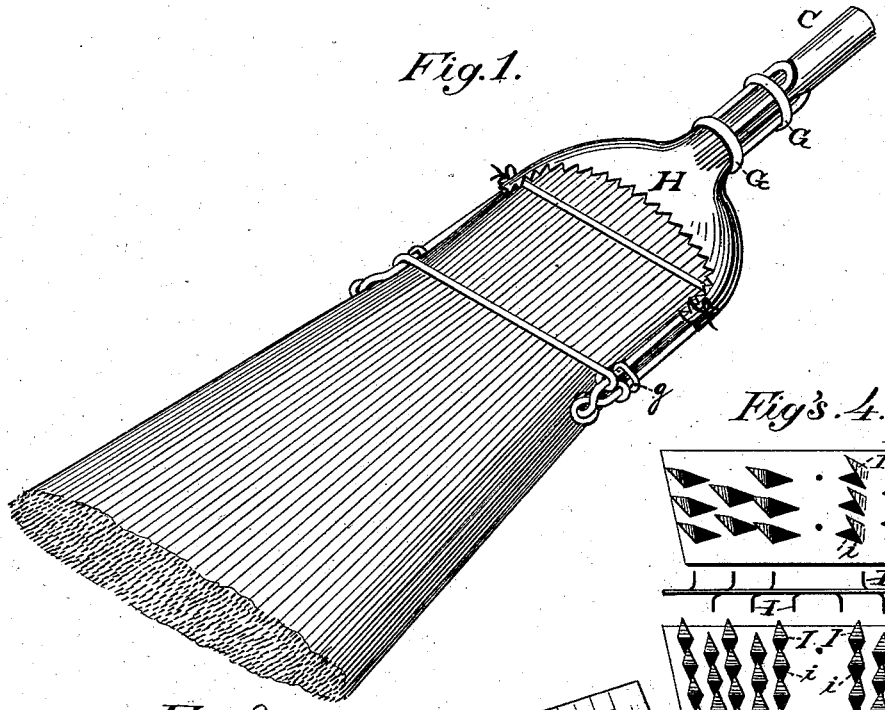
2 Sheets—Sheet 1.

J. DAVIDSON.

BROOM.

No. 191,940. Patented June 12, 1877.

Fig. 1.



Figs. 4.

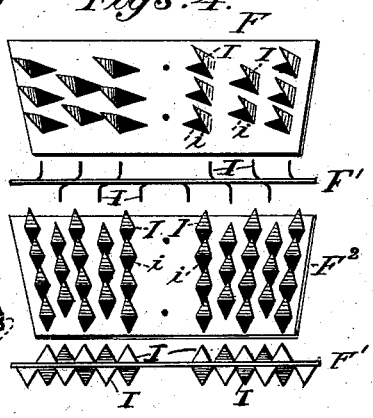


Fig. 3

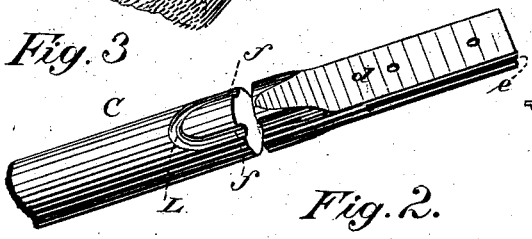
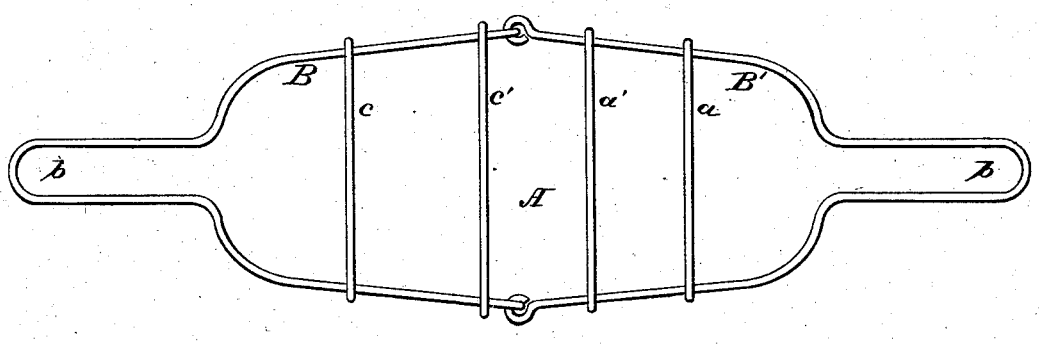


Fig. 2.



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2 Sheets—Sheet 2.

J. DAVIDSON.

BROOM.

