

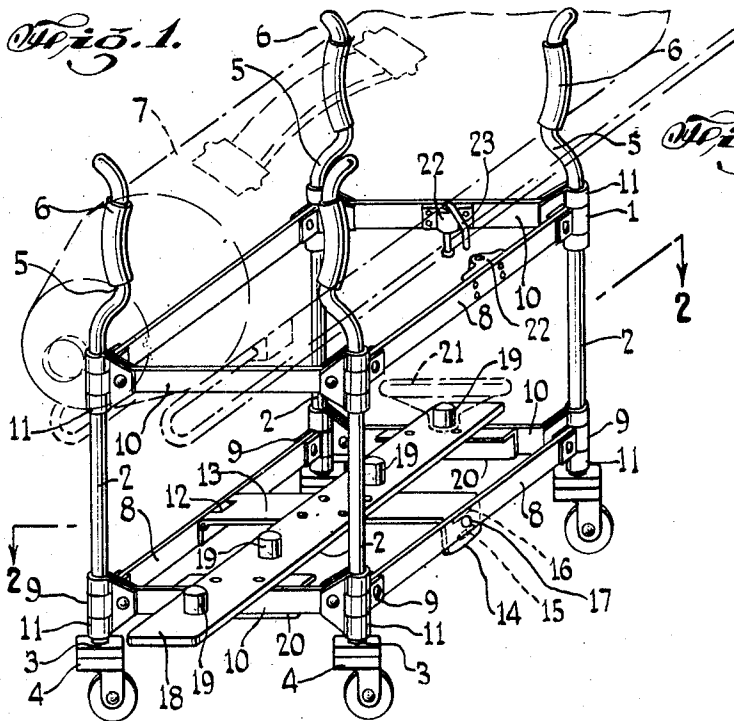
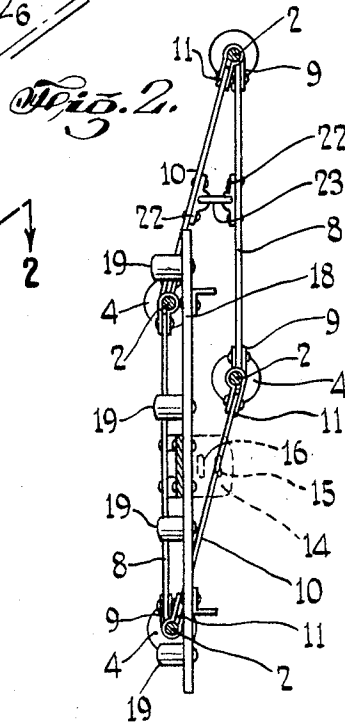
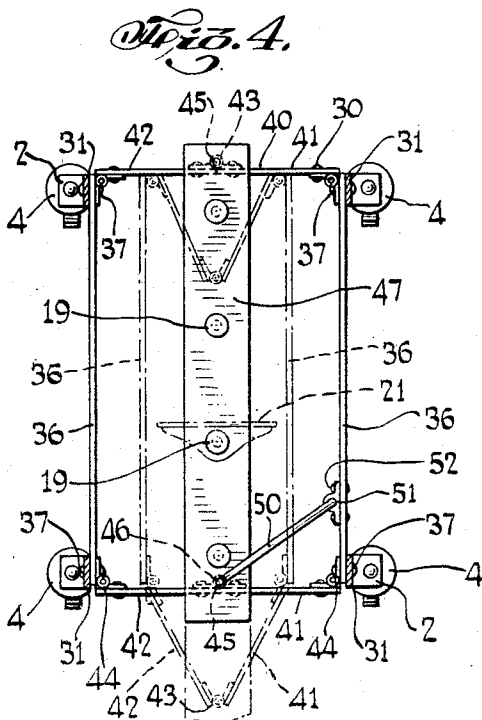
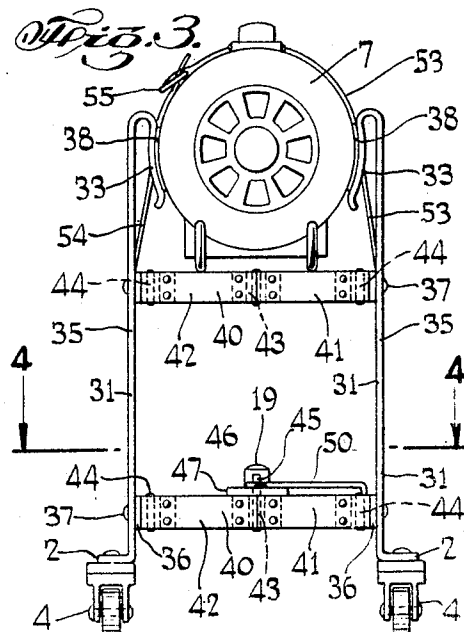
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VACUUM CLEANER DOLLY

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VACUUM CLEANER DOLLY

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11 Claims. (Cl. 280—61)

This invention refers to dollies and more particularly to a new and novel form of dolly for supporting portable vacuum cleaners.

