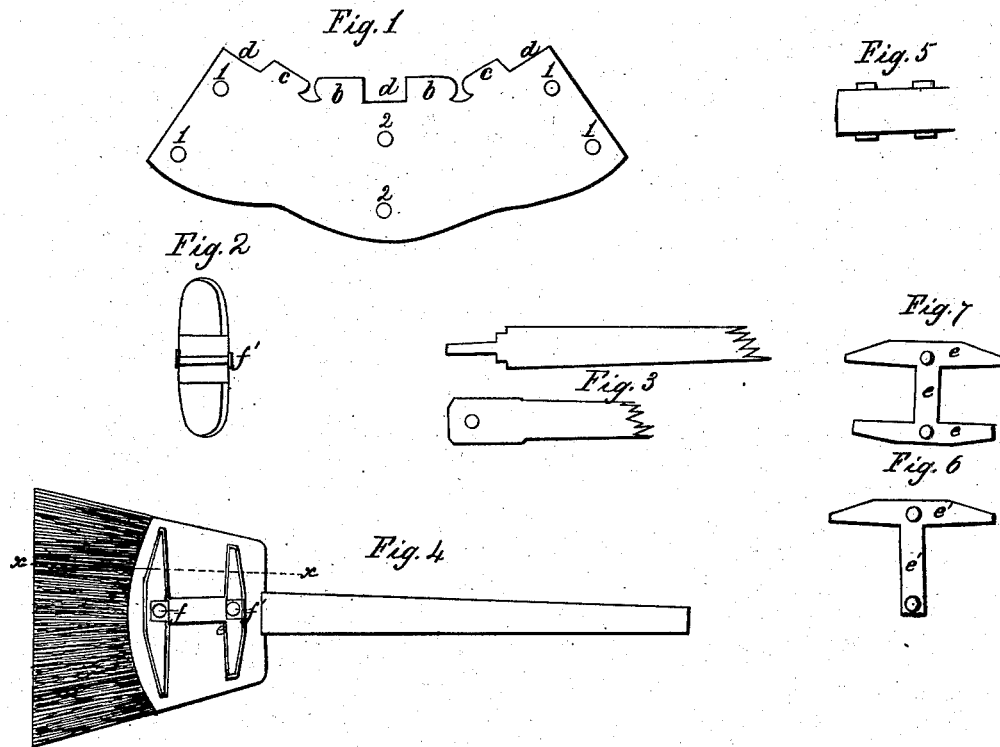


J. M. CLARK.
BROOM.



Witnesses
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JOHN M. CLARK, OF DAYTON, OHIO.

IMPROVED BROOM.

Specification forming part of Letters Patent No. 47,799, dated May 23, 1865.

To all whom it may concern:

Be it known that I, JOHN M. CLARK, of Dayton, in the county of Montgomery and State of Ohio, have invented a new and useful Improvement in Brooms; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My improvement in brooms relates to that class which furnishes a receptacle for the brush or broom-corn, and which is capable of being repeatedly used without the aid or use of extraneous means or the addition of new parts, excepting the brush and handle, the latter serving, however, while the brush is renewed many times; and my invention consists in the construction of a wrapper of flexible or yielding material, which serves to wrap and firmly secure in place the broom-corn, and at the same time affords means of retaining the handle securely in its position without the aid of a socket; also, in the use of two or more ribs, by means of which the wrapper may be compressed and retained in proper form to secure the broom-corn and give shape to the broom, all of which will be hereinafter more fully described.

To enable others to construct and use my invention, I will describe the same with reference to the accompanying drawings.

Figure I represents the broom-wrapper as a plain surface, as when cut out of tin, brass, or other sheet metal. Fig II represents a top or end view of the wrapper, with the opening for the insertion of the handle, with the bolt which retains the handle in its place; and Fig. III represents a side and edge view of that part of the handle that is incased in the wrapper. Fig. IV represents the wrapper and ribs, with the two bolts which secure the brush and handle, constituting the complete broom. Fig. V represents a sectional view of the wrapper, taken through the dotted line *x x* of Fig. IV. Figs. VI and VII represent the ribs, with the necessary bolt-holes.

