United States Patent

Moore

[15] **3,692,191**

[45] **Sept. 19, 1972**

[54] **EXTENDIBLE AND RETRACTABLE PARTITION ASSEMBLY FOR DISPLAY SHELVING**

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[22] Filed: **Nov. 2, 1970**

[21] Appl. No.: **86,031**

[52] **U.S. Cl.**.....**211/184,** 312/140.4

[51] **Int. Cl.**.....**A47b 96/04,** A47f 3/00, A47f 5/10

[58] **Field of Search**.....211/184, 175; 312/140.4, 138 R; 52/143, 29, 217, 586; 49/125, 411, 410; 16/96 R, 95 R, 93 R, 94 R, 87 R

[56] **References Cited**

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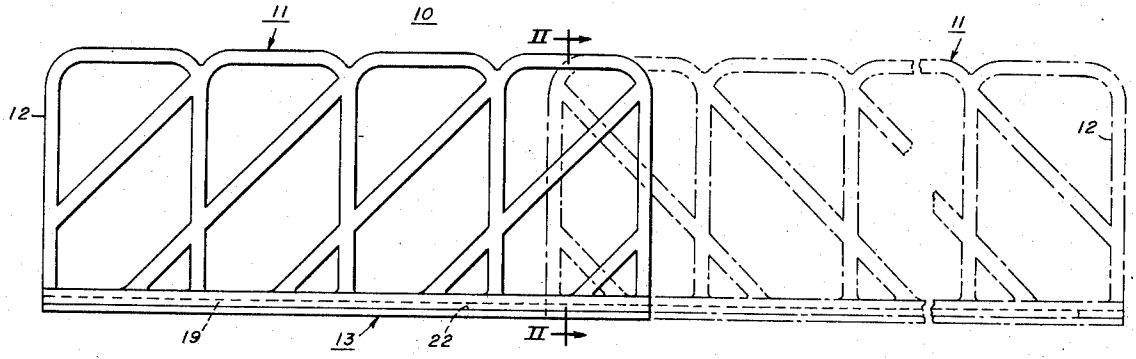
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[57] **ABSTRACT**

An extendible and retractable partition assembly for display shelving is detailed. The partition structure is more particularly a binning and banding partition for use with shelving and counter tops for segregating displayed merchandise. Identically formed linearly extending partition members are slidably connected to linearly extending coupling means to form the extendible and retractable partition structure.

