No. 672,810.

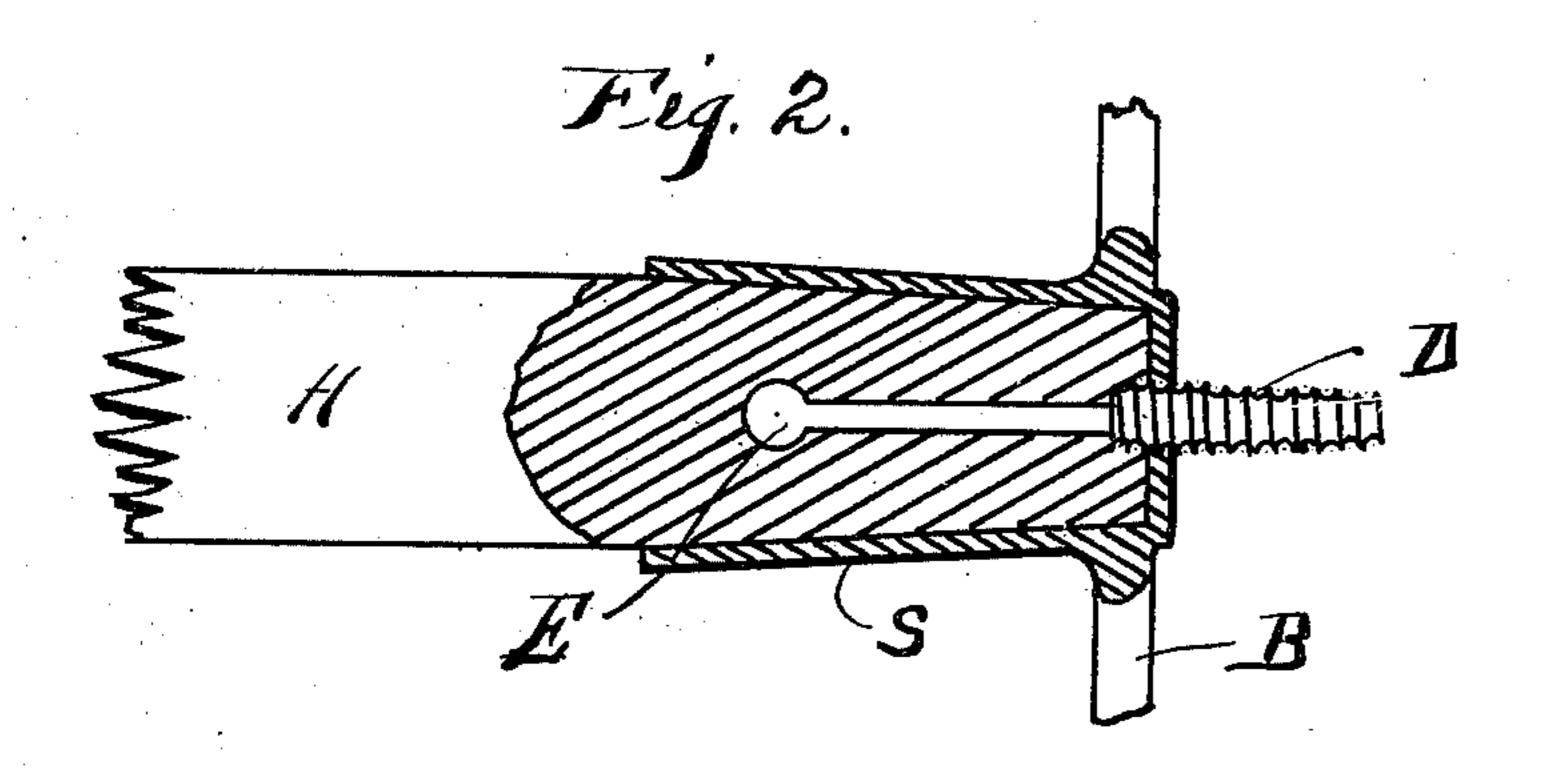
J. W. SHANAHAN.

