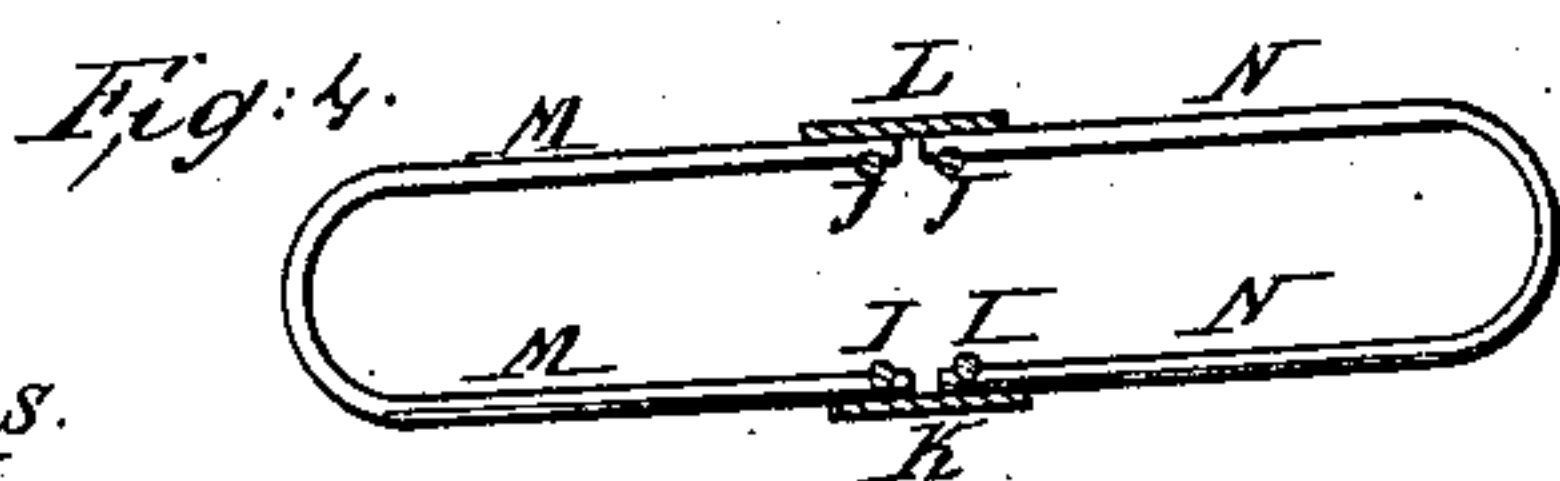
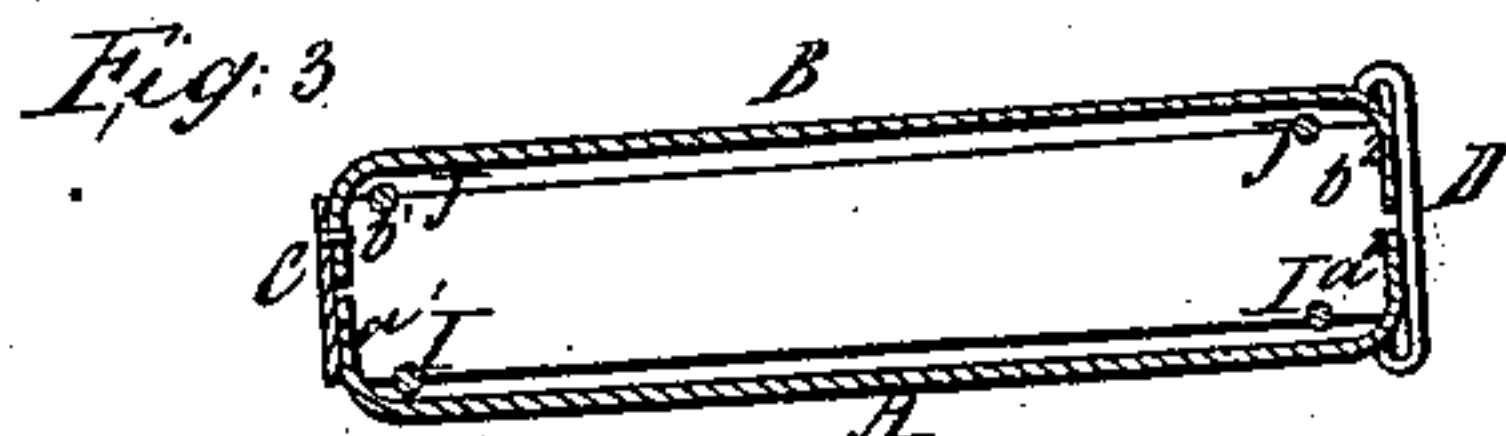
