United States Patent [19]

Kempler

[11] **3,750,893**

[45] **Aug. 7, 1973**

[54] **SMALL ARTICLE DISPLAY RACK**

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[22] Filed: **Aug. 16, 1971**

[21] Appl. No.: **172,045**

[52] **U.S. Cl.** **211/162,** 211/175, 211/178, 312/262

[51] **Int. Cl.** **A47f 5/10**

[58] **Field of Search** ..... 211/162, 94, 175, 211/177, 178; 49/411, 410, 413, 460; 16/106, 94 R, 102, 91; 160/118, 116; 40/125 R; 35/60; 248/DIG. 3; 312/262

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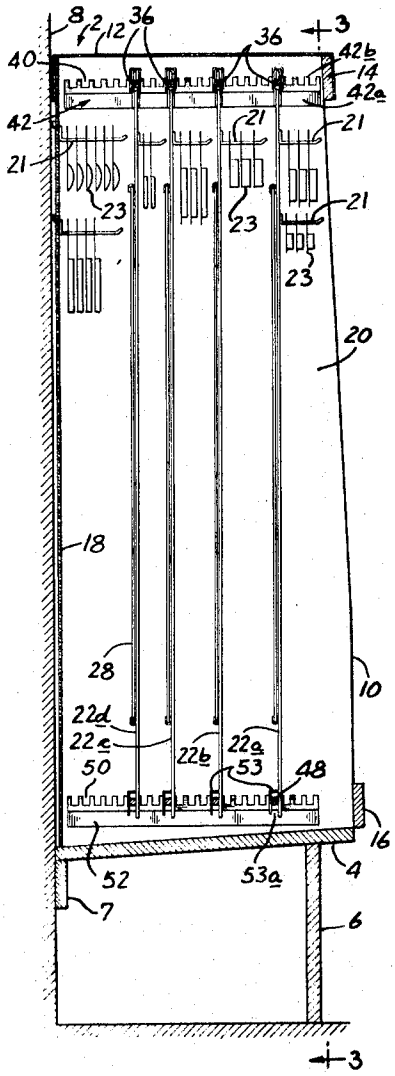
[57] **ABSTRACT**

A frame open at least at the front thereof to expose a display space therein includes track support means at opposite sides of the rack frame having corresponding track-receiving means for selectively supporting a variable number of slide tracks extending parallel to the front of the rack and with a selection of spacings therebetween in the direction between the front and rear of the cabinet. A number of tracks much less than the number than can be accommodated by said track-receiving means are supported to adjustable spacing from track-receiving means. Vertically extending small article display and support units having small article holding means distributed thereover and each of the width no greater than about half the width of said display space are supported on said respective tracks for movement across the width of said display space from one side thereof to the other, so that movement of an article display and support unit to one side or the other of the rack will expose the article support unit immediately therebehind. The rack frame is designed so that parts thereof are foldable into a compact position for shipment and storage.

16 Claims, 28 Drawing Figures

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SHEET 1 OF 8

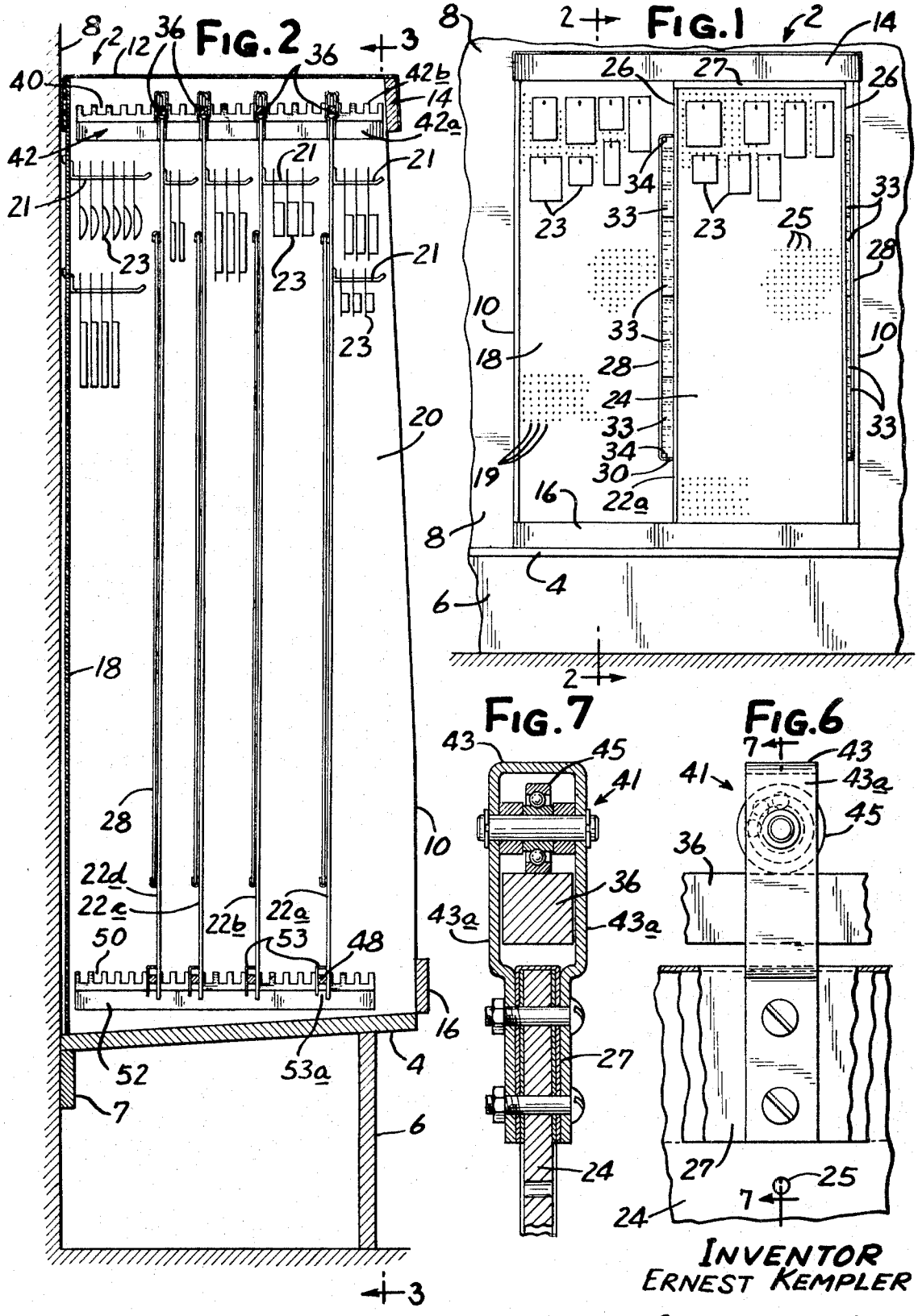
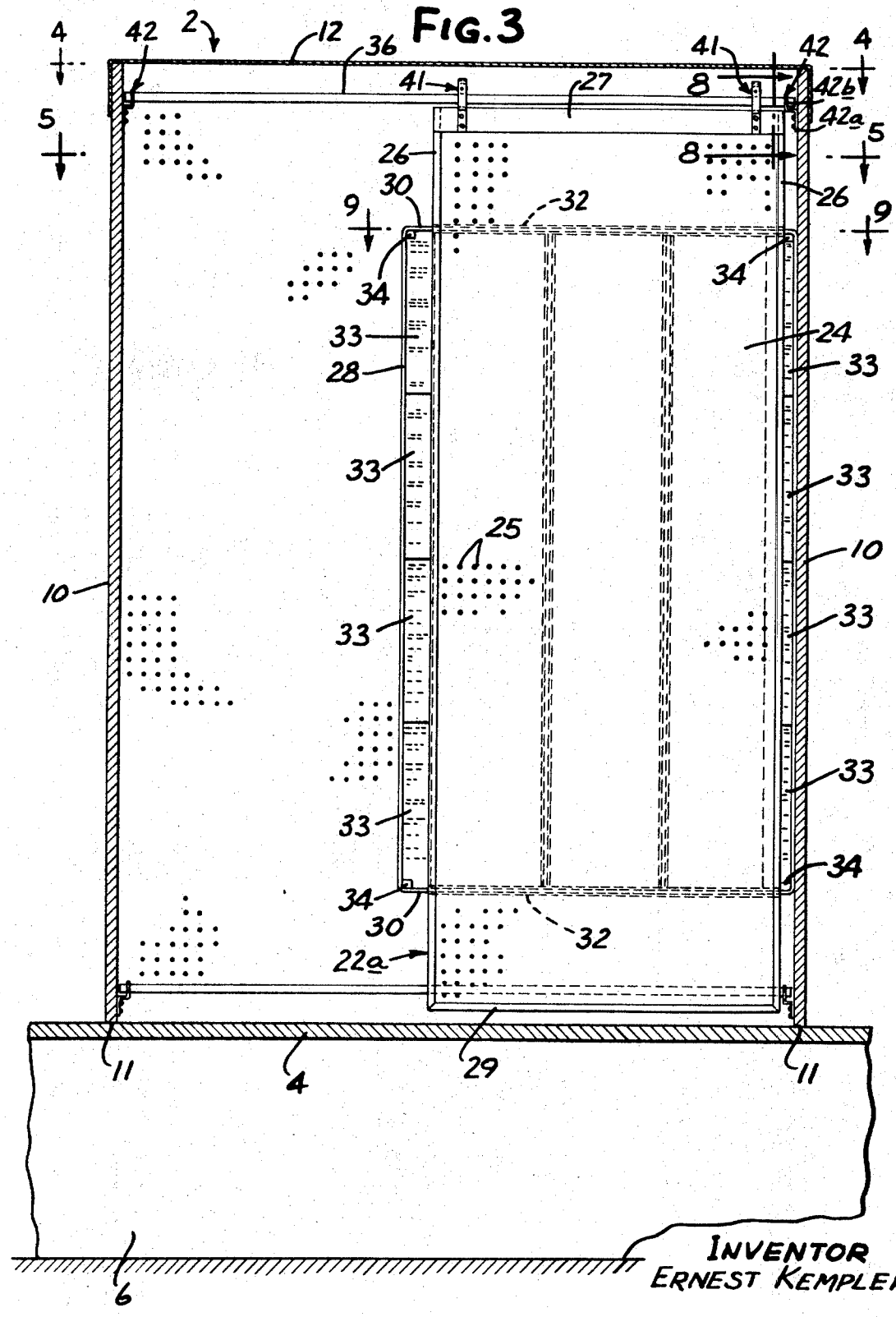


