Oct. 3, 1939. K. R. KEYDEL 2,174,633

MOP

Filed March 3, 1938

FIG.1.

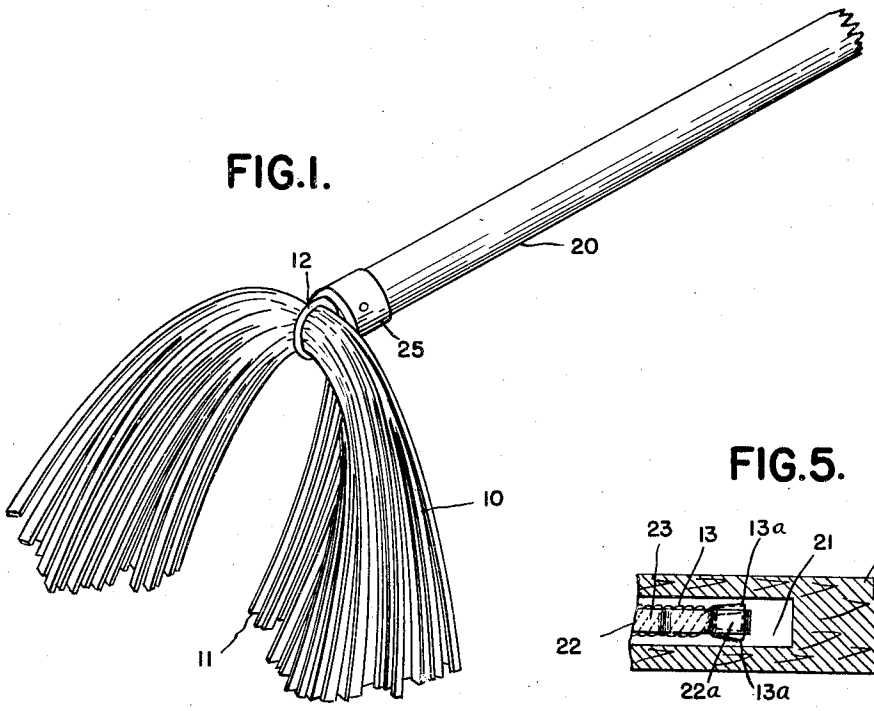


FIG.5.

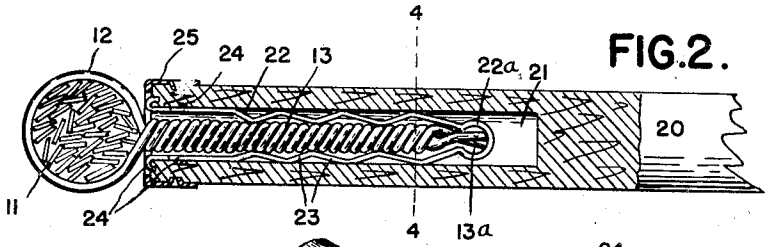


FIG.2.

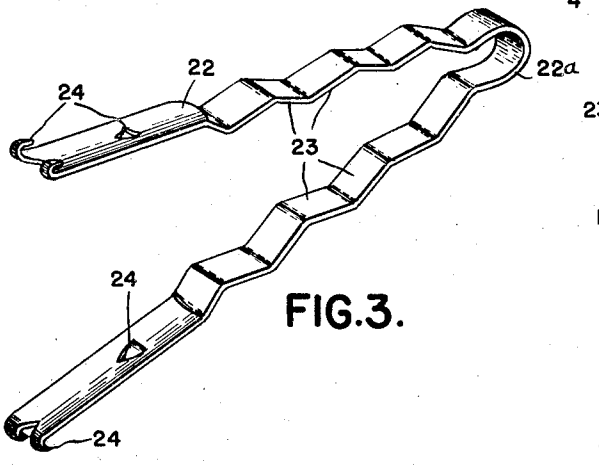


FIG.3.

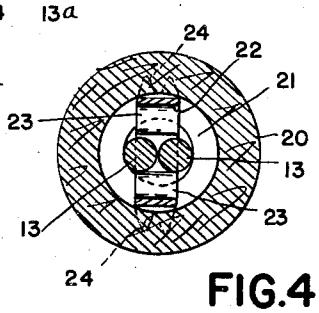


FIG.4.

INVENTOR

KURT R. KEYDEL

BY

ATTORNEYS

Patented Oct. 3, 1939

2,174,633

UNITED STATES PATENT OFFICE

2,174,633

MOP

Kurt R. Keydel, Detroit, Mich.

Application March 3, 1938, Serial No. 193,728

5 Claims. (Cl. 306—30)

The present invention relates to mops or brushes and more specifically to mop head and handle structure.

Among the objects of the invention is a mop head and handle structure in which the mop head, though firmly held to the handle for use, is easily removed for the purpose of substituting therefor a new head.

Another object is a structure of the kind indicated in which the cooperating parts of head and handle are simple, inexpensive, effective, and not easy to get out of order or adjustment.