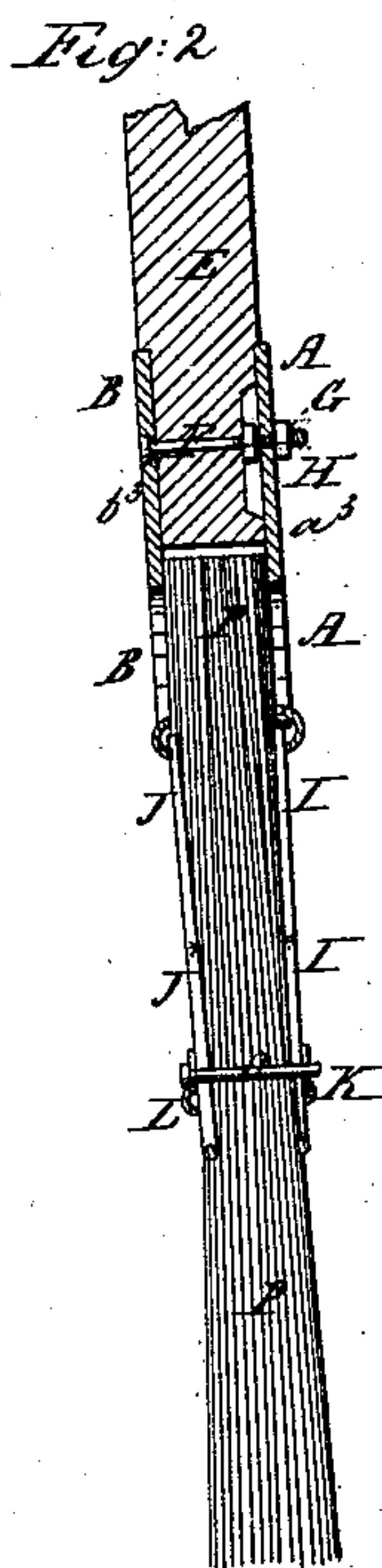
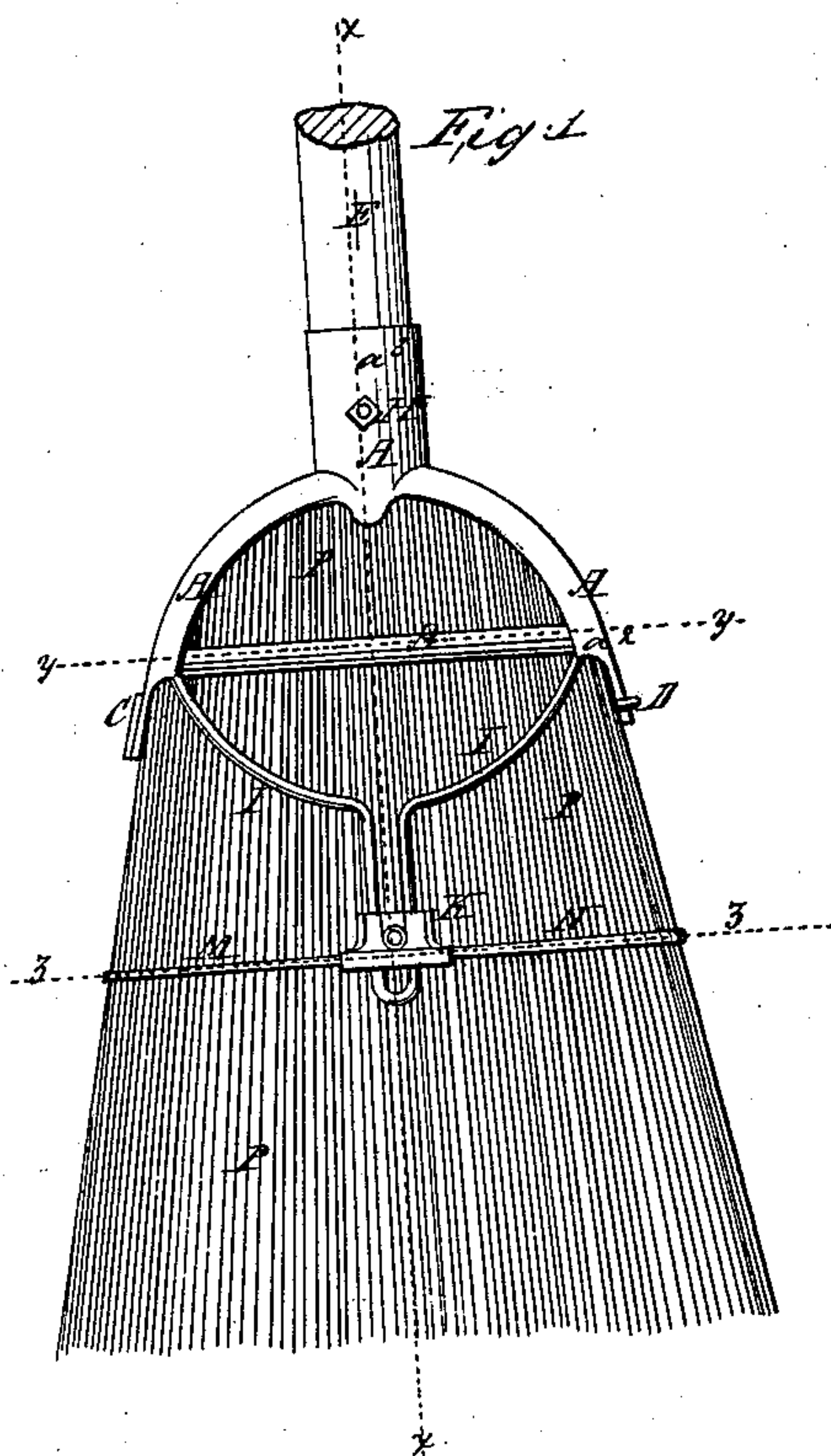