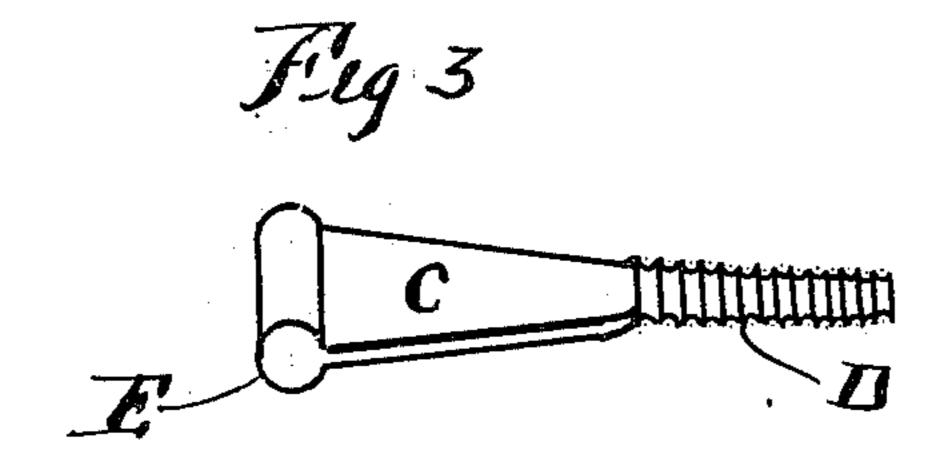
Patented Apr. 23, 1901.

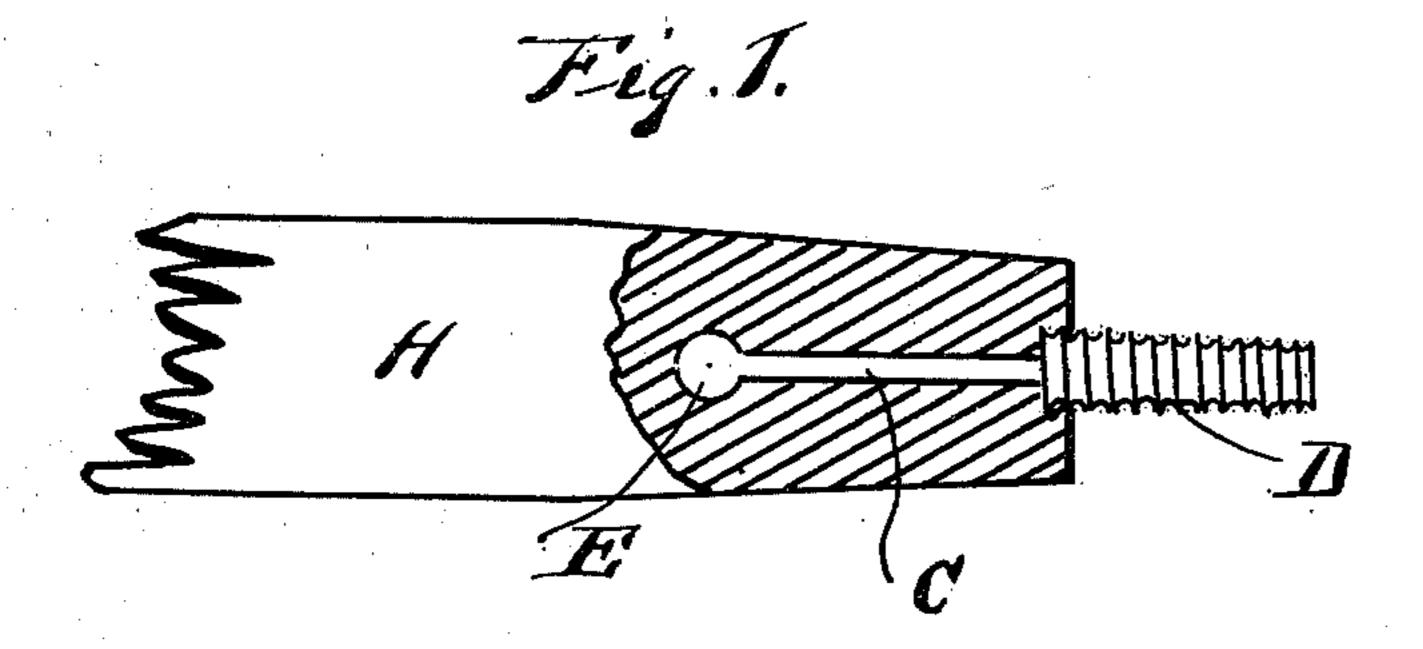
## DEVICE FOR ATTACHING HANDLES TO CARPET SWEEPER BAILS.

