

Feb. 14, 1933.

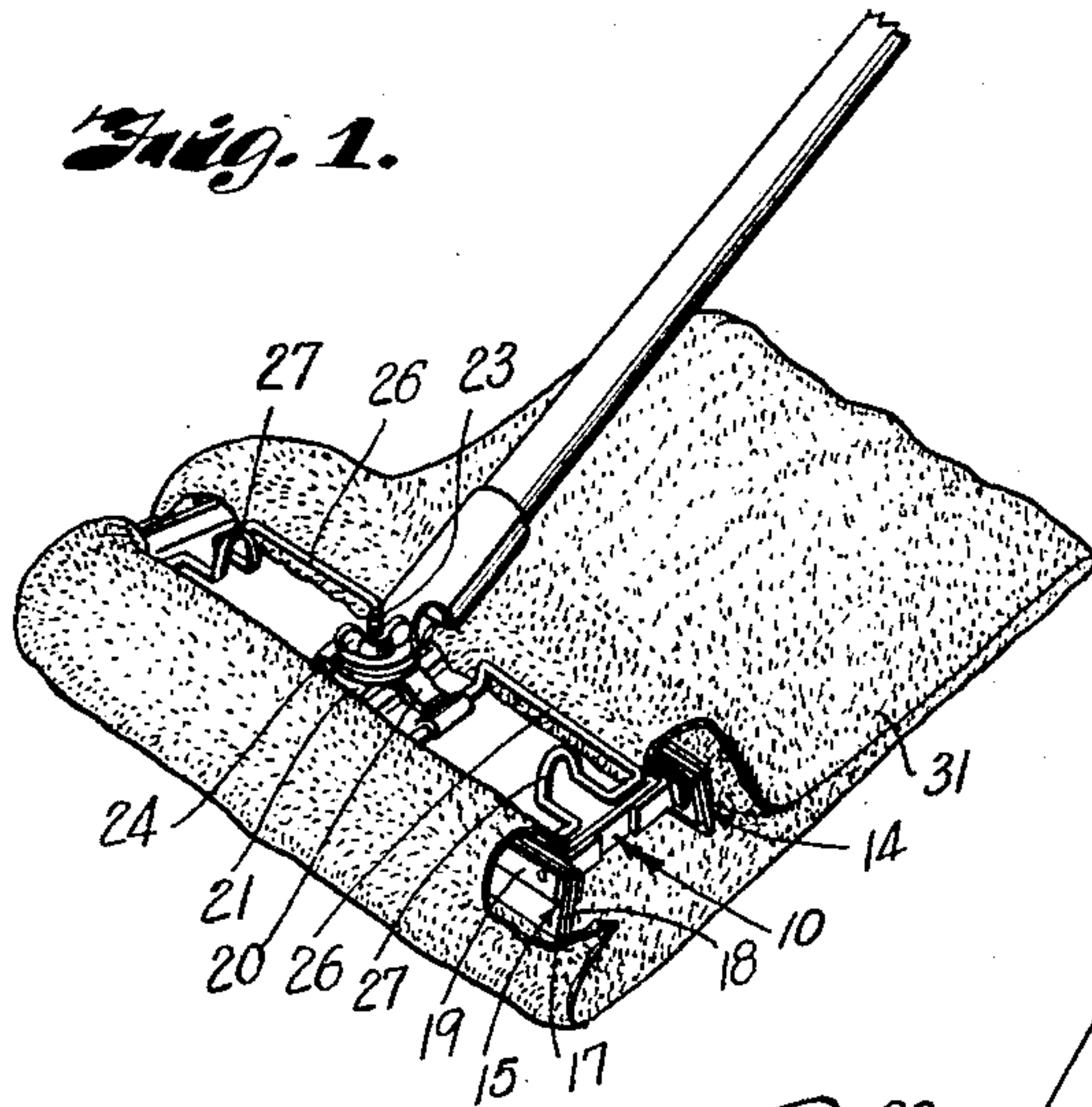
N. S. HILLYARD

