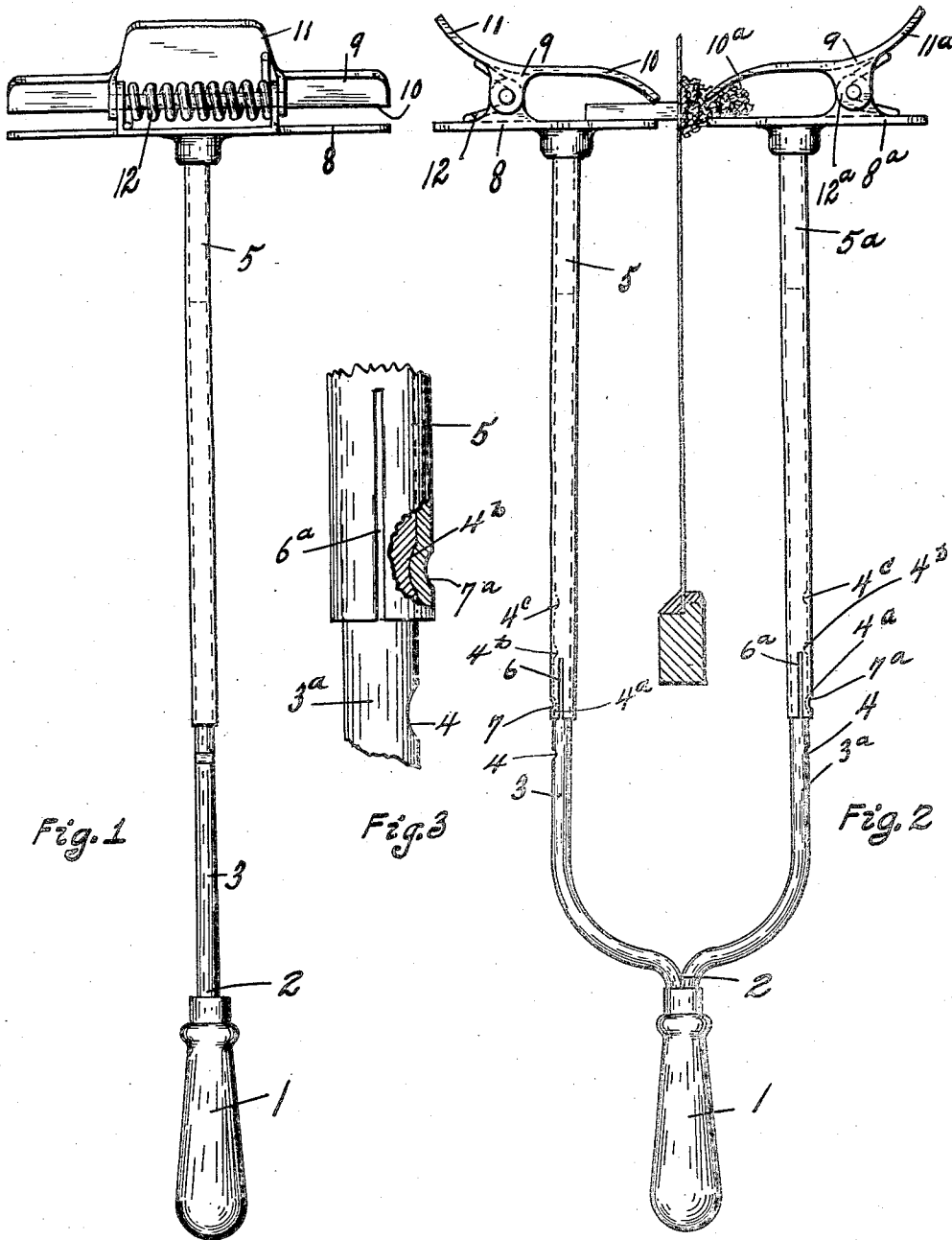


No. 818,002.

PATENTED APR. 17, 1906.

S. R. SWAIN.
WINDOW CLEANER.
APPLICATION FILED APR. 24, 1905.



WITNESSES:

Robert H. Perkins
Louis von Gawe.