(Application filed Jan. 26, 1901.)

(No Model.)







Harry J Perkins. John W. Shanahan James B. Davies. BY his ATTORNEY. Edward Taggart.

## UNITED STATES PATENT OFFICE.

JOHN W. SHANAHAN, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR TO THE BISSELL CARPET SWEEPER COMPANY, OF SAME PLACE.

DEVICE FOR ATTACHING HANDLES TO CARPET-SWEEPER BAILS.

SPECIFICATION forming part of Letters Patent No. 672,810, dated April 23, 1901.

Application filed January 26, 1901. Serial No. 44,921. (No model.)

To all whom it may concern:

Be it known that I, John W. Shanahan, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented new and useful Improvements in Devices for Attaching Handles to Carpet-Sweeper Bails, of which the following is a specification.

This invention relates to a certain new and useful improvement in the manner of attaching handles to sockets, more particularly adapted for use for connecting a handle to

the bail of a carpet-sweeper.

The invention aims to simplify the construction of a device for attaching handles to the
sockets and to provide a device which will prevent a handle from working loose in a socket;
and to this end the invention consists in providing the handle with an opening, in which is
mounted a screw, the latter extending through
and secured to the bottom of the socket for
attaching the handle thereto. These objects
I accomplish by means of the mechanism illustrated in the accompanying drawings, in
which—

Figure 1 shows a side view of a carpetsweeper handle with the screw inserted therein, showing the edge view of the shank of the
screw. Fig. 2 shows a like view of a handle,
so but with a sectional view of the socket of a
bail of a carpet-sweeper, also the bail portions
extended from the screw; and Fig. 3 shows a
detail view of the attaching-screw and shank,
showing the flat side of the shank.

Similar letters refer to similar parts through-

out the several views.

H represents the handle of the carpetsweeper. The lower end of the handle is tapered to fit the socket of the bail and is also to provided with an opening for the reception of the shank of the screw. This opening receives the part C of the shank and also the enlarged portion E of the shank. The shank is adapted to fit closely and snugly into the thandle, while the screw portion D projects beyond the end of the bail and engages with the screw-thread in the bottom of the socket S,

the socket S being constructed in the ordinary manner, excepting that the bottom is provided with a screw-threaded opening for 50 the reception of the screw D.

B shows the bail.

The operation of the device is as follows: The shank of the screw D being inserted in an opening in the handle fills this opening com- 55 pletely and corresponds generally in shape to the tapering portion of the handle. The handle is placed in the socket and revolved, causing the screw D to engage with the lower end of the socket and to draw the tapering por- 60 tion of the handle into the socket securely. As the handle descends into the socket it is clamped securely upon the shank C and cannot work loose from the handle, and the handle will not work loose from the socket. When 65 an ordinary screw is used in the handle, the continual movement of the handle one way or the other has a tendency to loosen the screw in the handle; but by my device above described the shank is held securely in the han- 70 dle, the screw-thread engaging with the middle screw-thread of the socket preventing the handle from becoming loosened.

Having thus described my invention, what I claim to have invented, and desire to secure 75

by Letters Patent, is—

1. In combination with a socket having a screw-threaded opening in the bottom thereof, a handle provided with a shank having a screw-thread which engages in said screw- 80 threaded opening.

2. The combination of a socket provided with a screw-threaded opening at its lower end, a handle having an opening, a shank secured in the opening in the handle and provided with a screw at its lower end which engages with the screw-threaded opening in the socket, said shank adapted to substantially fill the space from side to side of the opening in the handle.

3. In combination with a socket provided with a screw-threaded opening at its lower end, a handle having an opening in its tapering portion, a shank having a flattened por-

tion enlarged at one end and adapted to fit into the slot in the handle and to be pressed or clamped therein as the handle is drawn into the socket, a screw-thread upon said shank engaging with said screw-threaded opening in the socket to draw the handle into the socket by revolving the same, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing wit- 10 nesses.

JOHN W. SHANAHAN.

Witnesses:
JAMES B. DAVIES,
A. C. DENISON.