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APPLIANCE FOR GRIPPING AND HOLDING FLEXIBLE MATERIAL

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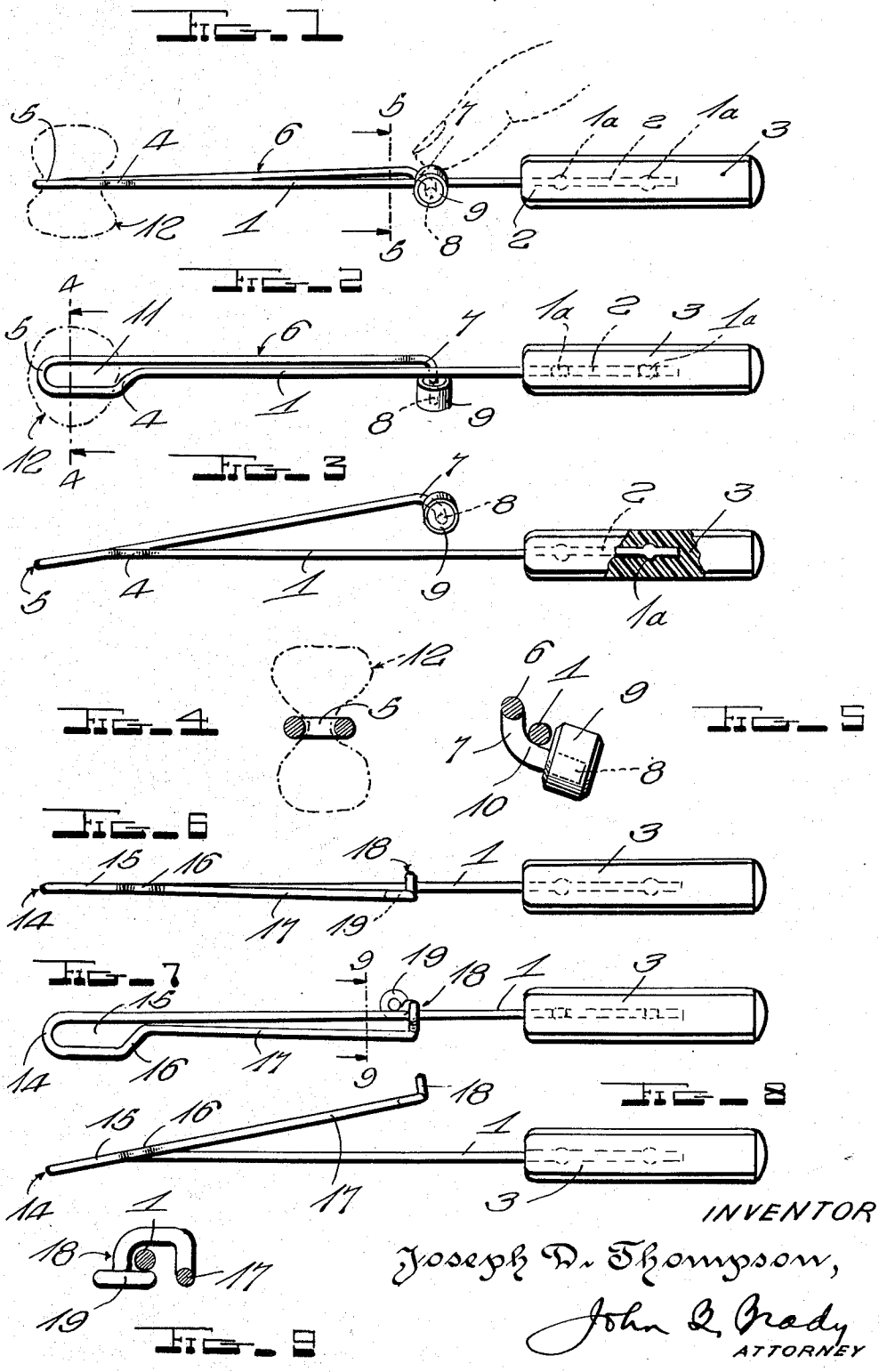

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APPLIANCE FOR GRIPPING AND HOLDING FLEXIBLE MATERIAL

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My invention relates broadly to household and kitchen appliances, and more particularly to a multigrip for holding a variety of materials, such as, steel wool for scouring kitchen utensils, rags for washing glassware, dishes, etc., cloths for greasing cake tins, daubers for applications of polish to stoves or shoes, and the like.

One of the objects of my invention is to provide a simple form of single wire device which may be supported at one end in a handle, and having the other end so formed as to grip the material to be applied.

Another object of my invention is to provide a construction of multigrip formed from a single wire, looped upon itself and provided with latching means which may be readily latched or unlatched for gripping steel wool, rags, cloths, or daubers, and the like, for performing a rubbing or cleaning operation.