FIG. 3



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FIG. 4

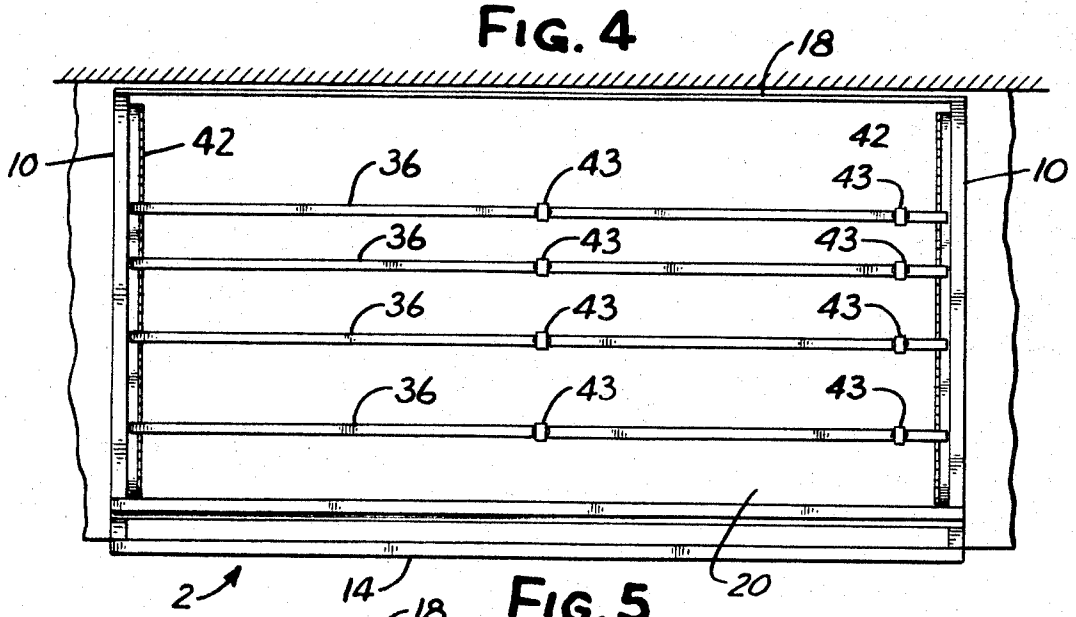


FIG. 5

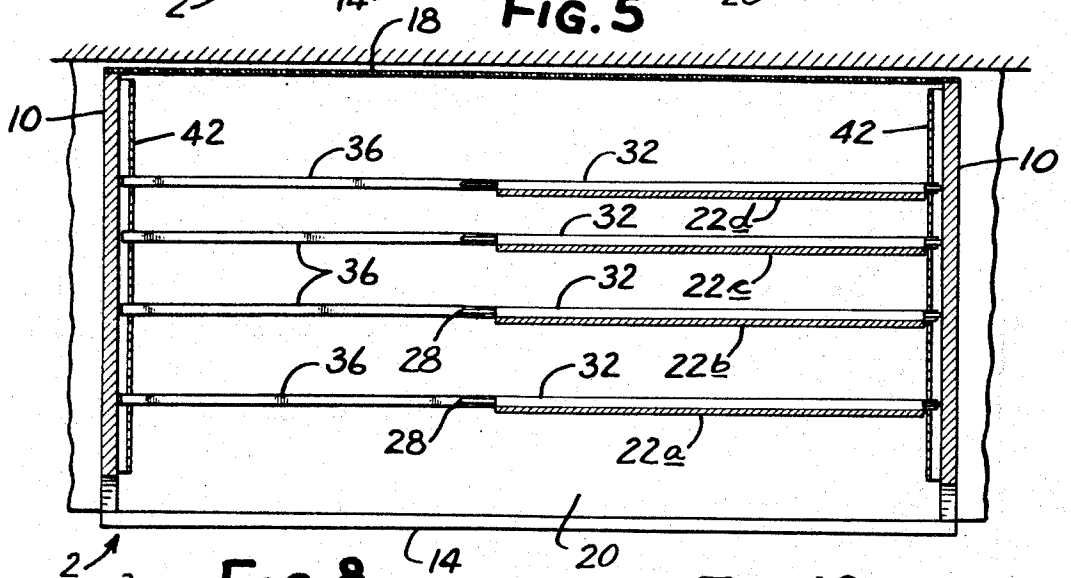


FIG. 8

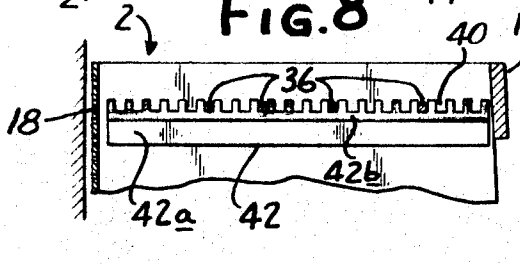
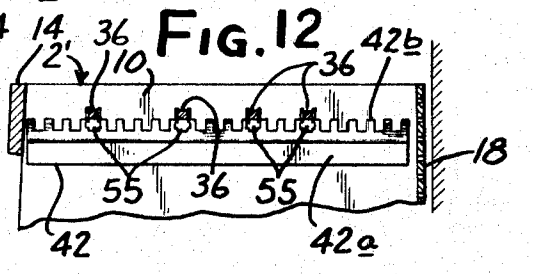


