J. ARBEITER.
Broom.

No. 207,837. Patented Sept. 10, 1878.

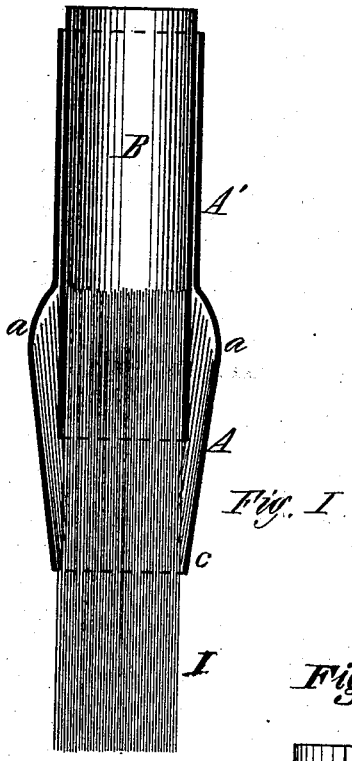


Fig. I

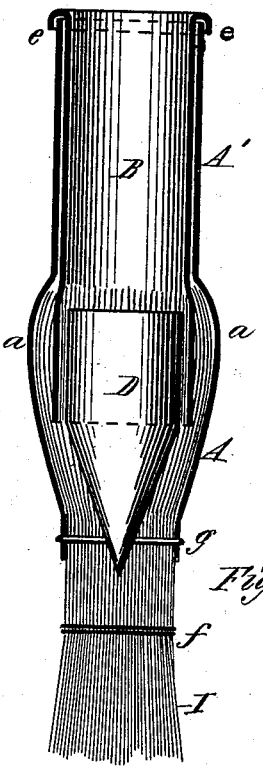
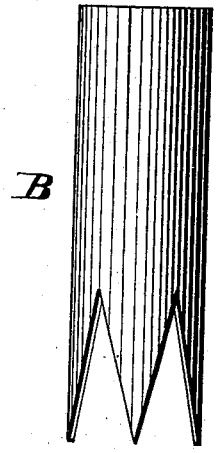


Fig. II

Fig. 3.



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UNITED STATES PATENT OFFICE.

JOSEPH ARBEITER, OF HARTFORD, CONNECTICUT.

IMPROVEMENT IN BROOMS.

Specification forming part of Letters Patent No. **207,837**, dated September 10, 1878; application filed February 23, 1878.

To all whom it may concern:

Be it known that I, JOSEPH ARBEITER, of Hartford, in the State of Connecticut, have invented a new and useful Improvement in the Manufacture of Brooms; and that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, and to the letters of reference marked thereon.

My invention consists in securing the broom-corn or other material used in a case or head by means of an expansible tube and a wedge-shaped plug, as hereinafter more fully described.

Figure 1 is a transverse vertical section, showing the parts as arranged prior to the insertion of the wedge or plug. Fig. 2 is a similar view, showing the plug inserted, and Fig. 3 is a side elevation of the tube detached.

To construct a broom on my plan, I first form the head or case A, of the requisite size and form, of paper-pulp, or of paper while in a plastic state, and which may be readily done by means of a suitable mold or former; but as this head or case will form the subject of a separate application, its construction will not be herein described, except so far as may be necessary to enable others to understand the present invention or means of securing the material within the case or head. As shown in Fig. 1, this head is so formed as to be of greater diameter in cross-section at the point *a a* than it is at its lower end, *c*, for the purpose of enabling the broom-corn or material used to be spread out therein, when the plug is subsequently inserted, and thus wedge the material fast in the head.

The head A is provided with a tubular portion or socket, A′, for attaching the handle, which latter is not shown in the drawings. I then provide a thin metal tube, B, of proper size to fit within the tubular portion A′, the lower portion of this tube B being provided with V-shaped slits, or otherwise slotted, to allow it to expand.

The parts being thus prepared, the broom-corn I is inserted into the head A through its lower opening, as represented in Fig. 1. After it has been filled with the proper quantity the tube B is inserted from above and its lower end pushed down into the broom-corn within the head, as shown in Fig. 1. I then take a conical or pointed plug, D, made for the purpose, and drive or force it down through the tube B, as represented in Fig. 2: As the point of this plug D enters the broom-corn or splints it will crowd them out laterally, at the same time expanding the lower slotted portion of the tube D, and thereby wedging both the tube and the broom-corn fast within the head. A row of stitches is then applied, as at *g*, by which the lower end of the head is kept from spreading; and, if desired, another row may be applied to the material itself below the head, as represented at *f*, Fig. 2.

It is obvious that this improvement may be used in the manufacture of all styles and sizes of brooms, and that any kind of splints may be used with this style of head. By these means I am enabled to produce a light, strong, and durable broom-head, which, if desired, may be refilled and used many times.

Having thus described my invention, what I claim is—

In combination with the head or case A, the expansible tube B and plug D, constructed and arranged to operate substantially as described.

JOSEPH ARBEITER.

Witnesses:
T. A. CURTIS,
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