June 16, 1942. F. SUPNICK 2,286,655

MOP HANDLE AND THE LIKE

Filed Oct. 1, 1941 2 Sheets-Sheet 1

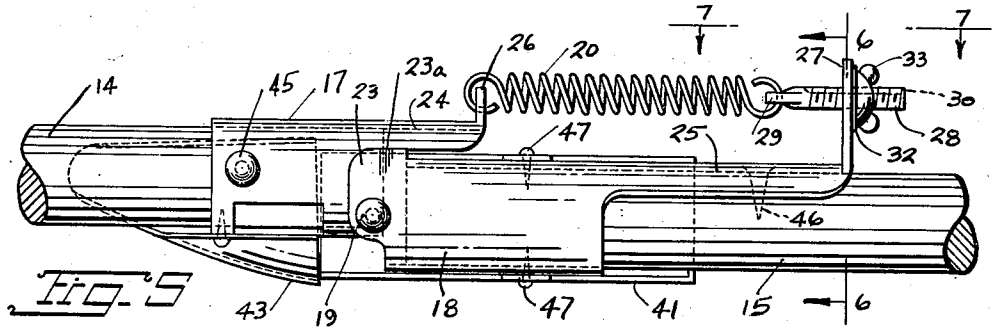


Fig. 5

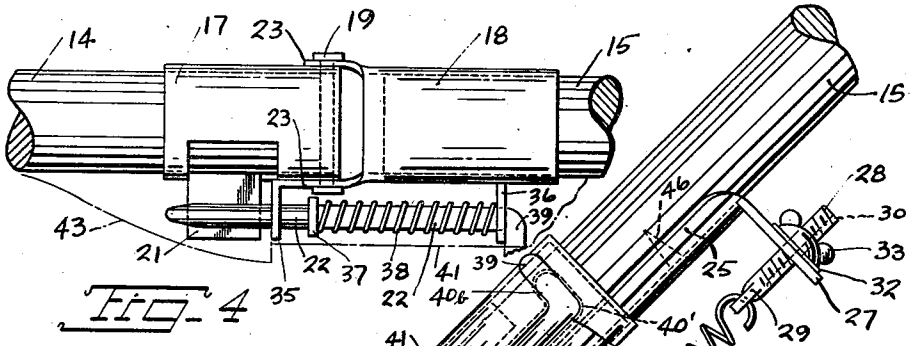


Fig. 4

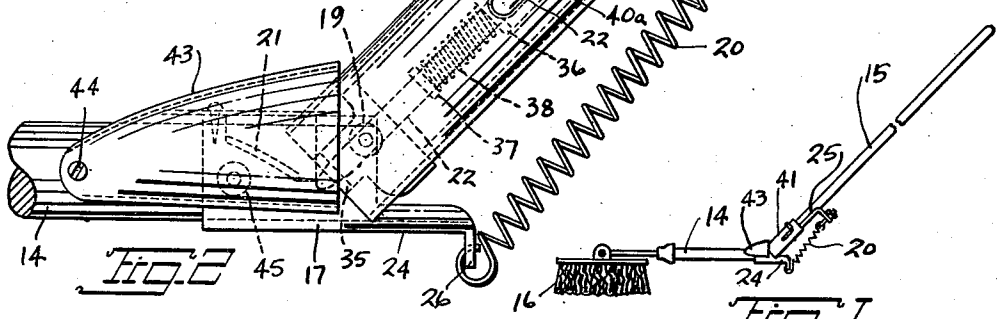


Fig. 2

Fig. 1

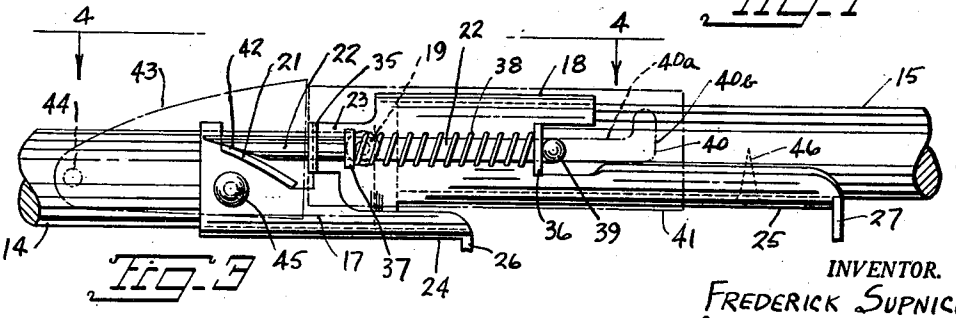


Fig. 3

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MOP HANDLE AND THE LIKE

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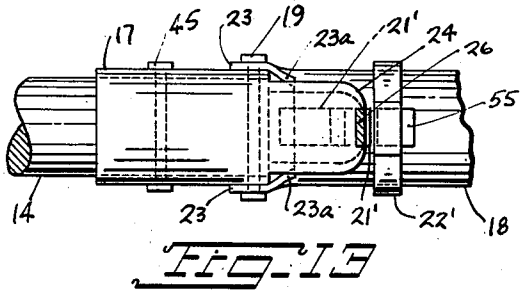


Fig-13

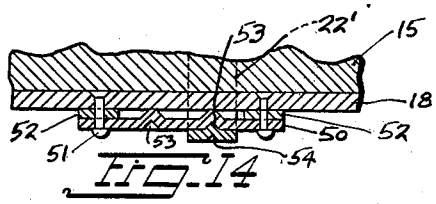


Fig-14

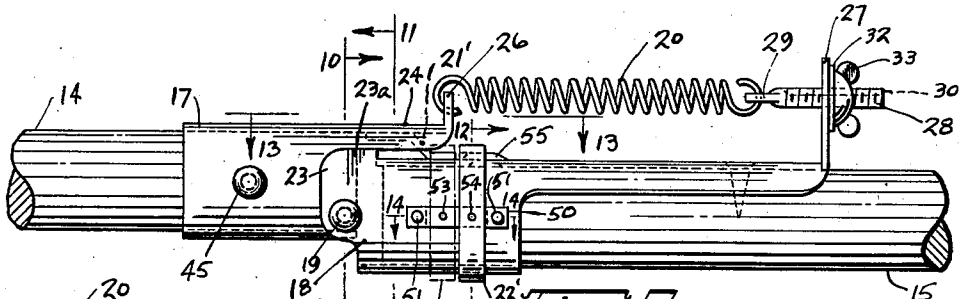


Fig-9

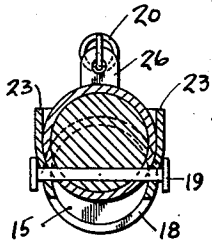


Fig-10

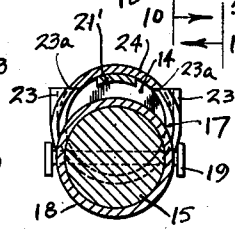


Fig-11

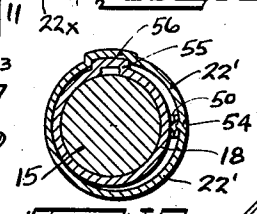


Fig-12

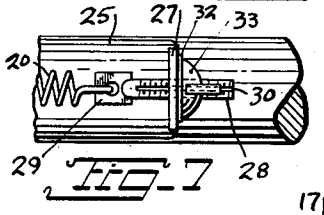


Fig-7

Fig-8

Fig-6

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Patented June 16, 1942

2,286,655

UNITED STATES PATENT OFFICE

2,286,655

MOP HANDLE AND THE LIKE

Frederick Supnick, Brooklyn, N. Y.

Application October 1, 1941, Serial No. 413,109

9 Claims. (Cl. 287—99)

This invention relates to new and useful improvements in a dust mop handle and the like.

The invention particularly proposes the construction of a dust mop handle or similar article which is formed from a pair of sections pivotally and resiliently connected and capable of bending in one plane into angular positions so as to facilitate certain cleaning operations. The invention contemplates the provision of latching means by which the sections may be latched in their aligned positions when desired, particularly to facilitate shaking out of the dust mop.

