No. 613,671. Patented Nov. 8, 1898.

A. W. FITTS.

BROOM HEAD.

(Application filed Oct. 9, 1897.)

(No Model.)

Fig. 1.

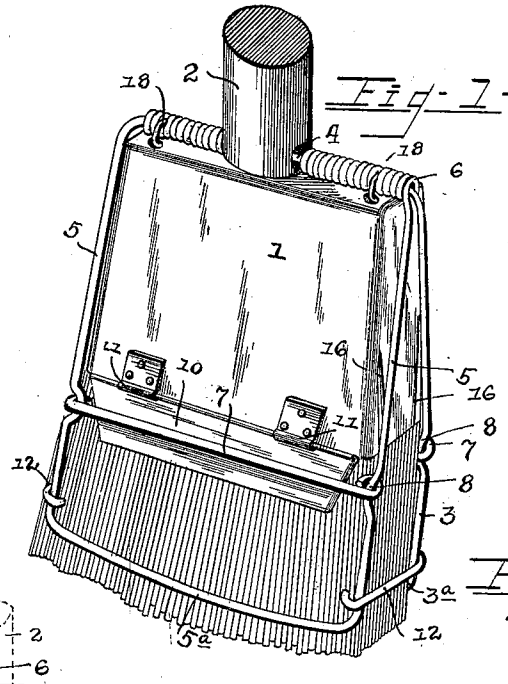


Fig. 2.

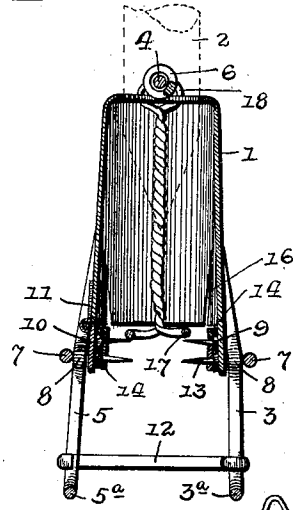


Fig. 3.

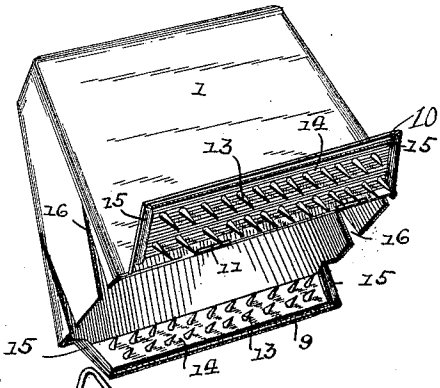
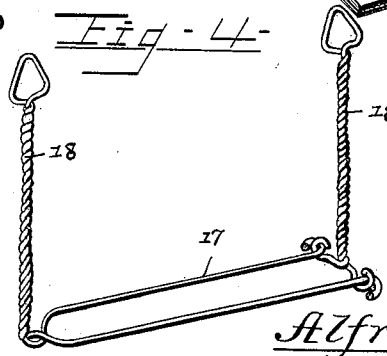


Fig. 4.



Witnesses

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ALFRED W. FITTS, OF GADSDEN, ALABAMA.

BROOM-HEAD.

SPECIFICATION forming part of Letters Patent No. 613,671, dated November 8, 1898.

Application filed October 9, 1897. Serial No. 654,686. (No model.)

To all whom it may concern:

Be it known that I, ALFRED W. FITTS, a citizen of the United States, residing at Gadsden, in the county of Etowah and State of Alabama, have invented a new and useful Broom-Head, of which the following is a specification.

My invention relates to broom-heads, and particularly to a bridle and coöperating cap or broom-corn socket in which the butt-ends of the broom-corn are secured.

The object in view is to provide a broom-head wherein the broom-corn is adapted to be replaced with facility and wherein the broom-corn is securely held by the cap and bridle to preserve the proper shape and prevent displacement.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a broom-head constructed in accordance with my invention. Fig. 2 is a vertical transverse section of the same. Fig. 3 is a detail view in perspective of the cap detached, showing a folding leaf thrown back to expose the broom-corn-engaging pins. Fig. 4 is a detail view in perspective of the holding-wire or hanger detached.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a cap or socket of upwardly-tapered construction, through an opening in the top of which is fitted the extremity of a handle 2, and inclosing this cap is a bridle of sectional construction having a fixed looped member 3, of which the side arms are arranged beyond the ends of the cap and are inturned at their upper extremities to form spindle portions 4, attached firmly to the handle. The movable member 5 of the bridle is also of looped construction, with its arms provided with coiled sleeves or journal portions 6, fitted upon the spindle portions of the member 3. The cross-rods 3^a and 5^a at the lower ends of the fixed movable bridle members are adapted to bear against opposite sides of the broom-corn, and the arms of said members are transversely connected approximately parallel with said cross-rods by means of bearing-rods 7. The extremities of these bearing-rods engage deflected or offset portions 8 of the side arms to prevent displacement thereof, and the bearing-rods are located at a distance from the fulcrum of the movable member of the bridle which is in excess of the depth of the body portion of the cap. Said cap, however, is provided at the lower extremities of its side walls with pin-bearing extensions 9 and 10, the former being fixed to and preferably integral with one side wall of the cap, while the latter is hinged, as at 11, to the opposite side wall of the cap. These extensions project at their lower edges below the plane of the bearing-rods 7 of the bridle, and thus are arranged in the transverse paths of said bearing-rods, whereby when the bridle is contracted to clamp the broom-corn the bearing-rods force the pin-bearing extensions into contact with the broom-corn, as shown in Fig. 2. In order to hold the members of the bridle in their operative positions, I employ securing devices consisting of hooks 12, having eyes mounted upon the fixed or stationary member of the bridle and hooked extremities to engage the other member.

