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FLOOR MOP AND ATTACHED WRINGER

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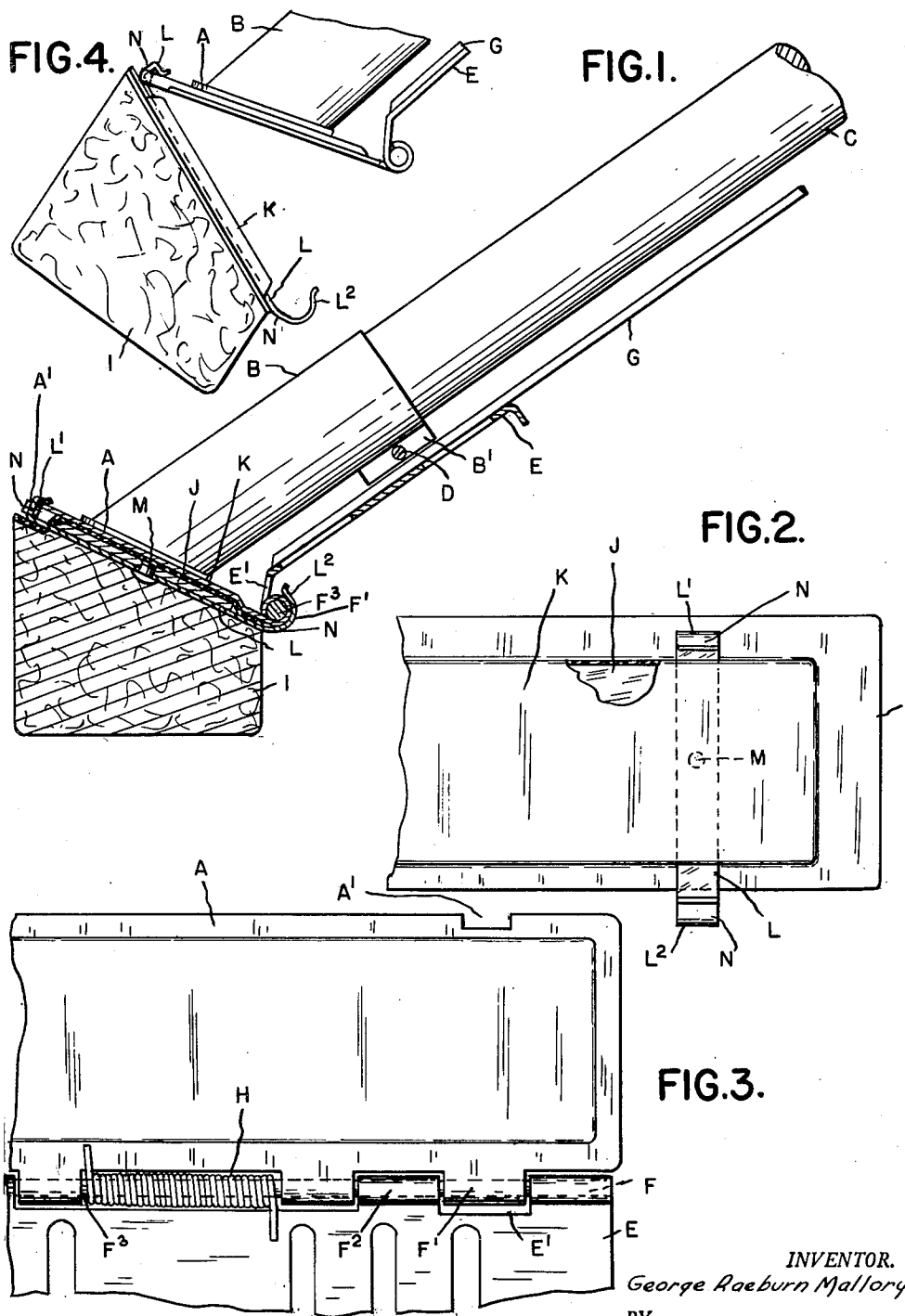


FIG. 3.

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## FLOOR MOP AND ATTACHED WRINGER

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3 Claims. (Cl. 15-119)

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The invention relates to floor mops of that type capable of being used not only for washing and drying the floor, but also for waxing and polishing and for other similar purposes.

It is the object of the invention to obtain a construction in which the liquid absorbing element, which comes in direct contact with the floor, may be quickly attached or detached from its supporting head and operating handle.

It is a further object to obtain a simple and inexpensive construction having various other advantageous features, and to this end the invention consists in the construction as hereinafter described.