The handles for dust mops and similar articles which are generally used at the present time are made from one piece. The disadvantage of this construction resides in the fact that it is necessary to bend down when it is desired to push the mop head under furniture. Another disadvantage resides in the fact that when the room is small there is insufficient space to lay the mop handle down in order to get the mop head under furniture. With the new mop handle, in accordance with this invention, bending down is unnecessary because the sections of the handle may be bent to angular positions in one plane when it is required to push the mop head beneath the furniture. Moreover, when the room is small it is a great advantage to have sections of the handle bend, which then eliminates the necessity of laying down the handle to engage the mop under the various objects.

Still further the invention proposes a particularly simple construction for connecting the sections of the mop handle together to function as previously outlined. A novel, simple and inexpensive locking means is proposed. It is further contemplated to so construct the device that any projections which may be necessary, are restricted, to reduce or perhaps completely eliminate interference with furniture or articles in a room when the map handle is used. Moreover it is proposed that all projecting parts be smooth, and have any and all burrs, sharp edges and corners removed, and padding added if necessary, to prevent scratching and damage to articles of furniture under which the dust mop handle is used.

Still further the invention proposes to so arrange the resilient means which resiliently connects the sections of the handle together so as to normally act to urge the sections of the handle into aligned positions. With this construction it is possible to press downwards on the top section of the handle to cause it to bend relative to the bottom section which is then in a position to be slipped beneath furniture.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a side elevational view of a mop provided with a mop handle or the like, constructed in accordance with this invention.

Fig. 2 is a fragmentary enlarged detailed view of a portion of Fig. 1, illustrated with the sections of the handle in an angular position as shown in Fig. 1.

Fig. 3 is an elevational view similar to Fig. 2 but illustrated with the sections of the handle in aligned positions, and shown with the latch covering casings removed.

Fig. 4 is a fragmentary plan view looking in the direction of the line 4—4 of Fig. 3.

Fig. 5 is an elevational view similar to Fig. 3 but illustrated with the handle turned around through 180°.

Fig. 6 is a vertical sectional view taken on the line 6—6 of Fig. 5.

Fig. 7 is a fragmentary plan view looking in the direction of the line 7—7 of Fig. 5.

Fig. 8 is an elevational view similar to Fig. 2 but illustrating a modified construction.

Fig. 9 is an elevational view of the parts shown in Fig. 8, with the handle sections aligned and turned through 180°.

Fig. 10 is a sectional view taken on the line 10—10 of Fig. 9.

Fig. 11 is a sectional view taken on the line 11—11 of Fig. 9.

Fig. 12 is a sectional view taken on the line 12—12 of Fig. 9.

Fig. 13 is a horizontal sectional view taken on the line 13—13 of Fig. 9.

Fig. 14 is a fragmentary enlarged sectional view taken on the line 14—14 of Fig. 9.

The dust mop or the like handle, in accordance with this invention, is a sectional handle having a bottom or front section 14 and a top or rear section 15. The front section 14 is connected in a conventional manner with a mop 16 or other similar article. The handle sections 14 and 15 are pivotally connected together by the use of tubular sockets or other connecting members or elements 17 and 18 which are mounted on the adjacent ends of the handle sections and which

are pivotally connected with each other by a pintle rivet 19. There is resilient means for urging the sockets or members 17 and 18 into substantially axially aligned positions and which include a tension spring 20. Means is also provided for latching the sockets or members 17 and 18 in said aligned positions, and this means includes a latch keeper member 21 mounted on one of the sockets or members, and a complementary latch bolt or member 22 slidably mounted on the other of the sockets or members and engageable with the said keeper member 21.

More specifically, the rear socket or member 18 has side lug portions 23 which engage over the side portions of the front socket or member 17. The pintle 19 engages through the lug portions 23 and the adjacent portions of the socket or member 17 for pivotally connecting said sockets or members. It is important to note that the pintle 19 is located axially on the rear socket 18 and is offset downwards relative to the axial position of the front socket 17, with the parts as shown in Fig. 5. With this construction and relation of the parts, the socket 18 is free to pivot downwards.

