FRANK ROBERTSON

62

July 3, 1956

F. ROBERTSON

2,752,641

MOBILE WALL UNIT

Filed Sept. 30, 1952

4 Sheets-Sheet 2

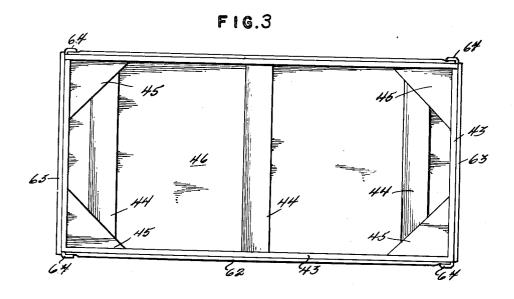
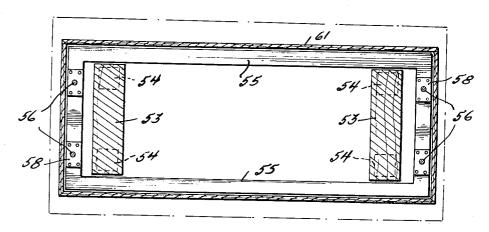


FIG.6

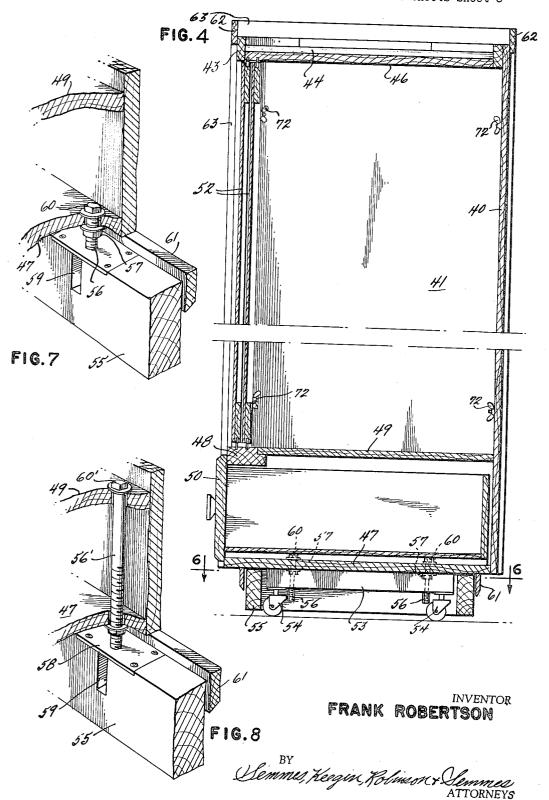


FRANK ROBERTSON

Semmes, Keezin, Kobinson + Semmes ATTORNEYS MOBILE WALL UNIT

Filed Sept. 30, 1952

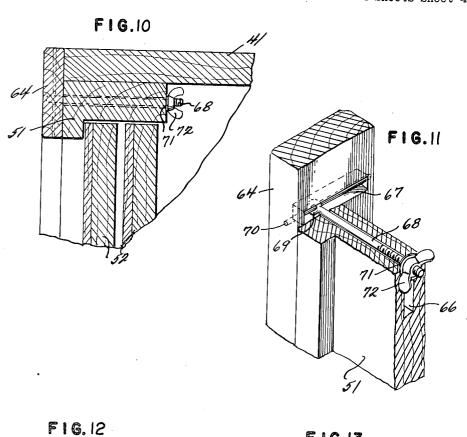
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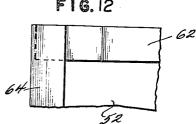


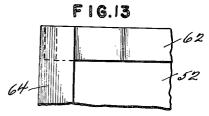
MOBILE WALL UNIT

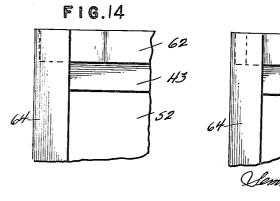
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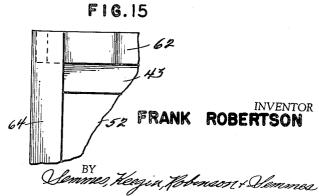
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United States Patent Office

2,752,641 Patented July 3, 1956

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2,752,641 MOBILE WALL UNIT

Frank Robertson, San Antonio, Tex.

