Aug. 5, 1941. W. D. ROSE 2,251,857

BROOM

Filed Feb. 24, 1939

Fig. 1.

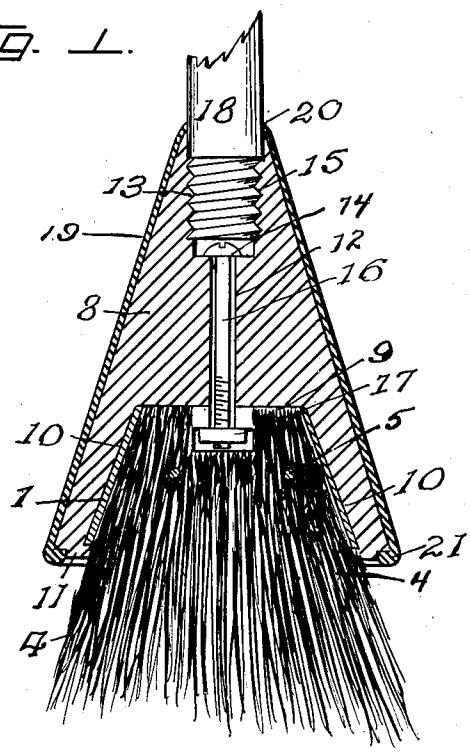


Fig. 2.

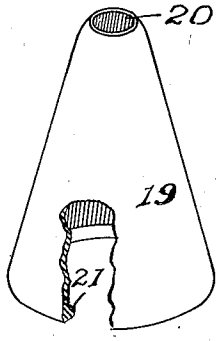


Fig. 3.

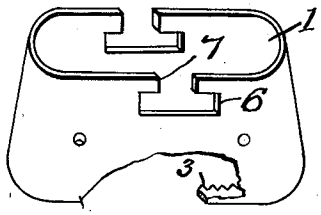
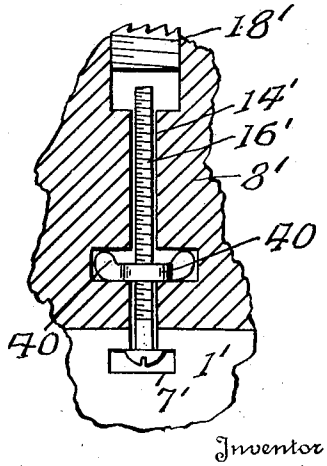


Fig. 4.



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UNITED STATES PATENT OFFICE

2,251,857

BROOM

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Application February 24, 1939, Serial No. 258,305

4 Claims. (Cl. 15—176)

This invention relates to an improvement in the manufacture of brooms of any and all types wherein the broom straw is united to a handle receiving element in a simple and expeditious manner with a view particularly to eliminating the conventional methods of fastening the broom straw in place and to further provide a finishing cap to conceal all connecting parts, to serve as a bumper in the use of the broom, and to provide an ornamental finish.

The broom structure of the present invention in the preferred form provides a means by which the broom body or straw element is designed for removable connection in a head, with the head designed to removably receive the handle and a cap provided to interlock with the head to complete the finish and to serve as a bumper in the use of the broom.

An essential feature of the present invention is the provision of a concealing cap, preferably of rubber or other like material, which may be positioned after the completion of the broom proper, which will interlock with the formed broom to prevent casual displacement of the cap and which will serve as an ornamental and pleasing finish to the broom and also as a bumper under contact of the broom with furniture or the like.

The invention is illustrated in the accompanying drawing, in which:

Figure 1 is a vertical sectional view, partly in elevation, of the improved structure showing the preferred form.

Figure 2 is a perspective view, partly broken out, of the cap.

Figure 3 is a perspective view, partly broken out, of the carrier.

Figure 4 is a broken sectional view showing a slightly modified form of connection for the type illustrated in Figure 1.

In the form illustrated in Figures 1, 2 and 3, the improved broom structure comprises a broom straw carrier 1 in the form of an endless band of conical form and of oval configuration in plan. The bottom edge 2 of the carrier is open and its edge preferably inturned and serrated, as at 3. The broom straw, indicated in broken lines at 4, is inserted in appropriate quantity within the carrier 1 and clamping means 5, such as rivets or the like, are passed through opposing edges of the carrier to cause the serrated edge 3 to be forced into the broom straw with the result of securing the arranged broom straw rigidly in position.

The inclined side wall of the carrier serves to naturally provide a flaring relation of the broom straw in order to secure the conventional outline. The upper edge of the carrier is formed with an opening 6 having a reduced entrance 7, the purpose of which will later appear.

The carrier 1 with the attached broom straw is designed to be removably seated in a head 8. This head has a lower recessed portion 9, the annular wall 10 of which is so shaped and of a size to more or less snugly receive the carrier 1, the annular wall 10 projecting slightly below the lower edge of the carrier, as at 11. The head 8 is formed with a vertical channel 12 in line with the reduced entrance 7 of the opening 6 in the carrier when the carrier is in position in the head.

