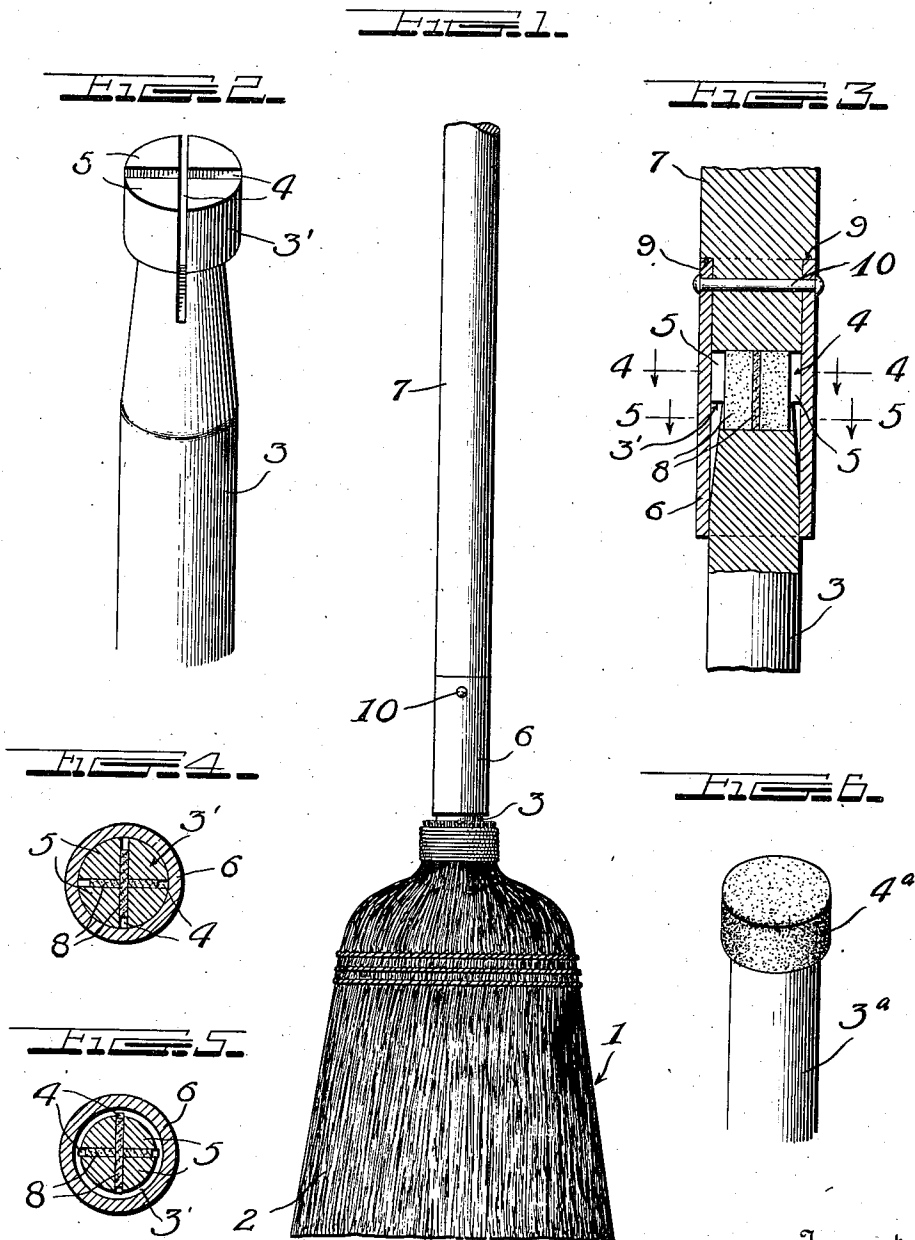


S. F. FRAZIER.
BROOM.
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1,164,801.

Patented Dec. 21, 1915.



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Witnesses

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UNITED STATES PATENT OFFICE.

SIMON F. FRAZIER, OF QUENEMO, KANSAS.

BROOM.

1,164,801.

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To all whom it may concern:

Be it known that I, SIMON F. FRAZIER, a citizen of the United States, residing at Quenemo, in the county of Osage and State of Kansas, have invented certain new and useful Improvements in Brooms; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to brooms and more particularly to couplings for connecting the heads and handles thereof.