With the parts as illustrated in Fig. 5, the front socket 17 has a top projection 24 extending over a portion of said rear socket 18 and extending past the pintle 19. The rear socket 18 is provided with a projection 25 which extends rearwards thereof. The tension spring 20 is mounted between the rear ends of said projections 24 and 25. To facilitate the mounting of the spring 20 the projection 24 has a laterally extending rear end 26 on which one end of the spring 20 is mounted. The projection 25 has a laterally extending rear end 27 which is indirectly connected with the other end of the spring 20.

Means for tensioning the spring 20 is interposed between said ends 26 and 27. This tensioning means comprises a screw 28 mounted through an opening in the offset end 27. The front end of the screw 28 is formed with a flattened portion 29 which is connected with the spring 20. A slot 30 extends longitudinally along one side of the screw 28 and is engaged by a key projection 31 (see Fig. 6) formed on the rear end 27. This key projection prevents the screw 28 from turning. A washer 32 is engaged upon the screw 28 adjacent the rear side of the offset end 27. A wing nut 33 is threadedly engaged on the rear end of the screw 28. When the nut 33 is turned, the screw 28 may be moved forwards or rearwards for slackening or tensioning the spring 20.

The lugs 23 have inwardly laterally bent portions 23a against which the top projection 24 engages (see Fig. 13) for limiting pivoting of the sockets 17 and 18 to the aligned position shown in Fig. 5. The latch keeper member 21 is in the nature of a lug stamped out of the material of the front socket 17. The complementary latch bolt or member 22 is in the form of a rod which is slidably supported on a pair of spaced lugs 35 and 36 which are stamped out of the material of the rear socket 18. A collar 37 is fixedly mounted on an intermediate point of the latch bolt 22 and between the lugs 35 and 36. An expansion spring 38 is coaxially mounted on the latch bolt 22 and acts between the lug 36 and the collar 37 to normally urge the latch bolt 22 forwards into its operative position.

At the rear the latch bolt 22 has an offset end portion 39 which extends at right angles thereof. This end portion 39 projects into a bayonet slot or holding element 40 formed in or on a latch covering casing 41 which is mounted on the socket 18 and covers the latch mechanism thereof. This bayonet slot 40 has its edges 40' turned inwards to prevent cutting one's fingers and has a longitudinally extending branch 40a through which the offset end 39 of the latch bolt 22 may move. It also has an offset end 40b into which the offset end 39 may be engaged to hold the latch bolt 22 in its open position, as clearly shown in Fig. 2. The front end of the latch bolt 22 has a bevel or cam portion 42, see Fig. 3, which is cooperative with the latch keeper 21 to hold the handle sections 14 and 15 of the handle in aligned positions. For this reason the latch keeper 21 is formed at an inclination (see Fig. 3) so as to properly coact with the cam surface 42.

A latch casing 43 is mounted over the socket 17 for encasing the keeper member 21. The casing 43 is held in position by fastening means 44, such as screws or other fastening elements, engaging the handle section 14. The socket 17 is held on the handle section 14 by a rivet 45. The socket 18 is held on the handle section 15 by a fastening element 46 which engages through the projection 25 thereof. The casing 41 is held in position by several fastening elements 47, see Fig. 5.

The handle sections 14 and 15 may be latched in angular position by extending the latch bolt 22, with the parts as shown in Fig. 2, so that the latch bolt 22 engages against one end of the latch keeper 21. Fig. 3 shows the latch bolt 22 engaging the latch keeper 21 for latching the handle sections 14 and 15 in their aligned positions. With the parts as shown in Fig. 2 the handle sections 14 and 15 may be angularly pivoted in a plane, as controlled by the pintle rivet 19.

In Figs. 8 to 14 a modified form of the invention has been disclosed which distinguishes from the prior form particularly in the construction of the latching means. In this form of the invention there is a latch keeper member 21' which is cooperative with a latch bolt or member 22' for latching the sockets 17 and 18, and thus the handle sections 14 and 15, in their aligned positions. More specifically, the latch keeper member 21' comprises a rigid strip which is attached at one end 21a to the bottom side of the projection 24 and which has a downwardly and rearwardly (with relation to Fig. 9) offset free end over which the complementary latch member 22' may engage. The complementary latch member 22' is in the form of a ring which is slidably mounted on the socket 18.

