Feb. 14, 1939.

G. C. SMALLEY

2,146,996

HANDLE ATTACHING CLAMP

Filed Nov. 23, 1937

2 Sheets-Sheet 1

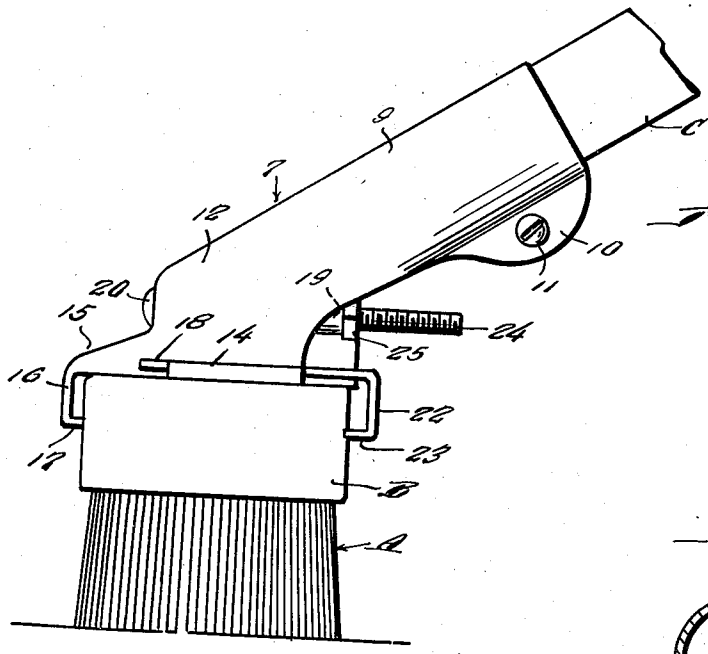


Fig. 1.

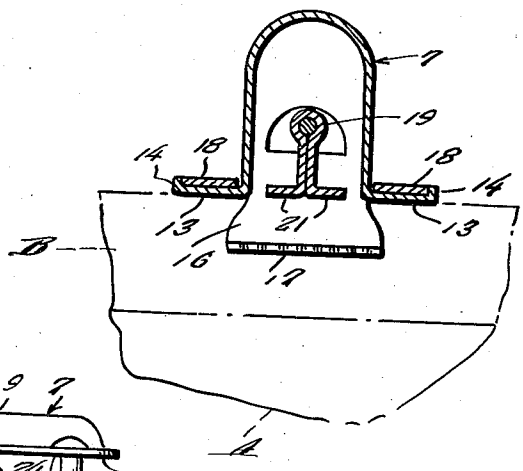


Fig. 6.

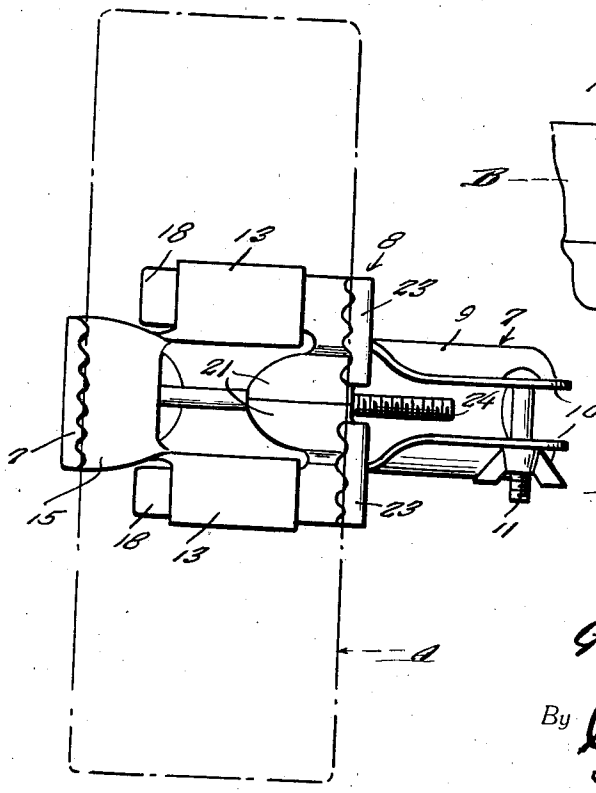


Fig. 2.

