

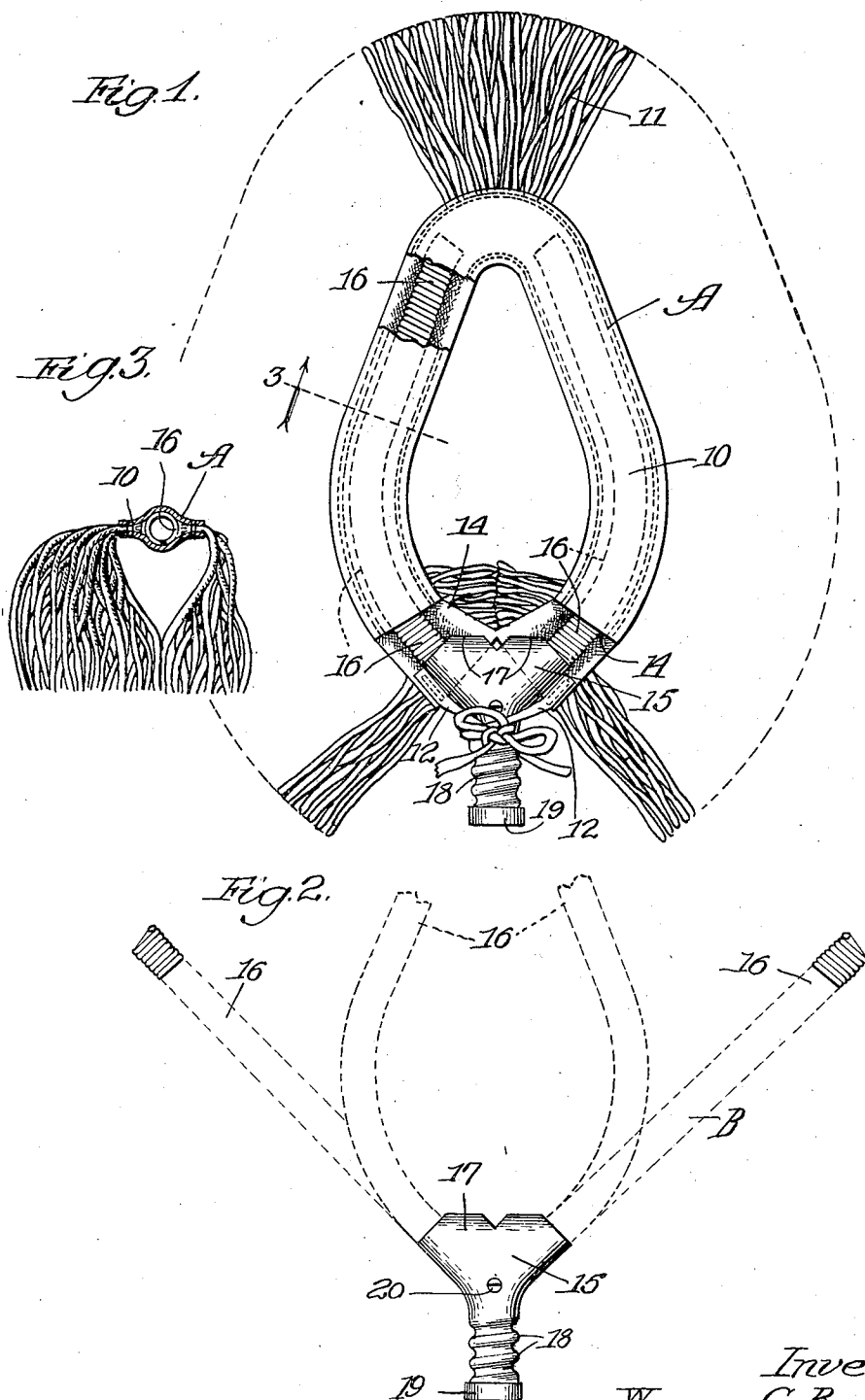
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MOP

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MOP

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2 Claims. (Cl. 15—147)

This invention relates to a mop and more particularly to a mop having a resilient supporting frame which may be removably detached from the mop body.

An object of the invention is to provide a mop of simple structure in which a resilient coiled wire frame is employed, the structure being such that the spring frame exerts a constant tension upon the mop body. A further object is to provide a mop in which a coil spring is employed, the free ends of the spring being disposed near the forward point of the mop body whereby they are utilized for enabling the mop body to enter corners, small recesses, etc. A further object is to provide a mop structure of extremely simple construction in which a flexible element is employed with a cloth body element, the two structures being readily separable and readily removable. Other specific objects and advantages will appear as the specification proceeds.

The invention is illustrated in a preferred embodiment, by the accompanying drawing, in which—

Figure 1 is a broken plan view of the device embodying my invention; Fig. 2, a plan view of the frame member removed from the cloth mop body; and Fig. 3, a transverse detail sectional view, the section being taken as indicated at line 3 of Fig. 1.