The complementary latch member 22' is in its inoperative position, as illustrated by the full lines in Fig. 9. However, it may be moved towards the left to the position indicated by the dot and dash lines 22x, and then it is engaged over the free end of the latch keeper member 21', which is the operative position of the latching means. The sockets or members 17 and 18 are then held against pivoting. Means is provided for holding the latch member 22' in either of its positions. This means includes a leaf spring 50 which is supported on the side of the socket 18 by several rivets 51.

Small washers 52 are engaged beneath the ends of the spring 50 to hold it slightly spaced from the side of the socket 18. The leaf spring 50 has a pair of spaced niches 53. The latch member 22' has a small projection 54 which engages one of the niches 53 to hold the latch mem-

ber 22' fixed and which is capable of engaging the other niche 53 to hold the latch member 22' in its second position. The latch member 22' is held against turning by a small longitudinally extending projection 55 on the top of the socket 18, which normally engages a small loop portion 56 formed on the top of the latch member 22'. This loop portion 56 is aligned with and may engage over the free end of the latch keeper member 21', when the latch member 22' is moved to the position indicated by the dot and dash lines 22x.

In other respects this form of the invention is identical to the previous form and like parts are identified by like references numerals.

The operation of the device may best be understood by examining Figs. 1 and 2 and noting that the tubular sockets 17 and 18, and thus the handle sections 14 and 15, are in angular positions relative to each other. In this condition of the parts the head of the mop may be easily engaged beneath furniture such as desks, beds, and the like, for cleaning purposes. The handle sections 14 and 15 are maintained in an angular position by exerting slight pressure on the handle section 15 so as to keep the spring 20 under tension. When it is desired that the handle sections 14 and 15 be aligned with each other it is merely necessary to release the pressure against the handle section 15 so that the spring 20 moves the parts into aligned positions. Then the handle 15 may be turned through 180° so that the parts are in the position as illustrated in Fig. 5. Now downward pressure on the handle section 15 will not cause the handle sections 14 and 15 to assume angular positions for the reason that the rearward projection 24 is engaging against the lug portions 23a. The mop may be used in this condition when desired.

When it is desired to lock the handle sections 14 and 15 against bending (pivoting), for example, when the mop is struck against a window sill with the mop head extended to shake out dust, it is merely necessary to set the latch means into operative position. In the first form of the invention this is accomplished by extending the bolt 22 to its operative position as shown in Fig. 3. In the alternative form of the invention this is accomplished by moving the complementary latch member 22' forwards to the position indicated by the dot and dash lines 22x in Fig. 9. The sockets 17 and 18, and thus the handle sections 14 and 15, are now rigidly latched together.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new and desire to secure by United States Letters Patent is:

1. In a sectional dust mop handle and the like having a pair of pivotally connected members for connection with the adjacent ends of the sections of said handle and having resilient means for urging said members into substantially axially aligned positions, means for latching said members in said aligned positions, comprising a latch keeper member on one of said members, and a complementary latch member slidably mounted on the other of said members and engageable with said keeper member.

2. In a sectional dust mop handle and the like having a pair of pivotally connected members for connection with the adjacent ends of the sections of said handle and having resilient means for urging said members into substantially axially aligned positions, means for latching said members in said aligned positions, comprising a latch keeper member on one of said members, and a complementary latch member slidably mounted on the other of said members and engageable with said keeper member, said latch keeper member comprising a lug on said first mentioned member, and said complementary latch member comprising lugs on said second-mentioned of said members, a rod slidably mounted on said last mentioned lugs, resilient means urging said rod forwards into latching position, and means for releasably holding the rod rearwards in an open position.

