April 9, 1929. C. A. CHANNELL 1,708,052

MOP

Filed Jan. 5, 1924

Fig. 1.

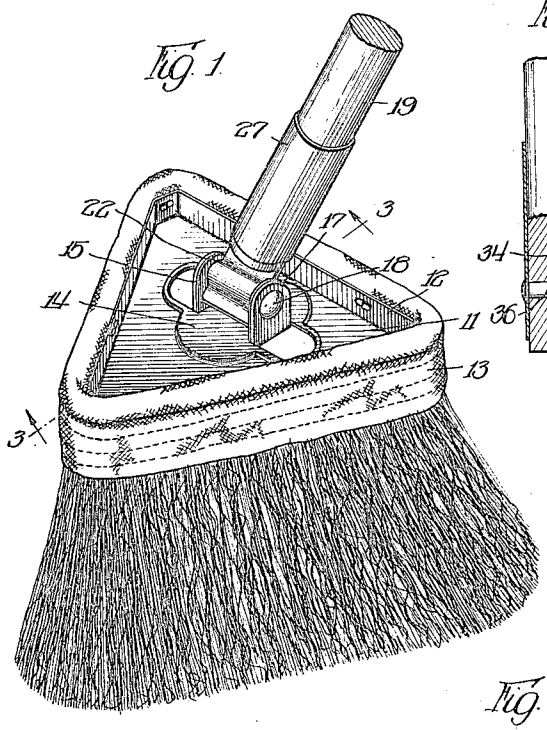



Fig. 8.

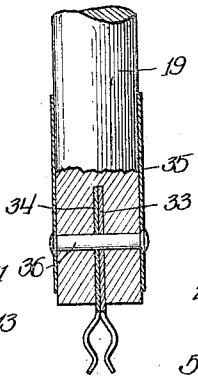



Fig. 4

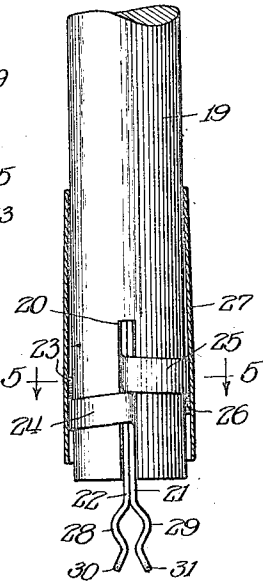



Fig. 5

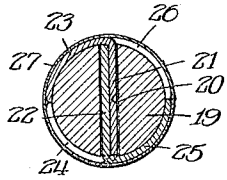



Fig. 7

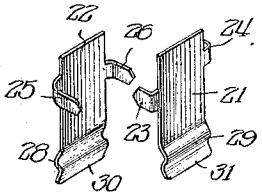



Fig. 2.




Fig. 6.

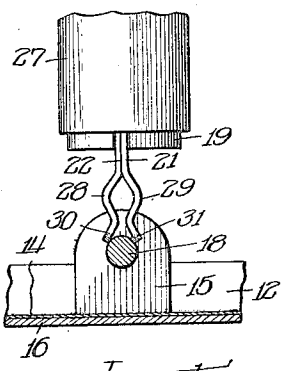
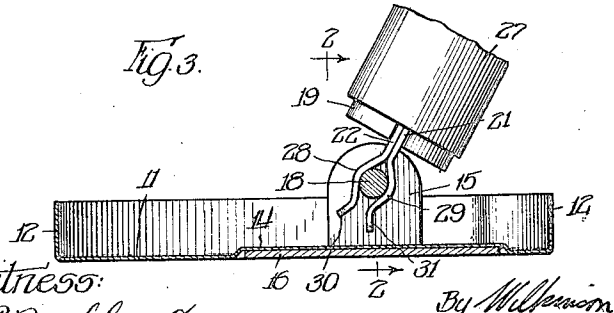



Fig. 3.




Witness:
R. Burkhardt.

Inventor:
Charles A. Channell,
By Wilkinson Huxley Byron & Knight
Attys

Patented Apr. 9, 1929. 1,708,052

# UNITED STATES PATENT OFFICE.

CHARLES ARTHUR CHANNELL, OF CHICAGO, ILLINOIS, ASSIGNOR TO O-CEDAR CORPORATION, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

## MOP.

Application filed January 5, 1924. Serial No. 684,477.

This invention relates to a new and improved mop and more particularly to means for connecting the mop head and mop handle.

In mops as generally used, the handles are secured to the mop head by means of some form of pivoted connection to which the handle is detachably connected. In general, such methods of connection are either by interfitting screw threads on the two parts or by a clamp carried by the head adapted to fit around the end of the mop handle. With the threaded connection where the thread is simply pressed into the wood of the handle, the thread quickly becomes worn and the handle is no longer securely fastened to the mop. Also, with such threaded connections, the head is easily loosened from the handle when turned in use which makes its use inconvenient.

With the clamp form of connection, there are small parts such as bolts and nuts, the threads of which wear in use and moreover these small parts are easily lost. Further, the connection or disconnection of the handle usually requires the use of tools and of handling of the oily mop head.