Certain portable vacuum cleaners are now made to be slid on the floor or carried by a handle. When slid on the floor, the usable length of hose is shortened as the cleaning attachment is usually carried waist-high. Furthermore, when carried by hand, only one hand is available for manipulating said attachment. This invention comprehends furnishing a peculiar form of dolly carriage or fabricated structure for clampably supporting vacuum cleaner units of the type above described, which combination permits freer use of a vacuum cleaning attachment and at all times permits the use of both hands for manipulation thereof.

The invention further comprehends furnishing suitable fixtures on said carriage or dolly for supporting the various cleaning attachments when not in use, said attachments being supported within easy reach of the operator.

This invention further comprehends furnishing a foldable or collapsible form of carriage or dolly for supporting portable vacuum cleaner units which may be folded or collapsed into a comparatively small space for storage thereof, after said unit has been removed therefrom, said dolly also being arranged to support said cleaning attachments thereon when in the folded or collapsed position.

The invention further comprehends novel and peculiar modes for clampably holding vacuum cleaner units onto said dolly whereby the movement thereof from place to place during vacuum cleaning may be effected by pulling on the vacuum cleaner hose attached to said unit or by pulling the electric attachment cord attached to said unit.

The invention further comprehends furnishing a novel form of collapsible dolly for clampably supporting vacuum cleaners wherein said carriage or dolly may be locked in either the open or collapsed position.

Other advantages will be apparent as the description of the invention progresses and the novel features thereof are pointed out in the specification and claims.

Referring to the drawing wherein like numerals indicate corresponding parts, Figure 1 is a perspective view of the embodiment of the invention showing a carriage or dolly in the open position, and Fig. 2 is a sectional view of the same in collapsed position taken on line 2—2 of Fig. 1, and Fig. 3 is an end elevational view of another embodiment of the invention shown in the open position, and Fig. 4 is a sectional view of the same taken on line 4—4 of Fig. 3.

Referring to Figs. 1 and 2, fabricated dolly carriage or reticulated structure 1 comprises rod-

like uprights 2, to the lower end 3 of which are secured castors 4, the upper ends thereof being formed as clamping portions 5 covered with resilient sleeves or housings 6 arranged to engage a vacuum cleaner unit, as 7, when inserted in clamping relation to said clamping portions 5 as shown.

Top and bottom longitudinal or side bars or members 8 are rigidly clamped to rods 2 by clamping members 9 surrounding said rods, riveted to or otherwise suitably secured to each end of said side bars.

Transverse or end bars 10 have hinge or clamping members rigidly secured to each end thereof, arranged to hinge or pivot on rods 2 each side of clamping members 9.

Hinged to one lower side bar 8, by hinge 12, is locking latch, plate or spacing member 13, having resilient latching end 14 including locking projections 15 and 16 arranged to interlock with locking projections 17 on side bar 8 when said carriage or dolly is in the open position. Locking projections 15 and 16 are also arranged to interlock with the lower portion of side bar 10 when said dolly is in the fully folded position as shown in Fig. 2.

Spacing member 13 supports cleaning attachment supporting member or board or plate 18 having aligned or spacing members 20 secured adjacent each end thereof, said aligning members engaging the inner side of transverse or end rails 10 when latch 14 is interlocked in the open position as shown in Fig. 1. Cleaning attachment supporting member 18 supports cleaning attachment studs or holding members 19 over which various cleaning attachments, as 21, may be placed for supporting the same when not in use.

Locking member 23 of U-shaped form is arranged to have one leg thereof movable axially and pivotally in bracket 22 secured to end bar 10, the other leg thereof being arranged to enter bracket 22 secured to side bar 8. The leg operating in bracket 22 secured to side bar 10 is supplied with a suitable enlarged portion at the end thereof whereby said locking member cannot be entirely removed from said bracket.

Referring to Figs. 3 and 4 showing a modified form of carriage or dolly 30, uprights or vertical members 31 have castors 4 secured to the lower angled end 2 thereof, and resilient clamping portions 33 at the upper end thereof joined by intermediate portion 35, to which are rigidly secured each end of side bars or rail members 36 by rivets 37 or other suitable engaging means. Clamping portions 33 are inwardly bent and faced with a resilient pad or engaging member 38 arranged to clampably support vacuum cleaner 7 as shown. The clamping portions 33 including the upper end portion of intermediate por-

tion 35 form a resilient unit arranged to resiliently urge pads 38 into engagement with said unit.