3. In a sectional dust mop handle and the like having a pair of pivotally connected members for connection with the adjacent ends of the sections of said handle and having resilient means for urging said members into substantially axially aligned positions, means for latching said members in said aligned positions, comprising a latch keeper member on one of said members, and a complementary latch member slidably mounted on the other of said members and engageable with said keeper member, said latch keeper member comprising a lug on said first mentioned member, and said complementary latch member comprising lugs on said second-mentioned of said members, a rod slidably mounted on said last mentioned lugs, resilient means urging said rod forwards into latching position, and means for releasably holding the rod rearwards in an open position, said rod having a cam shaped front end, and said keeper member being at an inclination to be cooperative with said cam shaped front end.

4. In a sectional dust mop handle and the like having a pair of pivotally connected members for connection with the adjacent ends of the sections of said handle and having resilient means for urging said members into substantially axially aligned positions, means for latching said members in said aligned positions, comprising a latch keeper member on one of said members, and a complementary latch member slidably mounted on the other of said members and engageable with said keeper member, said latch keeper member comprising a lug on said first mentioned member, and said complementary latch member comprising lugs on said second-mentioned of said members, a rod slidably mounted on said last mentioned lugs, resilient means urging said rod forwards into latching position, and means for releasably holding the rod rearwards in an open position, said rod having a cam shaped front end, and said keeper member being at an inclination to be cooperative with said cam shaped front end, and latch covering casings being mounted on said members, one of said casings having a bayonet slot through which the rear end of said rod engages and by which the rod may be held in an inoperative position.

5. In a sectional dust mop handle and the like having a pair of pivotally connected members for connection with the adjacent ends of the sections of said handle and having resilient means for urging said members into substan-

tially axially aligned positions, means for latching said members in said aligned positions, comprising a latch keeper member on one of said members, and a complementary latch member slidably mounted on the other of said members and engageable with said keeper member, said latch keeper member comprising a strip mounted on one of said members and having a free end over which the complementary latch keeper member may be engaged, and said complementary latch member comprising a ring slidably mounted to engage over said free end of the strip.

6. In a sectional dust mop handle and the like having a pair of pivotally connected members for connection with the adjacent ends of the sections of said handle and having resilient means for urging said members into substantially axially aligned positions, means for latching said members in said aligned positions, comprising a latch keeper member on one of said members, and a complementary latch member slidably mounted on the other of said members and engageable with said keeper member, said latch keeper member comprising a strip mounted on one of said members and having a free end over which the complementary latch keeper member may be engaged, and said complementary latch member comprising a ring slidably mounted to engage over said free end of the strip, and means for holding said complementary latch member in its inoperative position, comprising a spring mounted on one of said members and engaging the complementary latch member, said spring and latch member having an inter-engaging projection and niche.

7. In a sectional mop handle and the like having a pair of members for engaging on the adjacent ends of the sections of said handle, overlapping side lug portions on said members, a pintle engaging through said lug portions for pivotally connecting said members and located axially on the rear one of said members and offset downwards on the front one of said members, a top projection on said front member extending over said rear member past said pintle, a top projection on said rear member extending rearwards thereof, and a tension spring mounted between the rear ends of said projections.

8. In a sectional mop handle and the like having a pair of members for engaging on the adjacent ends of the sections of said handle, overlapping side lug portions on said members, a pintle engaging through said lug portions for pivotally connecting said members and located axially on the rear one of said members and offset downwards on the front one of said members, a top projection on said front member extending over said rear member past said pintle, a top projection on said rear member extending rearwards thereof, and a tension spring mounted between the rear ends of said projections, the rear ends of said projections being offset upwards and said tension spring being located between offset ends, and means for tensioning said spring, comprising a screw connected with one end of said spring and adjustably mounted on one of the said offset ends.

9. In a sectional mop handle and the like having a pair of members for engaging on the adjacent ends of the sections of said handle, overlapping side lug portions on said members, a pintle engaging through said lug portions for pivotally connecting said members and located axially on the rear one of said members and offset downwards on the front one of said members, a top projection on said front member extending over said rear member past said pintle, a top projection on said rear member extending rearwards thereof, and a tension spring mounted between the rear ends of said projections, said side lugs having portions engaging beneath the top projection of said front member to limit relative pivoting of these members to the aligned position.

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