FIG. 12



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FIG. 11

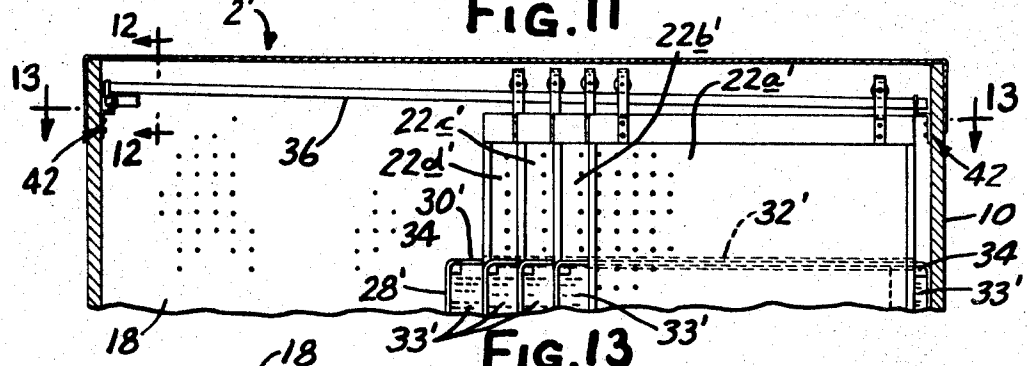


FIG. 13

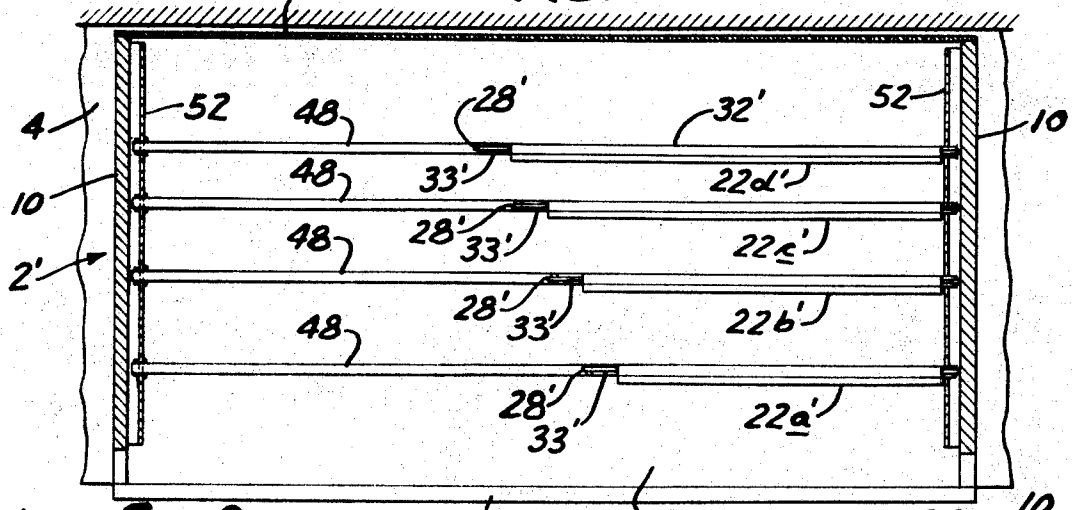


FIG. 9

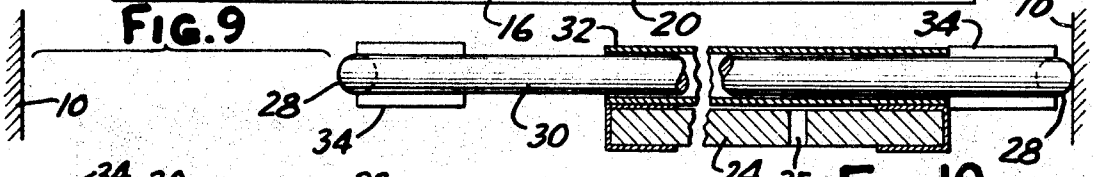


FIG. 10

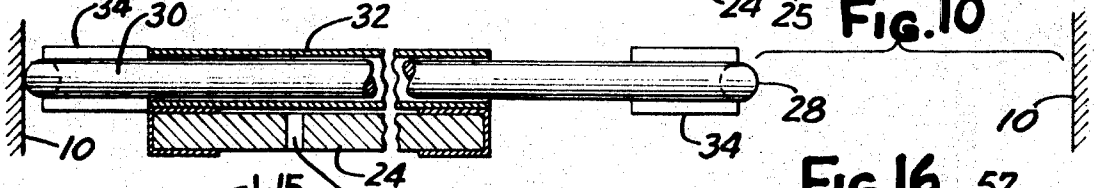


FIG. 14

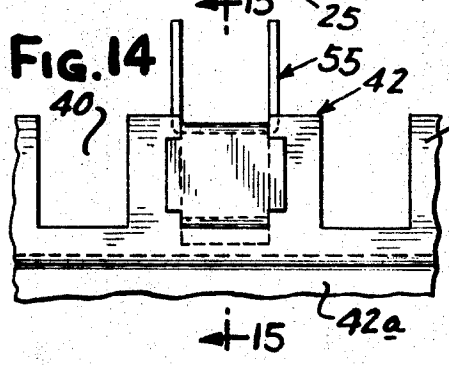


FIG. 15

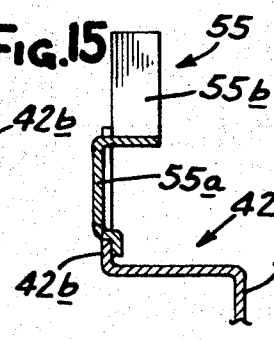
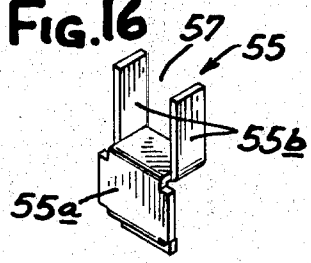


FIG. 16



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FIG. 17

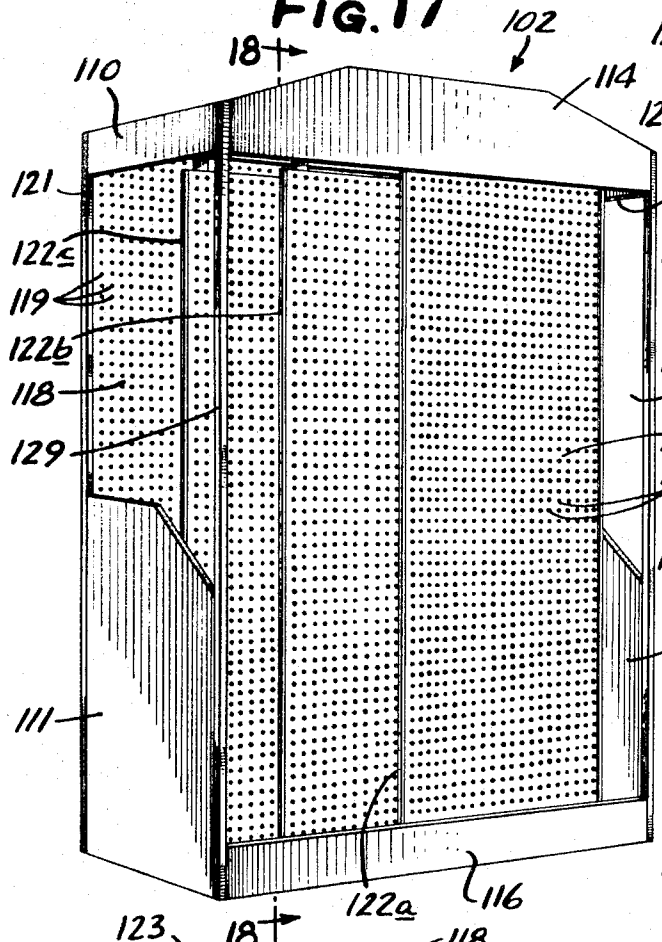


FIG. 18

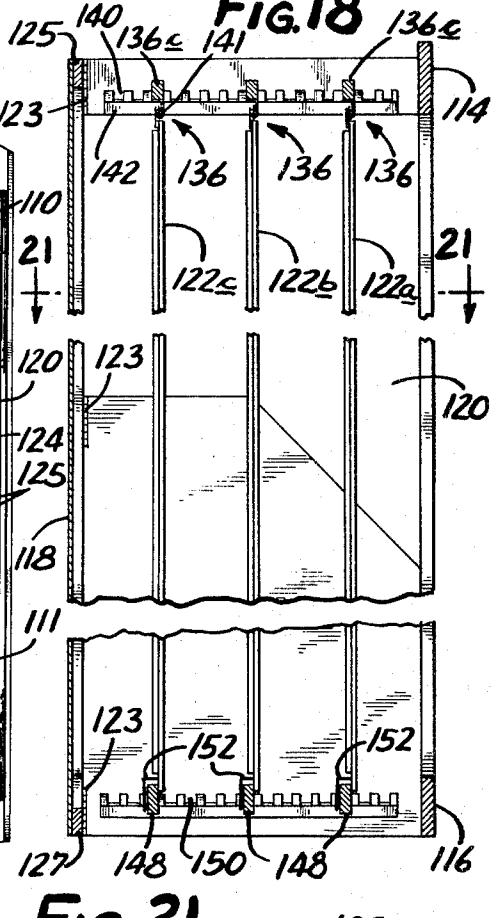
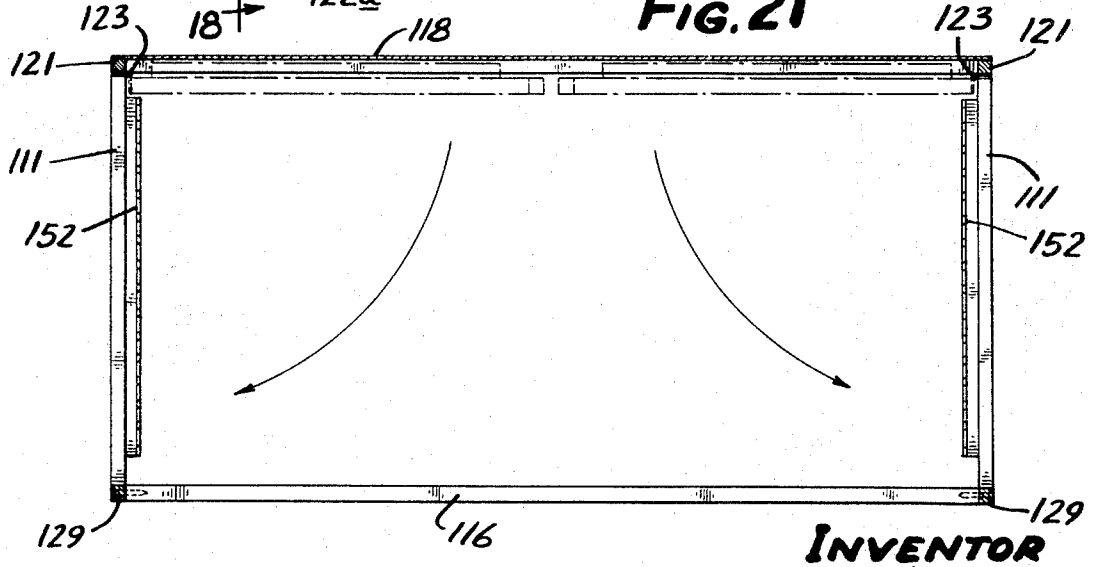


