July 10, 1956 T. C. KUSSMANN 2,753,579

PUSH BROOM

Filed Sept. 29, 1950

Fig. 1.

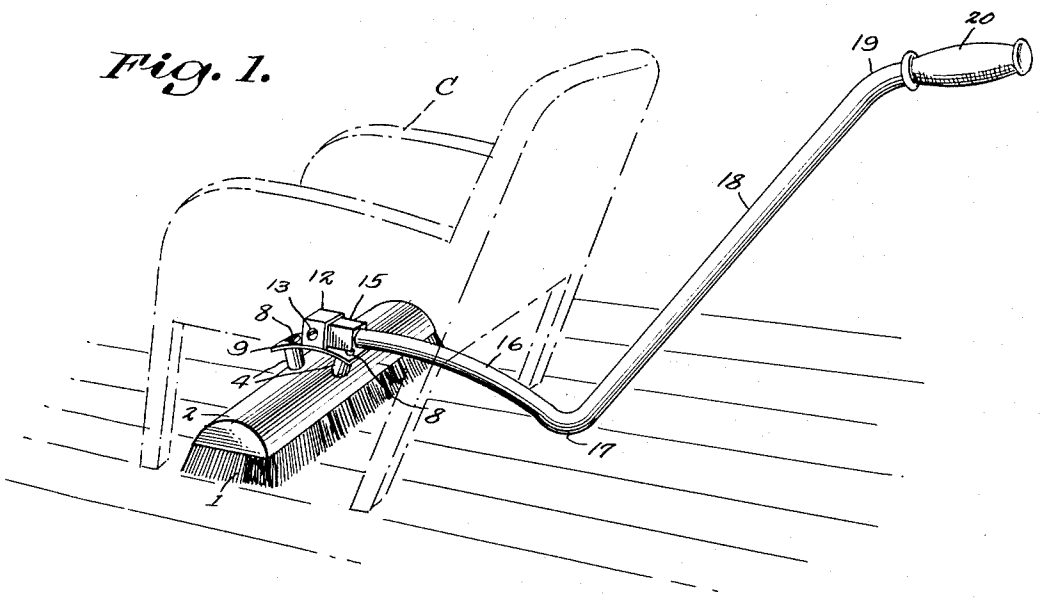


Fig. 2.

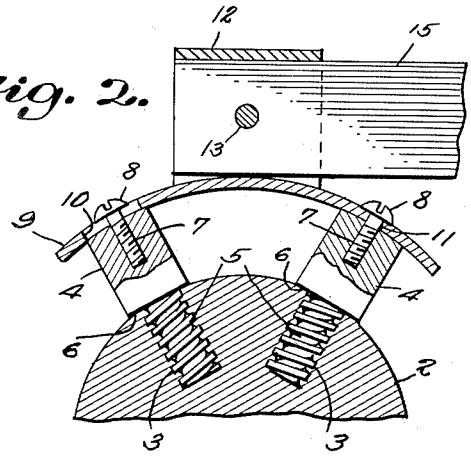
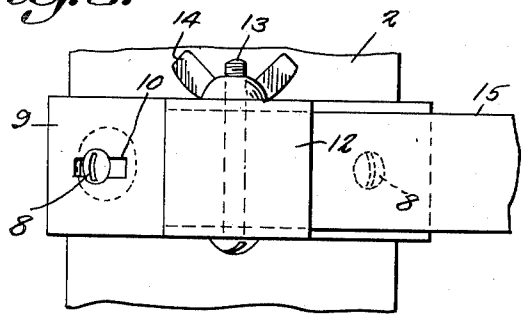


Fig. 3.



T. C. Kussmann
INVENTOR

BY C. A. Snow & Co.
ATTORNEYS.

United States Patent Office

2,753,579

Patented July 10, 1956

2,753,579

PUSH BROOM

Theodore C. Kussmann, Galesburg, Ill.

Application September 29, 1950, Serial No. 187,610

2 Claims. (Cl. 15—145)

This invention relates to a construction for a push broom such as is regularly used for the purpose of cleaning the floors of homes, theaters, stores, etc.

It is well known among those who regularly use brooms of the type stated, that it is quite difficult to sweep under such objects as chairs, pews, or cabinets, it being necessary in such instances that the user stoop over or bend down to a considerable extent in order to lower the usually straight handle to a sufficient extent as will permit the push broom to be entered under the stationary object for the purpose of sweeping under said object.

It has further been noted that not only is it difficult to sweep under stationary objects with a straight handle such as is conventionally provided upon push brooms, but also, lowering of the handle for this purpose results in improper positioning of the brush head relative to the floor surface, resulting in matting down of the brush or improper wearing thereof.

The main object of the present invention is to eliminate these difficulties which have heretofore existed, by the provision of a push broom construction specifically adapted for easy and efficient cleaning not only of open floor surfaces, but also, of floor surfaces under objects such as chairs, theater seats, church pews, and store counters.

Another important object is to provide, in a push broom, a handle construction specifically formed so as to accomplish the object stated above, but which handle construction will nevertheless be capable of application to push broom heads of the two-hole type already in use with straight handles, thus to allow substitution of the handle included in the present invention for any straight handle now in use upon the ordinary two-hole push broom.

Still another object is to provide a push broom handle construction capable of swift and easy attachment to or detachment from the push broom head, and which can be readily reversed upon the push broom head so as to provide for even wearing of both sides of said brush head.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts, hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawings

Fig. 1 is a perspective view of a push broom formed in accordance with the present invention, as it appears when in use under a chair, the chair being shown in dotted lines.

