

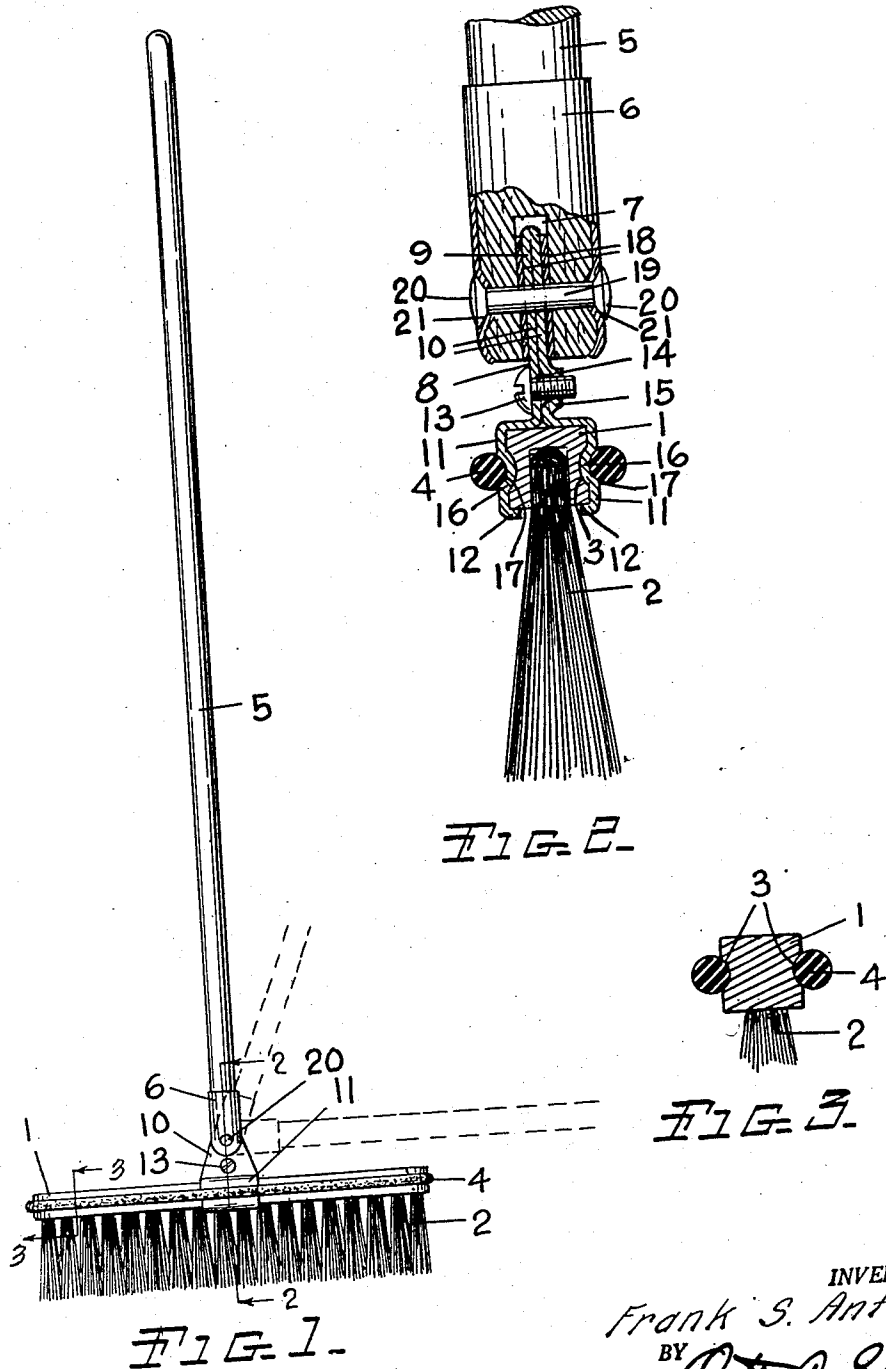
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SWEEPING BRUSH WITH FRICTIONALLY ADJUSTABLE HANDLE

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## SWEEPING BRUSH WITH FRICTIONALLY ADJUSTABLE HANDLE

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3 Claims. (Cl. 15-144)

This invention relates to a cleaning or utility brush for cleaning or sweeping walls, floors and the like and a detachable handle therefor:

The main objects of this invention are:

First, to provide a cleaning or sweeping brush having a handle frictionally swingably connected thereto to permit the adjustment of the handle to various angular positions in the plane of the brush to facilitate using the brush in sweeping under furniture and other objects and the cleaning of walls and the like.

Second, to provide the handle having these features including means for ready attachment of the handle to and detachment from a brush head thereby enabling the detachment of the handle from a worn brush and its attachment to a new brush.

Third, to provide a structure having these advantages which is very simple and economical in its parts and in the manipulation thereof.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A preferred embodiment of the invention is illustrated in the accompanying drawing, in which:

Fig. 1 is an elevational view of a brush embodying my invention with the handle shown in upright relation to the brush in full lines, other positioning adjustment thereof relative to the brush head being indicated by dotted lines.

Fig. 2 is an enlarged fragmentary view partially in section on a line corresponding to line 2-2 of Fig. 1.