11 Claims, 10 Drawing Figures



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SHEET 1 OF 2

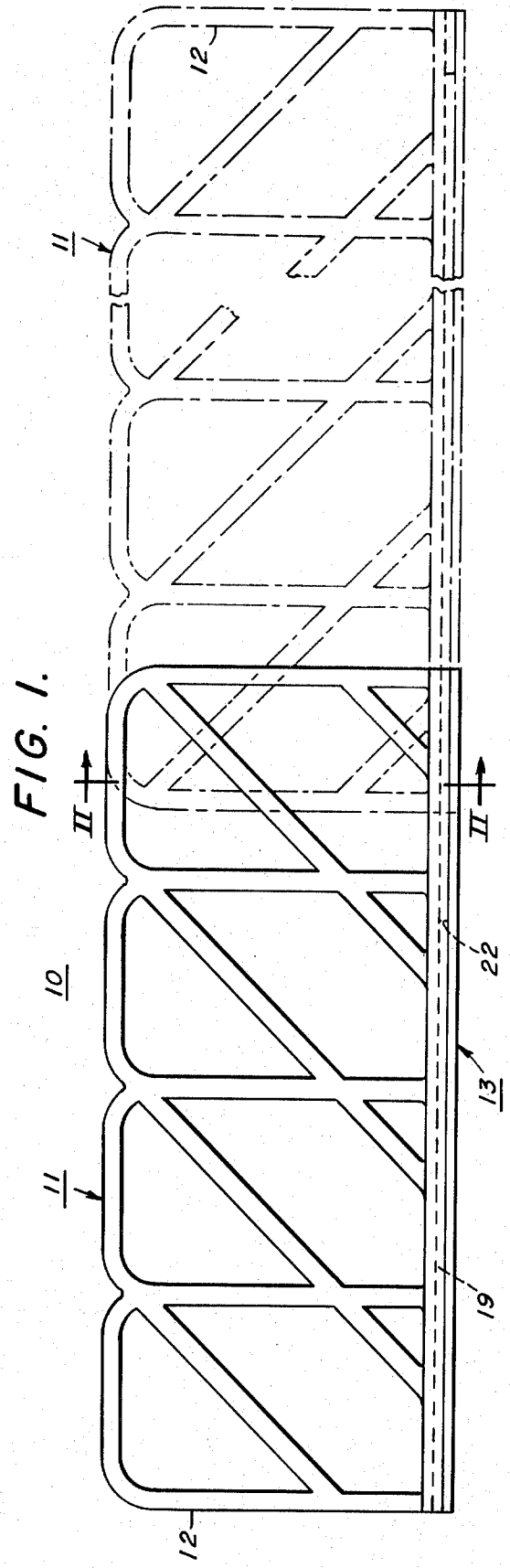


FIG. 1.

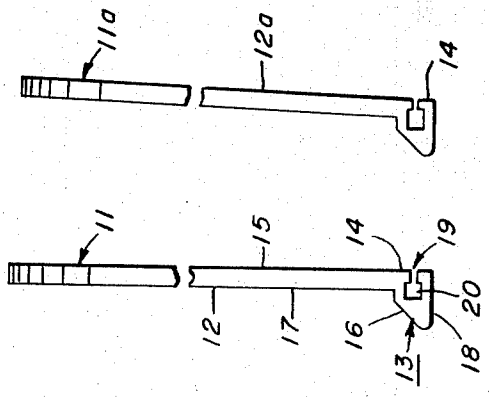


FIG. 4. FIG. 4A.

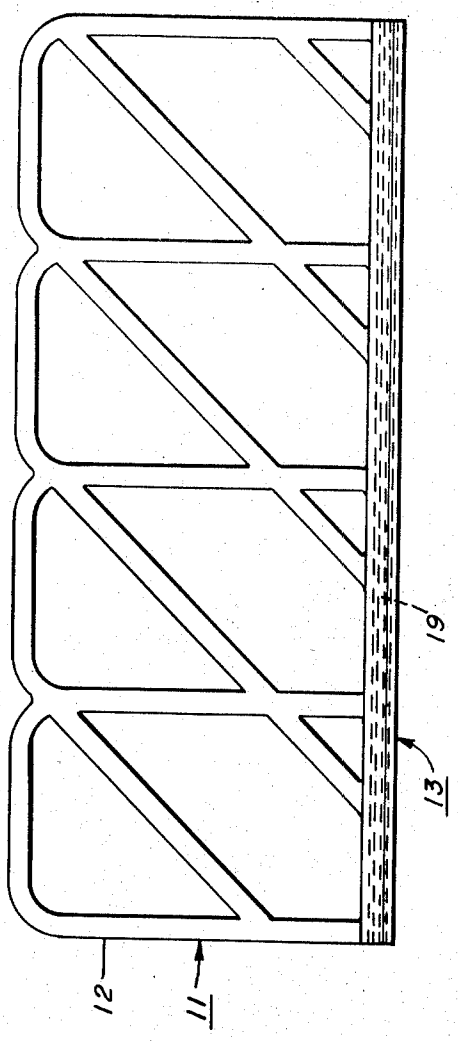


FIG. 3.

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FIG. 2.

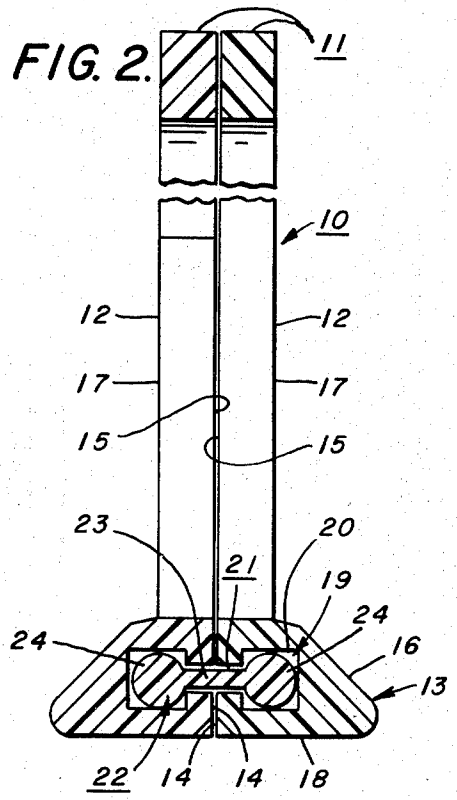


FIG. 5.