There have been several forms of socket and clamps for brooms made of metal for the purpose of continuous use by inserting and compressing the broom-corn as often as it requires replenishing from wear; but these have been made, generally, of rigid material, and have necessarily required a certain fixed

quantity of broom-corn to be inserted within them in order to insure its firm retention therein. Others have been made and used with a hinge and wedge fastenings, while some have been so constructed as to require several bolts to retain the clamps in place upon the brush, and have required a socket for the handle.

My invention is designed to obviate some of the objections to these several kinds of broom-sockets which are intended for repeated use by resuppling the broom-corn as often as the same is worn down and no longer useful.

My improved wrapper may be made of tin or other sheet metal, or of gutta-percha, or vulcanized india-rubber, and any other similar yielding elastic material may be employed for the purpose. It may be cut out of the material by a die, corresponding with the form represented in Fig. I. Thus made of a single sheet of material, the ends are brought together so as to overlap at the center, bringing the bolt-holes 1 in range with the two bolt-holes 2, thereby wrapping the broom-corn and the handle *a*. The lips *b b* and *c c* are then bent or pressed down over the upper ends of the broom-corn, the shorter lips, *c c*, overlapping the longer lips, *b b*. The central opening for the handle is formed by the spaces *d d d*.

The ribs *e e* are thin leaves of metal, sufficiently rigid, however, to cause the wrapper to be uniformly compressed upon the broom-corn the entire width of the broom, when the bolts *f f* are applied and their nuts or burrs are screwed down. These ribs may be varied in form, *e'* being a modified construction, serving a good purpose when the thickness of the material of which the wrapper is made is such as to more readily retain its position with the aid of the bolt *f'*. These ribs are intended to be made of malleable cast-iron, but they may be made of brass or other metal, and of an ornamental exterior. I propose to apply the ribs upon the outside of the wrapper, although it will be seen that they will serve the purpose when used next to the broom-corn and under the wrapper, and in this relation the ribs serve to support the broom-corn and handle, the wrapper serving only as a cover.

It will be observed that two ribs constructed as represented in Fig. VII, with their ends

curved slightly, will serve the purpose of securely holding the broom-corn in place as well as the broom-handle when that part of the handle which is to be inserted in the broom-corn is extended so as to allow both of the bolts to pass through it. The broom in this form would be unfinished, but still capable of use. It would be very unsightly, inasmuch as the upper ends and sides of the broom-corn would be exposed to view.

It will be seen that the wrapper serves the purpose of a dress or covering, and consequently may be made of any suitable light material and of an ornamental construction. It must, however, be of such a yielding character as to readily adapt itself to the broom-corn which it surrounds. The pressure upon the ribs through the means of the two bolts and nuts will cause the wrapper to collapse, so as to diminish the area within it, and thereby the width and thickness of the broom will depend wholly upon the quantity of broom-corn which is used. In other words, the wrapper will be pressed equally around and upon the inclosed broom-corn without regard to quantity.

The broom-handle is made with suitable square shoulders, to fit the form of the space *d* of the wrapper, which latter renders sufficient support to the handle by the aid of one bolt.

My improved broom-wrapper, as an article of manufacture, is intended to be furnished to the market without the brush or broom-corn, as it may be readily supplied by any one by simply removing the nuts of the two bolts and

raising the ends of the wrapper to an angle of about forty-five degrees, which will be sufficient to allow the broom-corn to be placed within it; then the ends of the wrapper, which is of some yielding or springy material, will be compressed again, so as to cause the ends of the bolts to project through the bolt-holes 1 1 1 sufficiently to permit the ribs *e e'* to be brought to their place, when the nuts will be screwed down, which completes the work of reinserting or replenishing the wrapper with broom-corn.

Among other advantages possessed by my improvement may be named those of cheapness and lightness, as well as the capability of being easily and quickly resupplied with a new brush without the aid of any mechanical skill or experience. Besides, the same sized wrapper will serve for different quantities of broom-corn, and consequently for brooms of various sizes and of modified form.

Having thus fully described my improvement in brooms, what I claim, and desire to secure by Letters Patent, is—

The thin elastic and yielding wrapper represented in Fig. 1, constructed and applied to the brush and handle of a broom, in combination with the ribs *e e*, in the manner substantially as and for the purpose described.

In testimony hereof I have hereunto set my hand this 10th day of March, 1865.

JOHN M. CLARK.

Witnesses:

H. P. K. PECK,
M. E. McCALLAY.