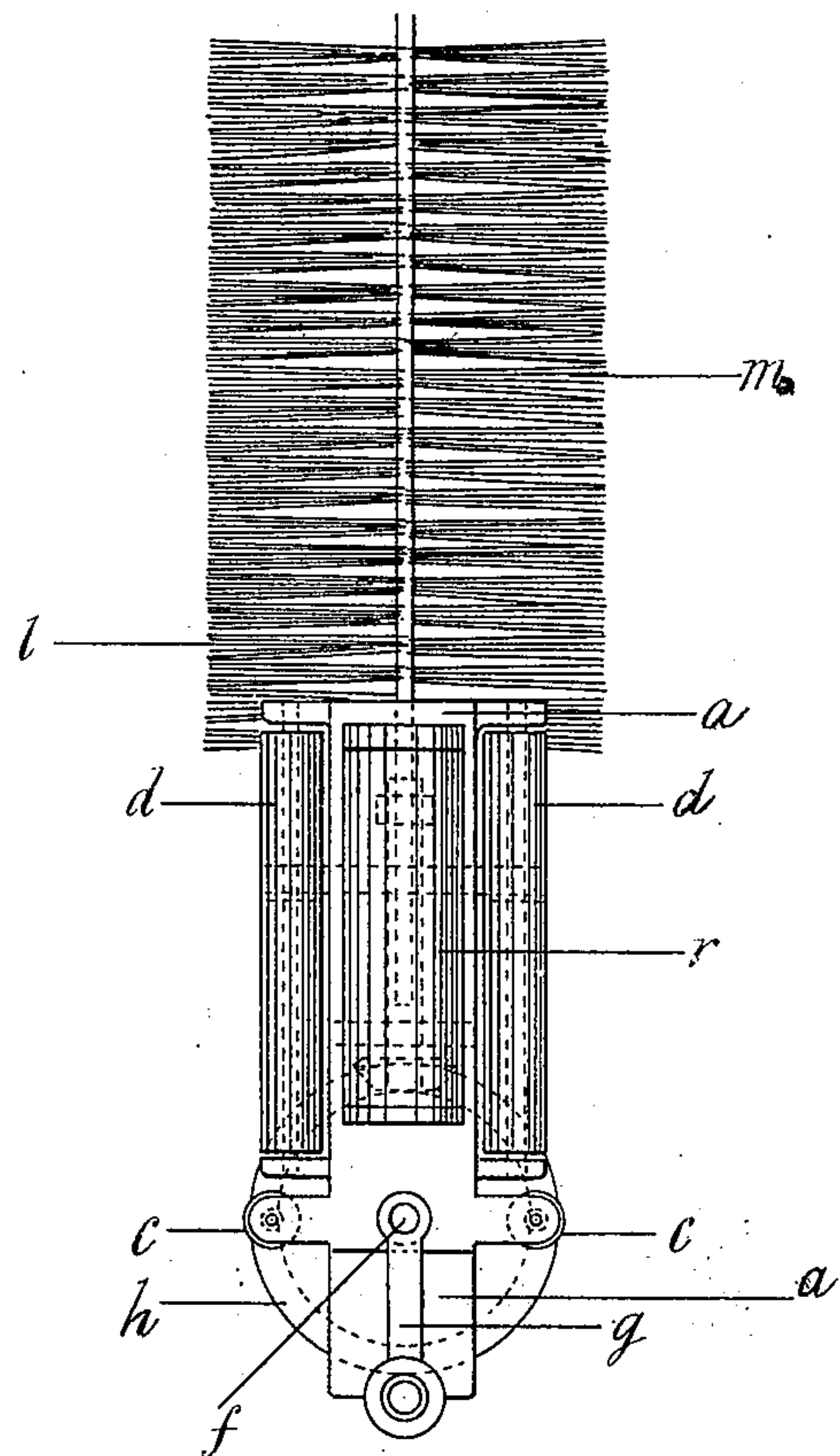
H. CRUMP.