The object of the invention is to provide a broom having a head and detachable handle so constructed that they may be manufactured, shipped, and sold individually or jointly, and which adapt one handle to be used repeatedly, one handle outlasting several broom heads.

Another object is to provide a broom, the head and handle of which are separable to adapt them to be stored or shipped in very compact form.

With these and other objects in view the invention consists of certain novel features of construction and the combination and arrangement of parts hereinafter described and claimed.

In the accompanying drawings: Figure 1 represents a front elevation of a broom embodying this invention, a portion of the handle being broken off; Fig. 2 is a detail perspective view of the core on which the head is built; Fig. 3 is a longitudinal section of the inner or ferrule carrying end of the handle; Fig. 4 is a transverse section taken on line 4-4 of Fig. 3; Fig. 5 is a similar view taken on line —5 of Fig. 3; and Fig. 6 is a detail perspective view of a slightly different form of core.

In the embodiment illustrated, a broom head 1 is shown composed of any suitable material preferably of the regulation broom straws 2 which are secured to a central core 3 composed of wood or other suitable material. This core 3, which may be of any desired length preferably about seven inches, more or less, has one end embedded and secured in the head 1 with its other end projecting beyond the head for engagement with the handle connecting element to be described. This projecting end of the core is made elastic, various means being applicable for this purpose, and as shown in Fig. 2 said core end is slit longitudinally inward

a suitable distance. These slits 4 cross each other at right angles and extend from side to side of the core, thus forming quadrant-shaped sections 5 which normally spring apart and when compressed form a resilient connection with the ferrule 6 which is designed to connect said core is especially desirable when the core is made of unseasoned wood so that in case of shrinkage it may be enlarged to adapt it to fit the ferrule by inserting therein elastic fillers 8 composed of rubber, cork, or other suitable material which adapt the slit end of the core to snugly fit within the ferrule and have a yielding engagement therewith.

If desired, the slit end of the core may be tapered and provided with a head 3' here shown rounded but it need not be necessarily so formed, as a straight core will operate successfully, and when thoroughly seasoned cores are used it may not be necessary to slit the ends.

The handle 7 is of ordinary construction, being composed of wood and has secured to its inner end the ferrule 6 which is composed of fiber or other suitable light material. This ferrule is fixed to the inner end of the handle, said handle being preferably reduced at said end and inserted in the ferrule with the edge of the ferrule abutting against a shoulder 9 formed at the base of said reduced portion, and which assists in dividing the strain between the handle and ferrule. This ferrule is secured to said extension in any suitable or desired manner, a rivet 10 being here shown passed transversely therethrough. The reduced end of the handle 7 extends into the ferrule about one-third of the length of the ferrule, more or less, thus providing a socket at the end of said handle which is adapted to fit over and frictionally engage the resilient end of the core 3 and by means of which said handle and broom head are reliably connected and made readily detachable when desired without the removal of any fastening elements, and which yet will be securely connected against accidental disengagement.

From the above description, it will be obvious that the clamping jaws formed by slitting the core and compressing it have a normal tendency to expand and thereby prevent any possibility of a loose connection between the head and the handle.

In Fig. 6, a core 3^a straight throughout its length is shown and provided on its

outer projecting end with an elastic cap 4^a which is made fast on the end of the core in any suitable manner, and is designed to be inserted within the fiber ferrule 6 for yield-
5 ably engaging said ferrule and holding the parts reliably in connected relation.

When it is desired to separate the head 1 from the handle 7, all that is necessary is to exert a longitudinal pull on the two parts
10 in opposite directions which will cause them to be disengaged from each other, and the parts arranged for shipping, or the handle connected with another head, if desired.

I claim as my invention:—

15 A broom comprising a head having a core mounted thereon and projecting beyond one end thereof, the projecting end of said

core being tapered, a head formed on the extremity of said end of a diameter corresponding to the shank of the core, said head 20 and tapered portion being longitudinally slit to provide laterally projecting clamping jaws, elastic fillers of corresponding width to said slits positioned therein, and a handle having a ferrule on its inner end adapted to 25 fit over the clamping jaws of said core.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

SIMON F. FRAZIER.

Witnesses:

ELMER CHRISTIE,
JOHN JACOBS.