J. E. PHILLIPS.

Broom or Brush Head.

No. 48,587. Patented July 4, 1865.

FIG. 1.

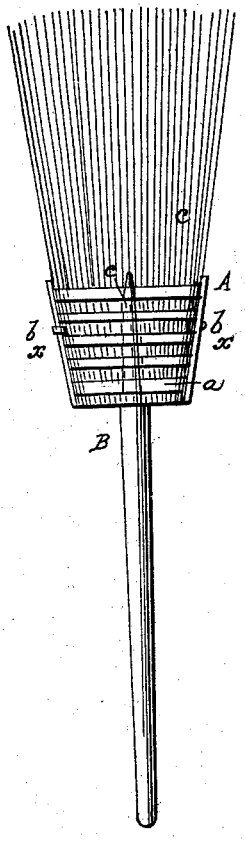


FIG. 2.

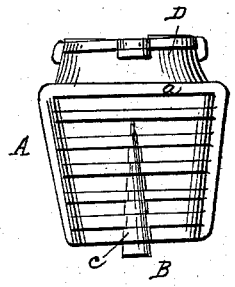


FIG. 3.

FIG. 4.

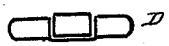
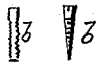


FIG. 5.



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UNITED STATES PATENT OFFICE.

JOHN EDWARD PHILLIPS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED BROOM OR BRUSH HEAD.

Specification forming part of Letters Patent No. **48,587**, dated July 4, 1865.

To all whom it may concern:

Be it known that I, JOHN EDWARD PHILLIPS, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Brooms; 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 part of this specification, in which—

Figure 1 represents a broom made according to my invention. Fig. 2 is a detailed view of the frame which contains the broom-corn or filling, the bars of the frame being shown distended. Fig. 3 is a cross-section taken on the line *x* of Fig. 1. Fig. 4 is a detailed view of the metal spring confiner D. Fig. 5 represents a front and side view of one of the wedges *b*.

Similar letters of reference indicate like parts.

This invention consists in a novel construction of brooms and brushes by placing the filling between the bars of a metal frame, into which the handle is then forced through the loops formed by the bars, thereby firmly binding the filling in the frame.

C designates the filling or mass which composes the wearing-surface of a broom or brush. Its compressed ends are held in a frame, A, made of a single piece of metallic plate. The construction of this frame is conducted as follows: The plate of metal is first cut out to the proper outline, after which it is cut or stamped between its sides so as to form bars *a*, only separated from each other by the line of the cuts. Some of these bars are then bent up and others down—that is, alternate bars are so bent in the middle line of the frame—beginning at the head of the frame, to enable me to insert the end of the handle B of the broom or brush, which end is made in a taper conical form, as shown in the drawings. When this is done a wooden form may be inserted in the frame, so as to give a uniform character to the bends in the bars *a* of the frame and to prevent the handle B from advancing too far. After the middle line of the bars *a* is bent up to form the loops *c c* the filling, or material composing the broom or brush, is inserted between those bars which are not bent and in the spaces between those bars on which the loops are formed. The handle is then inserted and forced in between the bars at the loops *c c* until the broom or brush is tightly clamped and secured in place.

D is a spring-metal confiner, to be placed around the filling below the frame in such a way and it being so made as to separate the fibers into two or more divisions, thus giving more stiffness and solidity to the body of the broom while the fibers are new and long. It may be made by bending a piece of spring metal of suitable size on a mandrel in form as shown in Fig. 4, and applied by passing the fibers through it before entering the frame; or it may be made out of a metal plate cut into bars like the one shown in Fig. 2, and applied by passing the fibers through it, as before mentioned. As the broom or brush becomes worm this confiner may be raised and finally removed, (to be again used when the frame is refilled,) and the broom used thereafter without it until entirely worn out.

If the mass composing the filling should become loose while the broom is used, the handle B may be forced farther into the loops *c*, and thereby tighten the bars *a* about the filling; and two or more wedges, with or without corrugated edges, may be inserted in the sides of the filling, to prevent the fibers from sliding or being pulled out when the broom is used.

The bars *a*, instead of being cut in a plate of sheet metal, may be molded and cast of any material suitable and capable of being drawn together so as to compress the filling of the broom or brush when the handle is forced into the loops between them.

This mode of construction will enable householders to make their own brooms without much expense or trouble so long as the frame is preserved.

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

1. The metal frame A, as shown in Fig. 2, whether molded and cast in one piece of metal or stamped and pressed in one piece of sheet metal having bars, on two or more of which the loops *c c* are formed to receive the handle, and thereby clamp the filling, as and for the purposes described.

2. The spring-metal confiner D, or its equivalent, made as described, and to be placed on the filling below the frame, as and for the purpose described.

JOHN EDWARD PHILLIPS.

Witnesses:
A. MARCHANT,
AMERICUS WARDEN.