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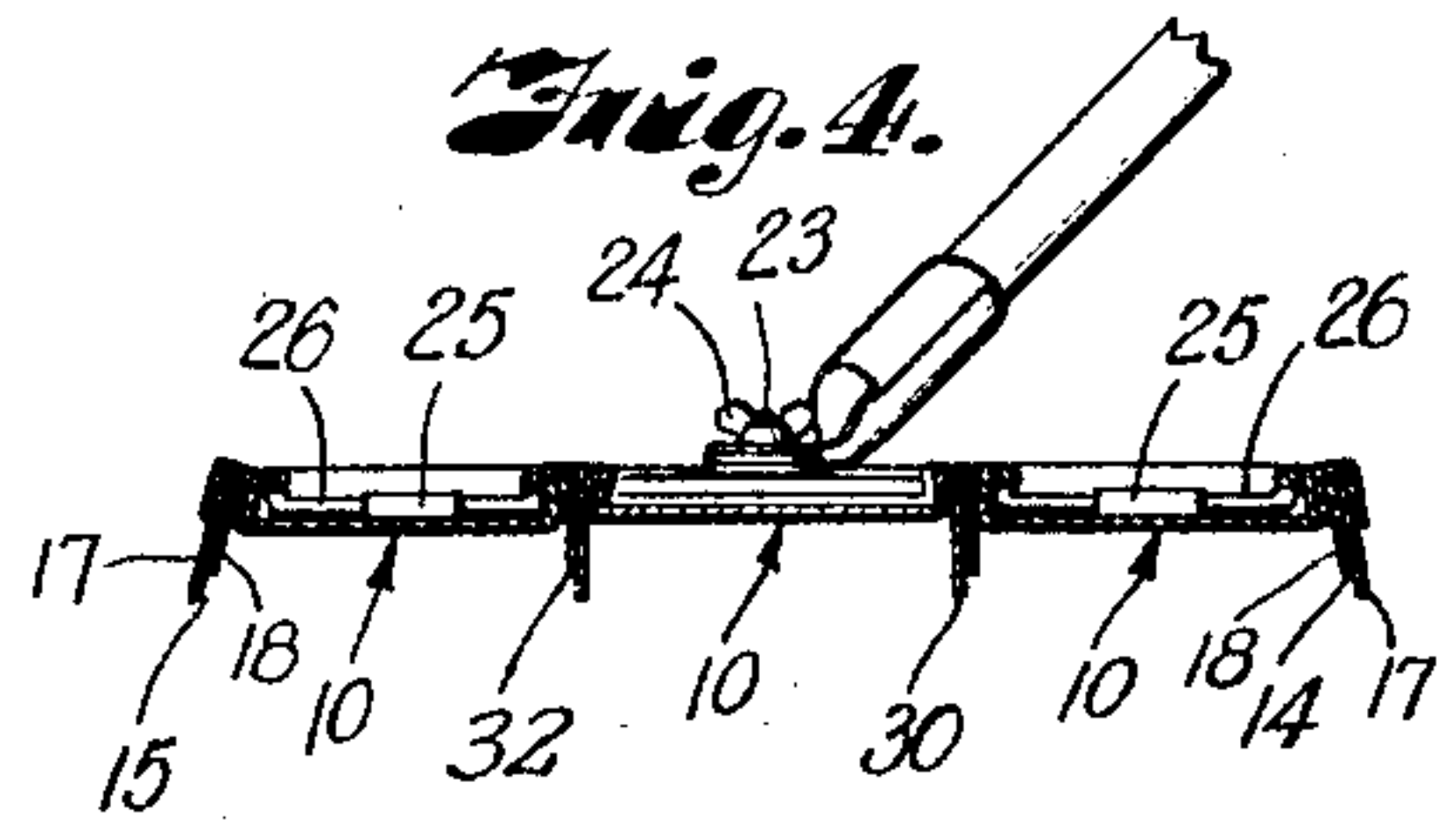
MOP