Application September 30, 1952, Serial No. 312,258

6 Claims. (Cl. 20—4)

This invention relates to mobile wall or partition units 15 and more particularly to units which can be moved about and arranged to divide a floor space into different numbers and arrangements of rooms as and when desired. Preferably the mobile wall or partition units include a section in the nature of a cabinet providing storage 20 facilities.

In order to better appreciate the environment of this invention and the art to which it relates it may be pointed out that it has been and still is customary to build houses with rooms of permanent size and in permanent arrangement by means of permanently installed walls or partitions. The room arrangement can be changed only by tearing down the permanent walls or partitions and then rebuilding new walls or partitions at the new places which will give the new arrangement of rooms desired. This, 30 of course, is a very expensive and time-consuming procedure and is very annoying to people who live in the house while the alterations are being made. The cost is often prohibitive to people of moderate means.

On the other hand, it is frequently desired and often 35 imperative that the room arrangement in a house be changed either by changing the number of rooms or changing the lay-out of the rooms. For instance, in the twenty-five year history of the average family with children, the home first may have few rooms of quite large 40 size. As children come along, one or more of the larger rooms need to be broken into smaller rooms, each being for the individual child, boy or girl. Then when the children are grown and are no longer occupants of the home, it is frequently desired to convert back to more spacious 45 living quarters or possibly to change the arrangement to rooms suitable for renting, such, for instance as would be known as "efficiency" apartments—this latter feature lending itself admirably to retired couples being more able to meet long time installment payment plans now being 50 encouraged by agencies attempting more housing in America, and thus guaranteeing greater security for aged

Accordingly, a principal object of this invention is to provide non-permanently installable walls or partitions 55 for dividing floor space in houses into re-arrangeable room lay-outs both as to size of rooms and number of

Another object of this invention is to provide non-permanently installable wall or partition units which may 60 be juxtaposed with other like or different wall or partition units to form a non-permanently installed wall or partition for dividing floor space in houses into re-arrangeable room lay-outs both as to size of rooms and number of rooms.

Another object of this invention is to provide nonpermanently installable walls, partitions, wall units and partition units of the character stated and which are so constructed as to be easily movable when desired to different places and into different unit arrangements in the floor space and also when desired to be brought into firm and rigid supporting engagement with the floor and 2

into firm and rigid contact against the ceiling over the floor space.

Another object of this invention is to provide wall or partition units of the character stated and which are equipped with horizontally adjustable moulds whereby the space between one of said units and another of said units or a wall or the like adjacent thereto may be masked.

Another object of this invention is to provide a mobile wall or partition unit adapted to be associated with other units to make a wall or partition of a desired length and which unit is equipped with casters rendering the unit easily mobile without requiring a person to use much strength or force and provided with mechanism which is operable readily and easily whereby the unit may be made to rest solidly on the floor or to be supported by the casters selectively as desired.

Another object of this invention is to provide simple: and easily operable jack means for raising and lowering, a cabinet equipped with casters and a base member for the cabinet relatively to each other to place the casters on the floor and to raise the base member from the floor and to place the base member on the floor and to raise the casters from the floor selectively.

A further object of this invention is to provide a mobile wall unit of the character stated and having the equipment stated and which is simple and inexpensive in construction, sturdy and durable, and readily and easily movable from place to place and easily anchorable in firm and steady contact with a floor and ceiling as desired.

The above objects are generally similar to the objects stated in my two prior applications, one filed August 11, 1952, Serial No. 303,720, now abandoned and the other application filed September 30, 1952, Serial No. 312,257, except in the specific mobile wall unit disclosed in the latter application the unit is supported on casters at all times.

A specific object of the present invention is to provide a mobile wall or partition unit of the character stated and in which the structure is improved and simplified in many respects over the structure specifically disclosed in my said copending application, including an improved expansible top structure and improved and simplified means for expanding the top structure into firm contact against a ceiling and for collapsing the top structure to free the top of the unit from the ceiling preparatory to moving the unit to a new location, improved and simplified concealed means for adjusting slip moulds both vertically and horizontally and improved and simplified jack means associated with a cabinet rest or base and casters whereby selectively the cabinet rest may be lowered to the floor and the casters raised from the floor so that the cabinet section and casters are supported entirely by the cabinet rest or base and the cabinet section is elevated from the rest and the floor, or the cabinet rest or base may be raised from the floor and the cabinet section and casters lowered to place the casters on the floor so that the cabinet section and the cabinet rest are supported entirely on the casters.

Other specific objects of this invention will be in part obvious and in part pointed out hereinafter.