In the drawings:

Fig. 1 is a side elevation of my improved mop showing a portion thereof in cross section;

Fig. 2 is a plan view of the floor contacting element detached;

Fig. 3 is a bottom plan view showing a portion of the supporting head and squeezer; and

Fig. 4 is a side elevation illustrating the manner of attaching or detaching the floor contacting element.

In general construction, my improved mop comprises a head member A which has secured thereto a sleeve or socket element B for engaging the handle C. The socket B is split and has flanges B' on opposite sides of the split secured to each other by a clamping screw D, thereby holding the handle from detachment. The head A is further provided with a squeezer or wringer element E, which is hinged at F to one side of the head and is provided with a handle G projecting upward adjacent to the handle C. The hinge F is preferably of the piano hinge type having interspersed eye portions F' and F<sup>2</sup> respectively on the head and squeezer, and a pivot rod F<sup>3</sup> engaging said eyes. A coil spring H sleeved on the pivot rod of the hinge F serves to hold the member E normally in raised position. I is the floor contacting, liquid holding element which is secured to the under face of the head A. This element is preferably formed of sponge material and is of wedge shaped cross section, so that its bottom face will be parallel to the floor when the head A and handle C are in inclined position. It is also in such relation to the element E that the latter may at any time be swung around its hinge F by means of the handle G to press the member I against the head A and squeeze out the liquid.

It is necessary to occasionally remove the floor element I from the head for the purpose of cleansing the same or replacing with a new refill. I have therefore devised a construction of attachment means which will securely fasten the

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element I to the head A when the mop is in use, but which also permits of quickly detaching the same. As illustrated in Figure 2, the sponge I has its upper face cemented to a plate J extending longitudinally thereof but of somewhat smaller dimensions. This plate is then covered with a fabric material K, which is also cemented thereto and which extends the full dimension of the sponge element. Secured to the plate J before the latter is cemented to the sponge element are cross strips L. These are spaced from each other not far removed from the ends of the plate J, and each is secured to the latter preferably by a single, central rivet M, or spot welded. The plate has struck-up lug portions N on opposite sides of the member L, which together with the rivet holds said member from turning. One end of the strip L is formed with a hook L', which is engageable with one edge of the head A. The opposite end of the strip has a larger hook or return bent member L<sup>2</sup> adapted to snap over the hinge portion F' of the head A. The members L are formed of resilient material which permits of this snap engagement of the portion L<sup>2</sup> with the hinge. Also to more firmly attach the member I to the head A, the latter is formed with a recess therein which will receive the plate J and will hold it from displacement in any direction.

With the construction as described, the sponge member I is used for washing the floor and will absorb the soap suds, or other cleansing liquid, and as frequently as necessary the liquid may be squeezed out of the sponge by swinging the handle G and pressing the member E against the underside of the element I. If the sponge needs further cleansing, or needs replacing with a new sponge refill, it can be quickly detached by pulling down the return bent hooks L<sup>2</sup>, disengaging them from the hinge and permitting of disengaging the hooks L' from the opposite edge of the head. The head A can be provided with notches A' in its edge portion, which are engaged by the hooks L' so that the latter do not project beyond the edge of the head. Also to prevent interference between the hooks L<sup>2</sup> and the squeezer, the latter has an aperture E' therein for passage of said hooks therethrough. The whole structure is one which is simple for manufacturing purposes and can therefore be made at relatively small cost.

What I claim as my invention is:

1. In a floor mop comprising a head having a handle socket secured thereto, a handle engaging said socket extending rearward therefrom, a squeezer plate, a hinge connecting said squeezer plate to one edge portion of said head, resilient

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means mounted on said hinge for normally holding said squeezer in raised position beneath said socket, a sponge member for mounting on said head, and a plate to which said sponge is cemented registering with said head; means for detachably securing said plate and sponge member to said head comprising hooks on said plate for engaging the forward edge of said head, and resilient hooks projecting from the opposite edge of said plate for snap engagement with the head-engaging portion of said hinge, said squeezer plate being apertured to clear said last mentioned hooks when swung on its hinge into sponge squeezing position.

2. The construction as in claim 1 in which said head has a recess in its under face and said registering plate is of dimensions to fit within said recess to be held thereby from lateral displacement when secured to said head by said hooks.

3. The construction as in claim 2 in which the hooks on said sponge carrying plate are formed by a pair of strips secured to said plate to

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extend transversely thereof, each having at one end a forward edge engaging hook and a resilient hook at its opposite end.

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