

E. J. MERICK.
Broom-Head.

No. 159,954.

Patented Feb. 16, 1875.

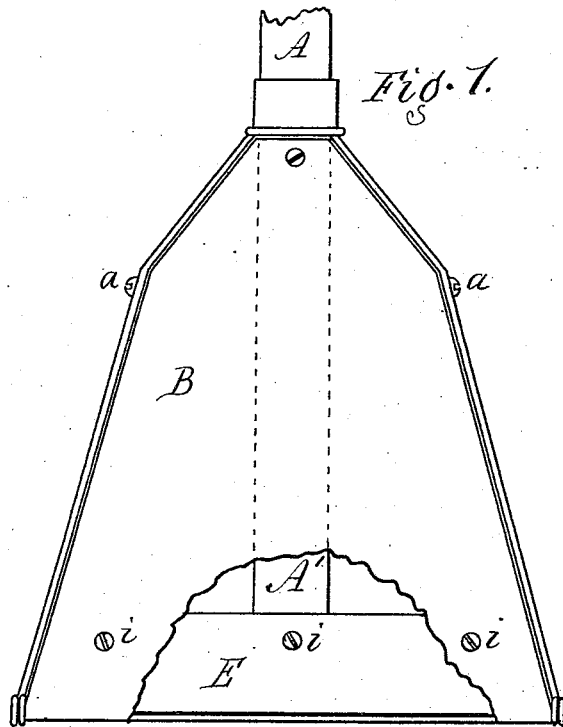


Fig. 1.

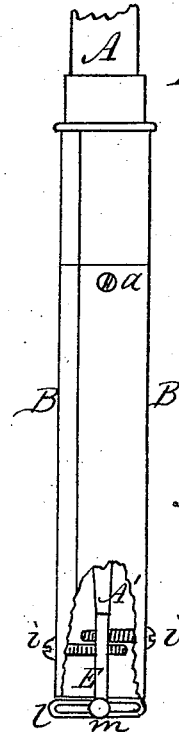


Fig. 2.

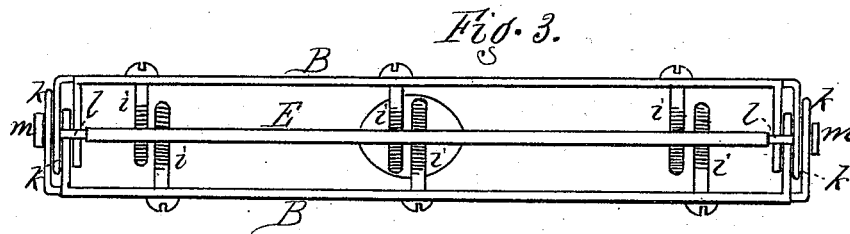


Fig. 3.

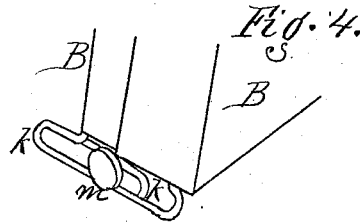


Fig. 4.

Witnesses.
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UNITED STATES PATENT OFFICE.

ELDRIDGE J. MERICK, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN BROOM-HEADS.

Specification forming part of Letters Patent No. **159,954**, dated February 16, 1875; application filed June 20, 1874.

To all whom it may concern:

Be it known that I, ELDRIDGE J. MERICK, of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Portable Brooms; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

My invention is an improvement on that for which I now have a pending application in the Patent Office. It consists in an improved construction and arrangement of the jaws, the handle, the cross-head, and the guide-loops for sustaining the parts in place, as hereinafter described.

In the drawings, Figure 1 is a front elevation. Fig. 2 is an edge elevation. Fig. 3 is a bottom view on an enlarged scale. Fig. 4 is a perspective view, showing the guide-loops.

A is the handle, and B B the jaws. The latter are made of sheet metal, or other suitable material, and extend down, so as to form a socket, which incloses and clamps the upper ends of the broom-stuff. They are pivoted together at *a a* by screws, which pass through the outer and into the inner thickness, and serve as the axis on which the jaws turn in opening or closing.

E is the cross-head or retainer in the socket at the lower edge of the jaws, and extending centrally across the longitudinal axis of the same. It is smooth, having no brads, and is made fast to the handle-socket A', which passes down through, being flattened at the junction with the cross-head. The cross-head is, therefore, a permanent fixture with the handle, and the jaws simply close around it. *i i i* are screws, three on a side, which pass through the lower edges of the jaws and into the cross-head or retainer E in opposite directions, as shown. These form clamps for clamping the jaws up in place when the broom-stuff has been inserted.

By the use of the screws in the two opposite sides, the jaws can be centered relatively to the cross-head, so that the broom is even and perfectly balanced.

k k are guide-loops at the outer edges or ends of the jaws, extending crosswise. Two on each side are preferable, one attached to each jaw, and standing in opposite directions. One on each side, however, might answer.

l l are journals or bearings, extending from the ends of the cross-head through the guide-loops *k k*, and having heads *m m*, resting outside the loops, which prevent withdrawal or the slipping of the loops from off the journals. These guide-loops *k k*, which form one of the novel features of my invention, slide upon the journals *l l*, when the jaws are expanded or opened, and form gages to the motion of the jaws, so that the latter will be equally opened from the central cross-head for the insertion of the broom-stuff. By this means the cross-head is kept centered in the socket of the jaws, and equal amounts of the broom-stuff can be inserted on both sides, thereby balancing the broom. This greatly facilitates the filling, and obviates much difficulty which would arise if the jaws opened unequally. In addition to this, the guide-loops retain all the parts in proper place, and prevent disengagement, especially when strain is applied in using the broom.

Another novel feature in my invention consists in combining with the pivoted jaws B B the cross-head E, carried to the bottom, and connected rigidly with the handle-socket. By this means the cross-head and handle form a stiff connection from top to bottom, while the jaws simply close around them to clamp the broom-stuff in place. Being centered and held by the opposing and adjustable screws *i i i*, the broom-stuff is thus made fast to the handle, which is the fulcrum or moving power, and the screws serve to center the broom-stuff on the handle equally on both sides. It prevents great leverage and strain coming on the socket A', in which the handle is generally secured.

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

The combination, with the cross-head E, made fast to the handle A A', of the guide-loops *k k* and the journals *l l*, with heads *m m*, arranged to operate in connection with the jaws B B, in the manner and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

ELDRIDGE J. MERICK.

Witnesses:

R. F. OSGOOD,
E. B. SCOTT.