Nov. 17, 1931. C. P. DUNN 1,832,536

MOP MOUNTING

Filed Oct. 27, 1928

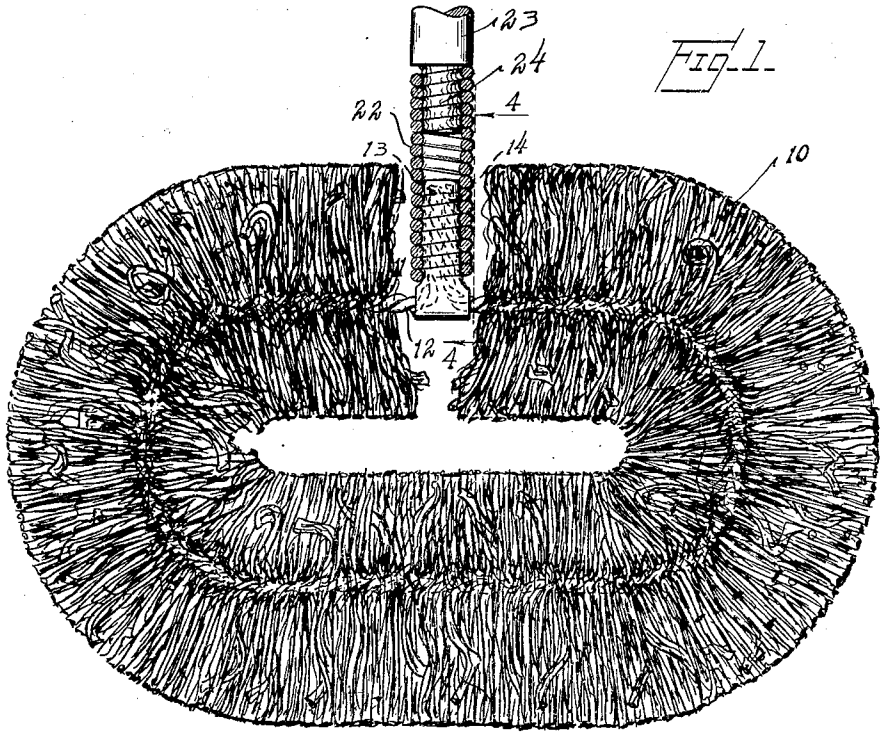


FIG. 1.

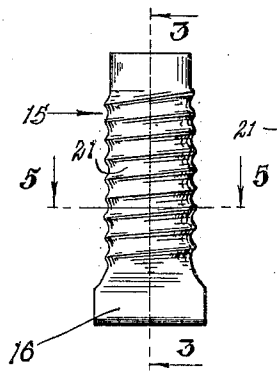


FIG. 2.

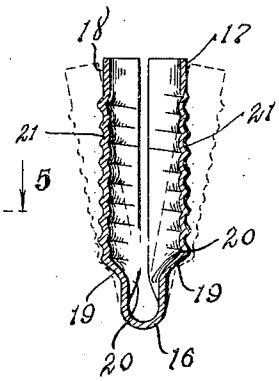


FIG. 3.

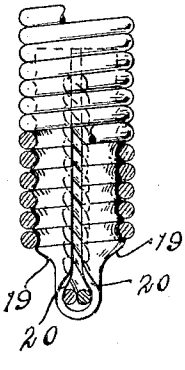


FIG. 4.

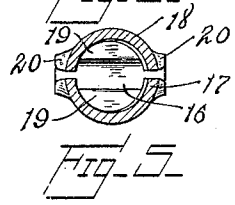


FIG. 5.

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UNITED STATES PATENT OFFICE

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MOP MOUNTING

Application filed October 27, 1928. Serial No. 315,405.

This invention relates to a means for mounting or connecting mops, brooms, and similar articles upon or to a mop stick or handle, and will be described herein, by way of example, in connection with a mop frame composed of twisted wire strands the free ends of the frame being bent at right angles and brought together.

An object of the invention is to provide means for mounting or connecting a handle to a mop or similar article which effects a positive yet flexible connection, is of simple construction capable of economic manufacture, and is readily and easily assembled or disassembled.

Another object is to provide such a means which cooperates with the frame of the article in such manner as to positively secure the free ends of the frame together and to interlock therewith.

Additional objects and advantages will become apparent hereinafter.

An embodiment of the invention is illustrated in the accompanying drawings wherein:

Figure 1 is a front elevational view of a mop having a mounting or connector constructed in accordance with the invention, portions thereof being shown in section to more clearly illustrate its construction;

Fig. 2 is a detail elevational view of a part of the mounting or connector;

Fig. 3 is a transverse, vertical section taken on line 3—3 of Fig. 2, the dotted lines indicating the partly open position of the part of the mounting or connector;

Fig. 4 is a view taken on line 4—4 of Fig. 1, a portion thereof being shown in section to more clearly illustrate the construction; and

Fig. 5 is a transverse horizontal section taken on line 5—5 of Fig. 2.