WINDOW CLEANING APPARATUS.

(Application filed Sept. 24, 1900.)

(No Model.)

2 Sheets—Sheet 2.



— Fig. 2. —

Witnesses:-

William Crossley

George Griffiths

Inventor

Harry Crump

per Hughes & Young
Attorneys.

UNITED STATES PATENT OFFICE.

HARRY CRUMP, OF BRIGHTON, ENGLAND.

WINDOW-CLEANING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 665,409, dated January 8, 1901.

Application filed September 24, 1900. Serial No. 30,996. (No model.)

To all whom it may concern:

Be it known that I, HARRY CRUMP, a subject of the Queen of Great Britain and Ireland, residing at 2 Victoria Place, Brighton, in the county of Sussex, England, have invented new and useful Improvements in Window-Cleaning Apparatus, of which the following is a specification.

My invention relates to improvements in window-cleaning apparatus, the object being to provide means whereby the outer surfaces of the panes, as well as the inner ones, can be cleaned without the need of a person standing or sitting outside. I attain this object by the apparatus illustrated in the accompanying drawings, in which—

Figure 1 is a side view, and Fig. 2 a front view.

I provide a framing *a a a a a*, like or similar to that shown in the accompanying drawings. In suitably-situated projections on this framing are held the ends of spindles on which are free to rotate the pairs of rollers *b*, *c*, and *d*, the space between the rollers *b* and *d* being sufficient to admit the thickness of two sashes, as shown by the dotted lines at *e'* and *e*. Passing through the frame *a* and between the rollers *c* is a spindle *f*, having a crank-handle *g* at one end and a spur-wheel *h* at the other end, a collar *i* being provided to keep the spindle *f* from shifting laterally. The spur-wheel *h* gears with a pinion *j* at the lower end of the socket *k*, free to run in those parts of the frame *a* through which it passes. The socket *k* receives the stem *l* of a suitable brush *m*, which is held in place by a thumb-screw *n*. Beyond the socket *k* is a pair of rollers *o*, and beyond them another roller *p*, carried by the upturned and prolonged part *q* of the frame *a*.

A handle *r* is provided, whereby the apparatus can be held when in use.

In using the appliance for cleaning the lower part of the outside of the panes of the top sash I raise the bottom sash *e* a suitable distance and lower down to it the top one *e'*, and the proper brush *m* having been put in position I place the apparatus so that the sashes *e e'* are between the rollers *b* and *d*, and resting on the rollers *c*. By turning the

handle *g* the brush *m* is caused to rotate against the pane *s* of the top sash, and by passing the apparatus to and fro along the sashes *e e'* the panes will be cleaned.

To clean the upper part of the top sash, the apparatus is worked from the upper part of the sashes, with the brush *m* pointing downward.

To clean the outside of the panes of the bottom sash, I raise the lower sash somewhat after fully lowering the top sash, and having cleaned the top part of the panes I fully raise the top sash and clean the lower part of the bottom sash. In cleaning the inside of the panes the brush *m* is rotated, while the rollers *o* are run along the inside rail of the sash, guided by the smaller roller *p*, which is intended to run along the molded part of the sash and help to take part of the weight of the apparatus.

Lengthening-pieces may be employed to insert into the socket *k* to carry the stem of the brush *m* when the ordinary length of the brush is not sufficient for the size of the window-frame.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a window-cleaning apparatus a suitably-shaped frame: horizontal and vertical rollers running in the said frame: a horizontal spindle: a crank-handle at one end of the horizontal spindle: a miter-wheel at the other end of the horizontal spindle: a vertical socket running in the frame: a miter-pinion at the lower end of the said socket and gearing with the said miter-wheel: a brush for cleaning the window-panes: a stem to the said brush to fit the said socket: means for tightening the brush in the said socket: and a handle for holding the apparatus when in use, substantially as described and illustrated.

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

HARRY CRUMP.

Witnesses:

EDWARD H. LEGG,
HARRY WOOD.