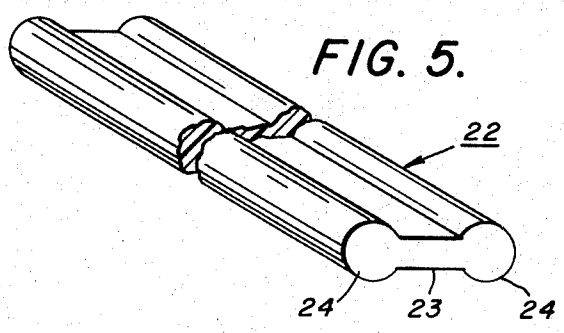


FIG. 7.

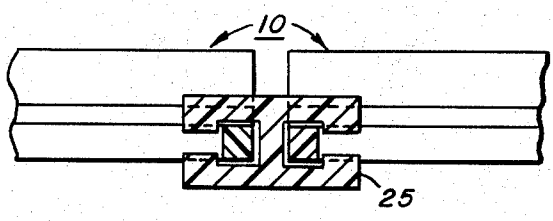


FIG. 6.

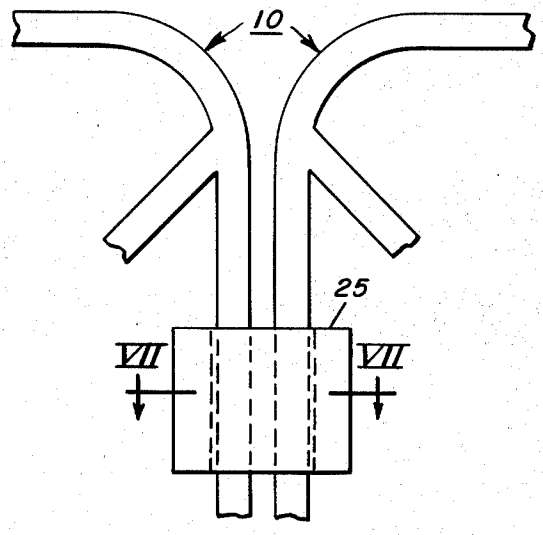


FIG. 8.

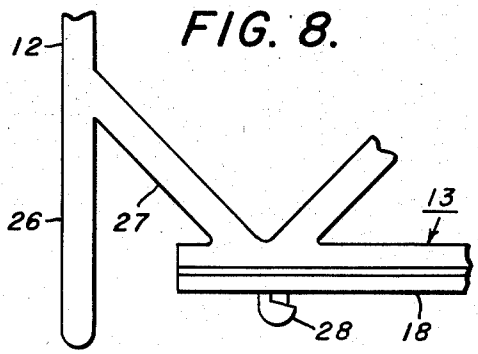
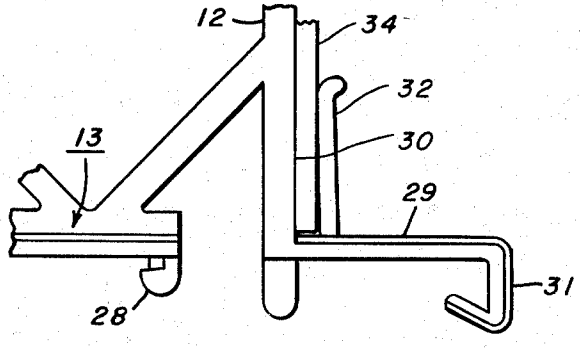


FIG. 9.



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EXTENDIBLE AND RETRACTABLE PARTITION ASSEMBLY FOR DISPLAY SHELVING

BACKGROUND OF THE INVENTION

This invention relates to an extendible and retractable partition for use on merchandise display counters or shelves. A shelving partition which is used to form the ends and front and rear sides of a counter or shelf is termed a banding structure. A partition arranged to form dividers separating merchandise display areas into bins is termed a binning structure. A recent advance in merchandise display partitions has been the substitution of plastic partitions for the formerly used glass members. The plastic partitions generally have a latticed structure to minimize material costs, yet effectively segregate the displayed merchandise.

