Jan. 7, 1958 R. C. LAMPE 2,819,091

VACUUM CLEANER DOLLY

Filed June 29, 1953 2 Sheets-Sheet 1

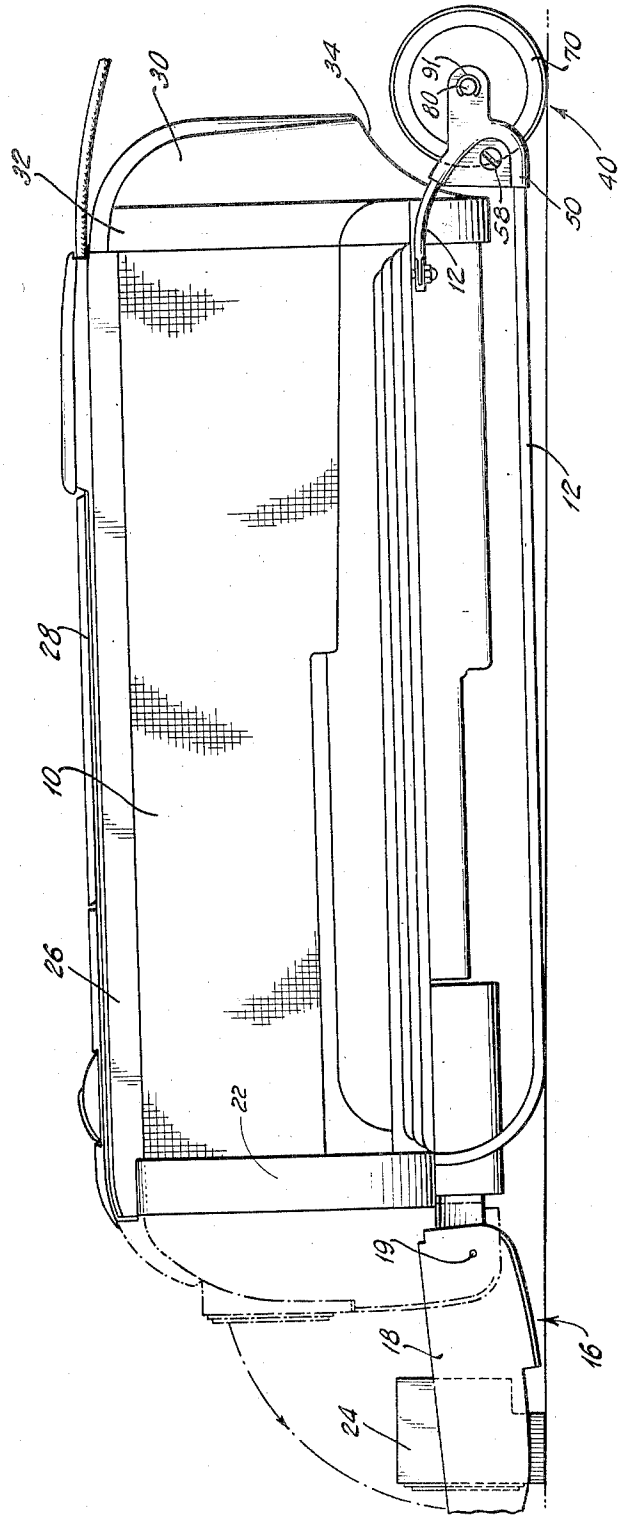


Fig. 1

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Filed June 29, 1953 2 Sheets-Sheet 2

Fig. 2.

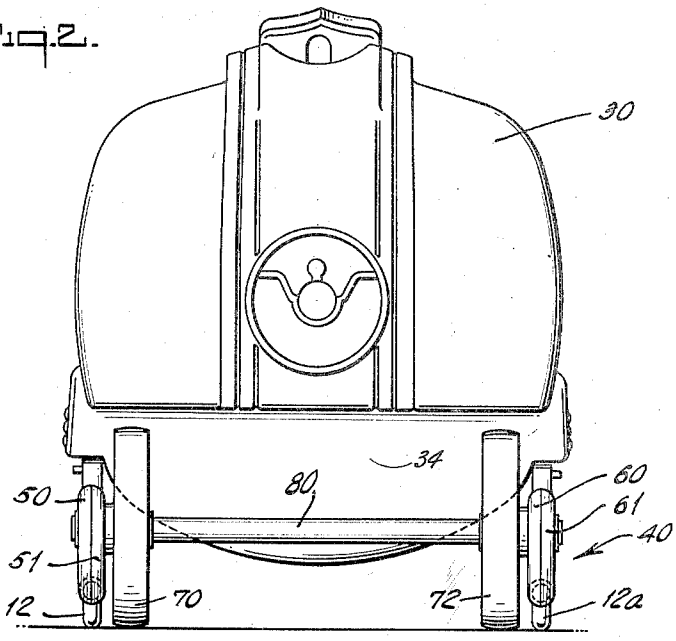


Fig. 3.