Still another object of my invention is to provide a construction of multigrip formed by a single loop of wire bent upon itself and including either right-hand or left-hand latching means for supporting and securing the material to be applied.

Other and further objects of my invention reside in the construction of a multigrip wire-like appliance as set forth more fully in the specification hereinafter following by reference to the accompanying drawings in which:

Figure 1 is a side elevational view of the multigrip of my invention, showing a quantity of steel wool supported and secured in position in the end of the multigrip with right-hand latching means in latched position; Fig. 2 is a top plan view of the multigrip shown in Fig. 1; Fig. 3 is a view showing the multigrip in released position; Fig. 4 is a vertical sectional view taken on line 4—4 of Fig. 2; Fig. 5 is a vertical sectional view taken on line 5—5 of Fig. 1; Fig. 6 illustrates a modified construction of multigrip embodying my invention but illustrated for left-hand latching; Fig. 7 is a top plan view of the multigrip illustrated in Fig. 6; Fig. 8 is a view of the multigrip of the left-hand latch construction as illustrated in Figs. 6 and 7 but shown in released position; and Fig. 9 is a vertical section view taken on line 9—9 of the multigrip shown in Fig. 7.

The multigrip of my invention provides an extremely convenient appliance for household use for holding such materials as steel wool used for scouring kitchen utensils, rags for washing glassware, dishes, cloths for greasing cake tins, daubers for applying polish to stoves or shoes, and the like. The multigrip comprises a single loop

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of resilient wire, preferably of stainless steel, which is attached at one end to a handle, and with the other end formed so as to grip material that is to be used. The wire is so looped upon itself that the end thereof terminates in latching means engageable with the wire of the multigrip for effecting the latching of the device, either as a right-hand or left-hand appliance.

Referring to the drawings in detail, reference character 1 indicates a resilient wire, preferably of the order of ⅛" diameter formed from rust-proof material. The end 2 of wire 1 is inserted in the end of the handle 3 and is secured therein by the pressed flats shown at 1a. The other end of the wire 1 is offset or looped as at 4, and continues in a plane substantially parallel to the plane of the wire 1 but spaced therefrom to form a gripping loop. The offset portion 4 is again bent upon itself, as represented at 5 and continues in a direction substantially parallel to the direction of wire 1, and immediately adjacent the wire 1, as represented at 6. The portion of the wire 6 is bent at an acute angle as represented at 7 inclined toward the handle 3, and is again bent, as represented at 8, in a plane substantially at right angles to the axis of wire 1, or the portion 6 thereof but in a downwardly inclined direction. The extremity of the wire at 8 enters a circular knob or round button 9 in an eccentric position therein. The distance represented at 10 between wire 6 and the inner face of the circular or round button 9 constitutes an inclined notch or latch capable of receiving and latching the wire 1 as represented in Figs. 1 and 2.

When latched as illustrated in Figs. 1 and 2, the offset portion 4 of the wire serves as a securing loop of contracted size enclosing the area represented at 11 for gripping the steel wool, rag, cloth, or dauber represented at 12. When, however, the knob or button 9 is depressed by the thumb applying pressure against the knob or button 9, the resilient wire-like portion 6 is released and springs outwardly in the position illustrated in Fig. 3 thereby expanding the area 11 of the loop and releasing the material 12 enclosed within the area 11 of the loop. This release is effected by reason of the spreading action between the wire 6 and wire 1 which is possible as soon as the angularly disposed eccentric knob or button 9 is depressed by the thumb for a sufficient distance for the knob to clear engagement with the wire 1. The operation described in connection with Figs. 1—5 is effected by the thumb of the right hand. It is entirely possible to construct the appliance of my invention for left-hand operation.

according to the arrangement in Figs. 6—9. In this form of my invention the wire 1, secured in handle 3 has the end thereof bent upon itself as represented at 14, and the loop thus formed, as is represented at 15, directed toward the wire 1 as represented at 16 from which position the wire extends as represented at 17 to a latch member shown at 18. The latch member 18 is integrally formed with the length of wire 17 and extends normal to the plane of wire 17. The loop 18 has the end thereof rolled upon itself as represented at 19 to serve as an engaging means for the wire 1.

The rolled end of the wire 1 at 19 is so spaced from the axis of the wire 17 that the wire 17 may be shifted transversely in a small degree to grip material within the area 15 of the loop, or conversely to release the material therefrom. There is a space between the underside of the portion 18 of wire member 17 and the rolled end 19 of the wire to provide a pocket-like recess within which the wire 1 can be engaged. Thus, left-hand engagement and disengagement of the material carried within the area 15 of the looped end of the device may be effected by slight displacement of the rolled end 19 in a transverse direction to clear the rolled end 19 with respect to the portion 1 of the wire-like member, whereupon, wire member 17 is released and springs to the position illustrated in Fig. 8 for releasing the steel wool, rag, cloth, or dauber normally gripped within the area of the loop at 15.