End or transverse bars or rails 40 are formed in two parts or halves 41 and 42, the inner ends of which are pivotally joined by hinges 43, and the outer ends of which are pivotally joined to side rails 36 and uprights 31 by hinges 44. One of said hinges 43 is exterior of said end bar 40 and the other is interior of the opposite similar bar to permit folding or collapsing of the dolly to the dotted position shown in Fig. 4.

The hinge pins of hinges 43 are preferably formed with extensions 45 passing through opening 46 in cleaning attachment support member 47 supporting stubs 19 for holding cleaning attachments, as 21, when not in use.

Hasp or locking member 50 is preferably pivoted on extension 45, and the free or hook end thereof is arranged to enter opening 51 of bracket 52 secured to side rail 36 for locking said dolly 30 in open position. When said dolly is to be collapsed the free end of said latch is removed from bracket 52 and is placed adjacent the inner side of hinge 43 for locking said dolly in the collapsed or folded position, when fully collapsed or folded. As shown in Fig. 4 the dotted position shows the dolly as partially collapsed, the vertical rails 31 engaging cleaning attachment supporting member 47 when said dolly is fully collapsed.

Referring to Figs. 1 and 2, when carriage or dolly 1 is to be stored after use, member 13 is raised, the latch 14 being disengaged from locking projection 17 and reengaged with the upper end rail 10, the lower portion of said rail being interlocked between locking projections 15 and 16 thereby holding cleaner attachment member 18 in folded or locked position. Dolly 1 is now folded to substantially the position shown in Fig. 2, the free leg of the locking member 23 being inserted into bracket 22 on side rail 8 in this manner locking said carriage or dolly in collapsed or folded position.

Referring to Figs. 3 and 4, when carriage or dolly 30 is to be stored after use, the free end of hasp 50 is removed from opening 51 of bracket 52. The carriage or dolly is then collapsed by pressure on exterior positioned end hinge 43, the end bars 40 acting as a hinge whereby the side bars 36 are moved toward each other as shown in the dotted position, said movement being continued until vertical rails 31 engage the sides of cleaning attachment supporting member 47, whereafter the free end of hasp 50 is inserted between the protruding members 41 and 42 thereby acting to lock said dolly in the collapsed position.

If desired, the cleaning attachment support or member 47 may be removed from the carriage or dolly prior to the collapsing thereof, thereby permitting the placing of the attachments on a shelf or other support independent of said carriage or dolly, or said support may be left on extensions 46 including the cleaning attachments thereon when said dolly is stored, said attachments being rotated as desired for more economical storage of said carriage or dolly.

Whereas the clamping members or brackets 9 are shown as independently formed of side rails 8, said members may be formed integral with said side bars, being formed by bending the ends of said side bars around rod 2.

Likewise end or transverse bars 10 may have the ends thereof formed to surround rods 2 in the same manner as the ends of said modified side

bars 8, however arranged to pivot on said rods 2, the end bars 10 being positioned in a plane above or below said side bars 8.

The vacuum cleaner unit 7 may be additionally or independently clampably supported on the devices 1 or 30 by the means of strap members 53 and 54, one end of which is secured at preferably the mid portion of upper side rails 8 or 36 and the free ends of which terminate in a buckle or other suitable attachment 55.

The apparatus above shown and described should be construed as typical and not as limiting the invention, the scope of which is defined in the appended claims.

What we claim is:

1. In combination, a carriage adapted to receive a vacuum cleaner unit and a plurality of attachments thereon, a plurality of rigid body members on said carriage, means pivotally connecting said body members in spaced relation for movement between open and closed positions of said carriage, resilient portions on said body members for resiliently clampably supporting said vacuum cleaner unit on said carriage, means for locking said body members together when in the folded position, means including an attachment supporting member foldable with respect to said carriage, spaced supports on said attachment supporting member for supporting said attachments at predetermined location thereon when said member is in the open position, and means for movably supporting said carriage on a floor for transporting said cleaner unit to selected portions thereof.

2. In combination, a carriage adapted to receive a vacuum cleaner unit and a plurality of attachments thereon, means on said carriage for quick detachably supporting said cleaner unit thereon, an attachment support member hinged on said carriage movable between open and folded positions including a plurality of spaced male projections to enter said attachments for positioning the same on said hinged member when in the open position, and means for movably supporting said carriage on a floor for transporting said cleaner unit to selected portions thereof.

3. In combination, a carriage adapted to receive a vacuum cleaner unit and a plurality of attachments thereon, a pair of rigid side frames on said carriage, means pivotally connecting said frames together in spaced parallel relation for movement between open and folded positions of said carriage, means on said carriage including resilient clamping portions for quick detachably supporting said cleaner unit on said carriage, an attachment support member hinged to said carriage movable between open and folded positions including a plurality of spaced devices for positioning each of said attachments at predetermined locations on said supporting member when in the open position, and means movably supporting said carriage on a floor for transporting said cleaner unit to selected portions thereof.

