April 17, 1956 L. KOEHRING 2,741,790

COLLAPSIBLE MOPS

Filed Sept. 28, 1954

Fig. 1

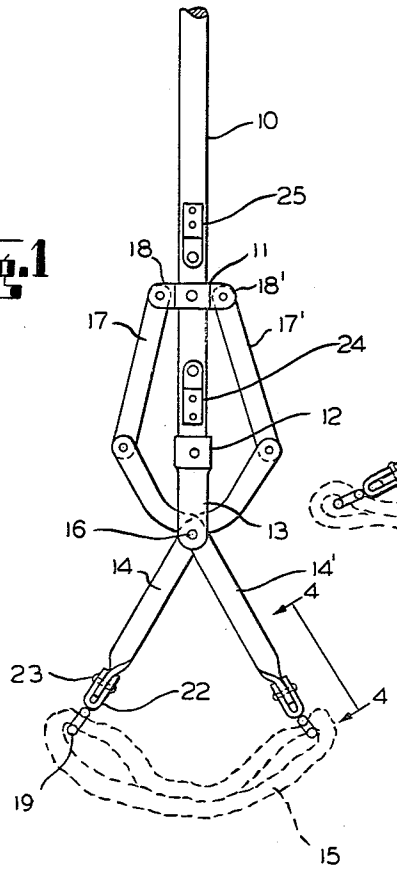


Fig. 2

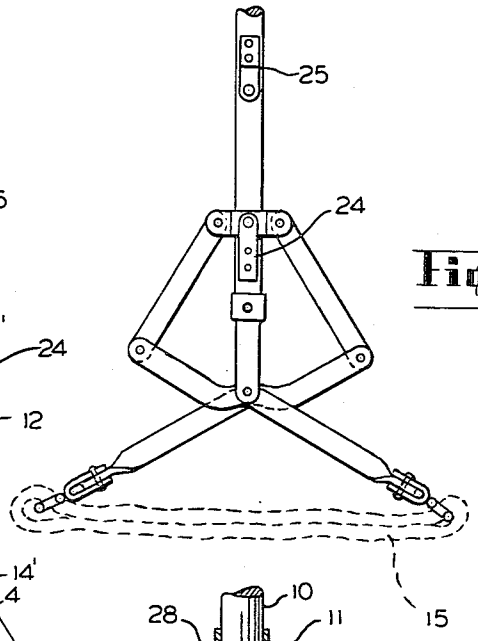
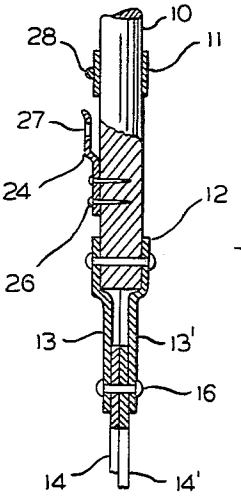


Fig. 3



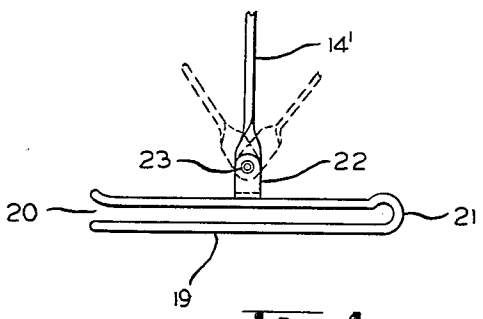


Fig. 4

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COLLAPSIBLE MOPS

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4 Claims. (Cl. 15—147)

My invention relates to a collapsible mop, and more particularly to a mop handle equipped with a lever assembly for folding and expanding the mop cloth.

An object of my invention is to provide a device that is adjusted by means of a sliding arrangement mounted onto a handle.

Another object of my invention is to provide a device that will retain the mop cloth in a folded, or an expanded position, and easy to attach and detach from the handle.

Still another object of my invention is to provide a device in which the mop cloth may be folded in position to permit wringing in a conventional roller type of wringer.

A further object of my invention is to provide a device in which the mop cloth supports are pivoted to permit maximum contact of the mop with the surface being worked on.

It is manifest to anyone familiar with mopping floors, that it is desirable for the mop in use, to contact the maximum of surface to be cleaned. It is also desirable to permit the mop cloth to be rinsed and to have the water squeezed out to bring the cloth to a moist condition. The device specified and claimed herein provides a means to permit a mop cloth to be easily placed in a conventional wringer, and then be expanded to a maximum position, and be easily replaced on the mop support without any mechanical adjustment.

Other and further objects of my invention will become more apparent as the description proceeds when taken in conjunction with the drawings in which:

Figure 1 is a front view of the device in an intermediate neutral adjusted position, with the mop cloth partly expanded.

Figure 2 is a similar view as shown in Figure 1, showing the levers in an expanded position.

Figure 3 is a longitudinal cross sectional view of the bottom of the handle, with the lever yoke and the links, and showing the adjustment slide in a disengaged position, and

Figure 4 is a side view of a pivoted mop cloth support, taken at the line 4—4 in Figure 1.