Fig. 3 is a detail section on a line corresponding to line 3-3 of Fig. 1.

In the accompanying drawing 1 represents an elongated bar-like brush head and 2 the bristles or splints mounted thereon. The brush head is provided with a peripheral groove 3 entirely surrounding the same and adapted to receive the resilient rubber bumper 4 which is expandably engaged in the groove and retained by its contracting resiliency.

The handle 5 comprises a shaft portion provided with a ferrule 6 fittingly embracing the same. The handle and its ferrule have a transverse slot 7 therethrough opening at the inner end of the handle.

The brush head clamp designated generally by the numeral 8 is, in the embodiment illustrated, formed of a blank of sheet metal stock folded upon itself to provide a shank 9, the shank member 10 of which have brush head clamping jaws 11 formed integrally therewith. These jaws are preferably conformed to embrace the top and sides of the brush head 1 and terminate in end flanges 12 engaging the underside of the brush head 1.

The jaw clamping screw 13 is arranged through a hole 14 in one shank member and threaded into an integral nut portion 15 on the other shank member. This clamping screw is arranged close to the clamping jaws so that the jaws may be securely clamped upon the head member. The jaws have inwardly offset rib portions 16 which engage the grooves 3 in the sides of the brush head and

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further prevent relative tilting movement of the clamping jaws and brush head. The inseting of the jaws to provide the ribs also provides grooves 17 in the jaws which receive and support the bumper at this point.

The shank is arranged in the slot 7 with friction discs or members 18 at each side thereof. The friction members coact with the shank and the side walls of the slot. The rivet 19 has heads 20 at both ends, the ferrule having counter sinks or recesses 21 receiving the heads. The rivet 19 not only serves as a pivot but acts to clamp the parts in frictional engagement. This is of importance in that although the handle is designed to be adjusted to various angular positions relative to the brush it is desirable that the brush be maintained in such adjusted position for use, for example, the sweeping or cleaning of walls, under desks and other furniture. While it is desired that the brush be freely adjustable relative to the handle it is not desired that it be so connected as to freely swing on the handle. The embodiment of my invention illustrated accomplishes these results in a very simple and economical manner.

I have not attempted to illustrate or describe other embodiments or adaptations which I contemplate as it is believed this disclosure will enable those skilled in the art to embody or adapt my invention as may be desired.

Having thus described the invention, what is claimed to be new and is desired to secure by Letters Patent is:

1. A cleaning brush including an elongated bar-like head provided with bristles and having a peripheral groove therein, a resilient bumper expandably engaged in said groove, a handle having a reinforcing ferrule sleeved upon its inner end, the handle and ferrule having a transverse slot therethrough opening at the inner end of the handle, a brush head clamp formed of a strip folded upon itself to provide shank members having oppositely offset facing clamping jaws conformed to engage the top and sides of the head and having inturned flanges engaging the underside thereof, said clamping jaws having insets in the sides thereof providing ribs engaged in said grooves in said head and outwardly facing grooves receiving said bumper, a clamping bolt arranged through the shank closely adjacent to said jaws, the outer end of the shank being disposed in said slot in said handle and its said ferrule, friction members disposed at the sides of the shank to coact therewith and with the side walls of the slot, and a pivot disposed through said handle, its said ferrule, said friction members and shank and frictionally clamping said handle upon said shank permitting swinging adjustment of the handle in the longitudinal plane of the brush head and frictionally retaining it in its adjusted positions relative to the head.

2. A cleaning brush including an elongated head, provided with bristles, a handle having a reinforcing ferrule sleeved upon its inner end, the handle and ferrule having a transverse slot therethrough opening at the inner end of the handle, a brush head clamp formed of a strip folded upon itself to provide shank members having oppositely offset facing clamping jaws conformed to engage the top and sides of the head and having inturned flanges engaging the underside thereof, a clamping bolt arranged through the shank closely adjacent to said jaws, the outer end of the shank being disposed in said slot in said handle and its said ferrule, friction members disposed at the sides of the shank to coact therewith and with the side walls of the slot, and a pivot disposed through said handle, its said ferrule, said friction members and shank and frictionally clamping said handle upon said shank permitting swinging adjustment of the handle in the longitudinal plane of the brush head and frictionally retaining it in its adjusted positions relative to the head.

3. A cleaning brush including an elongated head provided with bristles and having recesses in the sides thereof,

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a handle having a reinforcing ferrule sleeved upon its inner end, the handle and ferrule having a transverse slot therethrough opening at the inner end of the handle, a brush head clamp comprising flat shank members having oppositely offset facing clamping jaws integral therewith and conformed to engage the top and sides of the head and having intumed flanges engaging the underside thereof, said clamping jaws having insets in the sides thereof engaged in said recesses in the sides of said head, a clamping bolt arranged through the shank members adjacent to said jaws, the outer end of the shank members being disposed in said slot in said handle, a friction member disposed at one side of the shank to coact therewith and with the adjacent side wall of the slot, and a pivot connecting said handle to said shank disposed through said handle, its said ferrule, said friction member and shank

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for securing the handle to the shank for frictional adjustment in the vertical plane of the head and frictionally retain it in its adjusted positions.

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