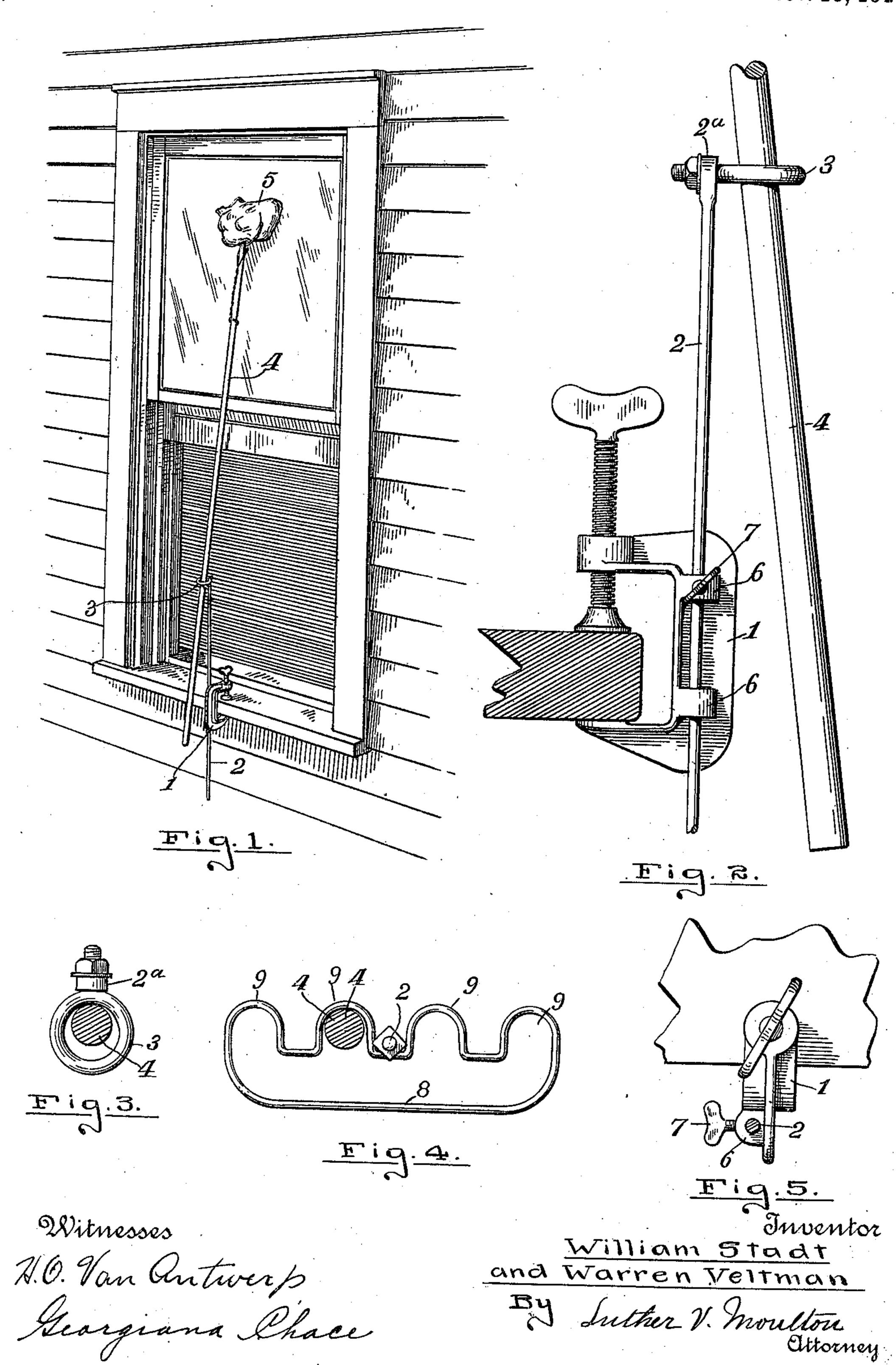
## W: STADT & W. VELTMAN. WINDOW CLEANER.

APPLICATION FILED MAR. 11, 1910.

975,474.

Patented Nov. 15, 1910.



## UNITED STATES PATENT OFFICE.

WILLIAM STADT AND WARREN VELTMAN, OF GRAND RAPIDS, MICHIGAN.

## WINDOW-CLEANER.

975,474.

Specification of Letters Patent. Patented Nov. 15, 1910.

Application filed March 11, 1910. Serial No. 548,715.

To all whom it may concern:

Be it known that we, WILLIAM STADT and WARREN VELTMAN, both citizens of the United States of America, residing at Grand 5 Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Window-Cleaners; and we do hereby declare the following to be a full, clear, and exact description of the 10 invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to improvements in window cleaners, and its object is to provide 15 a device whereby the outside of a window may be conveniently cleaned by a person within the building; to provide a simple and practical device for the purpose; and to provide said device with various new and 20 useful features, hereinafter more fully described and particularly pointed out in the claims.

Our device consists essentially of a clamp adapted to be attached to the outer edge 25 of the window sill, a rod mounted on the clamp and having a guiding member at the top and a suitable handle carrying a cleaning device at the upper end and guided by said member whereby the handle may be 30 properly manipulated to engage the cleaning device with all parts of the outer surface of the window by a person on the inside of the building, as will more fully appear by reference to the accompanying drawings, in 35 which:

Figure 1 is a perspective showing our device as it appears when in use; Fig. 2 an enlarged side elevation of a portion of the same; Fig. 3 a plan of an eye-bolt guiding 40 member; Fig. 4 a modification of the same comprising a series of recesses to guide the handle; and, Fig. 5 a detail in plan view of the clamp member.

Like numbers refer to like parts in all of 45 the figures.

1 represents any convenient form of clamp adapted to be securely fastened to the outer edge of the widow sill; 2 a rod extending vertically through lugs 6 on the clamp and

vertically adjustable therein, being held in 50 adjustment by a thumb screw 7 in one of the lugs. In the head 2<sup>a</sup> of the rod 2 is inserted an eye-bolt 3 having an opening somewhat larger than the transverse section of a handle 4 inserted therein, whereby the 55 handle is guided by the eye-bolt and movable vertically therein, and also is pivotally supported to be swung laterally to a limited extent, and the eye-bolt will turn to permit unlimited lateral movement about the axis 60 of the bolt, as occasion requires.

The handle 4 is provided with any suitable cleaning appliance 5, such as a swab or brush, as occasion may require. In some cases, we provide the top of the rod 2 with 65 a recessed head 8 having a series of recesses 9 at intervals to receive and guide the rod 4. This head is secured to the top of the rod, as shown in Fig. 4. From the foregoing description, the operation of our device is 70 obvious and needs no further explanation.

What we claim is:

1. A window cleaner, comprising a clamp, a rod supported by the clamp, a guide member supported by the rod, and a handle slid- 75 able and pivotally movable in said guide member, and carrying a cleaning appliance.

2. A window cleaner, comprising a clamp adapted to be attached to a window sill, a rod supported by the clamp and vertically 80 adjustable, an eyebolt journaled in the upper end of the rod, and a handle longitudinally movable in the eyebolt and carrying a cleaning appliance at the upper end.

3. A window cleaner comprising a clamp, 85 lugs on the clamp, a rod adjustable in the lugs, an eyebolt journaled in the upper end of the rod, a handle slidable in the eyebolt, and a cleaning appliance carried by the handle.

In testimony whereof we affix our signatures in presence of two witnesses.

> WILLIAM STADT. WARREN VELTMAN.

Witnesses:

GEORGIANA CHACE, LUTHER V. MOULTON.