Filed Nov. 13, 1930

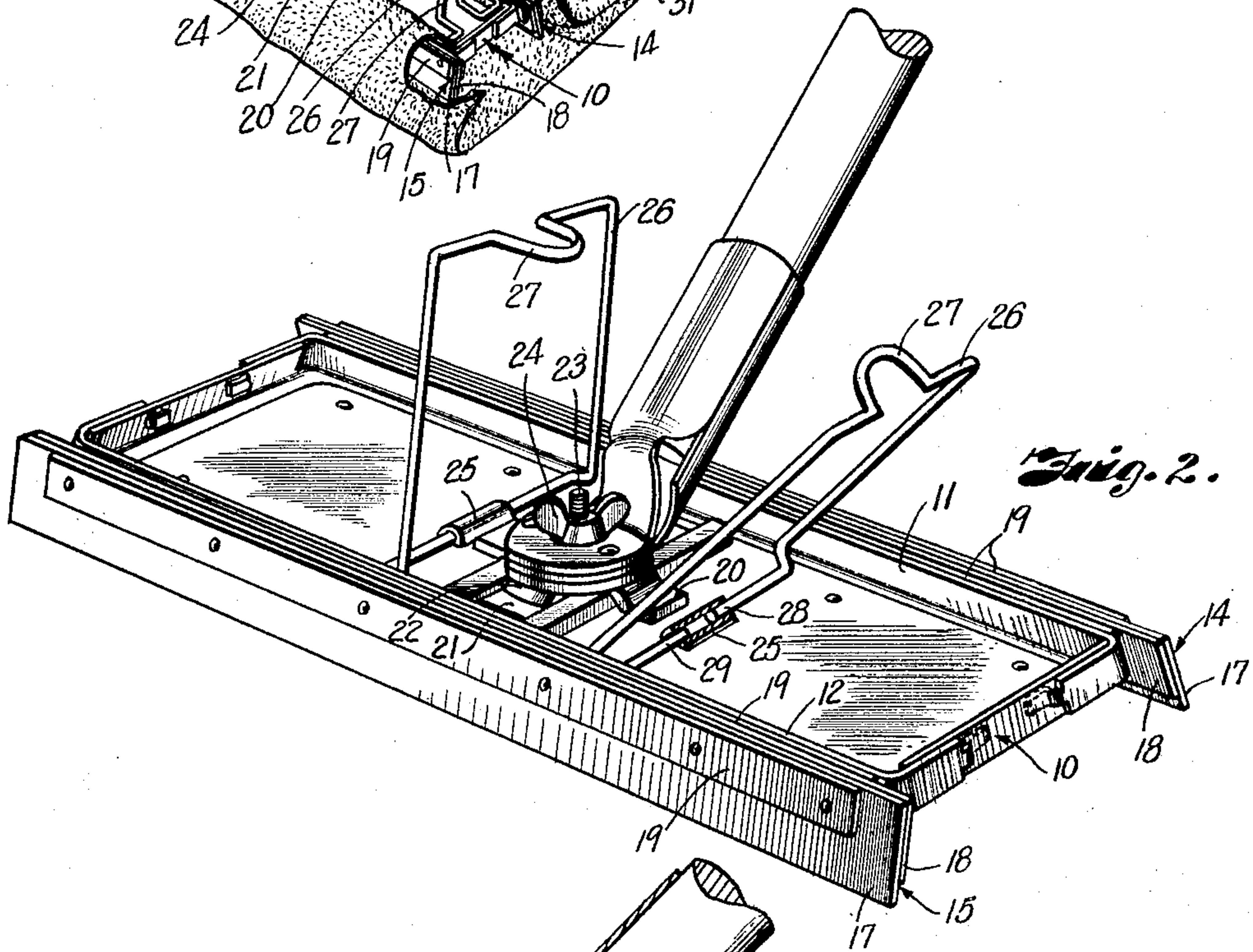
*Fig. 1.*



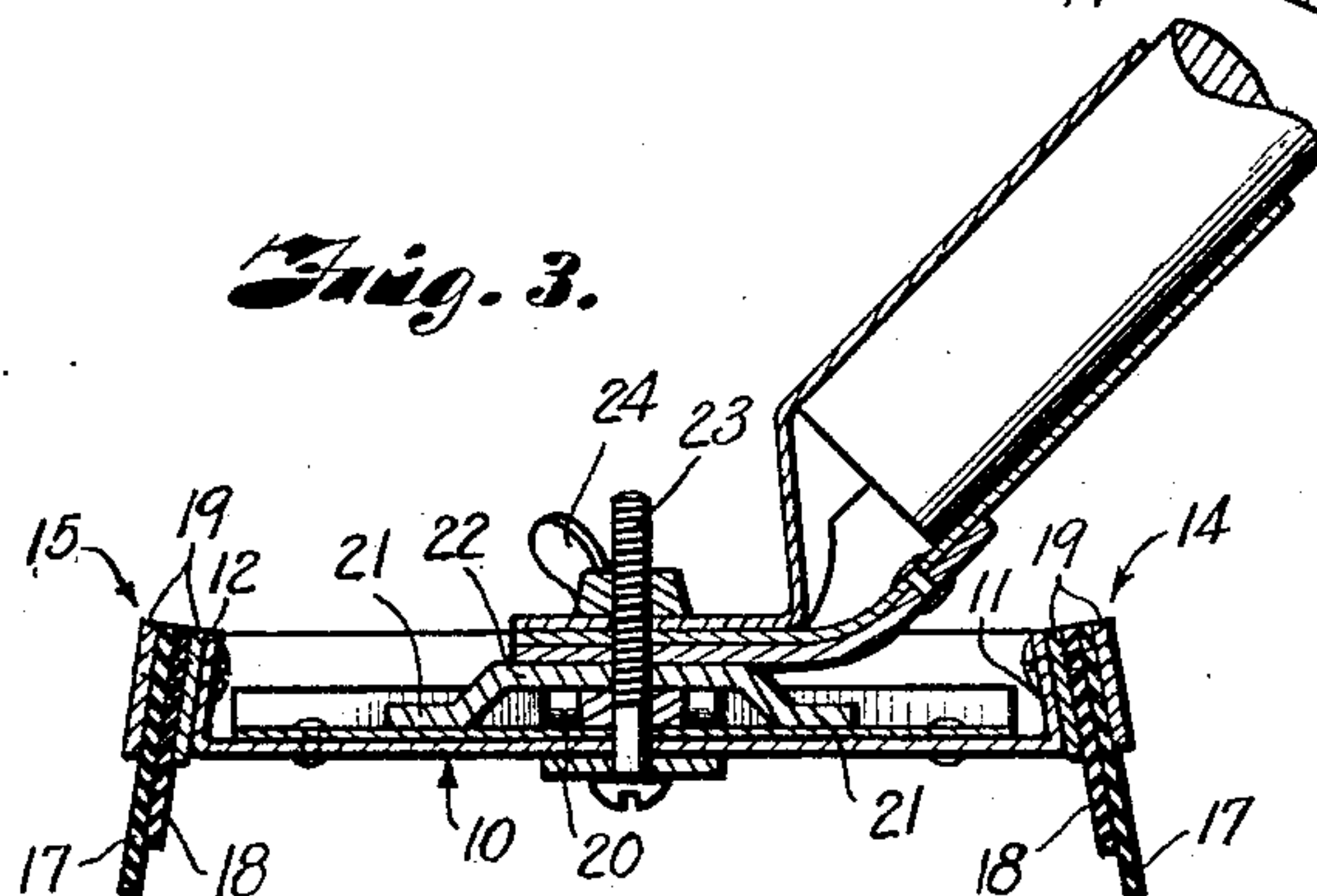
*Fig. 4.*



*Fig. 2.*



*Fig. 3.*



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## UNITED STATES PATENT OFFICE

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## MOP

Application filed November 13, 1930. Serial No. 495,400.

This invention relates to mops in general, and more particularly to one adapted to clean and polish hard wood floors or the like.

5 It is an object of the invention to provide a mop which will clean and polish a floor without the objectionable feature of having to use a liquid on the surface of the floor.

10 The invention comprehends the use of a plurality of squeegees operating on top of a piece of cloth material, such as terry cloth; the terry cloth being secured to the mop and stretched tightly by the squeegees against the surface being cleaned.

15 In the drawing, in which like numerals indicate like parts throughout the several views:

20 Fig. 1 is a perspective view showing the assembled mop with the cloth clamped in place.

Fig. 2 is a perspective view, partly in section, of the mop, showing the clamps in unclamped position.

25 Fig. 3 is a cross sectional view through the center of the mop showing the squeegees and the handle construction.

Fig. 4 is a cross sectional view of a modification of the invention, using a plurality of units such as shown in Fig. 1.

