Nov. 5, 1929. C. F. SMITH 1,734,503

HANDLE SOCKET

Filed May 15, 1925

Fig. 1

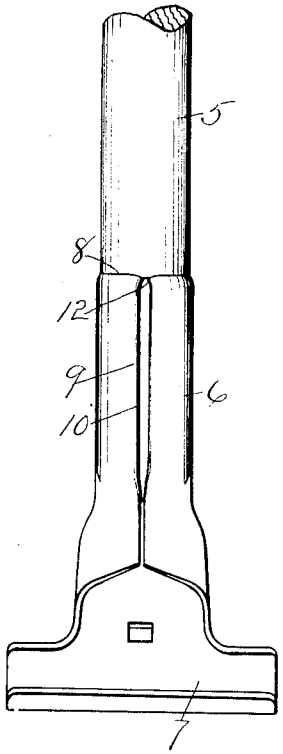


Fig. 2.

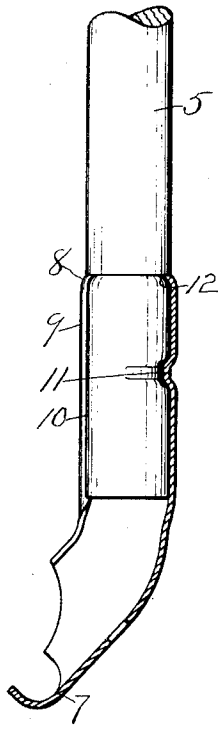


Fig. 3.

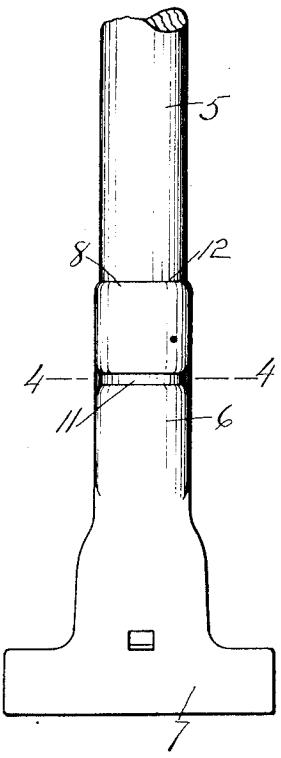
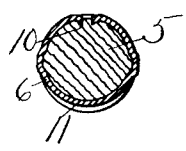


Fig. 4



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UNITED STATES PATENT OFFICE

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HANDLE SOCKET

Application filed May 15, 1925. Serial No. 30,447.

This invention relates to the class of devices that are commonly secured to the ends of handles frequently composed of wood or other fibrous material and to which various implements, as brushes, mops and other devices, are attached, and an object of the invention, among others, is the production of a socket piece that shall be firmly and rigidly secured to the handle in a manner to prevent its removal.

One form of socket piece embodying the invention and in the construction and use of which the objects herein set out as well as others may be attained is illustrated in the accompanying drawings, in which—

Figure 1 is a front view of my improved ferrule shown as attached to a handle broken off.

Figure 2 is a view in central, lengthwise section looking in a direction from a point located at right angles to the point of view of Figure 1.

Figure 3 is a back view.

Figure 4 is a view in section on a plane denoted by the dotted line 4—4 of Figure 3.

This invention is not limited for use in connection with any special form of implement or tool, as it may be readily employed in connection with any structure where a socket piece or ferrule is required to be attached to a handle of wood or other suitable material. An instance of such use has comprised a socket piece having members integrally formed therewith by means of which brushes and similar articles are attached to the handle, and for this reason such a structure has been shown in the drawings herein as a means for disclosing the invention, in which drawings the numeral 5 indicates a handle, that may be composed of wood or other similar material and 6 indicates the socket piece or ferrule that is formed of comparatively thin metal and that may have at its end a clamp device 7 or other structure for the attachment of an implement.

This socket piece is secured to the handle by compression, as by the use of dies, in which operation the handle having been inserted in the socket piece and both then being subjected to the action of dies the metal comprising the socket piece is caused to tightly grip the handle and is thereby rigidly secured in place. When the ferrule is formed with a lengthwise slot this action of the dies may be such as to fold or stretch the metal around the handle and thus cause the two parts to be securely engaged, and the same result will be obtained to a greater or lesser extent with a ferrule not having the lengthwise slot. In effecting the purpose of this invention the end 8 of the ferrule is formed into a lip 12 penetrating the material comprising the handle and preferably entirely around the end. The meeting edges 9 of the socket piece are also treated in a similar manner, the dies being so formed that longitudinal lips 10 are created that sink into the material of the handle in the operation of compressing the ferrule about the handle so that the socket piece is not only pressed into close contact with the end of the handle, but it has also longitudinal lips and a peripheral lip that is sunken into the material of the handle of wood or other substance so that any turning or endwise movement of the socket piece upon the handle is effectually prevented. As an additional means for securing the socket piece to the handle a lateral indentation 11 is formed across and partially around the socket piece opposite the lengthwise slit therein, thus providing a rib inside the socket that is sunken into the material of the handle and crosswise thereof and as shown in Figures 2 and 4.

The indentation 11 in addition to preventing lengthwise movement of the socket piece on the handle is also made use of as a stiffening element to prevent spreading of the socket piece at the lengthwise slot, and conquent loosening on the handle, which spreading is, otherwise, liable to take place under severe use which frequently consists in striking the implement at the ferrule across some object to shake off the dust.

There is thus provided means for attachment of the ferrule or socket piece to the handle whereby the metal comprising such socket piece is pressed into close and firm contact with the end of the handle, and the edges are firmly embedded in the material of the

handle by a single operation of a set of dies, it not being inferred by this statement that the socket piece may not, if desired, be partially formed as an initial operation.

The invention herein described provides a particularly efficient means for securely attaching the ferrule to the handle as the structure embodies interengaging means on the handle and ferrule located at angles each with another and thereby preventing relative movement in all directions.

In accordance with the provisions of the patent statutes I have described the principles of operation of my invention, together with the device which I now consider to represent the best embodiment thereof; but I desire to have it understood that the device shown is only illustrative and that the invention may be carried out by other means and applied to uses other than those above set out.

I claim—

1. A socket formed of metal having a lengthwise slit along one side, and an indentation extending crosswise and circumferentially partially around the socket as a stiffening element to prevent spreading at said lengthwise slit.

2. A handle, a longitudinally split socket member surounding the end of the handle with the longitudinal edges parallel and sharpened, and a sharpened bent lip at the end of said socket member extending transversely to said longitudinal edges and adapted with said sharpened edges to be driven into the handle.

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