FIG. 21



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FIG. 20

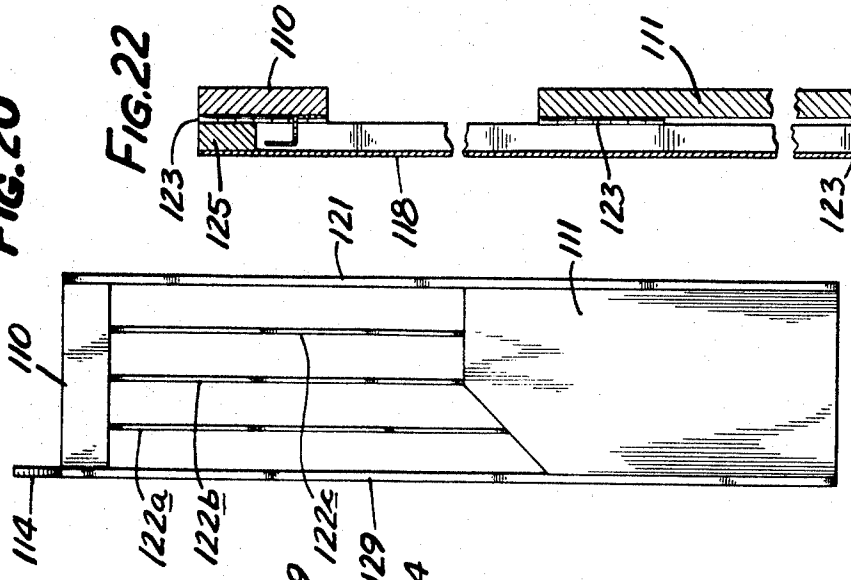


FIG. 22

FIG. 19

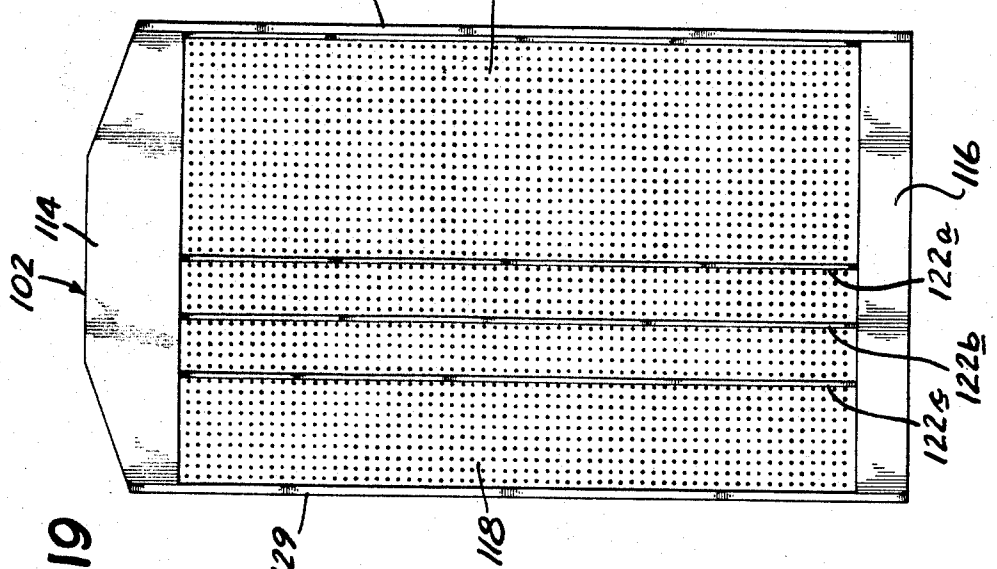
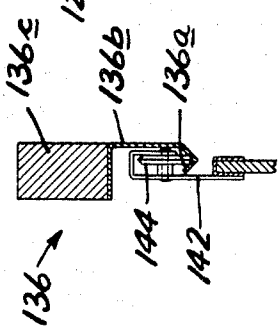


FIG. 18A



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FIG. 23

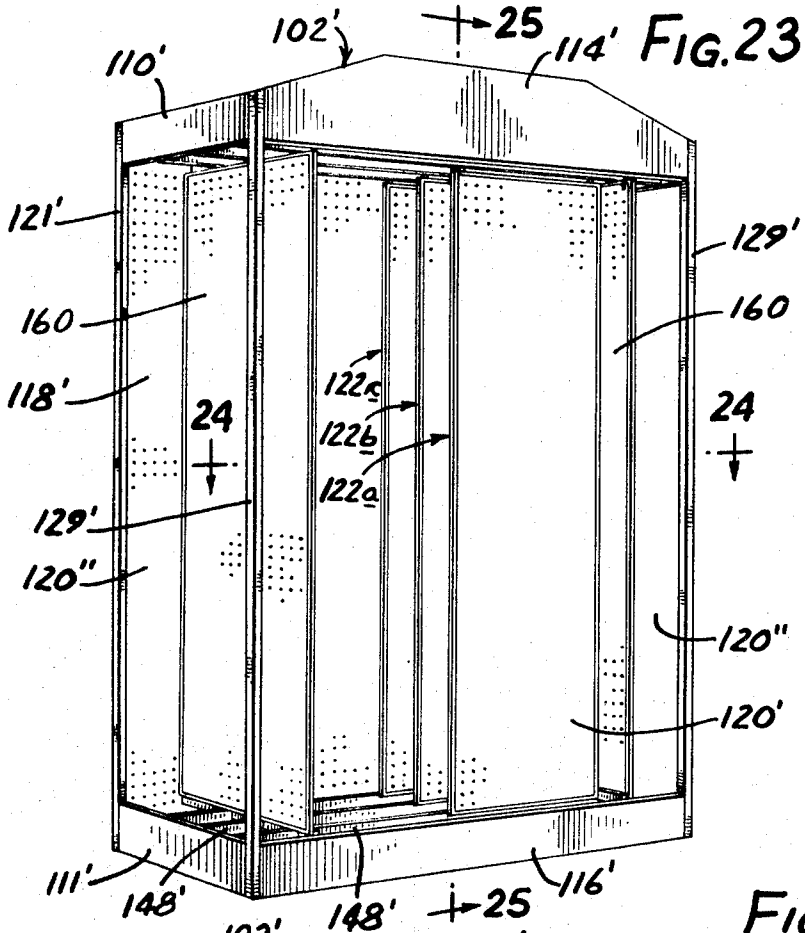


FIG. 27

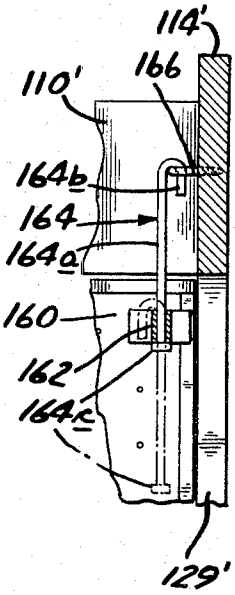
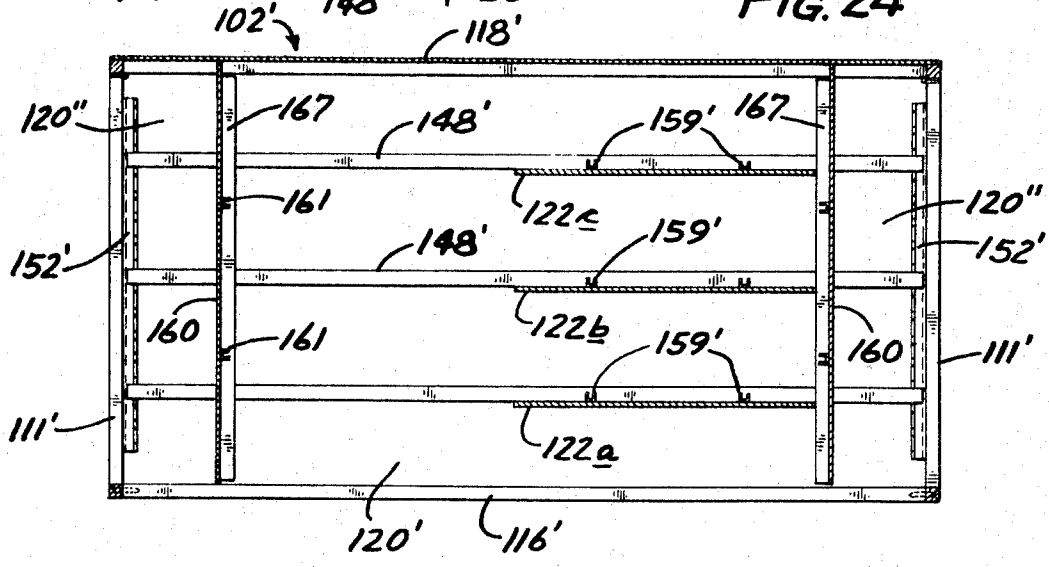


FIG. 24



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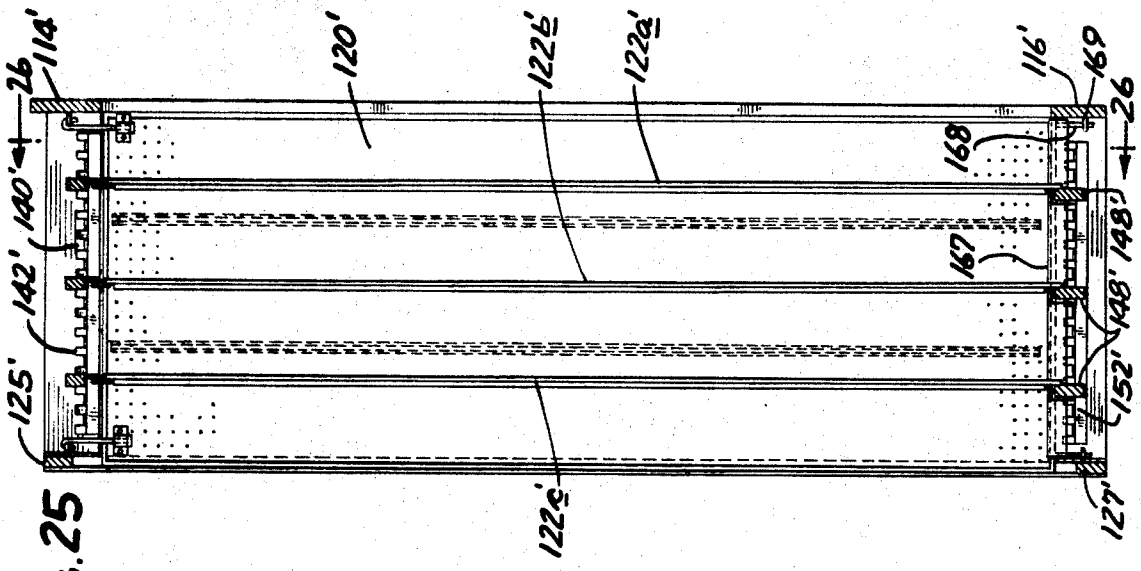


