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Crowe

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[54] **REFRIGERATOR CABINET HAVING ADJUSTABLE WHEEL OR ROLLER**

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[52] **U.S. Cl.** ..... **16/19,** 16/105, 16/29, 16/31 R

[51] **Int. Cl.** **B60b 33/04**

[58] **Field of Search** 16/18, 19, 105, 29, 30, 16/31

[56] **References Cited**

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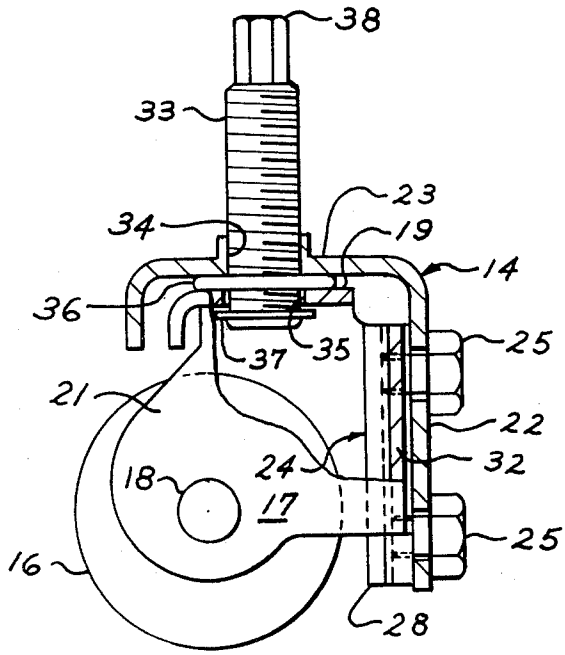
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[57] **ABSTRACT**

A refrigerator cabinet has each of the pair of front wheels or rollers supported on a front frame member at opposite ends thereof for vertical adjustment. Each of the wheels is rotatably supported in a housing having guide flanges on each side for cooperation with tracks which are formed between the front frame member and a track member to cause the housing to move only vertically when a screw is rotated. The screw is connected to the top of the housing for rotation relative thereto and threaded in a horizontal flange of the front frame member.