Similar characters of reference indicate corresponding parts throughout the several views and referring now to the same the character **10** shows a handle, which obivously may be constructed of wood or the like. This handle **10** is provided with a slide **11** which consists of semi-circular metallic bands extending outward at both ends in opposed relation to one another. The bottom of the handle **10** is provided with a bottom yoke shown as **12** which consists of a ferrule and two downwardly extending portions **13** and **13'** for the support of the main levers **14** and **14'**.

The device is to be employed in combination with a mop cloth shown as **15**. The two main levers **14** and **14'** are pivotally connected to the bottom yoke members **13** and **13'** at **16** and have their upwardly extending ends pivotally engaging the lower ends of a pair of

links **17** and **17'**. The upper ends of links **17** and **17'** are pivoted to the outwardly extending hinge members **18** and **18'** of the slide **11**.

The bottom end of the main levers **14** and **14'** are provided with mop cloth supports **19** which herein each consist of a resilient clamping wire which is channelled to a U shape open at one end **20** and closed at the other end **21**, and having an attaching link shown as **22** secured to and projecting upward from the upper portion of the cloth support **19** for pivotal engagement at **23** with the bottom of the main levers **14** and **14'**. Said cloth supports are preferably pivoted to the levers **14**, **14'** so as to swing about an axis at right angles to the pivotal axis of said levers. This permits a pivoting action as shown by the dash lines in Figure 4, so that the mop cloth **15**, when disposed within the cloth support **19**, will always be flat on the floor being serviced, and yet permit the handle to be tilted relative to the floor.

The slide **11** encircles the handle **10** and may be selectively retained either in an upward or downward fixed position by means of the catch members **24** and **25** disposed on the handle **10**. These catch members **24** and **25** are attached to the handle **10** by means of screws shown as **26** and have an aperture **27** on their upwardly extending resilient portion into which the outwardly projecting pin or detent **28** forming a part of the slide **11**, will engage when the slide **11** is placed into its extreme up or down position, depending on whether the mop cloth **15** is to be held in an expanded position, or into a folded position for rinsing and wringing.

The device is exceedingly simple in its construction and also in its operation and is adapted to fit the purpose for which the mop is designed, namely, for contact with the surface being cleaned at all times, and also to be brought to a folded position so that the mop cloth can be rinsed and wrung out to a semi-dry state during the mopping operation.

With the cloth support shown at **19** being open at **20**, the mop cloth **15** can be easily replaced, and although I have shown a particular arrangement and construction of my device I am fully cognizant of the fact that many changes in the form and configuration of the component parts may be made without effecting their operativeness, the spirit of my invention or the scope of the appended claims.

Having thus described my invention what I claim and desire to secure by Letters Patent of the United States is:

1. A device of the character described to be used in combination with a mop cloth, said device comprising, a longitudinal handle, a yoke attached to the lower end of said handle, a pair of crossed levers pivotally connected to said yoke member intermediate their ends, a sliding member surrounding said handle, said slide member provided with oppositely disposed hinge members, link members connecting the upper ends of said pivoted levers to said hinge members, transversely extending U shaped resilient clamping members for supporting said mop cloth, said resilient clamping members being hingedly attached intermediate their ends to the free ends of said levers, and means attached to the outer surface of said handle for selectively retaining said sliding member in a fixed position.

2. A mop construction to be used in combination with a mop cloth, said mop comprising in combination a handle, a yoke, said yoke comprising a ferrule for engagement with the bottom of said handle, and having a pair of supports spaced laterally apart from one another, a pair of crossed main levers pivotally supported between said lateral supports intermediate their ends and extending in opposite relation to one another, an adjustable slide supported on said handle, said slide having hinge members extending outward therefrom on op-

posite sides thereof, link members connecting the upper ends of said levers to the hinge members on said slide, a pair of transversely extending resilient clamping members open at one end and looped at the other end for engagement with said mop cloth, said clamping members being pivotally connected to the free ends of said levers for swinging movement about an axis at right angles to the axis of pivotal movement of said levers, and means on said handle for selectively retaining the slide relative to the handle.

3. A mop handle assembly of the character described to be used in combination with a mop cloth, said mop assembly comprising, a longitudinal handle, a yoke attached to the bottom end of said handle, said yoke comprising a pair of supports extending outward in alignment with said handle and attached thereto, a pair of crossed levers pivotally connected near their center portions to said yoke supports, a slide member surrounding said handle, link members pivotally connected at their upper ends to opposite sides of slide and at their bottom ends to said levers, a pair of U-shaped mop cloth clamps pivotally attached at their center portion to the free end of said levers, transversely of the axis of pivotal movement of said levers, and means on to the outer surface of said handle for selectively retaining said slide in a fixed position.

4. A mop construction to be used in combination with a mop cloth, said mop construction comprising in combination, an elongated handle, a yoke, said yoke comprising a pair of supports extending outward in alignment with said handle and attached thereto, a pair of crossed levers pivotally supported by said yoke supports intermediate their ends, a slide supported on said handle, extending outward therefrom on opposite sides thereof, link members connecting the ends of each of said levers to said slide, a pair of resilient clamping members pivotally attached to the free ends of said levers, said clamping members being open at one end and looped at the other end for engagement with said mop cloth, and detent means on said handle for selectively engaging said slide to retain said levers and clamping members in extended or collapsed positions relative to each other.

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