FIG. 25

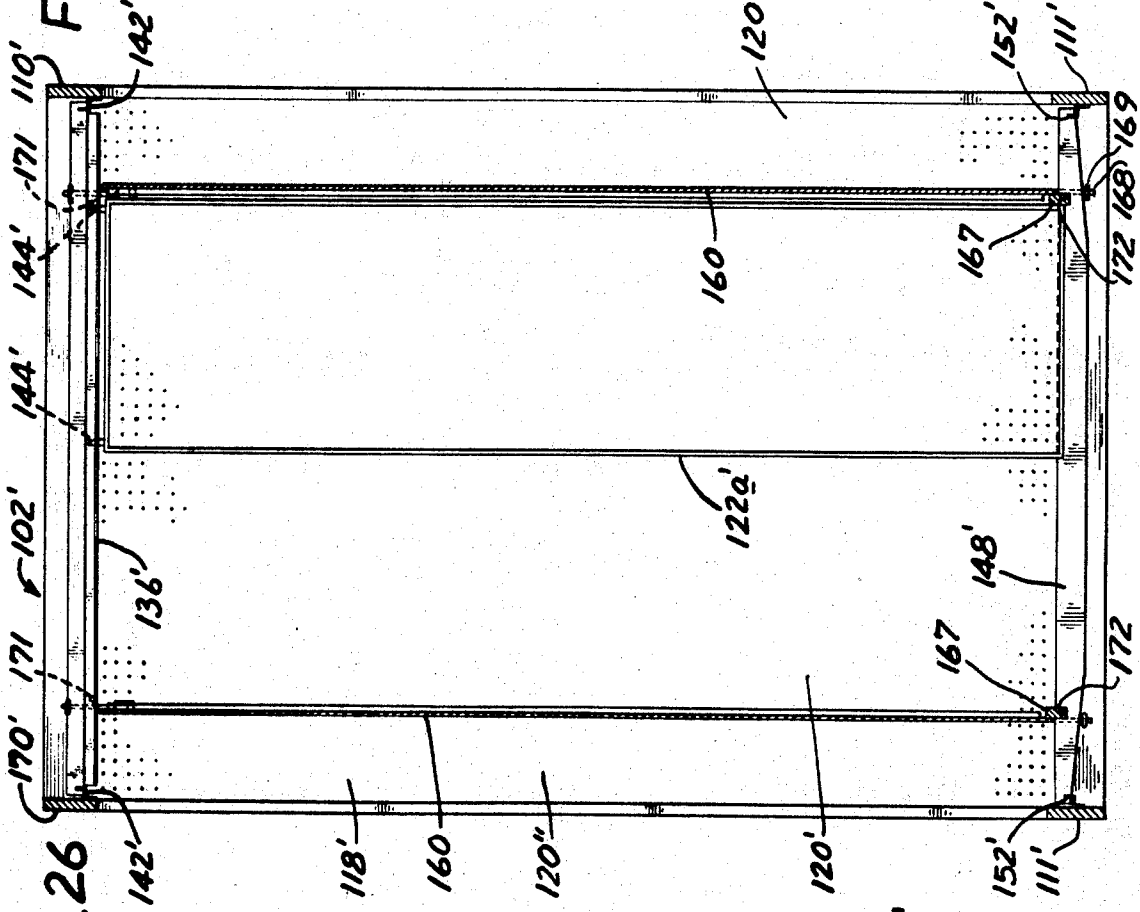


FIG. 26

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SMALL ARTICLE DISPLAY RACK

This invention relates to display racks, more particularly to display racks for displaying individual relatively small articles to customers in self-service retail stores and the like.

It is common to use article display racks in drugstores, hardware stores, and the like in the middle of a floor space where they are positioned in spaced relation to all walls of the room and designed so that merchandise is accessible and visible from all sides of the display racks. Such racks frequently have frames mounted on rotatable centerposts. Although such display racks have the advantage of displaying a larger amount of merchandise for a given floor space area in comparison to fixed display counters and the like, they are generally bulky and unsightly, and they obstruct substantial areas of floor space in a manner which makes it difficult to maintain the floor space involved in a clean polished condition because of the difficulty in moving floor finishing machinery and the like into close proximity to the display racks. Although the conventional fixed display counters mounted next to the walls of a room or which flank clear isles generally present a neater appearance and do not usually interfere with floor maintenance, they do not generally display a desired large amount of easily accessible merchandise for a given floor and wall space.

The present invention provides a unique display rack mountable next to a wall or along an isle of a store and from which relatively small articles are readily visible and accessible to the customer for removal from at least the front of the rack, and which has an attractive neat appearance, does not obstruct floor maintenance equipment and displays much greater quantity of articles for a given floor and wall space than article display racks heretofore developed.

The present invention utilizes a basic display rack construction for relatively small articles to be removed from the rack which was only used heretofore to display large bulky goods like curtains and draperies where the racks were used for display purposes only (i.e., where the customer could not remove the goods from the rack). These racks for curtains and draperies include frames simulating window areas and mounted in front to back relation to other similar frames and for movement on respective tracks having a length two or more times greater than the widths of the frames involved, so that the frames can be moved into positions which expose the drapery or curtain support frames immediately therebehind.

Although such display racks for curtains and draperies have been known for years, it does not appear to have been appreciated that certain features thereof have advantageous utility in racks for display of relatively small articles to be removed from the racks. In other words, the advantages of using a front-to-back relationship of track mounted small article display and support units of a size no greater than about one half the length of the path of movement thereof does not appear to have been considered or appreciated prior to the present invention.

The present invention utilized this feature in such a small article display rack most advantageously together with other unique features, such as the construction thereof so the rack can be readily modified to accommodate different numbers and and positions of display and support units within a given space, to accommodate the different sized articles which require more or less space between the article display and support units. The article display and support units are, most advantageously, pegboard panels with article support members distributed thereover. Another feature of the display rack of the present invention is the provision of a rack construction which is foldable for shipment and storage where it can be readily unfolded with additional parts added to form a stable rack construction. A further feature of the invention deals with a unique arrangement of movable and fixed article holding panels which permits access to the rack from both the front and sides thereof.

The above and other advantages and features of the invention will become apparent upon making reference to the specification to follow, the claims and drawings wherein:

FIG. 1 is a front view of one form of display rack of the present invention mounted on a shelf next to a wall in a store or the like;

FIG. 2 is a greatly enlarged vertical sectional view through the display rack of FIG. 1, taken along section line 2—2 therein;

FIG. 3 is a sectional view through the display rack shown in FIG. 2, taken along section line 3—3 therein;

FIG. 4 is a horizontal sectional view through the display rack of FIG. 3, taken along section line 4—4 therein;

FIG. 5 is a horizontal sectional view through the display rack of FIG. 3, taken along section line 5—5 therein;

FIG. 6 is a greatly enlarged fragmentary front elevational view of the upper portion of one of the article display and support panels shown in FIGS. 1 through 5 and illustrates the manner in which the panels are supported for movement on tracks within the rack;

FIG. 7 is a vertical sectional view through FIG. 6, taken along section line 7—7 therein;

FIG. 8 is a reduced vertical sectional view through a portion of the display rack of FIG. 3, taken along section line 8—8 therein;

FIG. 9 is a horizontal sectional view through a portion of display rack shown in FIG. 3, taken along section line 9—9 and showing the construction of a slidably supported handle unit used to move the article display and support unit from the side illustrated to the other side of the display rack;

FIG. 10 is a view corresponding to FIG. 9 when the article display and support unit involved has been moved to the opposite side of the display rack and the handle unit has been pushed into another position where it can be grasped to return the article display and support unit to the side of the display rack it occupied before;

FIG. 11 is a fragmentary view of the upper portion of a modified display rack using the same rack frame shown in the embodiment of FIG. 1 with risers added to incline the tracks supporting the article display and support panels so that the tracks angle downwardly to the right as viewed in FIG. 9, and further wherein the article display and support panels are modified from that shown in FIG. 1;

FIG. 12 is a reduced vertical sectional view through a portion of the display rack shown in FIG. 9, taken along section line 12—12 therein;

FIG. 13 is a horizontal sectional view through the display rack of FIG. 9, taken along section line 13—13 therein;

FIG. 14 is an enlarged fragmentary end elevational view of a portion of the display rack shown in FIG. 11, illustrating a track elevating member within a recess of a track-support member thereof;

FIG. 15 is a vertical sectional view, taken along section line 15—15 in FIG. 14;

FIG. 16 is a perspective view of the track elevating member shown in FIGS. 14 and 15;

