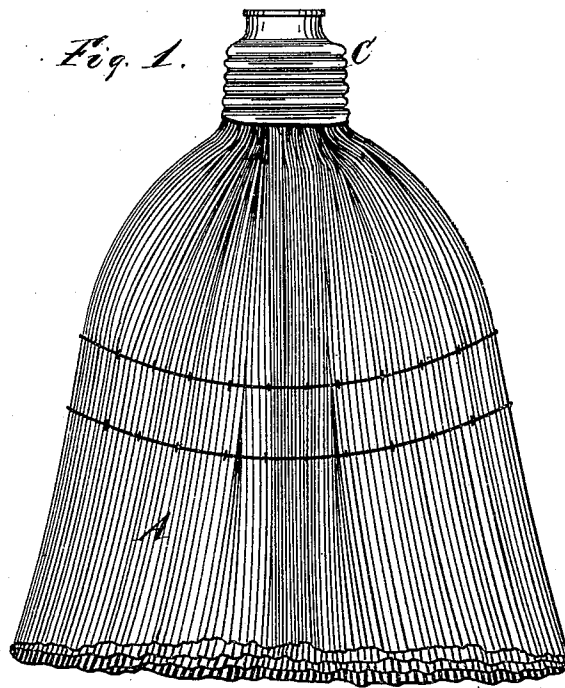


2 Sheets—Sheet 1.

J. F. LEE, Jr.
BROOMS.

No. 181,455.

Patented Aug. 22, 1876.



Witnesses
H. L. Bennett.
Wm. C. Hicks

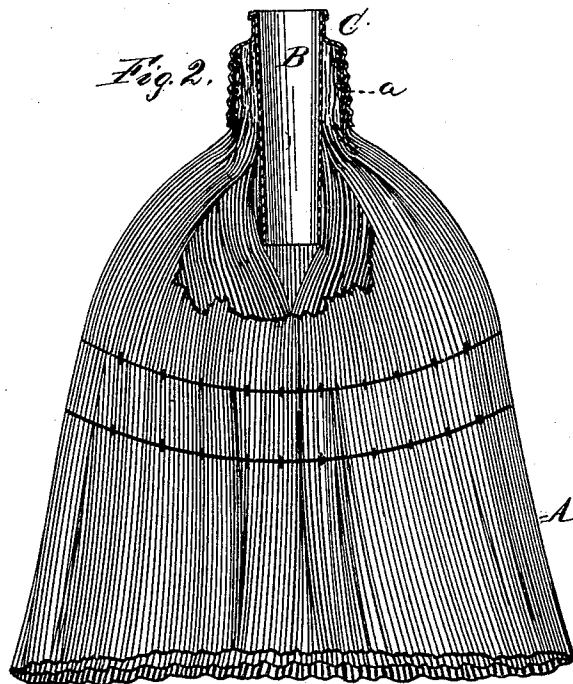
John F. Lee, Jr.
By Thos. J. How
Atty.

2 Sheets—Sheet 2.

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John F. Lee, Jr.
By Chas. P. Hobbs
Atty.

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UNITED STATES PATENT OFFICE.

JOHN F. LEE, JR., OF BROOKLYN, NEW YORK, ASSIGNOR TO CHARLES F. LINDE, OF SAME PLACE.

IMPROVEMENT IN BROOMS.

Specification forming part of Letters Patent No. **181,455**, dated August 22, 1876; application filed December 21, 1875.

To all whom it may concern:

Be it known that I, JOHN F. LEE, Jr., of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Brooms, of which the following is a specification:

This invention relates to a recent class of brooms constructed with sockets adapted to the insertion of the handle after the remainder of the broom is finished, whereby the brooms are made capable of being packed more compactly for shipment, and a single handle can be used for several brooms, thereby avoiding the cost of a large portion of the handles which purchasers and users of brooms would require when the broom is made upon the handle and inseparable from it.

The object of my present invention is to produce a construction which shall render brooms of this class more firm and reliable, less liable to derangement by rough usage in the insertion of the handle, simple in their structure, easy of construction, and neat in appearance.

