

March 23, 1965

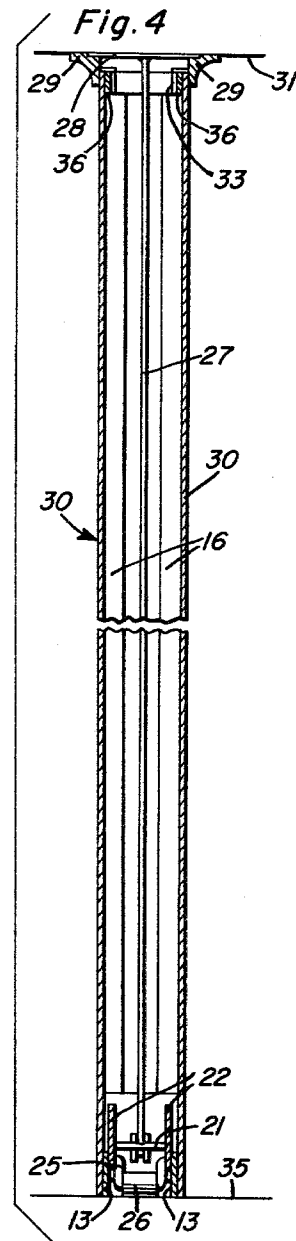
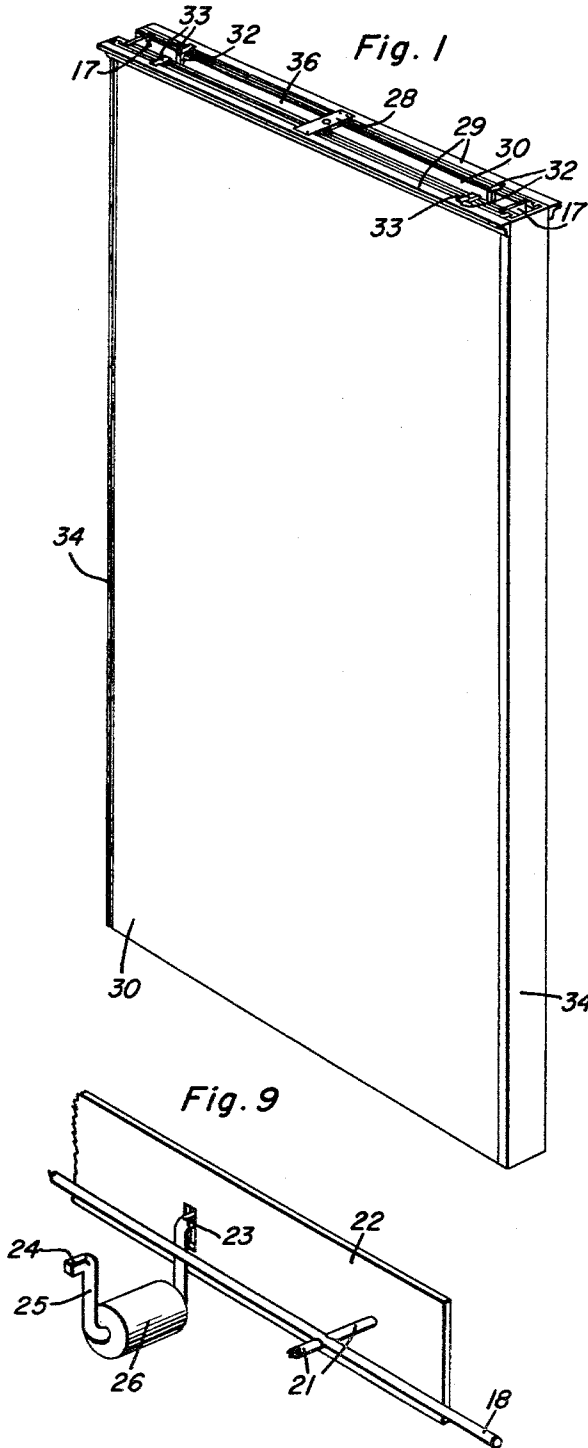
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3,174,593

