

H. ANDERSON & J. F. HOUGHTON.

Broom-Machines.

No. 150,669.

Patented May 12, 1874.

FIG. 1.

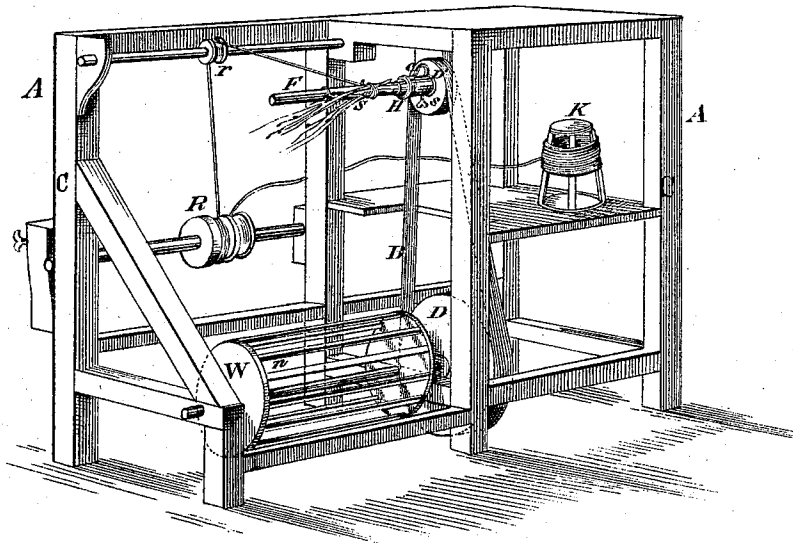


FIG. 3.



FIG. 4.



FIG. 2.

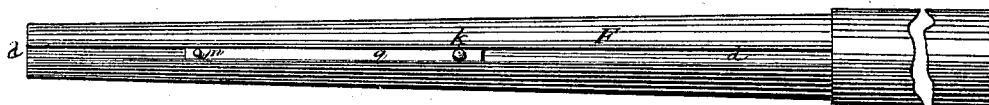
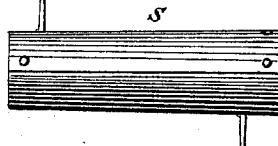


FIG. 5.



WITNESSES :

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UNITED STATES PATENT OFFICE.

HENRY ANDERSON, OF SAN FRANCISCO, AND JAMES F. HOUGHTON, OF SACRAMENTO; SAID HOUGHTON ASSIGNOR TO SAID ANDERSON, AND SAID ANDERSON ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN B. ROBINSON, OF VALLEJO, CALIFORNIA.

IMPROVEMENT IN BROOM-MACHINES.

Specification forming part of Letters Patent No. **150,669**, dated May 12, 1874; application filed April 6, 1874.

To all whom it may concern:

Be it known that we, HENRY ANDERSON, of the city and county of San Francisco, and JAMES F. HOUGHTON, of the city and county of Sacramento, State of California, have invented certain Improvements in Broom-Machines adapted to the manufacture of brooms having metallic sockets, of which the following is a specification:

Our invention relates to the attachment of a form, either tapering or straight, of metallic material, to a broom-machine, in such manner that this form shall keep in position different sizes of metallic or other sockets, whereon broom-corn may be laid; the object of our invention being to have a form that can be attached to the holders of broom-machines, so as to admit of the adjustment of various sizes and shapes of our improved broom-handle sockets, whereon the broom-corn may be spread and secured in the same manner as on ordinary wooden handles, the form with fixed and adjusted socket taking the place of the ordinary handle in the manufacture of such brooms.

Figure 1 is a perspective view of a broom-machine, with the form thereto attached embodying our invention. Fig. 2 is a side view of the form embodying our invention for adjusting metallic sockets thereto in the manufacture of detachable brooms. Figs. 3 and 4 represent a side and end view, respectively, of a sliding spring to the form shown in Fig. 2, for securing the detachable sockets thereon fitted. Fig. 5 is a side view of a metallic socket, made tapering for adjustment to a broom-handle, and on which the broom-corn is laid when it has been secured in position to the form represented in Fig. 2.

A A is a broom-machine, which is constructed in the usual manner adopted in the manufacture of such machines, and consists of a frame, C C, treadle-wheel W, connected to a large drum, D, so as to engage a smaller drum, D', by means of a belt, B. To this drum D' is fitted a holder, H, into which ordinary broom-handles are secured by the adjustment of the thumb-screw s on the spring a. A roll of wire is wound

round a wooden spool, K, so as to supply a reel, R, and pass over, in a single thread, a smaller reel, r, convenient to the manufacturer, for winding round such broom-corn as may be spread on the wooden handle that may be fixed in the holder H, the treadle-wheel W serving to turn such handle round by the pressure of the foot on the rungs n n for the proper laying and securing this corn. F is the form embodying our invention, which is fitted to the holder H in place of the wooden broom-handle, so that an improved socket, S, may be slipped over and thereto fastened for receiving layers of broom in the usual manner. In order to effect this, the form F is constructed so as to have about one foot of its length straight for a bearing within the holder H, and the remaining foot of its length tapering (say, from one and a half inch to three-fourths of an inch) to suit the various sizes and shapes of different sockets. The metallic form F is tapered, as represented in Fig. 2, and has a beveled groove, d, cut either its entire length, or for the taper part only. Into this groove d a long spring, q, is fitted, also beveled for about a third of its length, so as to fit into and slide freely along it, its remaining portion being left free and allowed to spring from the groove. At one end of this spring q a pin, m, is provided, so that on pressing a socket, such as S, over the spring q, this pin m may be adjusted through the hole always made in these sockets for this especial purpose. At the other end of the spring q a knob, K, is fixed, which is pressed down for the proper adjustment of this socket by means of the pin m, so that on pushing a socket over it, after securing it by this pin, the knob K, by reason of the length of the spring q, is left uncovered, and can then be grasped by the finger and thumb, and the spring q slid along the groove d, carrying the socket thus fitted along with it till such time as it has arrived at that portion of the taper metallic form F, where the socket may fit, and be in the most convenient position for receiving its broom-corn.

It is necessary that the mandrel or form F should in all cases be metallic, in order to have

a solid backing for the loose nails or rivets fitted to such sockets, as S, to be riveted down over the binding-wire of the broom-corn, any soft material, such as wood, being liable to be indented and prevent the withdrawal of the socket.

We disclaim the drums D D', treadle-wheel W, with belt B, holder H, spring *a*, and screw *s*, and reels R *r* of the broom-machine A A, as we are aware that these are not new; but we claim a taper metallic form or mandrel, F, for affixing sockets, as an attachment to the broom-machine A A, solely for the manufacturing our improved detachable brooms thereon, and expressed as follows:

The taper metallic form F, provided with beveled groove *d*, spring *q*, for sliding within this groove *d*, having a projecting pin, *m*, at one end, and a knob, K, at the other for the adjustment of detachable broom-sockets S, in combination with the holder H, spring *a*, and screw *s* of the broom-machine A A, substantially as and for the purpose hereinbefore set forth.

HENRY ANDERSON.
JAMES F. HOUGHTON.

Witnesses:

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