The carrier is formed in its upper end with a recess 13 which opens through the upper end of the head, is of uniform diameter throughout, and is formed at its lower end with an opening 14 in line with and forming a continuation of the channel 12. The inner wall of the recess 13 is threaded, as at 15.

A bolt 16 is passed into the recess 13 through the channel 12 and is arranged to coooperate with a nut 17 seated and held against turning in the opening 6. Obviously, with the broom straw secured in the carrier 1 in appropriate broom forming relation and the nut 17 secured in position in the opening 6, the carrier may be drawn tightly into the head 8 by the application of and proper setting of the bolt 16 with respect to the nut 17.

An appropriate handle 18 is exteriorly threaded to removably cooperate with the threads 15 of the recess 13, the handle thus being removably secured in place and utilized, if desired, to bear upon the head of the bolt and prevent casual movement of said bolt.

With the construction described, it is apparent that when the broom proper is worn or otherwise damaged, the removal of the handle and of the bolt 16 permits a convenient separation of the carrier and formed broom from the head 8 and the subsequent introduction of a fresh broom structure proper including a carrier 1.

Furthermore, a head such as described will permit the introduction of broom formations of varying sizes. In this particular it will be understood that the handle 18 may also be of varying lengths, as in connection with a normal broom, a whisk broom or brooms of varying sizes.

An important feature of the present invention is the provision of a cap, indicated at 19. This cap has an outline form corresponding to that of

the head 8 formed at the upper end with an opening 20 to snugly embrace the handle 18 and at the lower end with a reinforced inturned end 21 adapted, when the cap is in place, to seat in an annular channel in that portion 11 of the head which extends below the lower end of the carrier.

The cap 19, which is preferably of rubber though obviously may be made of any material capable of being slightly stretched, serves as an ornamental finish to conceal all connecting parts of the broom structure, and is itself prevented from casual separation from the broom structure as a whole by the engagement of the lower edge of the cap with the recess in the lower end of the head.

The cap, of course, may be conveniently removed under manual manipulation to permit the association of a new broom and carrier in the head and yet, when in place, the cap serves as a concealing medium for all connecting parts which would be otherwise exposed, completes a pleasing and ornamental appearance of the broom proper and serves as a bumper to prevent the broom in use from marring objects with which it may come in contact.

In Figure 4 there is illustrated a slightly modified form of connection for holding the carrier, here indicated at 1', secured in the head 8'. In this form the bolt 16' is inserted with the head in the cut-out portion 7' of the carrier 1', with the shank of the bolt extending through an enlargement of the channel 14' and engaged in said enlargement by a wing nut 40.

From the above it will be apparent that the broom body is readily removable from the head to permit the insertion of other bodies either of different size or shape or to renew a worn body; and that the connections for securing the broom body in position for use in both forms completely eliminate the general use of tacks and nails ordinarily employed in the make-up of brooms and rendering the construction difficult to complete and as a matter of fact less effective in its holding influence than the means herein described.

The essential characteristic, however, is the cap which may be readily positioned, which is locked against casual separation when in place, which serves as a complete finish to that portion of the broom which ordinarily requires a separate finishing in the conventional broom to present an outline pleasing to the eye. The cap further serves as a bumper against marring any object with which the broom may contact and effectively seals the otherwise open portions of the interior of the broom connector, against the entrance of moisture or the like. Of course, the cap may be highly ornamental, if desired, may be of any desired or required thickness, and is designed, of course, to be of such matterial as to snugly embrace all portions of the broom connector with which it comes in contact.

What is claimed to be new is:

1. The broom including a carrier in which the broom straw is secured, a head to receive the carrier, disconnectable means for securing the carrier within the head, a handle removably connected to the head, and a resilient cap stretched over the end of the handle and the head, the cap being held in place at its upper end by the head and underlying and interlocking with the head at its lower end, the end of the cap remote from the handle being interlocked with the head to prevent casual displacement of the cap, the handle being interlocked with the head to prevent casual displacement of the cap.

2. A broom including a carrier of conical form axially and of oval outline normal to the axis, the carrier being formed with a nut receiving recess, a nut held in said recess, a head formed at its lower end with a recessed portion to snugly receive the carrier, a bolt loosely passed through the head and engaging the nut in the carrier to form a removable connection to draw the carrier into the head and fix the carrier and head relatively, the upper end of the head being formed with a recess interiorly threaded to receive and connect the broom handle in said recess, and a cap formed at its upper end with an opening to snugly embrace the handle and at its lower end with a thickened margin to interlock with the head below the carrier.

3. A construction as defined in claim 2, wherein the bolt engaging the nut is passed through and bears against the bottom of the threaded recess receiving the handle and housed completely within the head.

4. As construction as defined in claim 2, wherein the handle when moved inwardly in the recess in the head to the limit bears upon the end of the bolt to prevent endwise movement of the latter.

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