2 Claims, 3 Drawing Figures



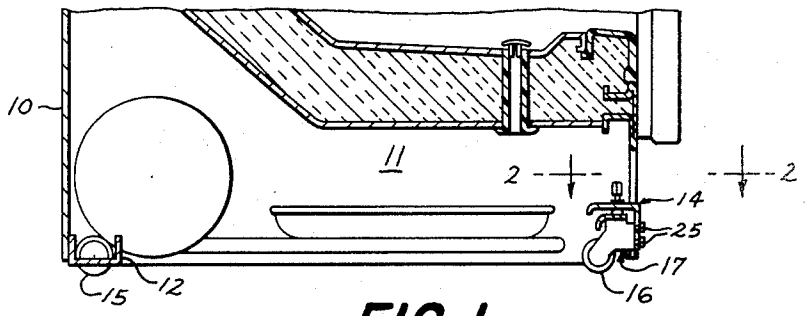


FIG. 1

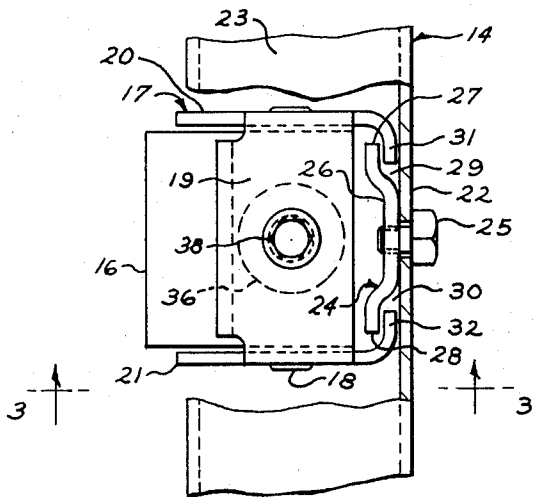


FIG. 2

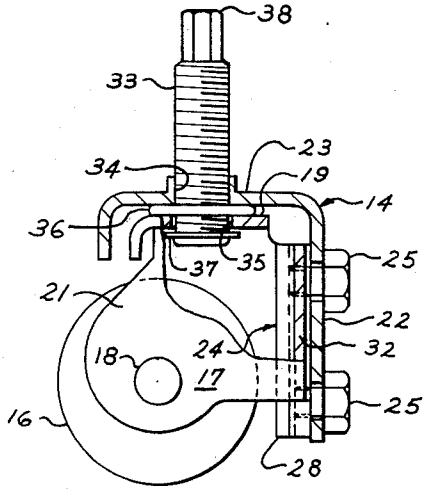


FIG. 3

REFRIGERATOR CABINET HAVING ADJUSTABLE WHEEL OR ROLLER

BACKGROUND OF THE INVENTION

In refrigerator cabinets, it is desired to be able to move a refrigerator from its normal stored position to enable access to the area of the floor on which the refrigerator cabinet is supported for cleaning purposes, for example. Thus, refrigerator cabinets have previously been supported on rollers or wheels to provide this mobility to the refrigerator cabinet.

When the refrigerator is in its stored position, it is necessary that the cabinet be level. U.S. Pat. No. 3,656,203 to Waflart, Jr. discloses an arrangement in which the front wheels of a refrigerator cabinet or other appliance are vertically adjustable to level the cabinet.

The present invention is an improvement of the vertical adjustment arrangement of the aforesaid Waflart, Jr. patent in that a guide and track arrangement is employed to insure that each of the housings for the front wheels moves only vertically when adjustable. Furthermore, the present invention enables the adjusting screw to act directly on the wheel housing.

SUMMARY OF THE INVENTION

An object of this invention is to provide a refrigerator cabinet having vertically adjustable wheels or rollers to level the cabinet while still providing mobility thereto.

In accordance with the illustrated embodiment of the invention, a refrigerator cabinet has a frame member extending across its front and adjacent its bottom with the frame member supporting a wheel housing adjacent each end thereof with each of the wheel housings having a wheel rotatably supported thereby. The frame member supports a pair of rotatable means with each being connected to one of the wheel housings. The frame member and each of the wheel housings has cooperating means to allow each of the wheel housings to move only vertically relative to the frame member when the connected rotatable means is rotated to adjust the vertical position of the wheel housing relative to the frame member to level the refirgerator cabinet.

BRIEF DESCRIPTION OF THE DRAWING

The attached drawing illustrates a preferred embodiment of the invention, in which:

FIG. 1 is a side elevational view, partly in section, of the lower portion of a refrigerator cabinet utilizing the wheel assembly of the present invention;

FIG. 2 is a top plan view, partly in section, of one of the wheel assemblies of the present invention and taken along line 2—2 of FIG. 1; and

FIG. 3 is a sectional view, partly in elevation, of the wheel assembly of FIG. 2 and taken along line 3—3 of FIG. 2.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the drawing and particularly FIG. 1, there is shown a refrigerator cabinet **10** having a substantially horizontal frame structure beneath a machinery compartment **11.** The horizontal frame structure includes a transversely extending rear frame member **12** and a transversely extending front frame member **14.**

For the purpose of providing the desired mobility of the refrigerator cabinet **10,** a wheel or roller is disposed adjacent each of the four corners of the horizontal frame structure. A wheel or roller **15** (one shown) is supported at each of the two rear corners of the refrigerator cabinet **10** on the rear frame member **12.** The wheels or rollers **15** are not adjustable.

A roller or wheel **16** is supported at each of the two front corners of the refrigerator cabinet **10** on the front frame member **14.** Each of the wheels or rollers **16** is vertically adjustable to level the refrigerator cabinet **10** when it is moved to its desired position. Thus, the wheels **15** and **16** permit the refrigerator cabinet **10** to be rolled to any desired position while still enabling leveling of the refrigerator cabinet **10** at the position in which it is normally located.

Each of the wheels or rollers **16** is rotatably supported in a wheel housing **17** by an axle **18.** The housing **17** includes a horizontally disposed top wall **19** and a pair of vertically disposed and substantially parallel side walls **20** and **21** extending downwardly from the top wall **19** and integral therewith.