It is an object of the present invention to provide new and improved connection for mop heads and handles adapted to positively secure the two members together and yet to permit them to be separated by a single movement when desired.

It is a further object to provide a connection of this character which connection in itself provides pivoting between the mop head and handle.

It is a further object to provide a connection composed of but few parts and adapted for ready commercial production.

Other and further objects will appear as the description proceeds.

I have illustrated certain preferred embodiments of my invention in the accompanying drawings, in which—

Figure 1 is a perspective view of a mop head and the lower portion of a handle secured to the head by means of my improved connection;

Figure 2 is a section taken on line 2—2 of Figure 3;

Figure 3 is a section taken on line 3—3 of Figure 1;

Figure 4 is a view of the handle end, the ferrule being shown in section;

Figure 5 is a section taken on line 5—5 of Figure 4;

Figure 6 is a fragmentary view showing the method of application of the handle to the mop head;

Figure 7 is a perspective view showing the two gripping members; and

Figure 8 is a fragmentary view partly in section, showing a modified form of handle.

As shown in Figure 1, the mop head comprises the body 11 which is preferably formed of metal and which is provided with the upturned edge 12 to which is secured the mop proper 13. As best shown in Figures 2 and 3, the body 11 is provided with the offset or raised portion 14 and with the struck up arms 15. The reinforcing member 16, preferably formed of heavier metal, is located under the central part of the raised portion 14 and is provided with the upwardly extending arms 17 which are located adjacent the arms 15 of the member 11.

The arms 15 and 17 are provided with registering perforations in which is fitted the pivot rivet 18. The handle 19 is provided at its end with a transverse slot 20 into which are fitted the gripping members 21 and 22. The member 21 is provided with the arms 23 and 24 which are clamped around the adjacent portion of the handle 19. It will also be noted that these arms encircle the body of the gripping member 22 and press it into engagement with the handle. The clamping member 22 is provided with the arms 25 and 26 which are similar to the arms of the member 21 and which clamp the body portion of the member 21 to the handle end.

The ferrule 27 is clamped around the handle and encloses the clamping members. The lower ends of the clamping members 21 and 22 are provided with the separated gripping portions 28 and 29 and with the outturned lips 30 and 31. These members are formed of resilient material adapted to have a clamping action upon the rivet 18 when fitted upon it.

The body member 11 of the mop may be formed of relatively light material since the strain from the handle connection is transmitted to it largely through the extended surface of the member 16 which is made of stiff material.

The method of clamping the two members 21 and 22 to the handle end effectively holds

the two members together so that no splitting strain is put upon the handle end when the handle is forced into connection with the mop head.

The form of construction shown in Figure 8 presents a method of retaining the gripping members in place differing from that shown in the other figures. In this form of construction the gripping members 33 and 34 are placed in the slot 20 in the handle 19 in a manner similar to that shown in the other figures. The members 33 and 34 have no clamping arms but have registering perforations, and are provided with a gripping portion similar to that of the other form of gripping members 21 and 22.

The ferrule 35 is put in place and the rivet 36 is inserted through registering openings in the ferrule, handle and gripping member and its end is upset to firmly retain the parts together.

In the application of the handle to the mop head, the lips 30 and 31 are placed in contact with the rivet 18 as shown in Figure 6 and pressure applied. The lips are separated by the member 18 which slips up between the portions 28 and 29 as shown in Figure 3. These portions clamp the rivet sufficiently strongly to prevent accidental removal of the mop head. It may, however, be readily removed when desired simply by holding down the mop head as by means of placing a foot upon it and pulling upwardly on the handle. This connection in itself provides the necessary pivoting so that the mop head may rest flat upon the floor or wall regardless of the angle at which the handle is inclined. The handle shown in Figure 8 is applied in a similar manner.

I have shown certain preferred embodiments of my invention but I contemplate such further modifications and changes as come within the spirit and scope of the appended claims.

I claim:

1. A mop head comprising a relatively thin sheet metal mop carrying body member, arms struck up from the body member, a reinforcing member located below and adjacent the body member, and having extended portions underlying the body member, arms on said reinforcing member extending up adjacent the body member arms, and a pivot pin carried by the body member and reinforcing member arms and adapted to be engaged by a handle.

2. A mop head comprising a relatively thin sheet metal mop carrying body member, arms struck up from the body member, an offset portion of the body member located between the arms, a reinforcing member located below and adjacent the body member and fitting in said offset portion, arms on said reinforcing member extending up adjacent the body member arms, and a pivot pin carried by the body member and reinforcing member arms and adapted to be engaged by a handle.

3. A mop handle construction comprising a handle, a slot in an end of the handle and a pair of metal plates fitted in said slot, said plates forming opposed cooperating spring gripping jaws extending from the handle, each plate being provided with laterally extending clamping arms clamped around the handle end.

4. A mop handle construction comprising a handle, a slot in an end of the handle and a pair of metal plates fitted in said slot, said plates forming opposed gripping jaws extending from the handle, each plate being provided with laterally extending clamping arms clamped around the handle end, the arms of each plate serving to clamp the adjacent plate to the handle.

Signed at Chicago, Illinois, this 13th day of December, 1923.

CHARLES ARTHUR CHANNELL.