Operation of the multigrip of Figs. 6—9 by the thumb of the left hand which grips handle 3 can be effected with the same alacrity as in the case of right-hand operation of the form of my invention illustrated in Figs. 1—5.

I have found the device of my invention highly practical in manufacture and production at low cost on a mass scale. The device is highly useful as a household appliance, and while I have described my invention in certain of its preferred embodiments, I realize that modifications may be made and I intend no limitations upon my invention other than may be imposed by the scope of the appended claims.

What I claim as new and desire to secure by Letters Patent of the United States is as follows:

1. In an appliance of the class described, a single length of resilient wire bent upon itself to provide an elongated substantially rectangular loop frame with a pair of diverging portions integral with the opposite rear end portions of the loop frame, one of the diverging portions terminating in a handle and the other of said diverging portions terminating in an angularly directed end portion, said angularly directed end portion projecting in a direction transversely of said first mentioned diverging portion and a cylindrical knob carried by said angularly directed transversely extending end portion in a position spaced from the second mentioned diverging portion, said transversely extending portion being biased both in a transverse direction to the loop frame, away from said first mentioned diverging portion, and lateral to the plane of the loop frame to provide a latching means for interlocking the diverging portions by pressure applied against said cylindrical knob, said latching means being disengageable by application of pressure against said cylindrical knob sufficient to clear said first mentioned diverging portion.

2. In an appliance of the class described, a resilient wire member bent upon itself to form a material retaining substantially polygonal-shaped loop frame comprising a pair of substantially parallel extending spaced wire portions wherein the rear terminus of one of the substantially parallel extending wire portions extends to a point adjacent the other wire portion for enclosing the material within the loop frame, arms connected to the adjacent rear termini of the wire portions of the loop frame, a handle member secured to the end of one of said arms, the other of said arms having its extremity extending in a direction substantially normal to the axis of the first mentioned arm and a substantially cylindrical knob carried by the said normally extending end of said second mentioned arm, said substantially cylindrical knob having a substantially flat abutment face for effecting latching engagement with said first mentioned arm, said second mentioned arm being biased both in a transverse direction to the loop frame, away from the first mentioned arm, and in a direction lateral to the plane of the loop frame for providing a latch means which can be disengaged by merely pressing upon the substantially cylindrical knob sufficiently to displace said knob to clear said first mentioned arm.

3. In an appliance of the class described, a resilient wire member bent upon itself to form a material retaining substantially polygonal-shaped loop frame including a pair of substantially parallel extending coplanar wire portions, the end of one of the wire portions at a point spaced from the forward end of the loop frame being brought into abutting relationship with the rearward extension of the other wire portion and extending rearwardly therefrom in diverging relationship to the said other wire portion, a handle member secured to the rear end of the said first mentioned wire portion, the said other wire portion having its rearward extremity extending in a direction substantially normal to the axis of said first mentioned wire portion and a knob mounted on the extremity of said other wire portion in a position displaced away from the axis of said first mentioned wire portion and spaced from the axis of the rearward extension of said other wire portion, said other wire portion being biased both in a transverse direction to the loop frame away from said first mentioned wire portion and in a direction lateral to the plane of the loop to provide latching engagement with the first mentioned wire portion for maintaining said loop frame closed upon itself and operative to be disengaged by the application of pressure upon said knob sufficiently to displace said knob to clear said first mentioned wire portion.

4. In an appliance of the class described, a resilient wire member bent upon itself to form a material retaining elongated substantially rectangular-shaped loop frame including a pair of substantially parallel extending wire portions integral with the bent portion, a handle member secured to the end of one of said wire portions, the end of the other of said wire portions extending in an angular direction offset from the axis of the rearward extension of the said first mentioned parallel extending wire portion and in a direction toward and downwardly inclined in a plane substantially normal to the axis of said first mentioned wire portion, and a substantially cylindrical knob mounted on the tip of said second mentioned wire portion in a position displaced away from the axis of said first mentioned wire portion, said knob having its inner face spaced from the parallel portion of said second mentioned wire portion a distance at least equal to

the diameter of said first mentioned wire portion, said second mentioned wire portion being biased both in a transverse direction to the loop frame away from the first mentioned wire portion for unlatching and in a direction lateral to the plane of the loop frame for providing a latch means operative to be disengaged by application of pressure against said cylindrical knob sufficiently to displace said knob to clear said first mentioned wire portion whereby the parallel extending portions of said loop frame may be contracted or spread for gripping or releasing material with respect to said loop frame.

JOSEPH D. THOMPSON.

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