30 Referring to Fig. 2, 10 indicates a base which may be of any suitable material such as wood, or, as shown, of sheet metal pressed into shape to form side flanges 11 and 12. The sides 11 and 12 are preferably made parallel longitudinally and inclined upwardly and inwardly to form inclined supports for the squeegees 14 and 15.

35 The squeegee construction is shown in Fig. 3 and comprises a pair of flexible members 17 and 18, the outer one being slightly longer than the inner one. The members 17 and 18 may be of rubber, felt or other flexible material, although rubber is preferable and found to be quite satisfactory in service. The flexible members 17 and 18 are clamped between a pair of strips 19 which may be riveted to form a permanent structure. The assembled squeegee construction may be attached to the base 10 by any suitable means such as the screws shown in Fig. 3.

In Fig. 3 it will be noted that the squeegees 14 and 15 are parallel longitudinally to each other and tilted at an angle to each other to correspond with the slopes given the sides 11 and 12 of the base. If desired, the mop may be made with the squeegees vertical as this form will also give satisfactory results.

40 The handle construction is shown in Figs. 2 and 3. As shown, the handle fastener is connected to the base by a pair of feet 20 and 21 which terminate in a ring portion 22 having an opening therethrough for the insertion of a screw 23 through the base. The handle socket is fastened onto the annular portion 22 by means of the screw 23 and a thumb nut 24. The particular design of the handle forms no part of the present invention, and the handle may be fixed rigid or pivoted as desired.