PREFABRICATED MOVABLE WALL SECTION

Filed Oct. 12, 1962

3 Sheets-Sheet 1



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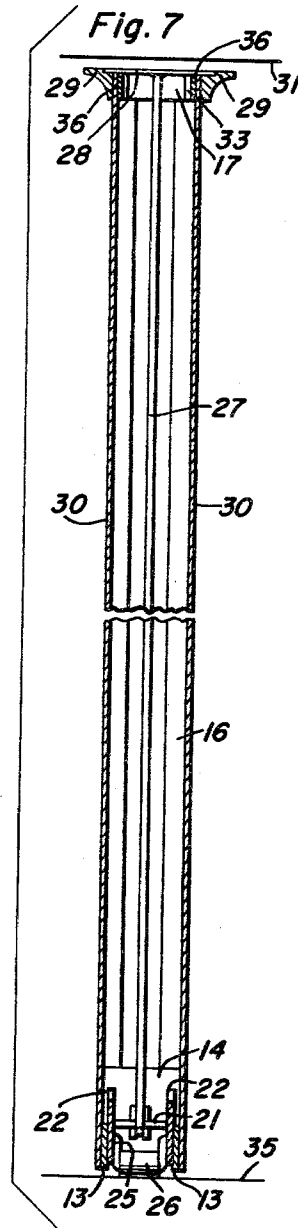
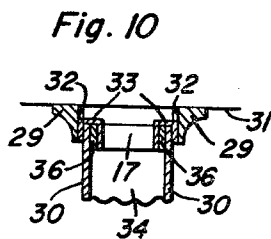
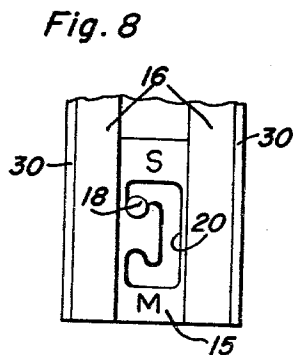
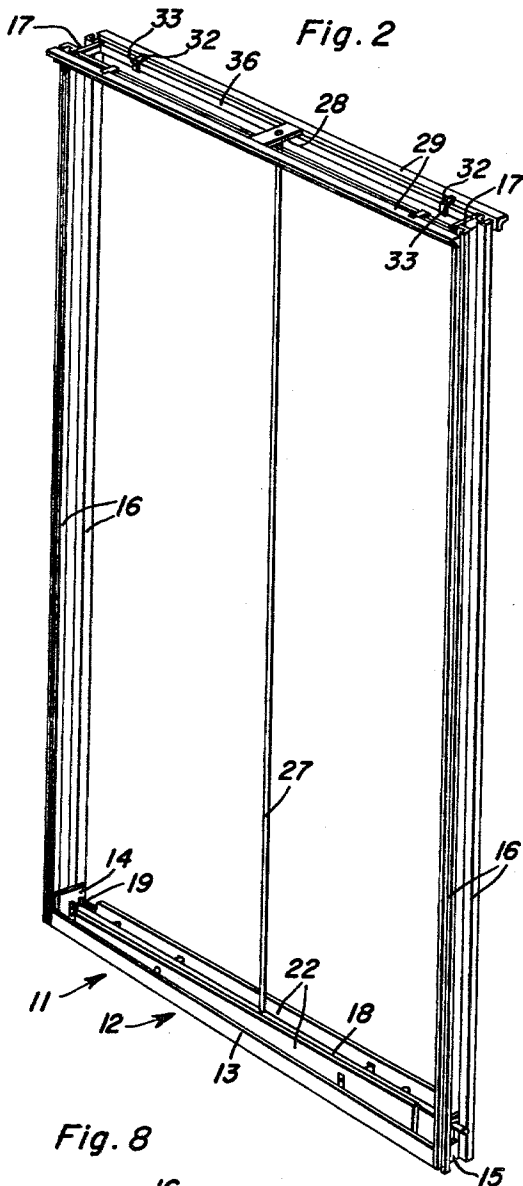
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PREFABRICATED MOVABLE WALL SECTION