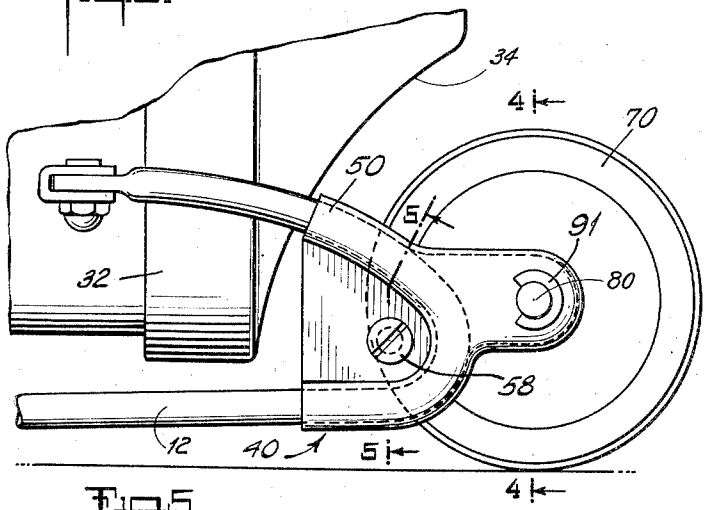


Fig. 4.

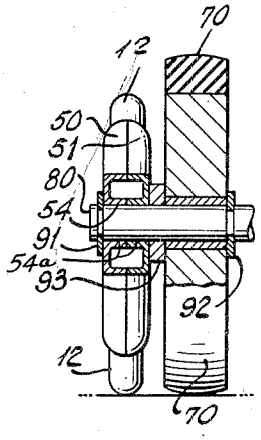


Fig. 5.

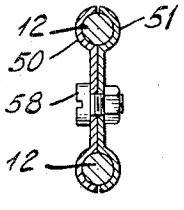
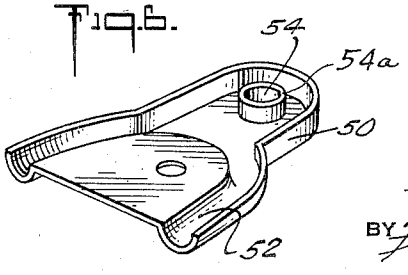


Fig. 6.



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United States Patent Office 2,819,091 Patented Jan. 7, 1958

2,819,091

VACUUM CLEANER DOLLY

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Application June 29, 1953, Serial No. 364,587

2 Claims. (Cl. 280—8)

This invention relates to an improved wheel dolly for a tank type vacuum cleaner and to means for mounting and locking it in position on preferred portions of the cleaner unit.

More particularly, it embraces a novel combination of elements for insuring the retention of such a wheel dolly in position on the runners or sleighs of a tank type vacuum cleaner and, preferably, on preselected portions of said runners or sleighs.

Heretofore, a number of dolly or wheeled devices have been designed for use with vacuum cleaner units. Some have been attached to various parts of the body of the cleaner, each however, having certain specific objects in view. All of these devices have been found subject to many seemingly unavoidable shortcomings and in particular, none have been found adequate for effecting the objects and purposes of this invention.

It is an object of this invention to provide a new and improved type of wheel dolly which may be readily attached to the runners of a conventional tank type cleaner.

It is a further prime object of this invention to provide a dolly which is easily removed from and remounted on a cleaner.

Another object is to provide a dolly mechanism which, after attachment, still leaves the rug in contact with a major portion of the runner surface, especially on deep pile rugs.

Still another object is to enable the operator to handle the vacuum cleaner on carpeted and uncarpeted surfaces with the utmost ease and without abrading or otherwise injuring the uncarpeted surface.

Still other and further objects will become apparent upon reading the following description together with the accompanying drawings, in which:

Figure 1 is a side elevation of a tank type vacuum cleaner showing an assembled view of one embodiment of this invention;

Figure 2 is a rear plan view of the dolly device in position on a cleaner and at the rear thereof to show the details of the dolly structure more clearly;

Figure 3 is an enlarged side elevational view of a portion of Fig. 1 showing the dolly in position securely fastened over an angular portion of the runners;

Figure 4 is a sectional view taken on the line 4—4 of Fig. 3;

Figure 5 is a cross-sectional view of the base member mounting of the dolly in place on the runner and taken on the line 5—5 of Fig. 3; and

Figure 6 is a perspective view of one half of the base member mounting showing the groove formed therein for conformably fitting over the runner.