In accordance with the invention disclosed in this and in my said copending applications, I provide a plurality of similar wall or partition units which may be moved about easily so that a given arrangement of floor space may be subdivided into various numbers and sizes of rooms and arrangements of rooms. In order to make this economically feasible, the invention consists of a movable wall or partition section so constructed that the man or woman of the house can move it around almost as easily as a piece of furniture, thereby eliminating the use of skilled labor, for instance, carpenters, painters and other workmen. The units are provided with casters and

with adjustable bases and tops, as well as with adjustable slip moulds whereby the units can be moved about and re-arranged to place the wall or partition where it is desired to be without marring or mutilating the walls, ceilings or floors or even having an attachment thereto. the same time the units are so constructed that when they have been moved to the desired place they can be expanded vertically so that they will have firm and steady contact with the floor and also with the ceiling and the slip moulds can be adjusted to cover any space that might be present between two adjacent units. Preferably the mobile wall units are in the form of cabinets having such depth and width as desired for ample storage space.

The invention accordingly consists in the features of construction, combinations of elements and arrangements 15 of parts which will be more fully described hereinafter and the scope of the application of which will be pointed

out in the claims that follow.

In order that a clearer understanding of this invention may be had, attention is hereby directed to the accompanying drawings forming a part of this application and illustrating certain possible embodiments of this invention and in which:

Fig. 1 is a front elevation of a mobile wall cabinet unit embodying this invention;

Fig. 2 is a side view thereof;

Fig. 3 is a top view thereof;

Fig. 4 is a vertical sectional view thereof and is taken on the line 4-4 of Fig. 1, and showing the cabinet section lowered and resting on its casters and the cabinet 30 rest raised out of contact with the floor;

Fig. 5 is a similar view but of only a fragment of the lower portion of the unit and shows the cabinet and the casters elevated and the cabinet rest lowered to the floor and supporting the elevated cabinet section and casters;

Fig. 6 is a horizontal sectional view of the unit and

is taken on the line 6-6 of Fig. 4;

Fig. 7 is a fragmentary perspective view partly in section of one form of jack means for raising and lowering the cabinet section;

Fig. 8 is a view similar to Fig. 7 showing a possible modification of the jack means;

Fig. 9 is a perspective view partly in section showing the construction at an upper front corner of the unit;

Fig. 10 is a horizontal sectional view through an edge 45 of the cabinet section and is taken on the line 10-10 of Fig. 1;

Fig. 11 is a perspective view partly in section of the means for adjustably anchoring a slip mould to the cabinet section; and

Figs. 12, 13, 14 and 15 are respectively diagrammatic views showing different adjustments of the slip mould relatively to the cabinet section of the wall unit, Fig. 12 showing the slip mould undisplaced either vertically or horizontally, Fig. 13 showing the slip mould displaced horizontally but not vertically, Fig. 14 showing the slip mould displaced vertically but not horizontally and Fig. 15 showing the slip mould displaced both horizontally and vertically.

Similar reference characters refer to similar parts 60

through-out the several views of the drawings.

Referring to the drawings the expansible mobile wall unit includes a cabinet section having a back panel 40, side panels 41 and 42, a stationary top frame 43 having cross bracing 44 and corner backing 45 and carrying a top panel 46. This cabinet section also has a bottom panel 47 above which a sill 48 extends across the front of the cabinet section and supports a panel 49 providing a space for a drawer 50 between the sill 48 and panel 49 and the bottom panel 47 of the section. At the front 70 of the cabinet on each side are door jamb rails 51 for sliding doors 52 which may be of the show case type and are slidably supported by and between the upper panel 46 and the sill 48.

To the underside of bottom panel 47 of the cabinet 75 formed directly in the rear panel 40 of the cabinet and of

section are fixed two spaced reinforcing strips 53 which are provided with casters 54. Also beneath the cabinet section is a frame 55 constituting a base or rest for the cabinet section. This cabinet base or rest 55 is connected to the cabinet section by means of jack bolts 56 which extend through the bottom panel 47 of the cabinet and have nuts 57 pinned thereto beneath the panel 47 preventing the bolts from being raised upwardly through the panel 47. Below the nuts 57 the bolts extend through threaded apertures in screw plates 58 which are mortised into and fastened to the cabinet rest or base 55 which is provided with recesses 59 into which the lower ends of the bolts 56 extend. As shown in Figs. 4 and 7 the bolts 56 may have their heads 60 exposed above the panel 47 and adjacent thereto so as to be accessible for the turning of the bolts in the screw plates 58 to raise and lower the cabinet section and the cabinet rest 55 relatively to each other. However, if desired, and as shown in Fig. 8, longer jack bolts 56' may be provided and have their heads 60' exposed above the cabinet section panel 49 the bolts being located between the sides of the drawer 50 and the side panels of the cabinet section. The shorter jack bolts 56 become accessible for manipulation when the drawer 50 is removed. The longer jack bolts 56' become accessible for manipulation upon opening the doors 52.