The broom-corn-engaging pins 13, which project inwardly from the side-wall extensions of the cap, are preferably made detachable in order to provide for replacement when they become bent or otherwise injured. Hence I employ perforated holding-plates 14, through which headed pins project, and these holding-plates are fitted in terminal upset guides or seats 15 at the extremities of said side-wall extensions, whereby the heads of the pins bear against the inner surfaces of the side-wall extensions to prevent accidental displacement. It will be understood that one of the side-wall extensions is hinged to fold outwardly, as indicated in Fig. 3, to facilitate the introduction of the broom-corn, and in order to still further increase the possibilities of transverse contraction of the cap when the bridle is contracted to its normal position I provide the ends of the cap with kerfs or slits 16. This permits the lower portions of the side walls to be drawn inwardly or toward each other when the bearing-rods press forcibly upon the side-wall extensions.

In connection with the above-described construction I also employ a broom-corn-holding

wire or hanger consisting of parallel longitudinal spaced side wires 17, terminally connected to suspending-wires 18, which extend upward to the spindle portions of the fixed bridle member and are securely fastened. A portion of the broom-corn—say approximately one-third of the entire quantity thereof—is arranged between the side wires of the holder or hanger, while the remaining portions of the broom-corn are placed outside of said hanger, where they are engaged below the plane of the side wires of the hanger by means of the pins on the side-wall extensions, and I have found in practice that with this arrangement of parts any tendency upon the part of the broom-corn to slip out of place will serve to wedge it firmly in place. This is due partly to the fact that the side wires of the hanger are arranged contiguous to and slightly below the plane of the lower edge of the body portion of the cap, whereby the transverse contraction of the cap by reason of the split end walls thereof serves to bind the exterior portions of the broom-corn against said side wires and also to contract the side wires to clamp the interposed portion of broom-corn.

In practice various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. The combination of a transversely-contractible broom-corn-receiving cap provided on its side walls with inwardly-extending broom-corn-engaging pins, and a bridle having side members pivotally connected contiguous to the top of the cap, and provided with bearing-rods parallel and in contact with the pin-bearing portions of said side walls, and means for securing the bridle members in their contracted positions, substantially as specified.

2. The combination of a transversely-contractible broom-corn-receiving cap having pin-bearing side-wall extensions and split or kerfed end walls to allow relative lateral movement of said side-wall extensions, and a transversely-contractible bridle having side members provided respectively with bearing-rods for contact with said side-wall extensions, and means for securing said members in their normal positions, substantially as specified.

3. The combination of a transversely-contractible broom-corn-receiving cap having side-wall extensions, of which one is hingedly mounted for outward swinging movement, and a transversely-contractible bridle having side members for contact with broom-corn below the lower edges of the side-wall extensions, and also provided with parallel bearing-rods for contact with said side-wall extensions, and means for securing the bridle members in their normal positions, substantially as specified.

4. The combination of a transversely-contractible broom-corn-receiving cap having its walls provided with guides, holding-plates carrying broom-corn-engaging pins, removably fitted at their edges in the guides on said walls of the cap, and means for transversely contracting the cap, substantially as specified.

5. The combination of a transversely-contractible broom-corn-receiving cap provided with side-wall extensions having terminal guides, perforated holding-plates removably fitted in said guides, headed broom-corn-engaging pins removably fitted in perforations in said holding-plates with their heads between the holding-plates and the contiguous side walls, and means for transversely contracting the cap, substantially as specified.

6. The combination with a transversely-contractible broom-corn-receiving cap, and means for contracting the same, of a broom-corn hanger arranged within said cap and having connected side wires between which a portion of the broom-corn is arranged, and means for suspending said side wires from the top of the cap, substantially as specified.

7. The combination with a transversely-contractible broom-corn-receiving cap provided with inwardly-projecting engaging-pins, and means for contracting the cap, of a broom-corn hanger arranged within the cap and consisting of horizontal approximately parallel side wires arranged contiguous to the plane of said engaging-pins, and suspending-wires for supporting said side wires from the top of the cap, said side wires being adapted to be forced toward each other, by the contraction of the cap, to engage an interposed portion of broom-corn, substantially as specified.

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

ALFRED W. FITTS.

Witnesses:
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T. M. ANDERSON.