Referring now more particularly to the embodiment shown in the accompanying drawings, a housing **10** of a conventional tank-type vacuum cleaner has suitably secured thereto a pair of runners **12** and **12***a* which support the cleaner in a substantially horizontal position. One end of housing **10** forms a dust container compartment opening in a substantially vertical plane and provided with a closure member **16**. This closure member **16** comprises a portion **18** pivotally mounted at **19** to pneumatically seal a front cover ring **22**, and when opened, cover **16** extends anteriorly from the housing **10**. A hose connector element **24** is pivotally carried by the portion **18** of closure member **16** and is adapted to be oriented in paralleled position throughout its traveled arc.

A top trim assembly **26** is appropriately secured to the upper portion of housing **10** and is provided with a carrying handle **28**. Rear cover **30** is removably fastened by appropriate means to rear cover ring **32** and housing **10** and is suitably shaped at the bottom **34** to facilitate the convenient placement of the dolly member **40** at the angular bend in the sleighs or runners **12**.

The base members **50**, **51** and **60**, **61** (Fig. 2) for mounting the wheels **70** and **72** of the dolly **40** are shown in a preferred position at the reversely or angularly bent portion of the runners shown between the rearwardly and downwardly extending portions and the forwardly extending portions of the runners **12** and **12***a*. The base members **50**, **51** are mirror-image elements or members which mate along their inner edges and plane surfaces, each element being provided with a groove therein for conformably and contiguously fitting over one-half of the outside surface of the runner upon which it is immediately mounted at the reversely or angularly bent portion of the runner. In this location the base members are locked against longitudinal sliding movement along the runners while simultaneously holding their axle supporting extensions rigidly in place for the more convenient mounting of wheels **70**, **72** on axle **80**. This particular mounting at the angularly bent portion of the runners **12** and **12***a* locks the base members against rotation in any plane, whether it be vertical, longitudinal or axial.

Each base member comprises an outer metal stamping **50** and an inner metal stamping **51** each provided with a groove **52**, Fig. 6, conformably fitting over the sharply bent end of runner **12** and securely fastened together by retaining bolt and nut **58**, Fig. 5. A similar pair of metal stampings **60**, **61** form the other base member which is securely fastened to fit over the corresponding portion of the right-hand runner **12***a* of Fig. 2, by bolt and nut members similar to **58**.

An axle receiving opening **54**, Fig. 6, is formed in each stamping and is surrounded by a flange **54***a*. The ends of the flanges of each pair of stampings which comprise a base member meet in abutting relationship, the flanges thus providing substantial bearing surface for supporting an axle **80** on which wheels **70**, **72** are mounted. The outer locking washer **91**, Figs. 3 and 4, fitting into a groove cut in the axle surface, locks the axle **80** in place, while inner locking washer **92** likewise fitting into a groove cut in the axle surface holds the wheel **70** in its preselected position on the axis. A free washer **93**, Fig. 4, serves to space wheel **70** from frictional contact with the surface of inner metal stamping **51**.

Wheel **72** is mounted on axle **80** in a manner corresponding to that described above in connection with wheel **70**. The resultant wheel dolly effects a rigid, readily replaceable, simple construction which supports the relatively heavy motor fan end of the cleaner in a highly efficient and flexible manner. Use of this mounting completely avoids the hard wear and marring effects sometimes produced on wood, linoleum and similar uncarpeted surfaces when the bare runners of a conventional tank type vacuum cleaner are carelessly drawn across such flooring.

It is to be understood that the example described above is merely illustrative and is not a limitative embodiment of this invention and that the scope thereof may be vari-

ously otherwise constituted within the scope of the definitions thereof contained in the appended claims.

What I claim is:

1. In a wheel dolly for a tank type vacuum cleaner having a pair of supporting runners at opposite sides thereof, each runner having a reversely bent portion, the combination of a base member mounted on each of said runners at the reversely bent portion thereof and comprising a pair of sheet metal stampings, each stamping of each pair being a mirror image of the other and each stamping having a groove therein conformably fitting over one-half of said reversely bent portion of its associated runner, means for securing each pair of stampings together with said portion of the associated runner clamped within said groove, aligned axle openings in each pair of stampings, a cylindrical flange extending from each stamping around each opening, the flanges of the stampings of each pair meeting to form a bearing surface, an axle extending between said base member and mounted in said bearing surfaces, and wheels mounted on said axle.

2. In a wheel dolly for a tank type vacuum cleaner having a pair of supporting runners at opposite sides thereof, each runner having a reversely bent portion, the combination of a base member mounted on each of said runners at the reversely bent portion thereof and comprising a pair of sheet metal stampings, each stamping of each pair being a mirror image of the other and each stamping having a groove therein conformably fitting over one-half of said reversely bent portion of its associated runner, the stampings of each pair having flat surface portions, means for securing said surface portions in face to face relationship with said portion of the associated runner clamped within said grooves, aligned axle openings in each pair of stampings, a cylindrical flange extending from each stamping around each opening, the flanges of the stampings of each pair meeting to form a bearing surface, an axle extending between said base members and mounted in said bearing surfaces, and wheels mounted on said axle.

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