W. B. EAGAN.

BRUSH CLAMP.

APPLICATION FILED JAN. 18, 1922.

1,428,281.

Patented Sept. 5, 1922.

2 SHEETS—SHEET 1.

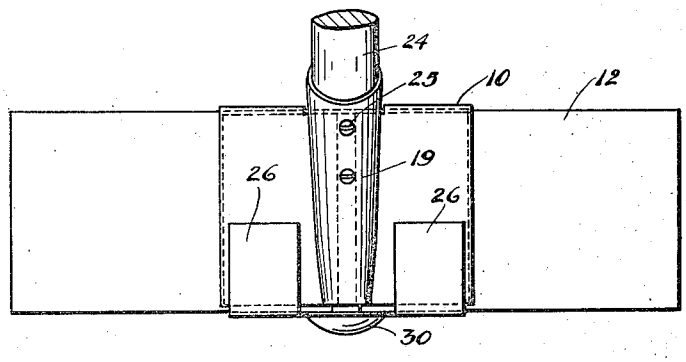


Fig. 1

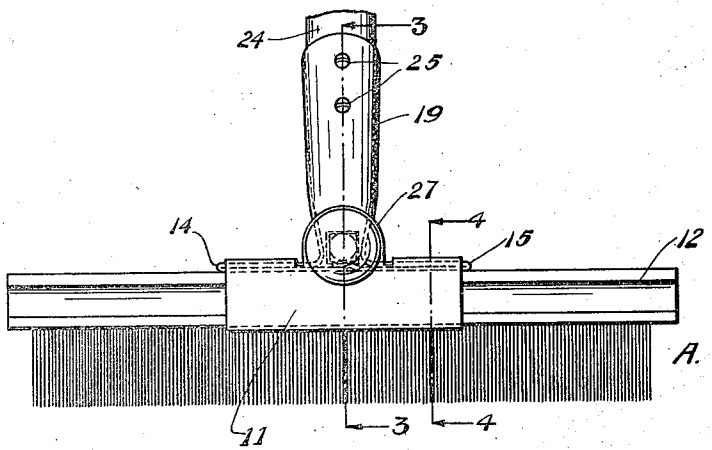


Fig. 2

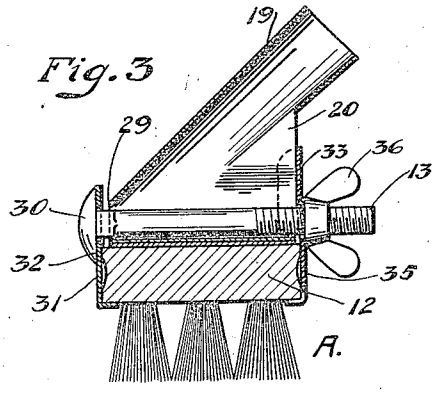


Fig. 3

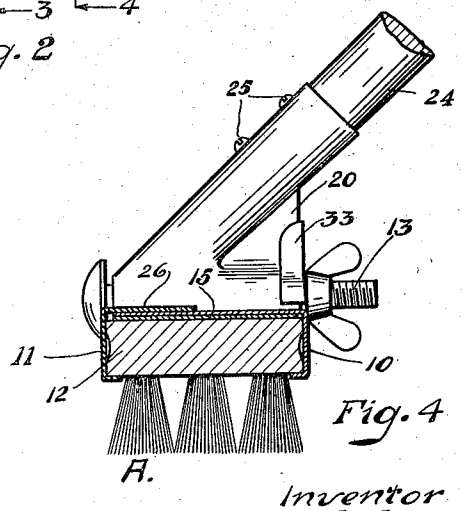


Fig. 4

Witnesses:

Wm. Schmelhardt.

E. E. Woods

Inventor

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2 SHEETS—SHEET 2.