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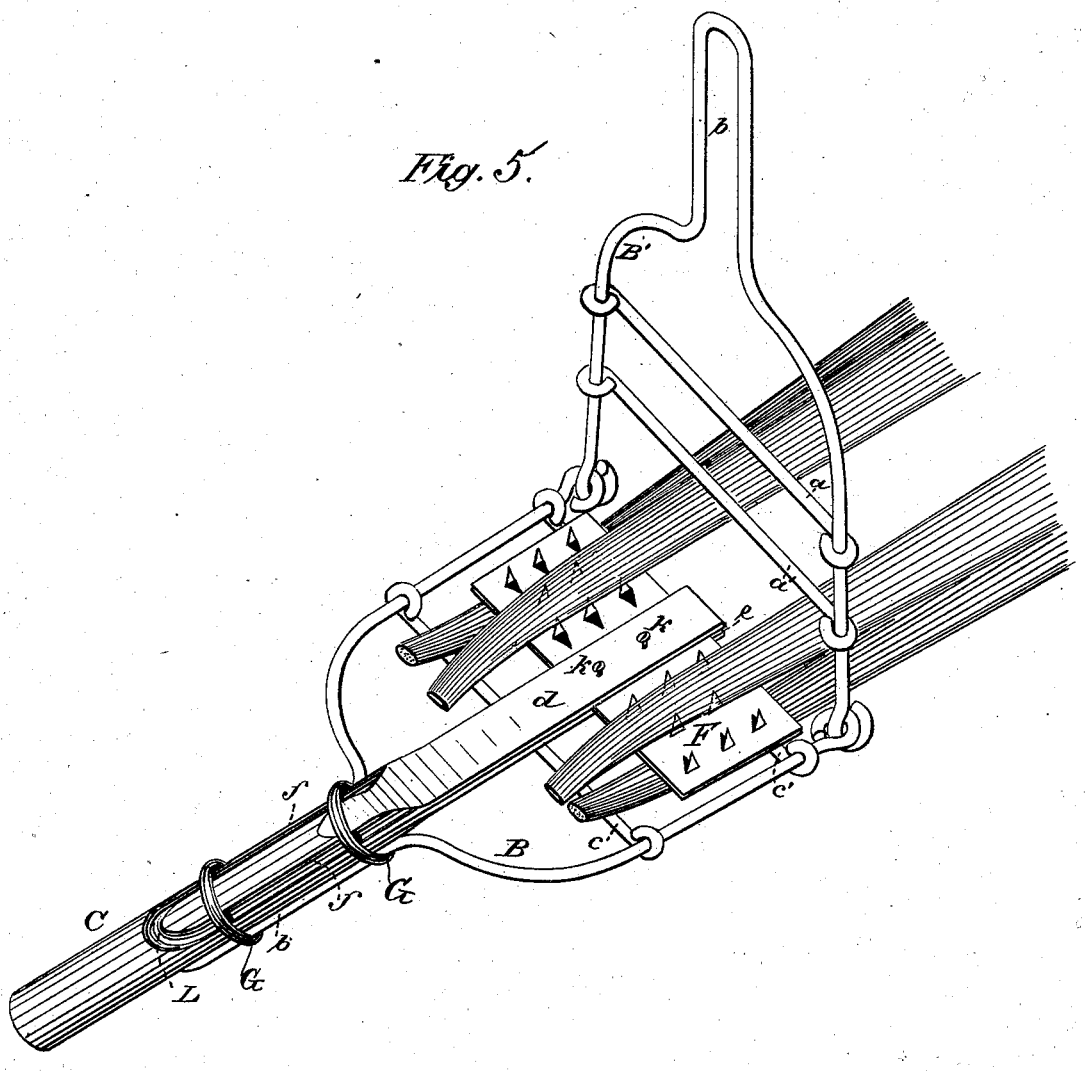
Fig. 5.



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Inventor:
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UNITED STATES PATENT OFFICE.

JAMES DAVIDSON, OF KALIDA, KANSAS.

IMPROVEMENT IN BROOMS.

Specification forming part of Letters Patent No. **191,940**, dated June 12, 1877; application filed February 26, 1877.

To all whom it may concern:

Be it known that I, JAMES DAVIDSON, of Kalida, in the county of Woodson and State of Kansas, have invented certain new and useful Improvements 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 which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain improvements in the manufacture of brooms; and it consists, first, in the construction of a wire clamp or clasp for holding the broom-corn; second, in the combination of said clasp with one or two metallic plates (the wicker-plates) from which triangular tongues are stamped and bent out, so as to prevent the corn from slipping out of the clasp; and thirdly, in the peculiar construction of the handle, and the method of securing the wicker-plates and clasp thereto, all as hereinafter more fully shown and described.

In the drawings hereto annexed, Figure 1 is a perspective view of a broom complete. Fig. 2 shows the wire clasp, detached. Fig. 3 is a perspective view of the lower end of a handle as used with my improved broom. Fig. 4 shows various constructions of the wicker-plates; and Fig. 5 shows the method of filling the clasp with broom-corn.