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3 Sheets-Sheet 2



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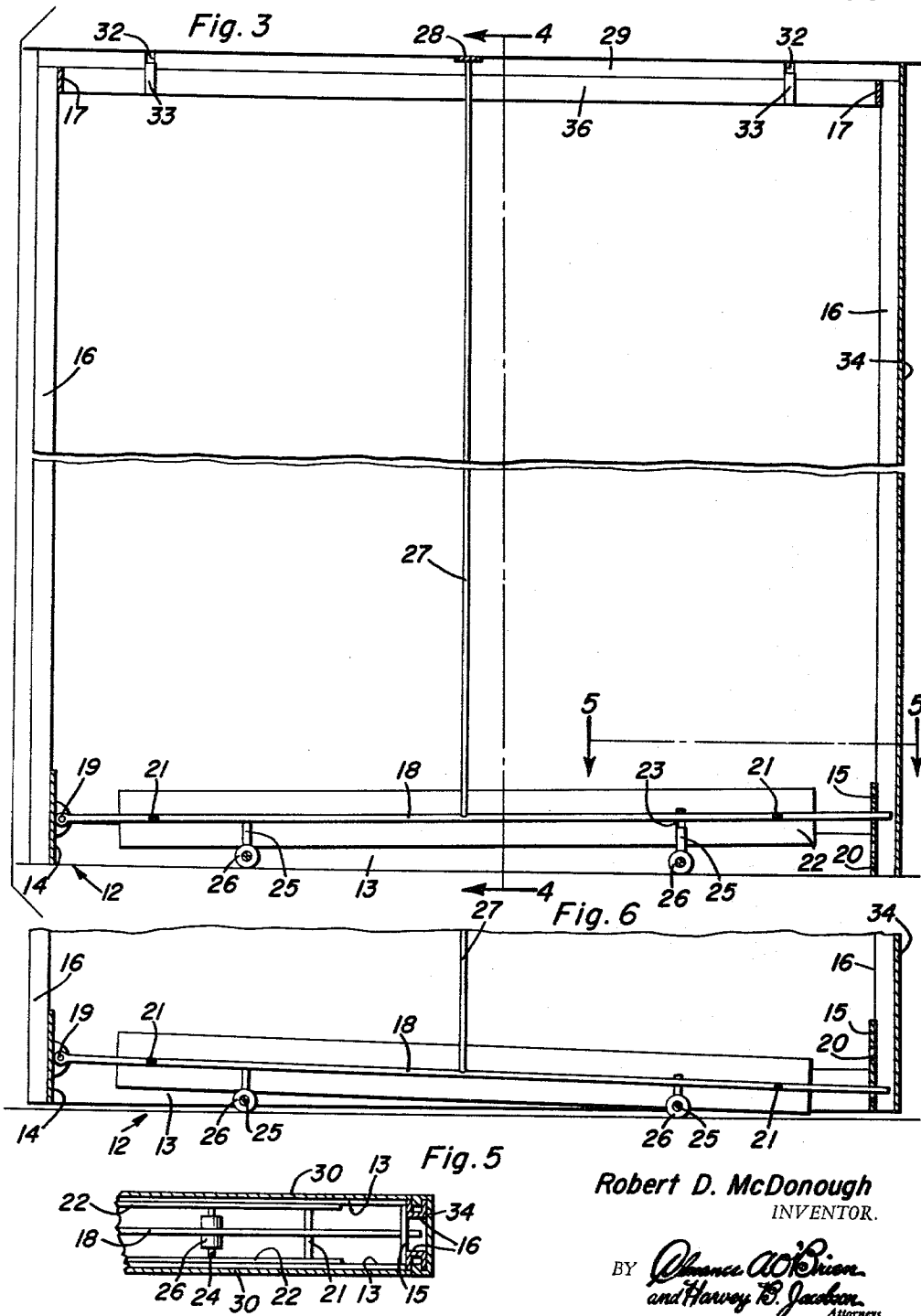
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PREFABRICATED MOVABLE WALL SECTION

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3 Sheets-Sheet 3



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PREFABRICATED MOVABLE WALL SECTION

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14 Claims. (Cl. 189—34)

This invention generally relates to new and useful improvements in interior walls or partitions and has for its primary object to provide, in a manner as hereinafter set forth, a prefabricated section or unit for such structure which may be expeditiously installed with a minimum of unskilled labor and which, furthermore, may be readily moved from place to place.

Another important object of the present invention is to provide a prefabricated, mobile wall or partition section of the aforementioned character including retractible supporting rollers and ceiling trim of a novel construction and arrangement, together with unique common means for shifting said rollers and trim simultaneously.

A further object is to provide a mobile wall or partition section of the character described comprising readily available wall panels of conventional construction, which panels may be quickly removed for replacement when it is desired to redecorate.