FIG. 17 is a perspective view of another form of a collapsible display rack of the present invention which represents a simplification of the forms of the invention shown in FIGS. 1 through 16;

FIG. 18 is a vertical sectional view through the display rack shown in FIGS. 17, taken along section line 18—18 therein;

FIG. 18A is a vertical sectional view through a roller and track assembly of the display rack of FIG. 17;

FIG. 19 is a front elevational view of the display rack shown in FIG. 17;

FIG. 20 is a side elevational view of the display rack shown in FIGS. 17 through 19;

FIG. 21 is horizontal sectional view through the collapsible frame portion of the display rack shown in FIG. 18, taken along section line 21—21 therein after removal of the various tracks, guide members and movable pegboard panels thereof;

FIG. 22 is a vertical sectional view through the frame portion of the display rack shown in FIG. 21 where the side frame members thereof have been folded in a compact position over the rear wall of the rack;

FIG. 23 is a perspective view of a modification of the form of display rack shown in FIGS. 17 through 22 wherein access to the display rack is provided on the sides as well as the front thereof;

FIG. 24 is a horizontal sectional view of the display rack shown in FIG. 23, taken along section line 24—24 therein;

FIG. 25 is a vertical sectional view of the display rack shown in FIG. 23, taken along section line 25—25 therein;

FIG. 26 is a vertical sectional view through the display rack shown in FIG. 25, taken along section line 26—26 therein, and

FIG. 27 is a sectional view through a portion of the display rack shown in FIG. 25.

DISPLAY RACK OF FIGS. 1 THROUGH 10

The display rack shown in FIGS. 1 through 10 generally indicated by reference numeral 2 is shown supported on a rearwardly and downwardly inclining shelf 4 supported above the floor by a front vertically extending board 6 and a rear wall mounted shoulder-forming strip 7. The display rack of 2 is a cabinet-like structure movable about as an integral unit and including side walls 10—10 having inclined bottom margins 11—11 (FIG. 2) adapted to rest upon and extend along the rearwardly and downwardly inclining shelf 4. The side walls 10—10 extend substantially the full height of the display rack and are joined at the top by a transparent or translucent synthetic plastic wall 12 covering the entire top of the rack to prevent dust from dropping into the rack and allow light to pass into the rack. The rack has respectively at the top and bottom thereof facia boards 14 and 16. The rear margins of the side walls 10—10 are secured to a rear wall 18, which is preferably made of pegboard so as to present a multiplicity of holes 19 into which may be extended suitable article holding means which may be brackets or rods 21 as illustrated including projections at the rear thereof adapted to fit into the holes 19 and by engagement with the rear of the pegboard stably support an appreciable number of small articles 23 suspended or held by the article holding means involved.

The cabinet-like structure forming the article display rack 2 defines an article display space 20 which opens onto the front of the display rack for substantially the full height and width of the display rack. In the embodiment of the invention illustrated, this opening is defined between the top and bottom facia boards 14 and 16 and the side walls 10—10.

Movably mounted within the display space 20 are a number of vertically extending article display and support units 22*a*, 22*b*, 22*c* and 22*d*. In the most advantageous form of the invention, each of the various article display and holding units includes a pegboard panel 24 extending for substantially the full height and width of the article display unit involved. The pegboard panels 24 have the usual holes 25 distributed over the entire area thereof into which small article holding means like the aforementioned article holding rods 21 may be mounted at spaced points over most of the front area of the pegboard panel involved. Narrow channel strips 26—26 are shown covering the side vertical margins of each pegboard panel 24, a wide channel strip is shown covering the top margin of each pegboard panel 24, and a relatively narrow channel strip 29 is shown covering the bottom margin of each pegboard panel 24.

The various article display and holding units 22*a*, 22*b*, 22*c* and 22*d* may be variably spaced apart in a direction between the front and rear of the article holding space 20, depending upon the size and number of articles it is desired to support in alignment upon any of the article support rods 21 or other article holding means. Each of the article display and support units 22*a*, 22*b*, 22*c* and 22*d* have a width no greater than about one half the width of the article display space 20, and is mounted for movement in a direction parallel to the front of the display rack from one side to the other of the article display space 20 so that the front of any selected article display and support unit at one side of the article display space 20 can be exposed to the front of the display rack by moving all of the other article display and support units in front of the same to the opposite side of the article display space 20.

The article display and support units may be readily moved from one side to the other of such article display space 20 by handle-forming means illustrated as including a pair of vertically extending handle-forming bars 28—28 which are located at opposite sides of each pegboard panel 24. One of the pair of handle-forming bars 28 is spaced from a side margin of the pegboard panel 24 a distance equal to the width of an indicia-carrying plate 33 carried thereby, and the other handle-forming bar 28 is positioned contiguous to the other side margins of the pegboard panel 24. The opposite ends of the handle-forming bars 28—28 are joined by cross members 30—30 which are frictionally slidably disposed within horizontally extending guide tubes 32—32 best shown in FIGS. 9 and 10 which are anchored to the rear of the associated pegboard panel 24 in any suitable way.

When the article display and support unit involved is moved to one extreme position within the display space **20**, the handle-forming bar **28** nearest the side of the display rack involved will strike the adjacent side wall **10** which will push the handle-forming bar **28** to a point contiguous to the adjacent side margin of the pegboard panel **24.** The fit between the cross members **30—30** of the handle-forming bar assemblies are such that a customer may pull on a handle-forming bar **28** without causing the associated cross members **30—30** to slide within the associated guide tubes **32—32** until the handle-forming bar **28** involved strikes against the side wall **10** of the display rack.

To avoid pinching the users fingers, stop blocks **34—34** are positioned on the inner sides of the junction points of the handle-forming bars **28—28** and the cross members **30—30** which stop blocks will engage the side margin of the pegboard panel involved at a point where a space wider than the narrow dimension of the user's hand is left between the handle-forming bar **28** involved and the side margin of the channel strip **26.**

The indicia-carrying plates **33** are attached at different vertically spaced points on the front of the handle-forming bars **28—28** of the various article display and support units **22***a*, **22***b*, **22***c* and **22***d*, so that when all of the article display and support units are positioned on the same side of the display rack as viewed in FIG. **3**, the indicia-carrying plates **33** on the side thereof nearest the opposite side of the rack will be exposed by virtue of the fact that the various plates are positioned in vertically spaced relation. Each of the indicia-carrying plates **33** has printing indicating the type of articles supported from the associated pegboard panel **24.** The article display and support unit behind the forwardmost unit **22a** having the desired articles can be selected by the user by putting his hand opposite the indicia-carrying plate identifying the desired articles and then touching the plate involved by inserting his fingers into the space between the handle-forming bars **28** involved and the side margins of the pegboard panels. The user then moves this hand against all the handle-forming bars **28** involved to move all of the article display and support units in front of the desired pegboard to one side, thereby to expose the front of the desired article display and support unit so that access to the desired articles can be readily obtained.

Refer now more particularly to FIGS. **2, 3, 6** and **7** which best illustrates the manner in which each of the article display and support units is mounted for movement from one side to the other of the article display space **20** in the most preferred embodiment of the invention. To this end, tracks **36** are removably supported within corresponding recesses **40** in a pair of track support members **42—42** secured to the inner surfaces of the upper portions of the side walls **10—10** of the display rack and at an elevation to be hidden by the top facia board **14.** The tracks **36** are positioned by merely dropping the tracks into the desired pair of recesses **40.** The track support members **42—42** may be horizontally extending members preferably having a large number (e.g., **15–20** or more) of closely longitudinally spaced upwardly opening recesses **40** formed along the entire lengths thereof, the spacing between the recesses **40** being very small to provide for a large selection of different positions to be occupied by selected numbers of tracks **36** to be used with the given display rack. As illustrated, each of the track support members is a sheet metal member having a base portion **42***a* (FIGS. **2** and **3**) secured by screws or the like to a side wall **10** and an upper portion **42***b* containing the receses **40** spaced from the side wall **10.** The illustrated tracks **36** are rectangular metal or wood members, but they may have different other configurations.

Each of the article display and support units as illustrated has a pair of roller-carrying assemblies **41—41** secured to the upper channel strip **27** thereof. Each of the roller carrying assemblies as illustrated includes an inverted U-shaped member **43** (FIGS. **6** and **7**) having spaced front and rear legs **43***a*—**43***a* straddling the front and rear surfaces of the associated track **36** and rotatably carrying a roller **44** which rides upon the top surface of the track **36.** Each of the article display and support units is thus suspended from the associated track **36.**

The bottom ends of the various articles and support units are guided and supported in vertical planes by suitable guide means, for example, including horizontally disposed guide members **48** mounted in corresponding recesses **50—50** in horizontally extending guide support members **52—52** attached to the inner surface of the bottom portions of the side walls **10—10** of the display rack at point behind the bottom facia wall **16** which hides the same from view. The guide members **48,** as illustrated, are elongated rectangular bars which drop fit within the recesses **50** of the guide support members **52—52.** The spacing of the closely spaced recesses **50** corresponds to the spacing between the recesses **40** in the track support members **42—42.** Thus, the guide members **48** may have positions corresponding to the positions of the associated tracks **36,** so that the guide members may be positioned in accordance with the desired number and spacing of the article display and support units utilized in the display rack at a given time. A guide bracket **53** (FIG. **2**) is shown secured to the bottom of each of the pegboard panels **24** which guide brackets define guide channels **53a** which encompass and slide along the guide members **48.**

