April 16, 1929. A. D. WATERS 1,709,331

FLOOR MOP

Filed Aug. 11, 1925

Fig. 1.

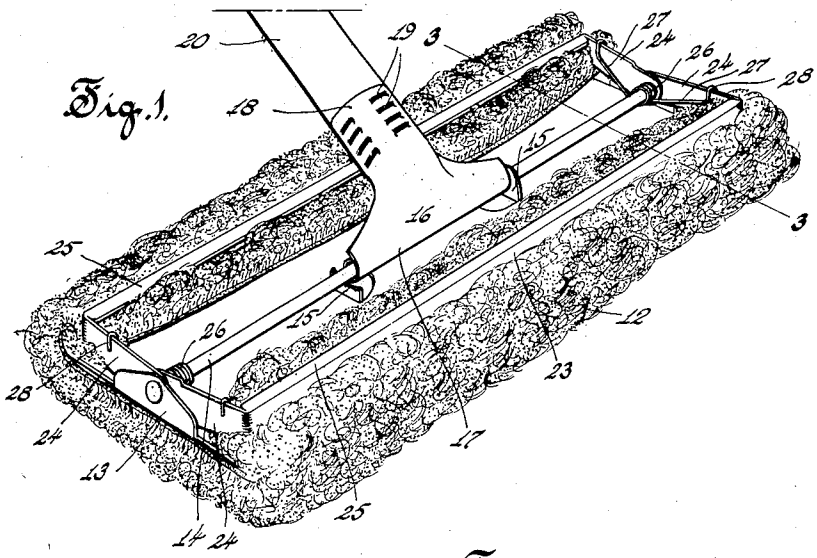



Fig. 2.

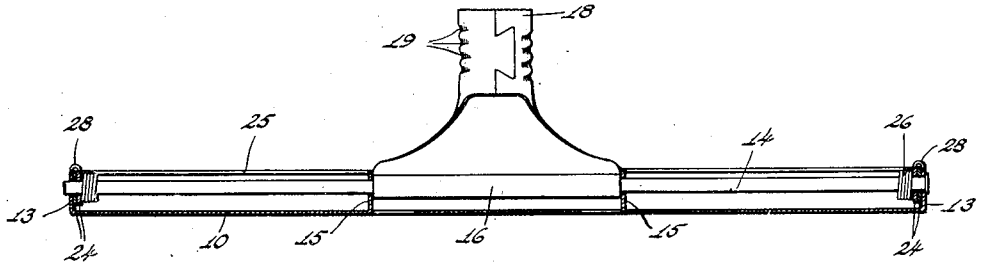
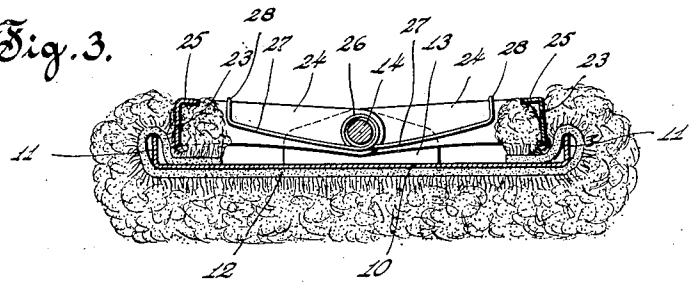



Fig. 3.




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# UNITED STATES PATENT OFFICE.

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## FLOOR MOP.

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This invention relates to a mop which finds particular applicability in dusting and polishing floors and the like.

An object of the invention is to provide a mop of this kind wherein the dusting or polishing fabric or element may be very readily attached to, and detached from, the head of the mop, and wherein the dusting or polishing cloth protects the surface to be dusted or polished and the articles standing on the surface. In the present illustrative disclosure, the polishing cloth, which, preferably, is formed of lamb's wool, is adapted to overlap the edges of the head of the mop, and the lamb's wool is clamped in place on the head by means located within the compass of the head.

A further object of the invention is to provide a mop which is characterized by its extreme simplicity in construction, its economy in manufacture, and its durability in use.

Other objects will be in part obvious and in part pointed out more in detail hereinafter.

The invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth, and the scope of the application of which will be indicated in the appended claims.

In the accompanying drawings, wherein is illustrated one of the many embodiments which the present invention may take;

Figure 1 is a perspective view of the mop;

Fig. 2 is a longitudinal sectional view therethrough, the dusting cloth or lamb's wool being omitted; and

Fig. 3 is a transverse section taken substantially on line 3—3 of Fig. 1.

Referring to the drawings in detail, the numeral 10 designates a holder or head, preferably formed by stamping out a blank from sheet metal and then bending the blank to the shape illustrated. This head is generally of rectangular shape and has, at each of its side or longitudinally extending edges, upstanding flanges or ribs 11 over which the marginal portions of the dusting and polishing fabric or material 12 are adapted to be folded. This fabric or element 12 may be of any suitable material but, by preference, it is a piece of lamb's wool or sheep's skin as such material, when rubbed over a waxed surface, will give the desired polish thereto. At each end of the head is an upstanding ear 13 and these ears are suitably apertured to receive the ends of a rod 14 which extends centrally and longitudinally of the head from one to the other end thereof. The head is further provided with a pair of spaced lugs 15 which are preferably formed by making slits in the head and then bending the metal within the slits upwardly at right angles to the plane of the head. These lugs are adjacent to, and spaced an equal distance from, the center of the head and have two functions; one, to support and reinforce the central portion of the rod which passes through these lugs, and the second, to prevent movement of a hinge 16 longitudinally of the rod. In the present instance, this hinge is very simply and economically formed of sheet metal by stamping out a blank of the desired configuration, and then bending up one end of the blank to form a knuckle 17 which is substantially continuous throughout its length and which, in length, corresponds to the distance between the lugs 15. The other end of the blank is rolled into a cylindrical socket 18, the axis of which is substantially at right angles to the axis of the knuckle 17. This socket is provided with a serrated screw thread 19 with which cooperates a companion male thread on the lower end of a handle 20.