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HANDLE ATTACHING CLAMP

Filed Nov. 23, 1937 2 Sheets-Sheet 2

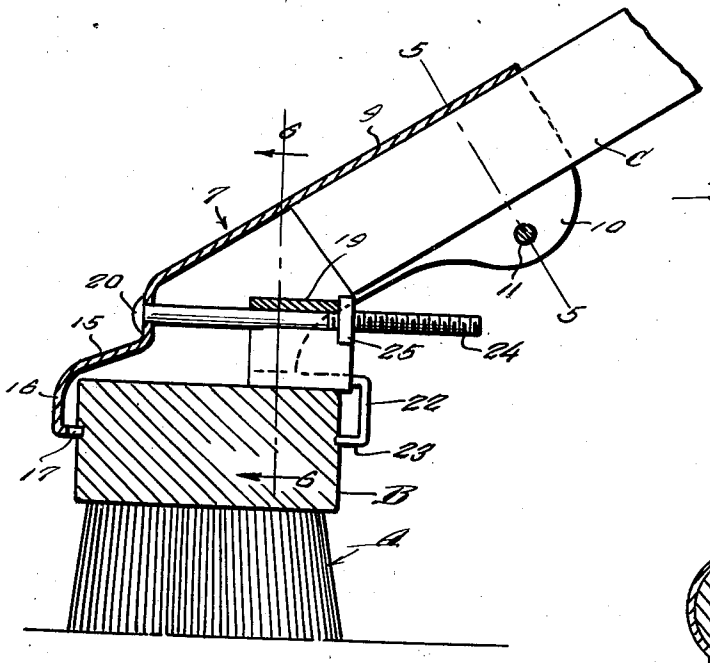


Fig. 3.

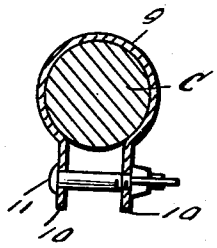


Fig. 5.

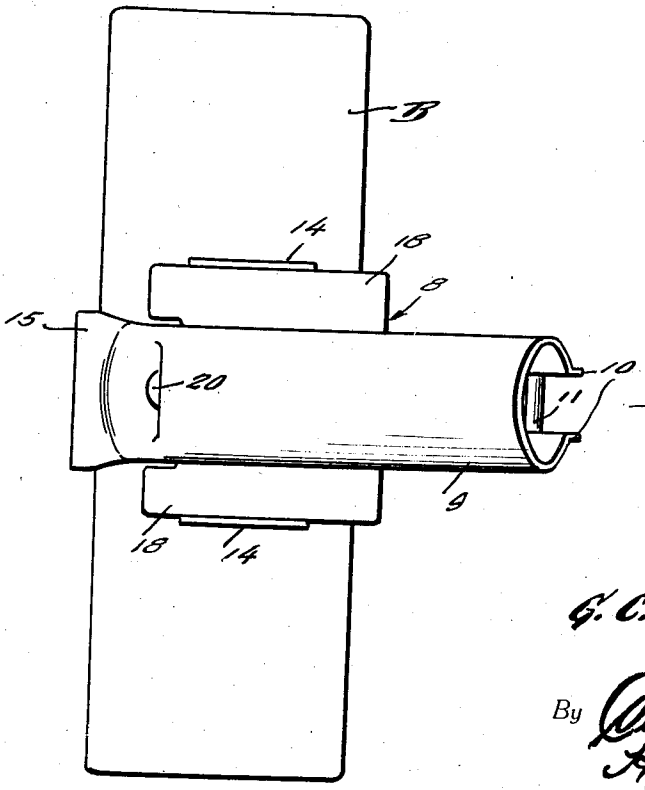


Fig. 4.

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UNITED STATES PATENT OFFICE

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HANDLE ATTACHING CLAMP

Grover C. Smalley, Alton, Ill.

Application November 23, 1937, Serial No. 176,109

1 Claim. (Cl. 306—1)

This invention relates to a socket equipped adjustable clamping device designed to accommodate a handle and to facilitate temporarily joining the same to a brush, such as a stiff back scrubbing brush or the like.

I am sufficiently conversant with the prior art to appreciate that many different styles and types of clamps have been perfected with the same general purpose in mind. It is therefore my primary aim to generally improve upon sectional and adjustable clamping devices by providing a structural arrangement wherein the companion units are expressly designed for adequate cooperation with each other, and are possessed of predetermined form enabling them to cooperate with requisite dependability and efficiency.

Other features and advantages will become more readily apparent from the following description and drawings.

In the drawings:

Figure 1 is a side elevational view of the brush engaging handle accommodation clamping device as constructed in accordance with the preferred embodiment of the inventive idea.

Figure 2 is a bottom plan view of the clamping device, the brush appearing in dotted lines.