DISPLAY RACK OF FIGS. 11 THROUGH 16

The display rack **2'** of FIGS. **11** through **16** is in many respects identical to the display rack **2** of FIGS. **1** through **10** and identical reference numbers have been used for the identical parts thereof, and other different but corresponding parts are numbered similarly to the corresponding parts in FIGS. **1** through **10** except that a prime (') has been added thereto. The main difference between the display rack **2'** and the display rack **2** previously described is that the tracks **36** of the display rack **2'** are all inclined toward the same side of the display rack and the article display and support units **22***a'*, **22***b'*, **22***c'* and **22***d'* of the display rack **2'** are of progressively increasing width so that when the article display and support units are all positioned on one side of the article display space **20** the various handle-forming bar assemblies are in horizontally spaces relation and the indicia-carrying plates **33'** extend for the entire length of the handle-forming bars **28'** thereof to maximize the indicia-carrying space on the plate **33'.** Since the tracks **36** upon which the various article display and support units are movably mounted are inclined downwardly in a direction toward one side of the display rack, normal release of all the handle-forming bars **28'** result in the force of gravity carrying all of the

article display and support units to the low side of the inclined tracks **36.** The fit between the cross members **30'—30'** of the various handle-forming bar assemblies and the associated guide tubes **32'** is such that the force against the handle-forming bars **28'** as they strike a side wall **10** under force of gravity will cause the cross members **30'** to slide within the associated guide tubes **32'** to retract the handle-forming bar **28'** striking the side wall and to extend the opposite handle-forming bar **28'** to fully expose the associated indicia plate **33'**.

The tracks **36** are inclined by means of track elevating members **55** best illustrated in FIGS. **14** through **16.** These track elevating members **55** are removably positioned in corresponding recesses **40** of the left hand track support member **42.** To this end, each track elevating member **55** may include a winged vertically extending base portion **55***a* which engages the opposite faces of the upper portion **42***b* of the track support member **42.** The track elevating members **55** have an inwardly offset U-shaped upper portion **55***b* which defines a channel **57** raised above the bottom of the recess **40** to receive and elevate the left hand ends of the track **36.**

DISPLAY RACK OF FIGS. 17 THROUGH 22

The display rack **102** illustrated in FIGS. **17** through **22** is a much more simply constructed and less expensive embodiment of the invention than previously described display racks **2** and **2'**. The display rack **102** in addition to its simplicity has a further advantage that the main portion thereof can be folded into a compact position as shown in FIG. **22** with the removal of some of the frame members to be described, for convenience in shipment and storage. Although there are many similarly operating corresponding parts in the display racks **2, 2'** and **102,** parts of the display rack **102** will be similarly numbered to corresponding parts of the display racks **2** and **2'** except the reference number will be **100** units higher than that used in the display racks **2** and **2'**.

The display rack **102** has what is sometimes referred to as a rear frame unit which, in the most preferred form of the invention, is formed by a large pegboard panel **118** having openings **119** distributed thereover to receive article support brackets or rods (like rods **20** previously described) distributed thereover. A pair of vertically extending rear frame members **121—121** are secured to the side margins of the pegboard panel **118.** A pair of horizontally elongated upper side frame members **110—110** are, by means of piano type hinges or the like, pivotably mounted to the front faces of the rear vertically extending frame members **121—121** for movement between the forwardly extending positions best illustrated in FIG. **17** where they extend at right angles to the pegboard panel **118** to the positions shown in FIG. **22** where the upper side frame members **110—110** extend generally parallel to the pegboard panel **118** in front of the same. Similarly, vertically extending lower side frame members **111—111** are provided which extend only part way up from the bottom of the display rack and are pivotally mounted by means of piano type hinges **123—123** or the like (FIG. **21**) between positions where they extend forwardly at right angles from the pegboard panel **118** to positions where they extend inwardly and parallel to the front of the pegboard panel **118,** as shown in FIG. **22.** The front ends of the top and bottom side frame members **110–111** on each side of the display rack are interconnected by a front vertically extending frame member **129.**

A pair of track support members **142—142** are secured to the inner faces of the top side frame members **110—110** which track support members move into a clearance space below a top horizontally extending frame member **125** (FIG. **22**) extending across the upper margin of the pegboard panel **118.** A similar bottom horizontally extending frame member **127** extends between the bottom margin of the pegboard **118.** The bottom side frame members **111—111** carry on the inner faces thereof guide support member **152—152** which, when the bottom side frame members are in their positions extending parallel to the pegboard panel **118,** extend into a clearance space above the bottom frame member **127.** The top and bottom side frame members **110—110** and **111—111** are respectively interconnected by top and bottom facia boards **114** and **116.** The top and bottom facia boards **114** and **116** can be secured in place as by screws or the like extending through the front vertically extending frame members **121—121.**

The track support members **142—142** are supported at an elevation behind the top facia board **114** and the guide support members **152—152** are supported at an elevation behind the bottom facia board **116.** The track support members **142—142** have recesses **140** which are closely spaced apart like the corresponding recesses **40** in the track support members **42—42** previously described. Similarly, the guide support members **152—152** have recesses **150** which are closely spaced apart like the recesses **50** in the guide support members **52—52** in the previously described embodiment of the invention. Accordingly, a desired number of track-forming assemblies **136** are supported between corresponding recesses **140—140** in the track support members **142—142** and a corresponding number of guide members **148** extend between corresponding recesses **150—150** in the guide support members **152—152** to guide the movement of brackets **153** connected to the bottom ends of associated articles display and support units **122***a*, **122***b* and **122***c*.

The pegboards **124** may be strengthened by a pair of vertically extending channel member **59—59** secured to the rear surfaces thereof. Each of the article display and support units **122***a*, **122***b* and **122***c* as illustrated includes a pegboard panel **124** having holes **125** for supporting article holding means, such as the aforesaid article holding rods **20** distributed over the front thereof. Each of the pegboard panels **124** attached to the upper margin thereof has a pair of brackets **141—141** carrying rollers **144—144.** As best illustrated in FIG. **18A,** the rollers **144** have pointed peripheries adapted to roll within correspondingly shaped track-forming portions **136***a* formed by the rearwardly bent portion of a sheet metal bracket **136***b* secured to a carrier bar **136***c* which may be made of wood or the like. The carrier bar **136***c* fits within the corresponding recesses **140—140** of the track support members **142—142.**

Each of the article display and support units **122***a*, **122***b* and **122***c* is of a width of about one half the article display space **120** between the side frame members **110—110** and **111—111** of the display rack so that each such unit may be moved from one side to the other of the article display space **120,** to expose sub-

stantially the entire front surface area of the article display and support unit immediately therebehind.

DISPLAY RACK OF FIGS. 23 THROUGH 27

The display rack **102'** shown in FIGS. **23** through **27** are similar in many respects to the display rack **102** just described and the parts of the display rack **102'** which correspond with parts in the display rack **102** will be similarly numbered except for the addition of a prime (') to the reference numbers of the parts in the display rack **102'**. The display rack **102'** differs from the display rack **102** in that, in addition to the main or central article display space **120'** in which article display and support units **122***a'*, **122***b'* and **122***c'* are mounted for movement from one side to the other of the article display space **120'**, there are provided laterally outwardly opening article display spaces **120''—120''** defined by the side marginal portions of a rear pegboard panel **118'** and a pair of fixed pegboard panels **160—160** extending transversely to the rear pegboard panel **118'** and terminating adjacent to the front of the display rack **102'**. The fixed pegboard panels **160—160** are spaced substantially from the side margins of the display rack **102'** and form, in addition to means for displaying and supporting articles on the outer surfaces thereof, partitions between the central article display space **120'** and the laterally outwardly facing display spaces **120''—120''**.

The display rack **102'** has top and bottom side frame members **110'** and **11'** which, by means of hinges (not shown) are pivotally supported to the rear vertically extending rear frame members **121'—121'** for movement between positions extending transversely of the rear pegboard panel **118'** to positions where they extend parallel and in front of the rear pegboard panel **118'** in the same manner as previously described in connection with the side frame members of the display rack **102.** The top and bottom side frame members **110'-111'** on each side of the display rack **102'** respectively carry track support and guide support members **142'** and **152'** respectively, which have track receiving and guide member receiving recesses **140'** and **150'**. Track assemblies **136'** are accordingly supported in corresponding recesses **140'—140'** in the track support members **142'—142'**, and guide members **148'** are supported between corresponding recesses **150'—150'** of the guide support members **152'—152'**.

The fixed pegboard panels **160—160** may be supported within the display rack in any suitable manner. However, as illustrated in FIG. **25** and **27,** the fixed pegboard panels **160—160** have secured to the inner faces thereof the pair of members **162—162** with vertical openings extending completely therethrough and receiving the shank portion **164***a***—164***a* anchoring members **164—164** having hooked upper ends **164***b***—164***b* which extend into eyelets **166—166** respectively anchored to a rear top horizontally extending frame member **125'** and top facia board **114'**. The shank portions **164***a***—164***a* of hooked anchoring members **164—164** pass through the aforesaid openings in the pegboard anchored members **162—162** and terminate in enlarged bottom portion **164***c***—164***c*. Each fixed pegboard panel **160,** when allowed to drop into its final mounted position, will be suspended upon the upper surfaces of the enlarged bottom portions **164***c***—164***c* of the hooked members **164—164.** Secured to the bottom end of the fixed pegboard panels **160—160** are a pair of downwardly extending pins **168—168** passing into eyelets **169—169** anchored respectively to a rear bottom horizontally extending frame number **125'** and a bottom facia board **116'**.