INVENTOR

Samuel R. Swain
BY
Warren E. Willis.
ATTORNEY

UNITED STATES PATENT OFFICE.

SAMUEL R. SWAIN, OF PHILADELPHIA, PENNSYLVANIA.

WINDOW-CLEANER.

No. 818,002.

Specification of Letters Patent.

Patented April 17, 1906.

Application filed April 24, 1905. Serial No. 257,024.

To all whom it may concern:

Be it known that I, SAMUEL R. SWAIN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Window-Cleaner, of which the following is a specification.

This invention relates to devices used in cleaning windows, and particularly to that class of devices in which both sides of the glass are operated on simultaneously.

The objects of this invention are, first, to provide a device for the said purpose that is adapted to engage or release the erasive material solely by the operation of springs; second, to provide means whereby the distance from the heads to the handle may be adjusted and maintained without the use of screws or extra parts, and, finally, to provide a device of the kind at a moderate expense. These objects are attained by the novel construction and combination of parts herein-after fully described and shown in the accompanying drawings, in which—

Figure 1 is a front elevation of the apparatus. Fig. 2 is a side elevation of the same with erasers in position; and Fig. 3 is an enlarged view of a portion of one arm, showing the means of lateral adjustment.

Similar characters refer to similar parts throughout the several views.

The operating-handle 1 has securely attached to it the united extremities or ends 2 of the rods 3 and 3^a, which are outwardly curved to provide a suitable space between and then formed parallel to each other and lateral with the handle. The rods are of suitable material and so made that there is a constant tension or spring effect tending to force the arms toward each other for the purpose of exerting a uniform pressure on each side of the window-pane being operated upon, as shown in Fig. 2. The outer surfaces of the rods are grooved or indented transversely to their length, the grooves 4 4^a 4^b 4^c being angular or curved in shape, equally spaced, and oppositely located. The tubes 5 and 5^a are of a suitable size to freely slide over these rods and sufficiently strong to convey the spring effect of the forked rods. The ends of the tubes near the handle are provided with slotted openings 6 and 6^a to permit of a slight flexibility of the tube sides having the

catches or detents 7 and 7^a, which are turned inwardly near the lower ends on one side of the slotted tube only. The shape of these detents approximate that of the recesses in the rods with which they coact in maintaining the position laterally of the tubes with reference to the forked rods. The outer ends of the tubes 5 and 5^a are secured to the plates 8 and 8^a, which form parts of the clamps for holding whatever cleansing or erasive material that may be used, as rubber, sponges, cloths, &c. On these plates are pivotally mounted upper clamping members 9 and 9^a, having the edges 10 and 10^a in register with the inner edges of the plates. They are further provided with lever-handles 11 and 11^a for raising the clamping edges from the lower plate and also provided with springs 12 and 12^a, which maintain a constant pressure normally between the clamping edges, securely holding whatever may be placed between them.

In operation the clamps are supplied with a suitable cleansing medium, the fork-arms spread to permit the sash to pass between the material held in the clamps, whereupon the tension causes the clamps to press firmly and evenly on both sides of the glass at points exactly opposite, so that there is no undue strain or tendency either to break the glass or loosen it from the sash. A reciprocating action given to the handle, manipulating it, as may be necessary, from side to side, expeditiously cleans the glass, the wipers reaching to any point within the boundary of the sash.

Should the sash be large, the tubes can be drawn outwardly, extending the reach of the clamps to suit the varying conditions.

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

1. In a device of the class described, the combination with a suitable handle, of a pair of rods affixed therein, spread beyond and extending laterally to the handle, parallel to each other, and having a series of regularly-spaced indentations on their outer sides, close-fitting tubular sleeves slidable on said rods, having catches formed at their lower ends adapted to engage with the indentations in said rods and clips arranged at their upper ends, all substantially as shown and described.

2. In a device of the class described, the combination with the handle of the rods 3 and 3^a, having the indentations 4, 4^a, 4^b and 4^c, the sleeves 5 and 5^a, having the catches 7 and 7^a, and the material-holding spring-clips at their extreme end, all as and for the purposes as set forth.

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

SAMUEL R. SWAIN.

Witnesses:

ROBERT K. PERKINS,
LOUIS VON GRAEVE.