Fig. 2 is an enlarged transverse section through the connection between the push broom handle and head, portions being broken away.

Fig. 3 is a top plan view of said connection.

Referring to the drawings in detail, the invention is shown applied to the conventional two-hole push broom head including the brush 1 having the bristles embedded

in and depending from the cross head 2. As is usual, the cross head 2 is provided with the upwardly diverging angularly disposed threaded sockets 3. Thus, there is provided a two-hole push broom head. Ordinarily, a straight handle, not shown, has a threaded end receivable in either socket 3, and when said threaded end of the handle is engaged in one of the sockets 3, the handle extends upwardly from the push broom head in coaxial alignment with said socket. This provides difficulties which the present invention aims to eliminate, said difficulties occurring by reason of the fact that the upwardly extending handle makes it difficult to sweep under such objects as a chair C. To sweep under such an object, the handle has to be depressed, and as will be appreciated, this tilts the brush head transversely, so as to cause undue wear or matting of the bristles 1.

In accordance with the present invention, I provide a pair of plugs 4 which can be formed from short cylindrical solid pieces of wood or the like, the plugs 4 being integral with or otherwise rigidly secured to the threaded studs 5 proportioned for threaded engagement in the respective sockets 3. The studs 5 are of reduced diameter relative to the diameter of the plugs 4, thus to define annular shoulders 6 engageable against the transversely convexed upper surface of the cross head 2.

The plugs 4, as will be seen, are coaxially aligned with the studs and sockets, and accordingly diverge upwardly from the cross head 2, the top portions of the plugs 4 being formed with the threaded recesses 7 receiving the screws 8. The screws 8 serve as means for connecting to the plugs 4 a supporting plate 9 extending transversely of the medial portion of the cross head 2, and elevated above the cross head are the spacing plugs 4. The plate 9 is curved or bowed upwardly in approximate correspondence with the transverse curvature of the cross head 2.

Close to one end, the plate 9 is formed with a slot 10 receiving one of the screws 8, while close to the other end of the plate 9 there is formed the screw-receiving opening 11 receiving the other screw 8. The purpose of providing the slot 10 is to allow for variations in construction of different makes of brush heads or brush head sizes.

Secured rigidly to and straddling the middle portion of the plate 9 is the yoke 12 of inverted U-shaped formation, the yoke 12 being formed with transversely aligned side openings through which extend the connecting bolt 13 having the wing nut 14. The connecting bolt 13 extends through the handle end portion 15 of square cross section, this extending into the yoke 12 and being snugly fitted therein so as to be held against movement relative to the brush head when secured to the yoke by means of the bolt and wing nut.

Welded or otherwise rigidly secured to the end portion 15 is the brush handle having a bottom portion 16 extending rearwardly and downwardly from the end portion 15, as readily seen from Fig. 1, the brush handle being then formed with an upward bend 17 and having the upwardly and angularly extended main portion 18 which, adjacent the top end of the brush handle, is formed with the slight rearward bend 19 to provide a top end portion on which can be mounted a grip 20.

As may be readily noted from Fig. 1, the construction of the push broom handle is such as to permit the brush head to be entered under a chair C or the like while still holding the brush head perfectly square with the floor for most efficient cleaning of the floor surface. The downwardly and rearwardly inclined bottom portion 16 of the push broom handle permits this to be done with complete ease, and it will be readily seen that this is of particular importance where daily large scale cleaning operations have to be performed in such establishments

as theaters, practically the entire floor surface of which is covered with low seats.

Whenever it is necessary to temporarily leave the push broom, the user can allow the handle to be supported upon the portion **17**.

Of considerable importance, in connection with my push broom construction, is the fact that the push broom handle constituting the invention is adapted for connection to a thoroughly conventional two-hole brush head having the ordinary transversely aligned threaded sockets **3**. When secured to a conventional brush head of this type, the handle constituting the present invention is rigidly secured in place, without possibility of detachment, and with the possibility of becoming loose reduced to a minimum.

It may also be noted that at such time as it may be desired to reverse the handle position, this is readily achieved. In this connection, it may be noted that in mounting the handle upon the brush head, the user would first thread the plugs **4** into the sockets **3**, with the plate **9** being then positioned over said plugs **4** and being secured to the plugs by means of the screws **8**. Thereafter, the end portion **15** of the push broom handle is entered into the yoke **12** and secured thereto by means of the bolt **13** and the wing nut **14**.

What is claimed is:

1. A brush broom comprising an elongated head the upper face of which is convex, said head having therein a pair of internally threaded sockets disposed on opposite sides of the longitudinal axis thereof, plugs threadedly engaged in said sockets the longitudinal axes of said plugs converging downwardly, said plugs each having a shoulder thereon overlying the edge of the contiguous socket, the upper faces of said plugs being arcuate in shape, an arched plate overlying and resting on said plate and having its underside curved to snugly fit the upper faces of said plugs, means rigidly securing said plate to said plugs, a yoke carried by said plate, a handle fixedly secured to said yoke, said plate being disposed in spaced concentric relation to the convex surface of said head and bristles carried by the head and extending from the side thereof remote from the convex side thereof.

2. A broom as defined in claim 1 in which said handle has a short straight lower portion adjacent said head and an adjoining rigid angular portion.

References Cited in the file of this patent

UNITED STATES PATENTS

115,040	Dunaway	May 23, 1871
1,060,159	Borkhart	Apr. 29, 1913
1,277,805	Wingers	Sept. 3, 1918
1,333,741	Thomas	Mar. 16, 1920
2,112,349	Schumacher	Mar. 29, 1938
2,127,886	Plon	Aug. 23, 1938