The fixed pegboard panels **160—160** may each be provided with a pair of vertically extending channels **161—161** for increasing the strength ad rigidity thereof as illustrated, the various article and display and support units **122***a'*, **122***b'* and **122***c'*, which including pegboard panels **124'** of a width approximately one half the width of the article display space **120'**, are also provided with a pair vertically extending channel members **159** and the like to increase the strength and rigidity thereof. The pegboard panels **124'** carry a pair of rollers **144'—144'** riding in the track-forming portions **136***a'* of the track assemblies **136'**. To prevent the article display and support units **122***a'*, **122***b'*, **122***c'* and **122***d'* from striking the fixed pegboard panels **160—160,** cross members **167—167** supported in aligned slots **171** in the guide members **148'** are provided adjacent to the pegboard panels **160—160** which cross members are engaged by the opposite side margins of the movable pegboard panels **124'** to stop the same before they can strike the fixed pegboard panels **160—160.** For similar reasons, the track-forming portions **136***a'* of the track assemblies **136'** have upwardly extending blocks **172** (FIG. **26**) which are engaged by the rollers **144'** at the instant the lower ends of the movable pegboard panels **124'** strike the cross members **167—167.**

The various display racks of the invention above described provide display an usually large number of small article accessible for individual removal by customers within a given space occupied thereby. Moreover, the display racks provide extreme flexibility in both the number of article display and support panels which can be used and the spacing thereof so a given customer may readily accommodate a given display rack to his individual needs with a minimum of effort. Furthermore, the foldability of parts of the display rack frames forms a compact, yet easy to assemble product which is convenient to ship and store.

It should be understood that numerous modifications may be made in the most preferred forms of the invention described without deviating from the broader aspects of the present invention.

I claim:

1. A display rack comprising: a frame open at least at the front thereof to expose an article display space therein; track support means attached to opposite sides of the frame adjacent to one of the top and bottom thereof and having corresponding track-receiving means for selectively supporting a variable number of tracks extending parallel to the front of the rack and with a selection of spacings therebetween in the direction between the front and rear of the rack; a number of tracks individually removably supported in front to back spaced relation within said track-receiving means; a number of vertically extending article display and support units each having one end thereof supported on a different one of said tracks and being of a width no greater than about half the width of said space; guide support means attached to opposite sides of said frame at the opposite ends of said article display and support units which guide support means have guide member-receiving means corresponding in position to said track-receiving means for selectively supporting a

variable number of guide members extending parallel to the front of the rack with a selection of spacing therebetween in a direction between the front and rear of the rack, guide members individually removably supported in front to back spaced relation within said guide member-receiving means of said guide support means in positions corresponding to those of said tracks, the guide members engaging portions of said opposite ends of said article display and support units for guiding the article display and support units in the proper planes; each of said article display and support units having article holding means distributed over the front thereof from which a customer may remove a desired article, the article holding means projecting forwardly from the article display and support unit a distance where the number of article display and support units supportable in said tracks and guided by said guide members is much less than the number of tracks and guide members which can be simultaneously received by all of said slide track-receiving and guide member-receiving means in the absence of said article holding means and each of said article display and support units being movable along one of said tracks from one side to the other of said article display space to expose the area on the front of the article display and support unit. immediately therebehind.

2. The display rack of claim **1** wherein said track-receiving means are closely spaced recesses in said track support means, and said tracks being selectively supportable in corresponding recesses of said track support means.

3. The display rack of claim **2** wherein said track support means are located at the top of the rack, which recesses are open at the top to permit tracks to be dropped into the desired recesses, and said article display and support units being suspended from the associated track.

4. The display rack of claim **1** wherein said track support means are located above said article display space, and said article display and support units are movably supported on the tracks by rollers riding on the tracks.

5. The display rack of claim **1** wherein said tracks are all inclined so the article display and support units will move by force of gravity to given initial positions when not constrained from doing so, and there is provided on one vertical side margin of each article display and support unit indicia carrying means identifying the articles displayed on the associated article display and support unit all of which indicia carrying means are visible when said article display and support units are in said initial positions.

6. The display rack of claim **1** wherein said frame includes a rear frame unit and side frame-forming means pivotally mounted to the side marginal portions of said rear frame unit for movement between positions adjacent to and extending generally parallel to said rear frame unit to form a compact folded assembly and positions extending forwardly from said rear frame unit, said side frame-forming means having portions adjacent to the top and bottom portions of said rear frame unit, and means for anchoring the side frame-forming means in said positions extending forwardly from said rear frame unit; said side frame-forming means having on the inner sides thereof said track support means and guide support means.

7. The display rack of claim **1** wherein said track-receiving means and guide member-receiving means are closely spaced on top recesses in said track support means and guide support means, and said tracks and guide members being selectively droppable into and raisable from the corresponding recesses of said track and guide support means.

8. A display rack comprising: a frame open at the front and opposite sides thereof to expose a central display space and laterally outwardly facing display spaces, a pair of partition and article display and support walls extending between the front and rear of the rack and separating said forwardly open central display space from said laterally outwardly facing display spaces, the outer faces of said partition and article-display and support walls being spaced substantially inwardly from the sides of the frame to define said outwardly facing display spaces within the frame and having distributed thereover article holding means from which the desired article may be removed, a set of vertically extending article display and support units within said central display space each of a width no greater than about half the width of said central display space, said article display and support units being in spaced relation in a direction between the front and rear of the rack and mounted for movement across the width of said central display space to expose the article display and support unit immediately therebehind and the front faces of said vertically extending article display and support units having distributed thereover article holding means from which the desired article may be removed.

9. The display rack of claim **8** wherein said rack has a forwardly facing rear wall-forming means extending across the rear of both said central display space and said laterally outwardly facing display spaces to maximize the display area of the rack, said rear wall forming means having article holding means from which a customer may remove a desired article, said article holding means being distributed over the front of said rear wall forming means.

10. The display rack of claim **9** wherein said article display and support units in said central display space, said rear wall-forming means and said partition and article display and support walls are made of pegboard.

11. The display rack of claim **8** wherein the rack has a rear frame unit, top and bottom horizontally elongated side frame members pivotably mounted respectively to each side marginal portion of said rear frame unit for movement between positions adjacent to and extending generally parallel to said rear frame unit and positions extending forwardly from said rear frame unit, means for anchoring said top and bottom side frame members in said forwardly extending positions, track support means on the inner sides of one of said side frame members on each side of the rack and guide support means on the inner surfaces of the other of same, tracks supportable between said track support means at different positions therealong when said side frame members are in their forwardly extending positions, tracks supportable between said guide support means at different positions therealong when said side frame members are in their forwardly extending positions, and means on said article display and support units engaging with said guide means to prevent the article display and support units from moving appreciably forwardly or rearwardly when moved along said tracks.

12. A display rack comprising: a frame open at least at the front thereof to expose an article display space

therein, article display and support units spaced apart in the direction between the front and rear of the rack and each having a width no greater than about one half the width of said display space, means on said rack for supporting each of the article display and support units for movement between one side or the other of said article display space so that the article display and support unit behind the given unit may be exposed by moving all of the article display and support units in front thereof to one side or the other of said article display space, each of said article display and supporting units having handle means with a shank portion extending the full width of the associated article support unit and handle forming portions at the opposite ends thereof, said shank portion of each handle means being mounted for sliding movement horizontally upon the associated article display and support unit from one extreme position where one of said handle-forming portions extends substantially beyond the adjacent side margin of the article display and support unit and another extreme position where the other handle-forming portion extends substantially beyond the other adjacent side margin of the article display and support unit, means on said rack frame against which a portion of the handle means of each article display and support unit abuts when the article display and support unit is respectively moved to opposite ends of said article display space to move the handle-forming means horizontally to slide the shank portion to its opposite extreme position to cause a handle-forming portion thereof to extend substantially beyond the adjacent side margin of the article display and support unit so it can be readily grasped for pulling the article display and support unit to the other side of the article display space.

13. The display rack of claims **12** wherein each of said handle-forming means carries indicia carrying means indentifying the articles displayed on the associated article display and support unit, all of said indicia carrying means are simultaneously visible when all of said article display and support units are in one or the other of said positions at the opposite ends of said article display space.

14. A display rack comprising: a frame open at least at the front thereof to expose an article display space therein, vertically oriented article display and support units spaced apart in the direction between the front and rear of the rack and each having a width no greater than about one half the width of said display space, means on said rack for supporting each of the article display and support units for movement between one side or the other of said article display space so that the article display and support unit behind the given unit may be exposed by moving all of the article display and support units in front thereof to one side or the other of said article display space, said article display and support units having indicia carrying means on the corresponding vertical side margins thereof for identifying the articles displayed on the associated article display and support units, all of the indicia being visible when said article display and support units are in given initial positions, and said article display and support units being supported on inclined tracks wherein said article display and support units are urged by force of gravity into said given initial positions.

15. The display rack of claim **14** wherein said given initial positions are at one side of said article display space.

16. The display rack of claim **15** wherein said given initial position of said article display and support units are at one end of said article display space, and said article display and support units are of progressively increasing widths proceeding from the front to the rear of the display rack so that when all of the article display and support units are moved to said one side of said article display space said indicia carrying means carries on a portion of each article display and support unit is visible.

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