F. R. WOLTER.

MOP HOLDER.

APPLICATION FILED MAY 12, 1917.

1,270,353. Patented June 25, 1918.

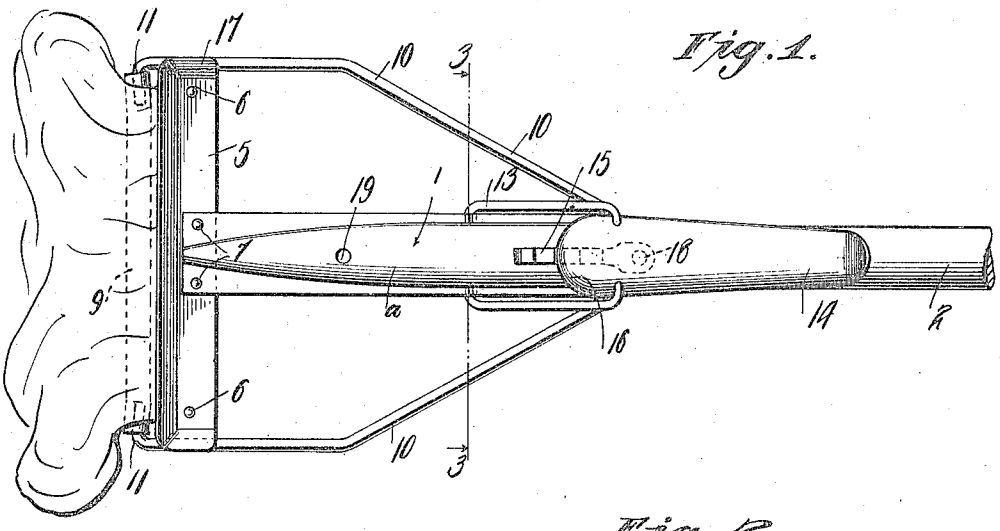


Fig. 1.

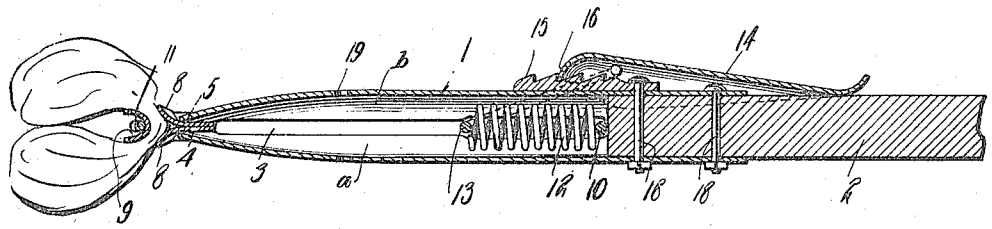


Fig. 2.

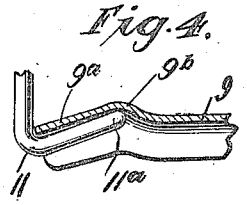


Fig. 4.

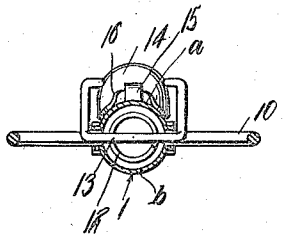


Fig. 3.

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WITNESSES

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MOP-HOLDER.

1,270,353. Specification of Letters Patent. Patented June 25, 1918.

Application filed May 12, 1917. Serial No. 168,191.

To all whom it may concern:

Be it known that I, FERDINAND R. WOLTER, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Mop-Holders, of which the following is a specification.

The present invention relates to mops and more particularly to mop holders or those devices used for securing a mop-rag or the like to a handle. The present invention is an improvement on applicant's Patent No. 1,037,703.

The object of the present invention is to simplify the construction and operation and to produce a more effective means for securing or locking the mop-fabric to the holder, as well as to produce a neater device. It is also an object of the invention to provide such a device that may be cheaply constructed.

The features of the invention reside particularly in the construction and organization of parts which will be readily apparent from the following description setting forth in detail the specific construction of applicant's invention.

One of the important features of this invention is the provision of a substantial channel-shaped clamping bar having its ends bent at an angle and out of the plane of the body portion of the clamping bar, the juncture of the body portions with the end portions of the clamping bar being depressed or bulged so as to form a recess or depression in which is to engage the extremity of hook members provided for securing and clamping the bar into position. This peculiar construction prevents the hook members from accidental or casual disengagement from the clamping bar during the use of the mop, thus insuring a constant securement of the clamping bar in clamping position during ordinary use of the mop.