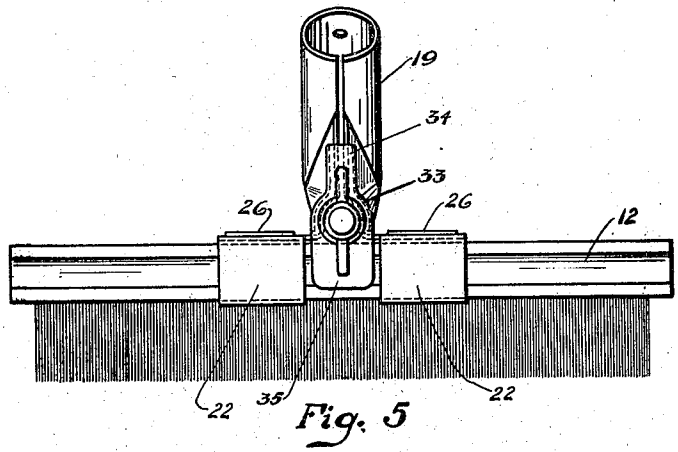


Fig. 5

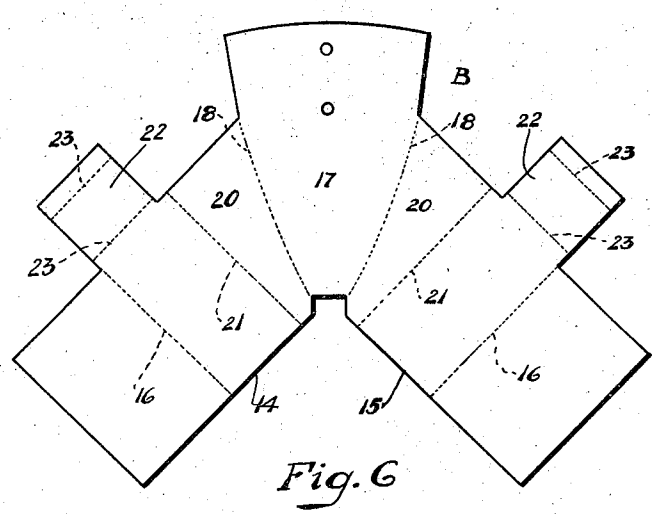


Fig. 6

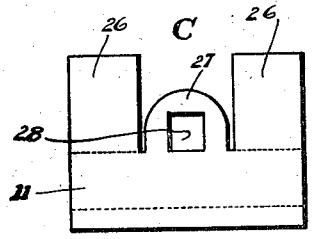


Fig. 7

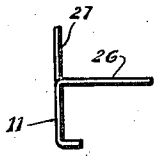


Fig. 7a

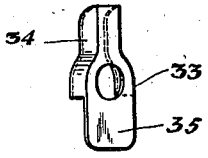


Fig. 8

Witnesses:
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Patented Sept. 5, 1922. 1,428,281

UNITED STATES PATENT OFFICE.

WALTER B. EAGAN, OF CHICAGO, ILLINOIS.

BRUSH CLAMP.

Application filed January 18, 1922. Serial No. 530,100.

To all whom it may concern:

Be it known that I, WALTER B. EAGAN, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Brush Clamps, of which the following is a specification.

My invention relates to improvements in brush holders, and has for its principal object the provision of an improved construction of this character which will be highly efficient in use and economical in manufacture.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,

Fig. 1 is a top plan view of a holder embodying the invention;

Fig. 2 is a side view, of the same;

Fig. 3 is a sectional detail view, of the same, taken substantially on line 3—3 of Fig. 2;

Fig. 4 is a sectional detail view, of the same, taken substantially on line 4—4 of Fig. 2;

Fig. 5 is an opposite corresponding side view of that shown in Fig. 2;

Fig. 6 is a blank member which one of the clamping members, embodied in the invention is formed;

Fig. 7 is a blank from which the other of the clamping members, embodied in the invention, is formed;

Fig. 7ª is an end elevational view of the clamping member formed from the blank illustrated in Fig. 7; and

Fig. 8 is a prospective view of the clamping washer, embodied in the invention.

The preferred form of construction, as illustrated in the drawings, comprises a pair of cooperating adjustable clamping members 10 and 11 arranged and adapted to clampingly engage the back 12 of the brush A. The clamping members 10 and 11 are held in clamping engagement with the brush back 12 by a nut receiving bolt 13. The arrangement of the clamping members 10 and 11 are such that when the brush A has become worn the said brush can be removed and a new brush mounted in the holder.

As shown in Fig. 6, the clamping member 10 is formed from a blank B stamped or struck from a single piece of sheet metal or any other material which will serve the purpose. The blank B comprises two rectangular shaped diverging portions 14 and 15, the outer ends of which are bent back upon the side portions along the dotted lines 16, as best shown in Figs. 1 and 2. The central or meeting portion 17 of the rectangular portions 14 and 15 is flexed upwardly along the dotted lines 18 in the form of a cone which constitutes the handle receiving socket 19 of the brush holder and the triangular portions 20 are bent upwardly from the portions 14 and 15 along the dotted lines 21 serving as a supporting rib for the socket 19 as best shown in Figs. 3 and 4. This flexing of the socket portion 17 of the blank B brings the rectangular portions 14 and 15 into alignment with each other. The lateral projections 22, as shown in Fig. 6, after the forming of the socket 19 and the bending of the ribs 20 in the manner stated, are bent along the dotted lines 23 in the form of a clamp as shown in Fig. 4. To the clamping member 10 a handle 24, for manipulating the brush 10, is fixedly secured within the socket 19, the said handle 24 can be either screw-threaded in the said socket or fixed thereon by suitable screws 25, as shown.