Figure 3 is a central longitudinal sectional view through the assembly seen in Figure 1.

Figure 4 is a top plan view of Figure 1 with the handle removed.

Figures 5 and 6 are detailed sections on the lines 5—5 and 6—6 respectively of Figure 3.

In the drawings, the brush is indicated at A, this being here represented as a relatively small bristle equipped floor scrubbing brush having a rigid back B. The detachable handle, which may be an appropriate stick or the like, is indicated at C.

The clamping device to coordinate with these parts A and C is primarily composed of two companion sections or units differentiated by the numerals 7 and 8 respectively. The primary and relatively stationary clamping unit 7 is fashioned from sheet metal of appropriate strength. The metal is bent into a channel shaped portion as at 9 to provide a socket for the handle C. On the open side of the channel I provide outstanding ears or lugs 10 to accommodate a clamping or binding bolt 11. That portion of the unit 7 designed to rest on the back of the brush, is conveniently denoted as an adapter 12 and this is provided with outstanding abutment flanges 13 (see Figure 6) which rests in direct contact with the back of the brush. The outer ends of the flanges are upturned as at 14 to form stabilizing elements serving a purpose to be hereinafter specifically described. The adapter is provided with what may be conveniently distinguished as an extension 15 having a down bent portion 16 provided with an inturned terminal 17. This terminal is serrated to provide gripping teeth engageable with the adjacent face of the brush. The features 15, 16 and 17 form what may be properly called the relatively stationary clamping jaw.

The associated companion unit is also fashioned from a single plate or sheet of metal which may be said to have been bifurcated. The furcations 18 constitute guide and retention fingers and straddle the adapter and rest on the adapter flanges 13, being held against lateral displacement by the retention lips 14 (see Figures 2 and 6). The web portion of the plate is bent upon itself as indicated at 19 to form a holder for the assembling and clamping bolt 20. The portions 21 of the web, resembling wings cooperate in providing a rest engageable with the back of the brush. The plate portion of the part 8 is further provided with depending members 22 having inturned serrated edge portions 23 providing a pair of jaws opposed to and coacting with the first named relatively stationary jaw 17.

The threaded end 24 of the bolt passes through the sheath-like holder 19 where it is provided with a retaining nut 25 and since the head portion of the bolt is mounted in a bearing therefor in the adapter 12, proper assemblage of the two sections 7 and 8 is maintained. In fact, this arrangement disposes the respective jaws in a plane substantially even with each other whereby to permit them to be adjusted toward and from each other to accommodate different sizes of brushes.

The coaction of the guide and assembling fingers 18 with the complemental abutment flanges 13 provides the requisite stability between the two sections 7 and 8. It also serves to hold these parts in alignment allowing the jaws to properly approach each other for effective clamping action. The main section 7 houses or engages a portion of the section 8 whereby to shield and perfect the same. Both sections are provided with members to rest in contact with the back of the brush for greater stability. That is to say, part 7 has its shank 15 resting on the brush as well as the flanges 13. Part 7 has its fingers 18 resting indirectly on the brush through the instrumentality of the flanges 13. Then the so-called web portion composed of the wings 21 also rests in contact with the back of the brush. Although the

part 8 is said to be fashioned or bent from a single sheet of metal, it is obvious that the principal idea here is to provide a substantially U-shaped member wherein the furcations or arms thereof constitute guide fingers and the central or web portion constitutes a rest to engage the brush, the remainder thereof being formulated into depended gripping jaws.

It is thought that the description taken in connection with the drawings will enable a clear understanding of the invention to be had. Therefore, a more lengthy description is thought unnecessary.

While the preferred embodiment of the invention has been shown and described, it is to be understood that minor changes coming within the field of invention claimed may be resorted to if desired.

I claim:

A device for connecting a handle with a brush comprising a member including a handle receiving socket and a hollow head part having outwardly extending flat flanges at the lower end of its side parts resting on the head of a brush, the outer edges of said flanges being turned upwardly to provide lips and the front of the head part extending downwardly and terminating in an inwardly bent part having a serrated free edge for engaging a portion of the front side of the brush head, a second member of substantially U-shape to provide a pair of flat limbs which straddle the head part and rest on the flanges and have their outer edges engaging the lips, the rear edge of the second member being bent downwardly and terminating in an inwardly extending bent part having its free edge serrated to engage the rear side of the brush head, the central portion of the bight of the U-shaped part of the second member having an upstanding part terminating in an elongated eye, a bolt passing through the head of the first member and through said eye, and a nut on the bolt engaging the rear end of the eye forming part.

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