In the illustration given, A designates a mop body; and B, the mop frame.

The mop body may be of any suitable construction. In the illustration given, it comprises a cloth body 10 providing a tubular channel for receiving the frame members, the usual yarn strands 11 being sewed thereto. To the lower end of the cloth structure 10 are secured tie members 12 which may be extended about the mop frame B when it is in place to secure the frame thereto. As shown more clearly in Fig. 1, the lower portions of the tubular members 11 are secured together at 13, but the upper portion of the members 10 terminates at 14, thus providing access to the tubular openings.

The frame B may also be of any suitable construction. In the illustration given, I provide a straight piece of coil spring wire. The middle portion of the wire is received within a V-shaped clamp 15 whereby the end portions of the wire form spring attachment arms 16.

The clamping member 15 consists of a single metal strip which is bent at its forward end 17 and bent back upon itself, providing at its forward end a V-shaped channel for receiving the coil spring. The two parts of the member 15

which are bent back upon itself are threaded at their lower ends to form screw threads 18, and the lower ends are secured together by means of a ferrule 19. The clamp at its forward end is secured in binding engagement with the spring coil by a bolt member 20, the bolt engaging the lower portion of the spring body and causing it, together with the V-shaped upper portions of the clamping member 15, to assume the shape illustrated. The two arms 16 of the coil spring are constantly attempting to assume a straight position so that they are urged downwardly. With the arrangement shown, the coil spring is permanently anchored within the clamp 15.

In the operation of the device, one of the angularly extending arms 16 is pressed forward into the tubular member 10 and then the other arm is bent so as to extend it into the tubular member on the opposite side. Pressure upon the clamp causes both of the spring arms to follow the course of the tube until they reach substantially the position shown in Fig. 1 and in dotted lines in Fig. 2. The tie members 12 are then secured together so as to lock the frame member to the mop body.

In manipulating the mop in use, it is found that the forward end portions of the spring present an effective support for the tip of the mop, enabling it to be used effectively in corners and other narrow recesses. The constant outward pressure of the two arms 16 causes the mop frame to be securely attached to the mop body and, when the body is flexed in operation, causes it to immediately resume its original shape. When it is desired to remove the mop frame so that the cloth body may be cleaned, it is only necessary to untie the tie members 12 and draw the spring member away from the cloth body. The assembly operation is extremely simple because it is necessary to thread each of the spring arms only halfway about the mop head, and this may be done in successive operations as well as in simultaneous operations. By having the spring body formed of a single straight coil wire, the coil tending to resume its straight position at all times, the spring is maintained within the V-shaped head constantly in tight condition, the stress of the V-bend urging the spring tightly against the bolt 20 and the channels of the clamp 15. There is thus no tendency for the frame to rattle or to be loose. With this structure, it is not necessary to have means for attaching the spring coils to each other or to the head. On the contrary, a simple permanent structure is employed which affords two flexible extensions which.

when pressed into the tubular pockets of the mop head, retain their position and maintain the mop head under lateral pressure.

While in the foregoing description, I have set forth the specific embodiment of the invention, it will be understood that there may be wide variations in shape and in details of construction without departing from the spirit of my invention.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom, but the appended claims should be construed as broadly as permissible, in view of the prior art.

I claim:

1. A mop of the character described including a cloth mop body equipped with yarn strands and with a continuous endless tubular channel having a portion of one side thereof cut away to permit the insertion of a mop frame therein, said channel being flexible and collapsible and being substantially oval in shape when expanded, a mop frame including a clamping member having an angular recess therein and a pin mounted within said recess, and a coil spring having its central portion secured within said recess by said pin and having diverging spring arms, said spring arms being normally spaced apart a greater dis-

tance than the greatest distance which the opposite sides of said channel can be spaced apart and being flexible inwardly for insertion within opposite sides of the channel, the tension of said inwardly flexed arms when inserted in said pockets providing a tight connection between said channel and said arms.

2. A mop of the character described comprising a cloth mop body equipped with yarn strands and with a continuous endless tubular channel having a portion of one side thereof cut away to permit the insertion of a mop frame therein, said channel being flexible and collapsible and having arcuate side walls when the channel is in expanded position, a mop frame including a clamping member, a pair of coil spring arms secured to said clamping member and extending therefrom in diverging relation, said spring arms being flexible, resilient and elastic and being normally spaced apart a greater distance than the greatest distance by which the opposite sides of the channel may be spaced apart, said arms being adapted to be flexed inwardly during insertion into opposite sides of the channel in order to follow the contour thereof, the tension of the inwardly flexed arms when inserted in said channel providing a tight connection between the channel and the arms.

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