In the accompanying drawings illustrating the invention:

Figure 1 is a top plan view with the mop-holder constructed in accordance with the invention,

Fig. 2 is a longitudinal sectional view taken through the mop-holder as shown in Fig. 1,

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

Fig. 4 is an enlarged fragmentary detailed view illustrating the peculiar formation of the ends of the clamping bar and the engagement of the hooked ends of the yoke therewith.

Like characters denote similar and like parts throughout the specification and drawings.

The improved construction provided for by this invention consists of two complemental members *a* and *b* that are preferably substantially semi-circular in cross section and arranged to provide a tubular extension 1 adapted to be secured to one end of a mop handle 2. The members *a* and *b* are arranged to have their opposing edges spaced relative to each other to form the slots 3. A cross-head composed of the two plates 4 and 5, secured together by rivets or other fastening means 6, is disposed between and secured intermediate its ends to the outer ends of the members *a* and *b* by suitable fastening means 7, the members *a* and *b* being flattened at their outer ends for facilitating the securement of the cross-head thereto. The plates 4 and 5 have their outerside edges flared relative to each other to provide receiving lips 8, with which coöperates a detachable clamping bar 9 which is preferably of a channel formation as shown. The mop-cloth is secured between the lips 8 by the clamping bar 9 which is moved into cooperative clamping engagement with the lips by a yoke member 10 slidably disposed between the members *a* and *b* of the tubular extension 1. The arms of the yoke member diverge from the extension to extend in proximity to the cross bar and have their extremities formed with the inwardly extending hooked portions 11 engageable in the opposite end of the channel of the clamping bar 9.

To effect the clamping of the clamping bar 9 a compression spring 12 is disposed between the members *a* and *b* and has one end bearing against the yoke member 10. The members *a* and *b* provide a housing for retaining the spring in position. There is also a link, slidably disposed between the members *a* and *b*, which has its ends extending through the slots 3. These ends are pivotally connected to the operating lever 14 intermediate its ends to form a loop member 13. The loop member has the end lying between the members *a* and *b* adapted to engage with and bear against the other end of the spring 12 in order to compress the

latter upon an operation of a lever 14. This lever is, preferably, stamped from sheet metal to conform to the curvature of the tubular extension 1 so as to lie flat thereagainst and thus avoid all projections which might otherwise occur.

One end of the lever 14 is engageable in teeth of a notched fin 15 secured on the outer surface of one of the members *a* or *b* so that, when it is desired to clamp a mop-fabric between the clamping bar and the cross-head, the end 16 of the lever may be adjusted to engage in one of the notches, which will act as a fulcrum, and then swung thereabout. Therefore, it will be manifest that when the lever is moved to the position shown in Figs. 1 and 2, the spring engaging end of the loop 13 will compress the spring 12, which compression will be exerted upon the yoke member 10 (see Fig. 2) for moving the latter to draw the bar 9 into coöperative clamping relation with the cross-head of the mop.

Fig. 4 clearly shows the manner in which the opposite ends of the clamping bar 9 are formed to provide an efficient means for preventing the arms 10 of the yoke from spreading and the hooked extremities thereof from becoming disengaged from the bar through ordinary use. Each end 9^a of the bar 9 is bent at an angle relative to the body portion of the clamping bar and out of the plane thereof, as clearly illustrated. The point of juncture between the ends 9^a and the body portion of the bar is bulged or depressed as indicated at 9^b to provide a recess in the channeled surface of the bar, in which recess the extremity 11^a of the hooked ends 11 of the arms of the yoke 10 tightly and frictionally engage when the parts are in the positions shown in Figs. 1 and 2. By this construction it will be seen that should any force or pressure be applied to the arms of the yoke 10 which would tend to spread them the extremity 11^a will engage the inclined surface of the bent end 9^a of the bar and thereby tightly wedge into engagement with the bar in such a manner as would prevent the disengagement of the ends 11 of the yoke from the bar. This construction is an improvement over the construction shown in applicant's prior patent, mentioned above.

The arms of the yoke 10 slidably extend through the guides 17 provided by separating or flaring apart the ends of the plates 4 and 5 of the cross-head. By this arrangement the yoke member is retained in a definite position relative to the cross-head and its movement is restricted to a sliding movement relative thereto. It also will be obvious, by this arrangement, that the clamping bar 9 is movable by the yoke into clamping engagement with the stationary cross-head and is detachable so as to facilitate the removal and renewal of the mop-fabric.