Each of the wheel housings **17** is supported on opposite ends of the front frame member **14** for vertical adjustment. The front frame member **14,** which has a generally inverted L-shaped cross section (see FIG. **3**), includes a vertically extending flange **22** and a horizontally extending flange **23,** which extends rearwardly from the vertical flange **22.**

A pair of track members **24** (one shown) is mounted on the vertical flange **22** of the front frame member **14** in longitudinally spaced relation to each other. Each of the track members **24** is secured by screws **25** to the vertical flange **22.**

Each of the track members **24** includes a central portion **26** (see FIG. **2**), which is in contact with the rear surface of the vertical flange **22** and has the screws **25** extending therethrough to secure the track member **24** to the vertical flange **22,** and offset end portions **27** and **28.** As shown in FIG. **2,** each of the offset end portions **27** and **28** is spaced from the rear surface of the vertical flange **22** of the front frame member **14** to form tracks **29** and **30,** respectively, between the front frame member **14** and the end portions **27** and **28,** respectively.

The side walls **20** and **21** of each of the housings **17** have inwardly turned guide flanges **31** and **32,** respectively, for disposition within the tracks **29** and **30,** respectively. Accordingly, with the flanges **31** and **32** disposed in the tracks **29** and **30,** respectively, each of the housings **17** is movable only vertically relative to the front frame member **14.**

Each of the housings **17** is moved vertically relative to the front frame member **14** by a screw **33** (see FIG. **3**), which is disposed in a threaded hole **34** in the horizontal flange **23** of the front frame member **14.** The screw **33** extends through an opening **35,** which is larger in diameter than the screw **33,** in the top wall **19** of the housing **17.** The screw **33** has a shoulder **36,** which is of larger diameter than the opening **35** and is disposed between the lower surface of the horizontal flange **23** of the front frame member **14** and above the upper surface of the top wall **19** as shown in FIG. **3.** The screw **33** has a washer **37,** which is of larger diameter than the opening **35** but a smaller diameter than the shoulder **36,** fixed thereto adjacent its lower end and beneath the lower surface of the top wall **19** of the housing **17.**

Thus, the screw **33** is connected to the housing **17** while being freely rotatable relative thereto. When the screw **33** is rotated in the threaded opening **34** to produce vertical movement of the screw **33,** this causes vertical movement of the wheel housing **17** in the same direction through the guide flanges **31** and **32** of the side walls **20** and **21,** respectively, riding in the tracks **29** and **30,** respectively.

The screw **33** has a hexagonal shaped upper end **38** to enable rotation of the screw **33** by a suitable tool. When the screw **33** is rotated to move the wheel housing **17** vertically, the location of the axle **18** relative to the floor is moved vertically. This adjusts the level of the refrigerator cabinet **10.**

While the present invention has shown and described control of the vertical movement of each of the housings **17** relative to the front frame member **14** as being by the guide flanges **31** and **32** riding in the tracks **29** and **30,** respectively, it should be understood that only one of the guide flanges **30** and **31** and one of the tracks **29** and **30** need be employed. Furthermore, instead of using the tracks **29** and **30** and the guide flanges **31** and **32,** it should be understood that any other suitable arrangement for insuring that the housing **17** moves vertically when the connected screw **33** is rotated may be employed.

An advantage of this invention is that it reduces the cost of manufacture of a wheel or roller for a refrigerator cabinet. Another advantage of this invention is that it provides an easy arrangement for leveling a refrigerator cabinet having mobility.

For purposes of exemplification, a particular embodiment of the invention has been shown and described according to the best present understanding thereof. However, it will be apparent that changes and modifications in the arrangement and construction of the parts thereof may be resorted to without departing from the spirit and scope of the invention.

I claim:

1. A refrigerator cabinet, comprising:

a frame member having first and second portions and extending across the front of said cabinet adjacent the bottom thereof, said first portion being oriented generally vertically and said second portion being oriented generally horizontally;

a wheel housing supported on said frame member second portion adjacent each end thereof;

a wheel rotatably mounted on each wheel housing;

a pair of rotatable adjusting means each supported by said frame member second portion and connected to one of said wheel housings;

a pair of frame flange sets each connected to the frame member first portion adjacent one of the wheel housings, each frame set comprising a pair of opposed flanges each extending along and being spaced from the frame member first portion for forming a pair of spaced, generally vertical tracks; and

a housing flange set connected to each wheel housing, each housing flange set comprising a pair of opposed flanges oriented relative to a respective frame flange set for disposition in said tracks.

2. The refrigerator cabinet according to claim **1** in which each of said rotatable means comprises a vertically disposed screw threaded in said frame member second portion and connected to said wheel housing, said screw being freely rotatable relative to said wheel housing.

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