The opposite cooperating clamping member 11 is also formed from a blank C, as shown in Figs. 7 and 7ª which is likewise stamped or struck from a single piece of material. In forming the clamping member 11, the lateral portions 26 are bent in the manner shown in Fig. 7ª, the said bent portions being arranged and adapted to clampingly engage one of the side edges of the brush back 12, as shown. As illustrated in Fig. 7, the central lateral projection 27 extends upwardly from the portions 26 serving as a bearing and support for the bolt 13 which passes through a rectangular shaped opening 28 formed in the said projection, through the lower portion of the socket 19, as at 29, Fig. 3.

As shown in Figs. 3 and 4, the head 30, of the bolt 13, is of such a diameter that a portion of the head engages the surface of the side 31 of the clamping member 11, below the top side edge of the brush back 12, as at 32, for the purpose of which will be hereinafter set forth.

As herein stated the portions 20 of the blank B serve as supporting or reinforcing

ribs for the socket member 19. They also serve as a washer bearing for a washer 33. The washer 33, as shown in Fig. 8, is provided with a jaw portion 34 which is arranged and adapted to embrace the ribs 20 when the clamping members are adjustably mounted in position on the brush back 12, through the medium of the nut receiving bolt 13. Associated with and forming a part of the washer 33 is a downwardly extending projection 35, the purpose of which is to engage the side edge of the brush back 12 when in position. This construction is such that the head 30 of the bolt 13 and the washer 33 cooperate with the clamping members 10 and 11 for retaining the brush A within the brush holder. When the wing nut 36, of the bolt 13 is turned to draw the clamping members 10 and 11 into clamping engagement with the brush back 12 the bolt head 30 and the washer projection 35 will not only draw the clamping members toward each other but will also clampingly engage the opposite side of the clamping members, as shown, thus serving as an auxiliary clamp cooperating with the said clamping members, providing a double clamping action of the holder preventing the brush from becoming disengaged from the holder, due to wetness of the brush back or wear of the clamping members on the same.

By the construction of a holder, as herein set forth, I provide a holder which will be economical in manufacture and which will be of great advantage in use over the holders which are now in commercial use.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of the construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A brush holder comprising one piece clamping members; a socket formed on one of said members, there being upwardly extending reinforcing members for said socket; a handle mounted in said socket; a lateral support formed on one of said clamping members; and a member carried by said support and passing through the lower portion of said socket member for adjustably mounting said clamping members in clamping engagement with the back of a brush, substantially as described.

2. A brush holder comprising clamping members adapted to clampingly engage the back of a brush; a handle socket member formed on one of said members; reinforcing members for said socket; a bolt support on the other of said clamping members; a nut receiving bolt carried by said bolt support for drawing the clamping members into clamping engagement with said back, the lower portion of the head of said bolt adapted to extend below the adjacent top side edge of said brush; and a washer carried by said bolt, there being a downwardly projection on said washer adapted to engage the side of the adjacent clamping member, said bolt and said washer serving as an auxiliary clamp, substantially as described.

3. A brush support comprising clamping members adapted to clampingly engage the back of a brush; a bolt transversing said members for drawing said members into clamping engagement with said back, the head of said bolt being adapted to engage the corresponding clamping member below the corresponding top side edge of said back; and a washer carried by said bolt, there being a downwardly projection on said washer adapted to engage the adjacent side of said back for clampingly engaging said back when said members are drawn into clamping engagement with said back, substantially as described.

4. A brush holder comprising clamping members adapted to clampingly engage a brush; and an auxiliary clamp cooperating with said clamping members and adapted to draw said clamping members into clamping position, said auxiliary clamp comprising a head bearing bolt, the head of which engages the adjacent side of one of the said clamping members and a washer having a downwardly extending projection engaging the adjacent side of said brush, substantially as described.

5. A brush holder including a pair of clamping members, a handle socket on one of said clamping members, upwardly extending reinforcing rib members for said socket, and an auxiliary clamp cooperating with said clamping members comprising a head bearing bolt and a washer, the lower portions of said head and said washer engaging the adjacent sides of said clamping members, the upper portion of said washer having a clamping jaw portion adapted to embrace the sides of said rib members.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WALTER B. EAGAN.

Witnesses:
JOSHUA R. H. POTTS,
FREDA C. APPLETON.