Suitable securing means, such as are shown by the bolts 18, may be employed for fastening the members *a* and *b* to the handle 2. As illustrated, one of the bolts passes through the notched fin 15 for securing the same in position.

For purposes of hanging the mop up when not in use, an opening 19 is provided through the members *a* and *b* through which a nail or other suitable projection may extend.

The above clearly describes the invention, however, it is to be understood that certain changes in the construction, combination and arrangement of parts may be resorted to that fall within the legitimate scope of the appended claims.

What is claimed is:—

1. A mop-head comprising a tubular extension, a cross-head at one end of the extension, a compressible member disposed in said extension, a clamping bar to coöperate with said cross-head to clamp a mop cloth to the mop-head, a yoke member for the clamping bar having its arms extending through slots in the tubular extension and engageable by one end of the compressible member, a plurality of teeth carried on the extension, a lever having a portion thereof adjusted along the teeth and adapted to fulcrum thereon, and a second yoke having its arms extending through the slots in said extension and pivotally connected to said lever and adapted to engage the other end of said compressible member, whereby the latter may be placed under compression when the lever is fulcrumed on said teeth, and whereby the yoke will be shifted to hold the clamping bar into coöperative relation with said cross-head.

2. A mop-head comprising a slotted extension having a cross-head on one end thereof, a yoke member having its arms slidably mounted in the slots of said cross-head and its extremities provided with hook portions, a clamping bar capable of being detachably engaged by said hook members that serve to move the bar into coöperative clamping engagement with the cross-head, and means for maintaining the yoke in an adjusted position for holding the clamping bar in a clamping position, said means including a link adapted to coöperate with the yoke.

3. A mop-head comprising a slotted extension having a cross-head on one end thereof, a yoke member having its arms slidably mounted in said cross-head and its extremities provided with hook portions, a clamping bar adapted to be axially engaged by said hook members, the yoke being capable of moving the bar into a coöperative clamping engagement with the cross-head, and means for actuating the yoke and for yieldably holding the clamping bar in a coöperative clamping relation with the cross-head with

varying degrees of pressure, said means including a notched element and a link rotatably connected with thumb latch, and said latch being adapted to engage with the link.

4. A mop-head comprising a slotted extension having a cross-head on one end thereof, a yoke member having its arms slidably mounted in said cross-head and its extremities provided with hook portions, a clamping bar adapted for engagement with said hook members, compressible means carried in the extension to engage with the yoke when compressed, the yoke being adapted to be actuated for moving the clamping bar into a cooperative clamping relation with the cross-head, said means being capable of having its compression varied, and a link adapted to cooperate with the compressible means and the yokes.

5. A mop-head comprising a slotted tubular extension, a cross-head at one end of the extension, a compressible member disposed in said extension, a clamping bar to coöperate with said cross-head in securing a mop-cloth to the mop-head, a yoke member adapted to engage with the clamping bar, said yoke having its arms extending through the slots in the tubular extension and engageable with one end of the compressible member, and an adjustable operating lever and a link carried on the mop-head, said link and lever being adapted to compress the compressible member for shifting said yoke and to hold said clamping bar into a substantially yieldably coöperative clamping relation with the cross-head in a plurality of positions, and a notched element carried by the extension to coöperate with the lever in the holding positions.

6. A mop-head comprising a tubular extension consisting of two complemental substantially semi-circular members in cross section arranged in spaced relation relative to each other to provide slots between their adjacent edges, a cross-head secured at one end of the extension and disposed between the complemental members thereof, a compressible member disposed in said extension, a clamping bar adapted to coöperate with the cross-head for clamping the mop-fabric to the mop-head, a yoke member disposed between the members of said extension and having its arms extended through the slots therein the ends of said arms being adapted to engage with the clamping bar, the transverse portion of said yoke, that is disposed between the members of the tubular extension, being engageable by one end of said compressible member, a lever, a link pivoted to the lever and having a portion thereof lying between the members of the extension for engagement with the other end of the compressible member, so that upon operation of the lever, the link will act to compress said compressible member which will exert pressure upon the yoke member and move the clamping bar into coöperative clamping relation with the cross-head, and means carried by one member of the tubular extension serving to permit the lever and therefrom the link to be placed in different positions for varying the degree of compression of the compressible member.

In testimony whereof I affix my signature in presence of two witnesses.

FERDINAND R. WOLTER.

Witnesses:
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ED. P. KEHOE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."