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Not only are means provided for raising and lowering the cabinet section relatively to the floor but means are also provided for expanding the cabinet vertically at its top to insure firm contact with the ceiling. Also adjustable slip moulds are provided on the front and back of the cabinet on both sides and which can be projected horizontally to cover any space that may be present between two wall units placed side by side or between a unit and an adjacent wall. Preferably the slip moulds are also adjustable vertically and are so connected with an adjustable upper frame of the cabinet section that by adjusting the slip moulds vertically the adjustable upper frame of the cabinet may be moved upwardly into firm contact with the ceiling or lowered to be out of contact with the ceiling when it is desired to move the unit to another location.

As shown the adjustable upper part of the cabinet includes an adjustable frame consisting of front and rear pieces 62 and side pieces 63 and which surrounds and slidably overlaps the stationary frame 43. This frame is supported by the upper ends of four slip moulds 64, two on the front of the cabinet and two on the rear at the side edges thereof. The upper ends of the slip moulds have a mortise 65 cut in the back and the ends of the adjustable frame members 62 are shaped to fit into these mortises so that the adjustable frame may be raised and lowered by raising or lowering the slip moulds while allowing the slip moulds to be moved sidewise in and out relatively to the adjustable frame and cabinet in all vertically adjusted positions of the slip moulds and the adjustable frame carried thereby.

Concealed means are provided for holding the slip moulds 64 to the cabinet for both horizontal and vertical adjustment thereon. These concealed means for adjustably anchoring the slip moulds to the front of the cabinet are shown best in Figs. 10 and 11. As will be seen a vertical slot 66 has been cut through each jamb rail 51 and opposite to this slot 66 a horizontal slot 67 is cut into the back of but not through the slip mould 64 and eye bolt 68 is inserted through the vertical slot 66 in the cabinet jamb with the eye 69 of the bolt 68 projecting into the recess 67 of the slip mould and retained therein by means of a retaining pin 70. At the other end of the bolt there is a washer 71 and wing nut 72, which, when tightened, holds the slip mould 64 securely against the jamb 51. At the rear of the cabinet where normally there are no jamb rails, and slots corresponding to the vertical slots 66 formed in the jamb rails 51 may be

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course shorter eye bolts provided with wing nuts may be used. However, if desired, the cabinet may be provided with rear corner posts (not shown) and the vertical slots for the eye bolts provided in these posts.

Thus it is apparent that by loosening the nuts of the eye bolts and raising the four slip moulds the adjustable frame at the top of the cabinet may be raised to fit snugly against the ceiling over the unit and then the nuts tightened to hold the adjustable frame in that position. Also any one of the slip moulds may be extended sidewise from 10 the cabinet to cover any space between two adjacent units or between the unit and an adjacent wall by merely loosening the wing nuts of the bolts connected to that particular slip mould and moving the slip mould sidewise as far as necessary or desired and then tightening the nuts 15 to hold the slip mould in that horizontally adjusted posi-Various possible positions of adjustment of the slip moulds are shown diagrammatically in Figs. 12 to 15 inclusive, Fig. 12 showing the slip mould 64 not displaced from the adjustable frame 62 either vertically or horizontally, Fig. 13 showing the slip mould extended horizontally beyond the side of the adjustable frame 62 and the cabinet, Fig. 14 showing the slip mould 64 raised and the adjustable frame 62 raised therewith, but not displaced horizontally, and Fig. 15 showing the slip mould 25 64 and the adjustable frame raised relatively to the cabinet and the slip mould 64 extended sidewise of the frame 62 and the cabinet.

When the mobile wall unit is to be moved from one location to another the jack bolts 56 or 56' are screwed 30 down into the cabinet rest 55 which lowers the cabinet section and casters 54 relatively to the cabinet rest 55 until the casters 54 contact the floor and then further turning of the jack bolts in the same direction draws the cabinet rest 55 up from the floor and toward the cabinet 35 section. The slip moulds 64 if in elevated adjustment are lowered to lower the adjustable top frame of the cabinet and also if extended horizontally are moved in to decrease the overall width of the unit. In this adjustment since the mobile wall unit is supported entirely by the casters 40 54 with the top of the cabinet out of contact with the ceiling and the cabinet rest out of contact with the floor the unit may be moved from one location to another readily and easily and without much effort.