As has already been set forth, a mounting or connector of the character included in the invention is particularly adapted for use with a mop such as is shown in Fig. 1, wherein the cords 10 of the mop material are held by the mop frame which is formed of strands of twisted wires 11 and 12, the free ends 13 and 14 of such twisted wires being bent at substantially right angles in the same direction, brought together and secured in such position. The invention contemplates securing the free ends of the frame together and providing at the same time an efficient connection for connecting the mop stick or handle to the mop by the use of a metallic clamp member indicated generally at 15 in Fig. 2. The clamp 15 is preferably made from a strip of sheet metal folded midway of its length at a central portion 16 to provide a pair of separated arms 17 and 18. The central portion 16 when the strip is folded forms a receiving and clamping head for the angularly bent portions of the ends of the frame, while the arms 17 and 18 which are transversely bowed in the form of complementary semicylinders, form when the longitudinal edges of the two arms are brought into proximate engagement a substantially tubular member providing a shank portion within which the free ends of the frame are received. The connector may thus be said to comprise substantially a T clamp having a head portion 16 and a shank portion, formed by the arms 17 and 18, disposed at right angles to each other.

Because of the bowed or semi-cylindrical formation of the arms 17 and 18, an outstanding portion 19 is formed at the junction of the shank with the head portion 16, the edges of the arms adjacent such outstanding portions being turned inwardly at 20 as clearly shown in Figs. 3 and 4. The arms 17 and 18 are provided with cooperating screw threads 21 throughout the greater portion of their length which in effect results in providing a threaded clamp shank.

The free ends 13 and 14 of the mop frame which are bent at right angles in the same direction and brought together in parallel relationship are positioned within the connector or mounting while the arms thereof are separated, as shown in dotted lines in Fig. 3, in which position the angle of the bent portions of the frame will lie in the head portion 16 of the member while the outwardly extending portions of the ends will be in the shank between the arms 17 and 18. When the arms of the shank have been brought

closely together, by part of a mop mounting later to be described, the head portion 16 of the clamp, together with the inturned edges 20 of the arms, will securely clamp and hold together the free ends 13 and 14 of the frame adjacent the angle of the bend.

The mop mounting includes a wire coil 22, the convolutions of which are close together adjacent the lower part of the coil and are more widely separated adjacent the upper end of the coil, which coil connects the clamp and the handle, as well as bringing the arms of the clamp shank together. It is quite apparent that when the clamp has been positioned upon the free ends of the frame in the manner described and the arms forming the shank thereof brought together by manual manipulation, the wire coil may be screwed down upon the shank because of the engagement between the closely arranged convolutions of the coil and the threads 21, and will, therefore, maintain the arms in relatively close engagement and thus cause the head 16 because of the inturned portions 20, to positively clamp the free ends of the frame together at the angular bends, and at the same time provide a suitable mounting for the mop handle 23, the lower threaded end 24 of which may be screwed into the upper end of the wire coil where the convolutions of the coil are wider apart.

The tendency of the arms 17 and 18 is to separate because of the inherent spring qualities in the metal, which tendency causes the arms and the coil to have practically an interlocking engagement, thereby removing any danger of the parts of the mounting becoming separated in use. The mounting also possesses the advantage of being a flexible mounting since that portion of the coil intermediate the outer end of the shank arms of the clamp and the lower end of the mop handle is free to bend or give to accommodate various angular positions of the handle with respect to the mop.

Although a preferred embodiment of the invention has been shown and described it should be understood that the same is intended to be limited thereto only insofar as the scope of the appended claims so limits it.

Having thus described my invention, I claim:

1. A device for connecting together the free ends of a mop frame which are bent outwardly at right angles to the frame comprising a clamp formed from a strip of sheet metal bent intermediate its ends to provide a head adapted to receive the angular bent portions of the frame adjacent said free ends to clamp the same together, and a shank extending therefrom at right angles, said shank being formed of two separate complementary transversely bowed arms adapted to be brought closely together to form a tubular member for receiving the free ends of the frame, said arms being exteriorly threaded.

2. In combination with an article of the type having a frame the free ends of which are bent outwardly, brought together and secured in such position for connection with a handle, a wire coil adapted to have the lower end of a handle screwed into one end thereof, and means receiving and clamping the angular bent portions and free ends of the frame together having a threaded engagement with the other end of the coil.

3. In combination with an article of the type having a frame the free ends of which are bent outwardly, brought together and secured in such position for connection with a handle, a wire coil adapted to have the lower end of a handle screwed into one end thereof, and a clamp having separable portions receiving the angular bent portions and free ends of the frame screwed into the other end of the coil and such separable portions brought together and clamping the said angular bent portions and free ends of the frame together and connecting the mop frame to the coil.

4. In combination with an article of the type having a frame the free ends of which are bent outwardly, brought together and secured in such position for connection with a handle, a wire coil adapted to have the lower end of a handle screwed into one end thereof, and a clamp receiving the angular bent portions and free ends of the frame having an intermediate portion from which extend threaded separable arm portions brought together and screwed into the other end of the coil and clamping the angular bent portions and free ends of the frame together and connecting such frame to the coil.

5. In combination with an article of the type having a frame the free ends of which are bent outwardly, brought together and secured in such position for connection with a handle, a wire coil the convolutions of which are farther apart adjacent one end thereof than adjacent the other and which is adapted to have the threaded lower end of a handle screwed into the first mentioned end, and a clamp receiving the angular bent portions and free ends of the frame having an intermediate portion from which extend transversely bowed complementary threaded separable arm portions brought together and screwed into the last mentioned end of the coil and clamping the angular bent portions and free ends of the frame together and connecting such frame to the coil.

In testimony whereof, I hereunto affix my signature.

CHARLES P. DUNN.