4. In combination, a carriage adapted to receive a vacuum cleaner unit and a plurality of attachments thereon, rigid side frames on said carriage, means connecting said frames together for movement between open and folded positions of said carriage, an attachment support member on said carriage supported by but movable relatively thereto including a plurality of spaced supports for positioning each of said attachments at predetermined spaced locations on said supporting member, means on said carriage for clampably supporting said cleaner unit thereon,

and means for movably supporting said carriage on a floor for transporting said cleaner unit to selected portions thereof.

5. In combination, a carriage adapted to receive a vacuum cleaner unit and a plurality of attachments thereon, means on said carriage for clampably supporting said cleaner unit thereon, an attachment supporting member on said carriage supported by but movable relatively thereto including a plurality of spaced supports for positioning each of said attachments at predetermined spaced locations on said supporting member, and means for rollably supporting said carriage on a floor for conveying said cleaner unit to selected portions thereof.

6. In combination, a carriage adapted to receive a vacuum cleaner unit and a plurality of attachments thereon, a pair of rigid body portions on said carriage, means pivotally connecting said body portions for movement between open and folded positions of said carriage, a clamping extension on one body portion for clampably engaging one side of said cleaner unit and another clamping extension on the other body member for clampably engaging the opposite side of said unit, said clamping extensions being movable between open and folded positions simultaneously with movement of said body portions between open and folded positions, and means for rollably supporting said carriage on a floor for conveying said cleaner unit to selected portions thereon.

7. In combination, a carriage adapted to receive a vacuum cleaner unit and a plurality of attachments thereon, a pair of rigid side members on said carriage, means pivotally connecting said members in spaced parallel relation for movement between open and folded positions of said structure, a pair of clamping extensions positioned at spaced portions of one of said side members for clampably engaging one side of said cleaner unit and another pair of clamping extensions positioned at similarly spaced portions on the other side member for clampably engaging the opposite side of said unit, the clamping extensions of one side member being movable between open and folded positions with respect to the clamping extensions of the other side member simultaneously with movement of said side members between open and folded positions, means for locking said side members in the folded position thereof, and means for rollably supporting said structure on a floor for conveying said cleaner unit to selected portions thereof.

8. In combination, a carriage adapted to receive a vacuum cleaner unit and a plurality of attachments thereon, a pair of body members on said carriage, means pivotally connecting said members in spaced relation for movement relatively between open and folded positions, a plurality of clamping portions extending outwardly from each said body members for clampably supporting said cleaner unit therebetween, the clamping portions of one body member being movable between open and folded positions with respect to the clamping portions of the other body member upon moving said body member between open and folded positions whereby said cleaner unit may be supported therebetween solely upon movement of said body members to

said open position, means on said carriage for supporting said attachments thereon, and means for rollably supporting said carriage on a floor for transporting said cleaner unit to selected portion thereof.

9. In combination, a carriage adapted to receive a vacuum cleaner unit and a plurality of attachments thereon, a pair of body members on said carriage, means pivotally connecting said members for relative movement between open and folded positions of said carriage, a plurality of clamping portions extending outwardly from each of said body members for clampably supporting said cleaner unit therebetween, the clamping portions of one body member being movable between open and closed positions with respect to the clamping portions of the other body member upon moving said body members between open and folded positions whereby said cleaner unit may be supported therebetween solely upon movement of said body members to the open position, means foldably supported by said carriage movable between open and folded positions for supporting said attachments when positioned in the open position thereof, and means for rollably supporting said carriage on a floor for conveying said cleaner unit to selected portions thereof.

10. In combination, a carriage adapted to receive a vacuum cleaner unit and a plurality of attachments thereon, a pair of body members on said carriage, means pivotally connecting said members for relative movement between open and folded positions of said carriage, a plurality of clamping portions including resilient facings extending outwardly from each of said body members for clampably supporting said cleaner unit therebetween, the clamping portions of one body member being movable between open and folded positions with respect to the clamping portions of the other body member upon moving said body members between said open and folded positions, means including a member supported by said carriage and movable relatively to said body members upon movement thereof between said open and folded positions for supporting said attachments thereon, and means for rollably supporting said carriage on a floor for conveying said cleaner unit to selected portions thereon.

11. In combination, a carriage adapted to receive a vacuum cleaner unit and a plurality of attachments thereon, a pair of body members on said carriage, means pivotally connecting said body members for relative movement between open and folded positions of said carriage, a plurality of clamping portions extending from said body members for clampably supporting said cleaner unit therebetween, an attachment supporting member pivoted to said carriage and movable relatively to both of said body members upon movement thereof between said open and folded positions, supports on said supporting member for independently supporting each of said attachments thereon, and means for rollably supporting said carriage on a floor for conveying said cleaner unit to selected portions thereon.

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