For the purpose of clamping the cloth or lamb's wool on the head, there are provided a pair of jaw or gripping members, each of which has a gripping portion 23 and an arm 24 at each end pivoted on the rod 14. The gripping members are each preferably formed from sheet metal, the blanks or strips being bent to the shape illustrated. It will be noted that the gripping portions 23 extend longitudinally of the flanges 11 and are spaced laterally within these flanges. The upper edge of each of the gripping portions has a laterally extending lip 25, and these lips serve to give a finish to the structure and also to provide a ledge by means of which the jaws may be raised when it is desired to remove or replace the cloth upon the head. The gripping members are urged into gripping position by suitable springs, each of which, in the present instance, takes the form of a central coil 26 encircling the

rod 14, oppositely extending arms 27, and hooked ends 28 adapted to respectively hook over the arms or end pieces 24 of the jaws. The gripping members, as stated, are pivoted for swinging movement on the rod 14, and are held against movement longitudinally of that rod by the ears 13.

From the foregoing description, taken in connection with the accompanying drawings, it will be seen that a mop, constructed in accordance with the present invention, comprises a relatively few number of parts each of which is simple in construction, and the parts may be readily assembled so that the mop can be produced at a relatively low cost. The lamb's wool is held in place upon the head in a very simple yet effective manner by the gripping members, these members being made further effective by the upstanding flanges 11 over which the marginal edges of the lamb's wool is bent or folded. The lamb's wool may be very quickly and easily assembled on the head by merely swinging the gripping members upwardly, folding the marginal edges of the lamb's wool over the side edges of the head, and then releasing the gripping members, permitting the same, under the influence of the springs 26, to be moved into engagement with, and held tightly against, the lamb's wool. The flanges 11 provide, at the forward and rear edges of the head, relatively wide surfaces which are covered by the lamb's wool so that the likelihood of injury to furniture or the like, in the event that the mop strikes thereagainst, is avoided.

I claim as my invention:

1. In a mop of the character described, a head with upwardly extending flanges along its side edges, a pair of clamping members pivoted to said head and having gripping portions extending longitudinally of, and spaced from, said flanges, each of said gripping portions also having at its upper edge a laterally extending lip, and springs urging said clamping members into clamping position.

2. In a mop of the character described, a sheet metal head provided with a turned up ear at each end and a pair of upstanding lugs adjacent the central portion of the head and aligned with said ears, a rod extending through said lugs, gripping members pivoted on said rod, and a handle formed of sheet metal and having a knuckle surrounding said rod between said lugs, said knuckle corresponding in length to the distance between said lugs whereby said lugs hold said knuckle against longitudinal movement on the rod.

3. In a mop of the character described, a sheet metal head having a turned up flange along each of its side edges, a turned up ear at each end and a pair of spaced lugs adjacent its central portion and alined with said ears, a rod extending through said ears and lugs, a pair of gripping members each having a longitudinally extending gripping portion and a pair of arms pivoted on said rod, said gripping members being held against longitudinal movement on said rod by said ears, springs having coils surrounding said rod and hooked ends hooked over said arms, and a sheet metal handle having a knuckle surrounding said rod between said lugs.

4. In a mop of the character described, a head having a body portion provided with upwardly extending narrow flanges along its side edges, a pair of rigid clamping members pivoted to said head and having narrow gripping portions extending longitudinally of and spaced within said flanges, separate springs urging said clamping members downwardly towards and against the body portion of said head to clamp the cleaning element thereagainst and a handle member pivoted to said head independently of said springs.

5. A mop comprising, a head plate having flanges along its opposite edges, and ears bent up at its opposite ends, and lugs bent up intermediate the ears, a rod extending through said ears and lugs, a handle socket pivoted on said rod between said lugs and spring pressed gripping jaws pivotally supported at opposite ends of the head and movable adjacent its flanges.

6. A mop comprising, a head plate having flanges along its edges and ears at its ends, a rod extending through said ears, a handle member pivoted on said rod, gripping jaws having arms pivotally supported adjacent said ears and adapted to coact with said flanges to hold a polishing cloth, a single spring member at each end of the head plate, each spring member having a coiled portion mounted on the rod and having two arms engaging the respective gripping jaw arms.

7. A mop comprising, a head plate having flanges at its sides, and having lugs extending upwardly between said flanges, a rod mounted in said lugs, a handle member pivoted on said rod between said lugs, gripping jaws coacting with said flanges and having arms pivotally supported near the ends of said head plate and spring members mounted on said rod and having arms engaging the arms of said jaws.

8. A mop comprising, a head plate having side flanges, a handle member pivotally supported at the rear between said flanges, a pair of gripping jaws each having arms at its opposite ends, means for pivotally supporting said arms so that said jaws can swing with respect to said flanges and independently of each other and a single spring member supported at each end of said head plate and formed independently of said

jaws and each spring member comprising a central coil portion and a pair of spring arms having hooked ends engaging the adjacent arms of said jaws.

9. A floor mop comprising a sheet metal head plate having end lugs and intermediate lugs, all projecting upwardly from said plate, a rod mounted in the end lugs and connected with the intermediate lugs, a handle hinged to said rod between said intermediate lugs and cloth-gripping jaws coacting with the head plate.

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