45 Attached to the base 10 are sleeve members 25 which accommodate the cloth holders 26. The holders 26 may be formed of spring wire bent into a rectangular loop having approximately parallel side bars, which have an inherent tendency to spring outwardly against the sides of the base 10. The holders are provided with finger loops 27 which give spring to the outer end bars of the holders. The free ends 28 and 29 of the wire forming the holders are spaced apart in the sleeve members to permit the side bars to spring inwardly throughout their entire length for clearing the inclined upper edges of the base when the holders are moved into position, shown in Fig. 2.

50 The cloth 31 is preferably of considerably greater length than the distance between the two squeegees. The ends of the cloth are placed on the base and clamped down, leaving considerable slack in the cloth as shown in Fig. 1.

55 The modification shown in Fig. 4 discloses a plurality of units as shown in Fig. 1, connected together to form a mop. In the modification, the two central squeegees 32 and 30 are preferably made vertical, whereas the outer squeegees numbers 14 and 15 are made sloping outwardly and downwardly in the same manner as the squeegees



14 and 15 in Fig. 2. In other respects the operation of the mop shown in Fig. 4 is similar to that shown in Fig. 2.

In operation the cloth may be dipped in any liquid polish or cleaner, and then wrung out until practically dry. The mop may then be used on any polished floor by placing the cloth on the floor and the squeegees on top thereof, and rubbing back and forth. The squeegees form areas of concentrated pressure, forcing the cloth down into the crevices and drawing therefrom any dirt that may be lodged. Having a plurality of squeegees, the cloth does not bunch or bulge, and is kept drawn tight between the two owing to their opposite and outward inclination. This is a great advantage since with but a single squeegee and a cloth used in connection with it, the cloth has a tendency to bunch and knot and the results on a whole are very unsatisfactory.

As is apparent, the portion of the cloth directly under and between the squeegees soon becomes quite dirty and refuses to pick up further dirt. The squeegees may then be moved along the cloth to a clean portion and the work continued without changing or redipping the cloth.

If desired the mop may be sprayed with a waxing solution and may be used to wax the floor, as well as to clean it.

What is claimed as new and desired to secure by Letters Patent is:

1. In a device of the character described, a rectangular shaped base member, upwardly and inwardly extending side flanges on the base member, squeegees fixed to the outer faces of said flanges in diverging relation to each other, a mop cloth extending across and over said squeegees, and rectangular loop shaped clamp members pivoted to said base member on its upper side and transversely of said squeegees and having side bars extending longitudinally and cooperating with said flanges to clamp the ends of the mop cloth to the base member.

2. In a device of the character described, a rectangular shaped base member having upwardly and inwardly extending side flanges to form inwardly inclined walls, squeegees fixed to the outer faces of said flanges in diverging relation to each other, a mop cloth having substantially greater length than the width of said base member, and extending across said squeegees, and clamp members pivoted to said base member and having side portions engageable with said inclined walls to clamp the ends of said mop cloth between said portions and the walls.

3. In a device of the character described, a base member having upwardly and inwardly inclined side flanges to form exterior outwardly sloping seats and inwardly sloping inner walls, a squeegee supported on

each of said seats and having wiping edges extending outwardly and angularly from each other, cloth clamping members carried by the base and having portions engaging under the inclined walls of said side flanges, and a mop cloth extending across the wiping edges of the squeegees and having its ends tucked over and under the inclined walls of said side flanges to be secured by said bar portions.

4. In a device of the character described, a base member having longitudinal parallel side flanges, squeegee members fixed to the outer faces of said flanges and having wiping edges diverging outwardly from the lower side of the base member to stretch a cloth therebetween when pressure is applied to the upper side of the base member, and cloth clamping members on the base member and adapted to cooperate with said side flanges to secure the cloth to the base member.

5. In a device of the character described, a base member, upwardly and inwardly inclined side flanges on the base member and cloth clamping members pivoted transversely of said flanges on the base member comprising rectangular shaped wire loop portions having parallel side bar portions engageable under the inclined side flanges and having transverse bar portions, and means formed in the transverse bar portions to yieldingly retain the ends of the parallel side bar portions against the inclined side flanges.

6. In a device of the character described, a base member having upwardly and inwardly inclined longitudinal parallel side flanges, a resilient member fixed to each of said flanges and having wiping edges inclined downwardly and outwardly of the base member to stretch a cloth therebetween when pressure is applied to the upper side of the base member, cloth and clamping members pivoted transversely of said flanges on the upper side of the base member comprising rectangular resilient wire loops having parallel side bar portions engageable under the inclined side flanges and having transverse bar portions, said transverse bar portion being formed to yieldingly retain the ends of the parallel side bar portions against the inclined side flanges.

In testimony whereof I affix my signature.

NEWTON S. HILLYARD.