Other objects of the invention are to provide a prefabricated movable wall section or unit which is comparatively simple in construction, strong, durable, compact, of light weight, attractive in appearance and which may be manufactured at low cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of a prefabricated movable wall or partition section constructed in accordance with the present invention;

FIGURE 2 is a perspective view of the unit with the wall panels omitted;

FIGURE 3 is a view in vertical longitudinal section through the unit;

FIGURE 4 is a vertical sectional view, taken substantially on the line 4—4 of FIGURE 3;

FIGURE 5 is a fragmentary view in horizontal section through a side portion of the unit, taken substantially on the line 5—5 of FIGURE 3;

FIGURE 6 is a fragmentary view in vertical section through the lower portion of the device substantially similar to the lower portion of FIGURE 3 but showing the frame, etc., elevated and supported by the rollers to be moved;

FIGURE 7 is a vertical sectional view substantially similar to FIGURE 4 but showing the device in raised position to be moved;

FIGURE 8 is a side elevational view of the lower portion of the unit, showing the keeper plate for the operating lever;

FIGURE 9 is a fragmentary view in perspective of a portion of the raising and lowering mechanism; and

FIGURE 10 is a fragmentary view in transverse section through the upper portion of the unit, showing the trim in raised position and engaged with the ceiling.

Referring now to the drawing in detail, it will be seen that the embodiment of the invention which has been illustrated comprises a vertically elongated substantially rectangular frame of aluminum or other suitable lightweight metal, which frame is designated generally by reference numeral 11. The frame 11 includes a lower or base portion 12 comprising elongated side bars 13 the end portions of which are connected by vertical plates 14

and 15. The frame 11, which may be of any desired dimensions, further includes pairs of upstanding channel bars 16 which rise from the end portions of the base 12. Short plates or bars 17 connect the upper end portions of the end bars 16 of the frame. Side bars 36, substantially similar to the members 13, extend between the upper end portions of the pairs of channel bars 16.

Mounted in the base structure 12 is a vertically swingable lever 18 having one end pivotally connected at 19 to the plate 14. The other end portion of the lever 18 is free and operable in a generally C-shaped slot 20 which is provided therefor in the plate 15.

Arms 21 project in opposite directions from the lever 18 at longitudinally spaced points thereon and the plates 22 are mounted on the ends of arms 21 for raising and lowering upon swinging movement of the lever 18. The plates 22 have formed therein vertical slots 23 in which square outturned end portions 24 of generally U-shaped roller shafts 25 are operable. Rollers 26 are journaled on the bight portions of the U-shaped shafts or hangers 25.

Mounted on the lever 18 at an intermediate point and extending upwardly therefrom in the frame assembly 7 is a rod 27. A crosshead 28 is secured to the upper end of the rod 27 and extends between a pair of cove ceiling trim strips 29 embracing the side bars 36 therebetween. Of course, other types of wall-ceiling trim may be used.

Wall panels 30 are removably mounted on the sides of the frame 11 in any suitable manner to facilitate their removal for replacement, as when redecorating, or for any other reason. As shown to advantage in FIGURES 4 and 7 of the drawing, the ceiling trim strips 29 are slidable on the outer or exposed faces of the wall panels 30, said wall panels extending between said trim strips and the frame bars 36. Thus, the trim strips 29 are adapted to close and seal the juncture of the unit with the ceiling, as indicated at 31. The end portions of the trim strips 29 have vertical grooves or channels 32 formed therein (FIGURE 10) which receive guides 33 for stabilizing said trim strips on the assembly. In the embodiment shown, the vertical guides 33 are generally inverted U-shaped and are affixed to the side bars 36. It will be noted that the guides 33 straddle the bars 36 and the panels 30 in a manner to obviate the necessity of top fasteners for said panels.

It is thought that the operation of the section or unit will be readily apparent from a consideration of the foregoing. Briefly, with the lever 18 in raised position and engaged in the upper end portion of the slot 20 as shown in FIGURES 3 and 8 of the drawing, the assembly rests on the base structure 12 with the rollers 26 in the raised or inoperative positions and the plates 22 and the trim strips 29 in elevated or operative positions in abutting engagement with the ceiling 31. Any desired number of units may be installed according to the length of the interior wall or partition. The sections or units may be detachably connected in any suitable manner. Where necessary, plastic panels of the "snap-on" type may be applied to the pairs of end bars or uprights 16 of the frame assembly 11. These "snap-on" panels are indicated at 34 in FIGURES 1 and 3 of the drawing and said panels may be easily removed for ready access to the lever 18. To move the unit from place to place when necessary, the lever 18 is swung downwardly for engagement in the lower end portion of the slot 20. This may be accomplished in any convenient manner as by lifting the frame assembly or permitting the lever, etc., to be lowered. The slots 23 permit initial downward movement of the lever 18 with the plates 22 thereon independently of the rollers 26. Thus, the trim strips 29 are lowered out of engagement with the ceiling 31. As downward movement of the plates 22 and the lever 18 is continued