Similar letters of reference indicate corresponding parts in all the figures.

A is the wire clasp. This is made of stout wire, and consists of two parts, B B′, hinged together, as shown. The shape of the parts B B′ is exactly alike. They are made so as to conform to the general outlines of a broom-head, their upper ends (or the center of each part) being contracted, as shown at *b*, so as to conform to the shape and thickness of the broom-handle. Each of the parts B B′ has two cross braces or "binders," made of wire, and arranged as shown in the drawing—that is, one at or near the point where the parts B B′ are hinged together, and one at a suitable distance from the contracted part *b*. The binder *a* of frame B′ is clinched firmly upon it; also the binder *c* upon frame B. The lower binders (*a′* on frame B′, and *c′* on frame B) are so arranged as to slide freely.

C is the broom-handle. The end of this is cut off flat, as shown at *d*, and its flat portion is partly split by a saw, as shown at *e*, so as to admit the wicker-plates hereinafter described.

Longitudinal grooves *f f*, of suitable depth, may (when rings G G are used) be cut in the handle C above the flat portion *d*, to accommodate the contracted portions *b b* of the wire clasps to the size of rings that may be used, that they may fit closely on the four wires of *b b*; and cross-grooves L L, of a depth not to exceed one-half the diameter of wire used for the clasps, are cut in the handle to receive the turns at the top of the contracted portions *b b*, thus preventing the handle from sliding out of the clasp.

The wicker-plates consist of plates of sheet metal of suitable size and shape. When attached to the handle they should not project beyond the wire clasp. These plates have triangular cuts *i i*, and the tongues I I formed by these cuts are bent outward, as shown in the drawings. Sometimes it may be desirable to use only one plate, and the tongues I are then bent to both sides, as shown at F^1, Fig. 4. Again, if the plates are to be used for large brooms, in the manufacture of which the corn is not separated from the stalk, the tongues I will be turned as shown in the plate F, Fig. 4—that is, their flat sides will be parallel to the fibers of the corn; but if the corn used in the manufacture of the brooms is separated from the stalks, the tongues I are cut and bent into the position shown at F^2, Fig. 4—that is, with their flat sides crossing the fibers of the corn, thus affording a more solid hold upon the broom-corn, and making a more durable broom.

In making the brooms, the wicker-plate or plates are placed in the cut *e* in the lower end of the handle C, where they are secured by tacks *k*, the points of which assist the tongues I of the wicker-plate in keeping the corn in position. The frames B B′ forming the wire clasp are then placed at right angles to each other; and the handle C, with the wicker-plates in, is placed in position between them. The binder *a′* of frame B′ is now slid up, so as to leave space for the quantity of corn required on the upper side of the wicker-plate, where it is placed, as shown. The clasp A,

with the corn in it, is then turned over, with frame B′ downward, as B was before. Binder *c′* is slid up on frame B as *a′* was on B′, and a like quantity of corn is placed on top of the wicker-plate, as it was on the opposite side. Being thus filled, the frames B B′ of the clasp are closed upon the broom-corn, and binders *a′* and *c′* are slid down upon them as far as possible. The broom may now be compressed by any suitable apparatus, to give the necessary solidity thereto, and also to sufficiently insert the tongues I of the wicker-plates between the fibers of the broom-corn to retain it between the frames B B′. The contracted parts of the wire clasp may now be secured to the handle C by the rings G G, or by a suitable wire-winding; and the sides of frame B B′ may be secured together by wire fastenings *g g*, thus fastening the broom-corn securely within the clasp. A cap, H, made of leather or other suitable material, is now drawn over the end of clasp A, thus concealing the rough ends or stalks of the broom-corn, and giving a neat finish to the broom.

The advantages of my invention will be readily perceived from the foregoing description.

My improved wire clasp is light, durable, and may be manufactured easily and at a small cost. The wicker-plates F F^1 or F^2 absolutely prevent the fibers of the corn from coming out while the broom is in use; and when worn out, the broom-corn may be easily and quickly taken out and replaced by new material.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of the clasp A, having contracted portion *b*, with the handle C, having grooves L *f f*, substantially as and for the purpose set forth.

2. In combination with a wire broom-clasp, constructed substantially as herein described, the handle C having grooves L, substantially as and for the purpose herein set forth.

3. The wicker plate or plates F F^1 F^2, having sharp triangular tongues I, substantially as and for the purpose set forth.

4. The combination of the handle C, having flat split portion *d* and grooves *f* L, with the wicker plate or plates, and clasp A, herein described, substantially as and for the purpose herein set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JAMES DAVIDSON.

Witnesses:

JOHN A. BARNETT,

L. J. WELLS.