*W. C. Hughes.*

*Broom Head.*

*Patented May 21, 1867.*

*Nº 64,979.*



*Witnesses.*

*J. N. Blountton*  
*Wm. Thurn.*

*Inventor.*

*Wm. C. Hughes*  
*Per Munn & Co*

*Attorneys*

# United States Patent Office.

WILLIAM G. HUGHES, OF HEBRON, INDIANA.

*Letters Patent No. 64,979, dated May 21, 1867; antedated May 8, 1867.*

## IMPROVED BROOM-HEAD.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM G. HUGHES, of Hebron, in the county of Porter, and State of Indiana, have invented a new and improved Lever Broom-Head, and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side view of my improved lever broom-head, showing it attached to the brush and handle.

Figure 2 is a longitudinal section of the same taken through the line  $x x$ , fig. 1.

Figure 3 is a cross-section of the same taken through the line  $y y$ , fig. 1, the brush being omitted.

Figure 4 is a cross-section of the same taken through the line  $z z$ , fig. 1, the brush being omitted.

Similar letters of reference indicate like parts.

My invention has for its object to furnish an improved broom-head, by which the brush will be held firmly and securely in place, and which will allow the brush when worn to be readily renewed; and it consists, first, of the parts or levers of the broom-head in combination with each other and with the brush and handle of the broom; second, in the combination of the wire braces with the lever-head and brush of the broom; and third, in the combination of the spring or binding-wire with the wire braces and brush of the broom, as hereinafter more fully described.

A and B are the parts or levers of the broom-head. These parts or halves are exactly alike, each forming one side and half the edges of the broom-head, as shown in fig. 3. These parts A and B are made in the form shown in fig. 1, the middle part of the sides being cut away, as shown, to make the broom-head lighter than it would otherwise be. The lower ends  $a^1 a^2$  and  $b^1 b^2$  of the levers A and B may be pivoted to each other in various ways: first, by riveting the end of each part to a small plate, C, as shown in figs. 1 and 3, these rivets form the fulcrum of the levers; or second, they may be pivoted to each other by the links or hooks D, as seen in figs. 1 and 3. When the second manner of connection is used the ends of the parts A and B may be made inclined, and with two or more notches in each, so that the space between the said parts may be regulated according as it is desired to make a thin or thick broom. The upper ends  $a^3 b^3$  of the parts A and B are so made as to form, when closed, a tube or ferrule for the reception of the handle E. The ends  $a^3 b^3$  are secured to each other and to the handle E by a bolt, F, and nuts G and H. The nut G is placed inside of the ferrule  $a^3$ , and is designed to hold the handle to the side  $b^3$  of the ferrule while the brush is being inserted. It is also convenient for tightening up the handle should it become loose by shrinking. A part of the handle is cut away for its reception, as seen in fig. 2. The other nut, H, secures the parts A and B together, clamping the handle E between them, as shown in fig. 2. The wire braces I and J are made of wire bent into the form represented in fig. 1. The upper ends of these braces are notched, so as to be taken hold of and held by the lower edges of the parts A and B, as shown in figs. 1, 2, and 3; and their lower ends are held closely against the brush by the plates K and L, which said plates are drawn together and held in place, clamping the braces I and J, the springs or binding-wires M and N, and the brush P between them, by the screws O, as shown in fig. 2. These plates are also grooved vertically, so as to fit over the vertical part of the braces I and J, and horizontally to fit over the ends of the binding-wires M and N, as shown in fig. 1. The binding-wires M and N are made in the form of a half link as seen in fig. 4, and their ends are notched so as to fit over the braces I and J and be held firmly in place by the plates K and L and the screw O. As the brush P wears short, by loosening the screw O the binding-wires M and N may be slipped up upon the brush P and again clamped in any described position. When the brush has been worn still shorter the braces I and J, binding-wires M and N, the plates K and L, and the screws O may all be removed, and the broom be used without them. To fill the broom-head the nut H is removed, and the parts A and B opened up by swinging the part A back about the pivoting points C and D, the brush P inserted, the part A pressed down and secured in place, and the bracing and binding-wires attached. The broom is then ready for use.

I claim as new, and desire to secure by Letters Patent—

1. The combination of the wire braces I and J with the parts A and B and with the brush of the broom, substantially as described and for the purpose set forth.

2. The combination of the spring or bracing-wires M and N with the wire braces I and J and the brush P, substantially as described and for the purposes set forth.

WM. G. HUGHES.

Witnesses:

DAVID HUGHES,

WILLIAM B. PETTY.