the elements 24 engage the upper ends of the slots 23 and cause the rollers 26 to move downwardly relative to the base portions. With the lever 18 anchored in the lower end portion of the slot 20 the unit is thus positively supported in raised position by the rollers 26 out of contact with the floor or other surface 35 substantially as shown in FIGURES 3 and 7 of the drawing. The section or unit may now be shifted from place to place as desired with a minimum of effort. When the frame 11 is in its lowered operative position the members 24, 25 and 26 are retracted in out of the way position.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A mobile wall section comprising a vertical frame, a retractable carriage on the lower portion of the frame for supporting said frame in a raised position relative to a supporting surface for movement from place to place on said surface, retractible trim strips on the upper portion of the frame for abutting an overhead surface, and common means operatively connected between said frame and said carriage and strips for inversely moving the trim strips and the carriage to between extended operative and retracted inoperative positions.

2. A mobile wall section comprising a vertical frame, a retractable carriage on the lower portion of the frame for supporting said frame in a raised position relative to a supporting surface for movement from place to place on said surface, retractible trim strips on the upper portion of the frame for abutting an overhead surface, and common means for inversely moving the trim strips and the carriage to between extended operative and retracted inoperative positions, said means including a lever pivotally mounted on the frame and operatively connected to the trim strips and the carriage.

3. A mobile wall section in accordance with claim 2, together with vertical wall panels mounted on opposite sides of the frame.

4. A mobile wall section in accordance with claim 3, said trim strips receiving the upper portions of wall panels therebetween and being slidable thereon.

5. A mobile wall section in accordance with claim 2, together with means for releasably securing the trim strips and the carriage in either position.

6. A mobile wall section in accordance with claim 5, the last-named means including a plate mounted on the frame and having a generally C-shaped slot therein, the free end portion of the lever being operable in the slot and engageable in the end portions thereof for retention thereby.

7. A mobile wall section comprising a vertical frame, panels on said frame, a retractable carriage on the lower

portion of the frame for supporting same in a raised position to be moved from place to place on a supporting surface, retractible trim strips on the upper portion of the frame engageable with a ceiling when said frame is in a lowered position on the supporting surface, and common means operatively connected between said frame and said carriage and trim strips for successively retracting the trim strips and extending the carriage and vice versa.

8. A mobile wall section comprising a vertical frame, panels on said frame, a retractable carriage on the lower portion of the frame for supporting same in a raised position to be moved from place to place on a supporting surface, retractible trim strips on the upper portion of the frame engageable with a ceiling when said frame is in a lowered position on the supporting surface, and common means for successively retracting the trim strips and extending the carriage and vice versa, said trim strips slidably receiving the panels therebetween, said means including a plate connecting the trim strips, a vertically swingable lever pivotally mounted in said lower frame portion and operatively connected to the carriage, and a rod connecting said lever to the plate.

9. A mobile wall section in accordance with claim 8, together with a keeper plate on the frame for the lever, said keeper plate having a generally C-shaped slot therein receiving the free end portion of the lever.

10. A mobile wall section in accordance with claim 8, said carriage including a pair of elongated plates paralleling the lever on opposite sides thereof and fixedly mounted thereon, said elongated plates having vertical slots therein, generally U-shaped shafts including outturned non-circular end portions slidably engaged in the slots for limited vertical movement of said shafts on said elongated plates, and rollers journaled on the shafts.

11. A movable wall section comprising an upstanding panel assembly, upper and lower vertically adjustable abutment means movably supported from the upper and lower portions, respectively, of said assembly, and common means operatively connected between said assembly and said upper and lower abutment means including means for inversely vertically adjusting said upper and lower abutment means relative to said assembly.

12. The combination of claim 11 wherein said lower abutment means comprises a wheeled carriage.

13. The combination of claim 11 wherein said upper abutment means comprises a ceiling trim strip assembly.

14. The combination of claim 13 wherein said lower abutment means comprises a wheeled carriage.

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