Another object is a head and handle structure in which application of the head to the handle is a simple "push in" operation, while the removal is a simple "pull out" operation, yet there is little or no possibility of the head becoming detached during use.

Still other objects and advantages will readily occur to those skilled in the art upon reference to the following description and the accompanying drawing in which

Figure 1 is a perspective view of the mop head and handle assembly.

Figure 2 is a central longitudinal section through the connecting means.

Figure 3 is a perspective view of a detail.

Figure 4 is a section on line 4—4 of Figure 2.

Figure 5 is a partial longitudinal section at right angles to the plane of section of Figure 2.

As indicated in the drawing, the mop assembly consists of a head portion, designated by the numeral 10, and a handle portion, designated by the numeral 20, the head portion comprising strands of mop material 11, which, for example, may be oil impregnated strips of paper, a bundle of which is tightly encircled by a heavy wire 12, having its ends tightly and substantially uniformly twisted together as at 13 to form a corrugated shank, and having the wire ends 13a extended a short distance in the same plane but separated, so as to form in effect a flat tongue.

Instead of the smooth strands of mop material 11 as illustrated, these strips may be of paper which has been crinkled or crimped so as to produce a fluffiness in the finished mop.

The handle portion 20 comprises a handle proper of wood or other suitable material with a longitudinal axial bore 21 in one end of a depth somewhat greater than the length of shank 13 of the head.

Fixed within bore 21 of the handle is a spring grip member 22 substantially of the form shown in Figure 3, this member being formed of a narrow strip of stiff spring metal bent back upon itself to produce a relatively flat bend or loop 22a of a width slightly greater than the thickness of the wire ends 13a. The strip is also sharply corrugated as shown at 23 to produce sharply angular ridges spaced to conform substantially with the pitch of twist of the shank 13 while the arms of the U-shape spring thus formed are spaced from each other a distance somewhat less than the overall thickness of shank. The strip is likewise provided with suitable barbs or claws 24 by means of which it may be firmly anchored within the bore 21. If the handle 20 is of wood, a suitable ferrule 25 may likewise be used.

With the structure as described and properly proportioned, the shank 13 when thrust into the bore 21 between the two side portions of spring element 22, will be held firmly and maintained in place by the angles thereof, dropping between the flights of the twisted wire, and when thrust in until the ring 12 is close to the ferrule 25, the tongue formed by the wire ends 13a will lie flat within loop 22a and prevent rotation and possible unscrewing and detachment of the mop head.

While the spring member 22 is shown as a U-shaped member of flat stock, it is obvious that any form of spring member having projecting portions that cooperate with a shank such as shank 13 may be used and indeed such other forms are contemplated.

This application is a continuation in part of application Serial No. 123,322, filed by the same inventor February 1, 1937.

Now having described the invention and the preferred embodiments thereof, it is to be understood that said invention is to be limited, not to the specific disclosure herein set forth, but only by the scope of the claims which follow:

What I claim is:

1. A mop head and handle construction consisting of a mop head provided with a corrugated shank portion and a handle having an axial bore, a stiff corrugated spring member fixed within the bore, the corrugations of the spring member conforming to the corrugations of the said shank whereby the ridges of the one fall between ridges of the other to thereby maintain the shank within the bore when thrust thereinto.

2. In a mop head and handle construction a mop head provided with a corrugated shank, and a handle therefor having an opening into which said shank is adapted to be thrust, a spring member within said opening, said spring member being U-shaped and of flat corrugated

metal, with the spacing of the corrugations conforming to the spacing of the corrugations of the shank, and said shank having two arms spaced from each other a distance somewhat less than the overall thickness of said shank.

3. In a mop head and handle construction a mop head comprising a bundle of mop material encircled by a stiff wire the ends of which are twisted together with a substantially uniform pitch, and a handle provided with an axial bore for receiving said twisted ends, a spring within said bore said spring being of flat corrugated metal, the corrugations of said spring being spaced to conform to the flights of wire in the twist, and being sharply angular upon that side of the spring adapted to contact said twisted wire.

4. In a mop head and handle construction a mop head comprising a bundle of mop material encircled by a stiff wire the ends of which are twisted together with a substantially uniform pitch, the extreme ends of said wire being extended a short distance in the same plane to form a flat tongue, and a handle provided with an axial bore for receiving said twisted ends, a spring within said bore said spring being of flat corrugated metal provided with a loop portion adapted to receive said tongue, the corrugations of said spring being spaced to conform to the flights of wire in the twist, and being sharply angular upon that side of the spring adapted to contact said twisted wire.

5. A mop head and handle construction consisting of a mop head having a shank of twisted wire, a handle having a socket into which said shank is adapted to be thrust, a resilient member in said socket said resilient member having projecting portions forming in effect a receiving thread for the flights of the twisted wire shank, and means for preventing rotation of said shank when fully thrust into said socket.

KURT R. KEYDEL.