No. 719,707. PATENTED FEB. 3, 1903.

G. J. WILLIAMS.

PLUMBER'S IMPLEMENT.

APPLICATION FILED JAN. 21, 1902.

NO MODEL.

Fig. 1.

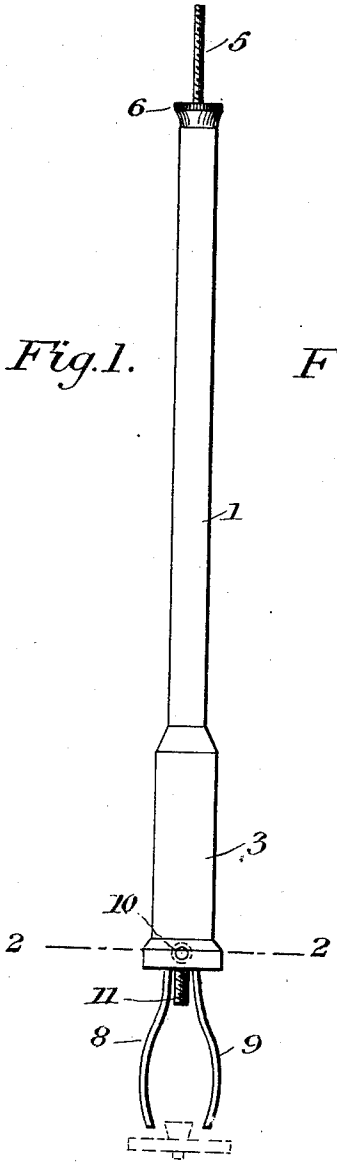


Fig. 4.

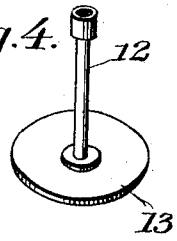


Fig. 2.

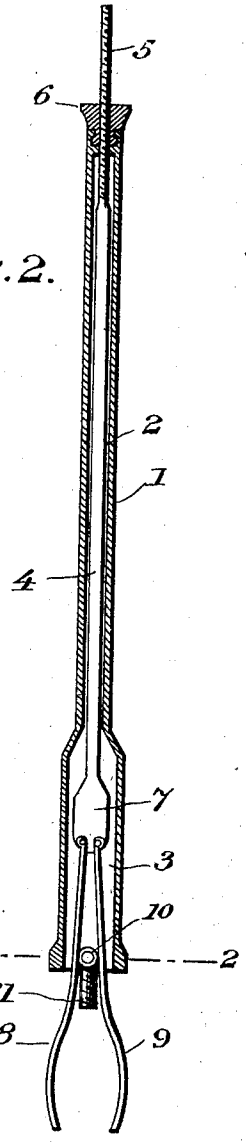
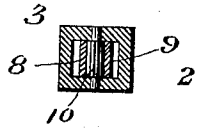


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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PLUMBER'S IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 719,707, dated February 3, 1903.

Application filed January 21, 1902. Serial No. 90,643. (No model.)

To all whom it may concern:

Be it known that I, GEORGE J. WILLIAMS, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Plumbers' Implements, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to plumbers' implements, being designed more especially for removing or grappling from the waste-pipes of water-closets substances such as paper or other debris should the closet become choked or clogged therewith and also for holding a mop, swab, or the like for washing out or cleaning closets when they become fouled.

The invention has for its object to produce a device of this nature which will be simple and durable of construction, efficient in operation, and inexpensive in cost of manufacture.

To these ends the invention comprises an outer member, an inner relatively movable member, and grappling devices carried by one of said members and adapted to be operated by the relative movements of said members.

The invention further consists in the details hereinafter described.

In the accompanying drawings, Figure 1 is an elevation of my device. Fig. 2 is a longitudinal section through the same. Fig. 3 is a cross-section on the line 2 2 of Figs. 1 and 2. Fig. 4 is a perspective view of a detail.

Referring to the drawings, 1 indicates an outer casing closed at one end and provided to within a short distance of its top with an internal rectangular passage 2, the opposite end of said casing terminating in an enlarged rectangular hollow chamber 3.

4 is a rod rectangular in cross-section for a portion of its length and seated in the passage 2. One of its ends for the remainder of its length is round and provided with a thread, as shown at 5, which passes freely through the closed end of the casing 1, where it engages a milled nut 6, which is connected by a swivel-joint to the end of said casing. The lower end of the rod is enlarged, as at 7, and has pivoted thereto two movable jaws 8 and 9.

A horizontal pin 10 extends laterally of the lower chamber 3 between the jaws 8 and 9. Depending from pin 10 is a screw-threaded stud 11, adapted to have screwed thereon the upper end of a rod 12, pivoted at its lower end with a swab 13.

In the operation of the device, supposing the jaws 8 and 9 to be open, as shown, the operator turns the nut 6 to the left, which draws the rod 4 upward until the sides of the jaws abut against the walls of chamber 3, which causes the jaws to close, in which position they will remain, securely holding any object which may be seated between their lower ends. To open the jaws, the movement of nut 6 is reversed, thus causing rod 4 to move downward, thus causing the pin 10 to spread and open the jaws.

It will be seen from the foregoing description that the jaws 8 and 9 are capable of holding a swab or device for washing out or otherwise cleaning a water-closet or of grappling and withdrawing therefrom paper or other debris with which the same may become clogged or stopped, while on the other hand, if so desired, the swab may be attached permanently to the screw-threaded stud 11.

By my construction I produce a simple and efficient device which will thoroughly perform its functions, and it is to be understood that I do not limit or confine myself to the details of construction herein described, as various changes may be made without departing from the spirit or scope of my invention.

Having thus described my invention, what I claim is—

1. In a plumber's implement, the combination of a casing or outer member, a rod or inner member fitting in the casing, a pair of grappling-jaws carried by the inner member, a swab-coupling secured to the outer member, and a nut mounted in the casing and engaging the end to cause the grappling-jaws to open and close.

2. A plumber's implement, comprising in combination, a casing having a rectangular hollow stem and an enlarged lower portion, a rectangular rod threaded at one end and arranged in said stem, a pair of grappling members pivotally secured to the stem and adapted to the enlarged portion of the casing, a spacing-pin arranged between the grappling members and secured to the casing and a nut

united by a swivel connection to the stem and engaging the threaded portion of the rod, substantially as specified.

3. In a plumber's implement, the combination of the casing having the lower enlarged end, the stem fitting in the casing and carrying a pair of grappling-jaws, a swivel-nut engaging the upper end of the stem to operate the jaw, a horizontal pin arranged in the chamber or enlarged portion of the casing, a threaded stud depending from said pin, and a rod carrying a swab and adapted to be secured upon said threaded stud.

In testimony whereof I affix my signature in the presence of two witnesses.

GEORGE J. WILLIAMS.

Witnesses:
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