One part of my invention consists in the combination, with other parts of a broom, of a tapering socket in the upper part thereof to receive the handle, and a cap which surrounds the head or upper end of the broom, substantially as hereinafter more fully set forth. Another part of my invention consists in the combination, with other parts of a broom, of a tapering socket, a cap, and a binding wound around the head of the broom, substantially as hereinafter more fully set forth. Another part of said invention consists in the combination, with other parts of a broom, and with a cap and tapering socket, of a connection between the said cap and the said tapering socket, whereby the said socket is prevented from being driven down out of place into the broom, substantially as hereinafter set forth; and said invention also consists, in part, in the combination, with the brush of the broom, the socket, and the cap, of a flange or outwardly-projecting top, firmly affixed to or made a part of the said socket, and extending outward over the top or some adjacent portion of the said cap, whereby the said socket is prevented from being driven in out of place,

substantially as hereinafter more fully set forth.

Figure 1 is a side view of a broom constructed according to my invention, the handle being omitted and the lower part of the brush broken off. Fig. 2 is a similar view, with the exception that a portion of the upper part of the broom is represented as being broken away, and the tapering socket and cap represented in section.

A is the brush of the broom, which is formed in most respects in the same manner as ordinarily practiced, and stitched as usual. Instead, however, of the top of the brush part of the broom being formed upon a permanent handle, as more ordinarily practiced, it is here formed upon a tube or socket, B, tapering on the inside thereof, to give a conical aperture, as shown, for the after insertion of the conical end of the handle. In the drawings this socket or tube B is represented as being made of sheet metal, and consequently being conical externally as well as internally. C is a cap, which surrounds and covers the head of the broom. This cap is represented as being made to fit snugly around the top of the socket B at its upper end, and the top of the socket is turned over the edge of the cap, for the purpose of preventing the socket from being driven into the broom farther than it should be by the driving of the handle when it is inserted into the socket. The top of the socket can be so turned over by a proper set, or by spinning in a lathe after the broom is formed and the cap put on.

The brush of the broom is formed upon the socket by winding it on with wire or twine, or some other equivalent, wire being preferred, as shown by small circles or dots at *a*, in the manner usually practiced in forming the head of a broom, which wire binding not only aids the socket in holding the broom-head firmly together, but also co-operates with the brush of the broom, the cap, and the socket in holding the latter in place.

The construction which I have described furnishes a broom which is at once strong, simple, and durable, and is probably as strong a construction, and perhaps the strongest form of construction, in which my invention can be

embodied. Some slight variations may, however, be made in the details of construction without at all departing from any of the principles or essential features of the invention; and, again, other moderate deviations from the exact description I have given may be made, and the principal portions of the invention yet retained. For example, the top of the cap might be turned over with the top of the socket to secure the parts together; the top of the cap and the top of the socket might be secured to each other by soldering, or possibly by riveting; or the top of the socket might be turned farther outward, to meet and rest upon the inwardly-projecting flange of the cap, or in some recess in it. Said cap may also be made of any of the forms shown or mentioned in the reissued Letters Patent No. 4,706, granted to Henry A. Lee and myself January 9, 1872, or any other form adapted to the purpose may be used. I do not, however, mean to be understood as recommending these deviations as being more advantageous than the construction I have described, nor, indeed, as being equally good.

I claim as my invention—

1. The combination, with the brush of a broom, of an internally-tapering socket to receive the handle, and a cap surrounding the head of the broom.

2. The combination, with the brush of a broom, of an internally-tapering socket to receive the handle, a cap surrounding the head of the broom, and wire or equivalent binding around the head of the broom.

3. The combination, with the brush of a broom, of a tapering socket for the handle, a cap, and a connection between the said cap and the said socket, substantially as hereinbefore set forth.

4. The combination, with the brush of a broom, of a tapering socket for the handle, a cap, and an outward projection from the said socket over the said cap, substantially as hereinbefore set forth.

JOHN F. LEE, JR.

Witnesses:

CHAS. F. LINDE,
THOS. P. HOW.