When the unit has been moved to the desired location 45 and it is desired to anchor the unit in place the jack screws 56 are turned in the opposite direction which will result first in lowering the cabinet rest 55 into contact with the floor and then further turning of the jack screws will elevate the cabinet section together with the casters 54 from the cabinet rest 55 and upwardly from the floor. The slip moulds 64 are then raised if necessary to move the adjustable top frame of the cabinet into firm contact with the ceiling. In this adjustment the casters 54 are raised from and out of contact with the floor and the unit is supported entirely by the cabinet rest 55 through the jack bolts 56 or 56', and by vertically adjusting the slip moulds the unit is also in firm contact against the ceiling over the unit. The slip moulds may then be adjusted horizontally to cover any space that may exist 60 between two units or between one unit and an adjacent wall. Preferably an apron 61 is provided on the bottom panel 47 of the cabinet section to overlap and surround the cabinet rest 55 and mask any space that may exist between the bottom panel 47 of the cabinet section and the cabinet rest 55.

The mobile wall units embodying this invention may be released easily from rigid position on the floor and may be easily released from rigid contact with the ceiling, and moved from one location to another and assembled quickly, easily and without much effort, and without the cutting or the mutilation of floors, ceiling or permanent walls and when in place are sufficiently well anchored for

hold and at the same time subject to change by the occupant of the house into an entirely different arrangement of the house without expense incident in moving a wall or closet section inherent in present day construction.

It is also apparent that the construction is simple and attractive in appearance and that the mechanism involved is simple, sturdy and durable and easy to manipulate.

As many changes could be made in the above construction and as many possible different embodiments of this invention could be made without departing from the scope thereof, it is understood that all matter contained in the above description and shown in the accompanying drawings be interpreted as illustrative and not in a limit-

What is claimed is:

1. Selectively mobile floor space partitioning construction of the character described, comprising in combination, a plurality of individual partition units assembled in contiguous side by side relationship to form a composite partition across a floor space, each of said units including roller means whereby the unit is supportable to be moved easily from place to place each unit including restraining means adjustable into firm contact with a ceiling above the unit to hold the unit from being moved about and adjustable to be out of contact with said ceiling to free the unit for being moved about, each said unit having slip molds at its vertical edges connected with said restraining means and means mounting said slip molds on the unit to be displaceable outwardly of the unit into position masking a space between two sidewise adjacent units or between the unit and an adjacent wall, and vertically with said restraining means to force said restraining means into firm contact with the ceiling.

2. Selectively mobile floor space partitioning construction of the character described, comprising in combination, a plurality of individual partition units assembled in contiguous side by side relationship to form a composite partition across a floor space, each of said units including roller means whereby the unit is supportable to be moved easily from place to place and each unit including upper and lower restraining means individually adjustable into firm contact with a ceiling above the unit and with the floor under the unit respectively to hold the unit from being moved about and adjustable to be out of contact with the ceiling and floor to free the unit for being moved about, said lower restraining means comprising a frame surrounding and concealing said roller means when in lowered position and operable to raise the entire unit and roller means off the floor.

3. A mobile wall unit of the character described including a cabinet section equipped with casters and having a stationary upper frame, an adjustable frame telescopically related to the stationary frame to be elevated and lowered relatively thereto, slip moulds at the four corners of the cabinet, means engaging the cabinet and the slip moulds mounting said slip moulds for vertical adjustment on the cabinet, said slip moulds and said adjustable frame interengaging whereby said frame may be raised and lowered relatively to said stationary upper frame by raising and lowering said slip moulds relatively on the cabinet.

4. A mobile wall unit as set forth in claim 3 and in which said means mounting said slip moulds on the cabinet mount, said slip moulds also for horizontal adjustment relatively to the cabinet and said interengagement of the slip moulds and said adjustable frame permit horizontal adjustment of the slip moulds relatively to the adjustable frame.

5. A mobile wall unit as set forth in claim 4 and in which the slip moulds have mortises and said adjustable frame having members seating in said mortises.

6. A mobile wall unit of the character described including a cabinet equipped with casters and having a all purposes of partitions or storage in the average house- 75 able frame telescopically related to the stationary frame

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