It is desirable from both a manufacturer's and a purchaser's position to be able to purchase partition structures which are extendible and retractable to be used with a variety of counter and shelf dimensions. This will reduce the variety of such structures which should be stockpiled, and will facilitate set-up of a partitioned counter and shelf. The partitions will also be reusable in any number of variety of set-ups wherein the partition must be extended or retracted.

In some prior art structures, the partition members mate with each other in such a way that it requires male and female, or left and right hand parts for slidable engagement, as for example, one member with a groove and one with a tongue. This requires two different molds and the stocking of two different parts, both by the manufacturer and by the customer or end user.

It is desirable from a manufacturer's point of view that the partition structure be as simple as possible while maintaining the structural integrity of the partition.

SUMMARY OF THE INVENTION

An extendible and retractable partition structure has been provided for use in segregating merchandise or display counters and shelves. The partition structure comprises a pair of elongated linearly extending partition members including first guide means, and an elongated, linearly extending coupling member including second guide means which are slidably interconnectable with the first guide means of each partition member. The partition members are thus assembled in parallel, contiguous relationship and are slidable relative to each other and relative to the coupling member to effect extension and retraction. This allows the partition structure to be utilized in situations calling for a wide variety of partition dimensions ranging from the length of one partition member in the fully retracted position, to the length of the two partition members in the fully extended position.

The intermediate or coupling member enables a slidable partition structure to be manufactured with both partition members the same, thereby reducing inventory requirements for both manufacturer and end user and facilitating the in situ arrangement of display counters.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a view in elevation of an assembled extendible and retractable partition structure according to the present invention wherein the structure is almost fully expanded;

FIG. 2 is a view in section along the line II—II of FIG. 1;

FIG. 3 is an elevational view of one of the unassembled portions which make up a partition structure;

FIG. 4 is an end view of the structure shown in FIG. 3;

FIG. 4*a* is an end view of a modified embodiment of the structure shown in FIGS. 3 and 4;

FIG. 5 is a perspective view of the embodiment of the collecting member which is shown assembled in FIG. 2;

FIG. 6 is a partial elevation view showing a connection between end members of a plurality of an extendible partition structure;

FIG. 7 is a view partly in section along lines VII—VII in FIG. 6;

FIG. 8 is a fragmentary view of a modified end portion of the extendible and retractable partition structure shown in FIGS. 1 and 3; and

FIG. 9 is a fragmentary view of another embodiment of an end portion for the extendible and retractable partition structure shown in FIGS. 1 and 3.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

A better understanding of the present invention can be had by reference to the exemplary embodiments shown in the drawings, where in FIG. 1 is shown the extendible and retractable partition structure **10**. The entire structure **10** is preferably formed of a clear plastic material. Structure **10** comprises a pair of identical, linearly extending partition members **11** one of which is shown by itself in FIG. 3, including a vertical body portion **12** as can be best seen by reference to FIG. 4. The term "identical" as used herein means the identical orientation, i.e., there are no left hand and right hand members, or male and female members. The vertical body portion **12** preferably has a grid or lattice structure of any predetermined design.

Each partition member **11** as is best seen in FIG. 2 includes a base portion **13** which is formed integral therewith, and which extends along the length of the partition member **11**. One side **14** of the base portion **13** is flush with one side **15** of the vertical body portion **12**, while the other side **16** of the base portion **13** is broadened or flanged beyond the other side **17** of the vertical body portion **12**. The bottom **18** of the base portion **13** is planar to rest upon a supporting structure such as a shelf or counter to provide structural support. The base portion **13** has integrally formed first guide means **19** included therewith. The first guide means **19** is defined by forming the base portion to define an interior channel **20**. The interior channel **20** preferably has an approximately square cross-section. The base portion **13** is formed so that the interior channel **20** extends to each end of the base portion. The base portion **13** is formed to also define a narrowed opening portion **21** directed from base side **14** to the interior channel **20**.

A linearly extending connecting member **22** best shown in FIG. 5, joins the linearly extending partition members **11** as is best seen in FIG. 2. The connecting member **22** comprises a central web or body portion **23** and continuous parallel beads constituting second

guide means **24** along opposite sides of, and coextensive with the web **23**. The second guide means **24** are dimensioned to slidably and snugly fit the interior channel **20** provided in the base **13** of the partition members **11**. The second guide means **24** are preferably generally circular in cross-section. The first guide means **19** and second guide means **24** can be shaped other than as shown as long as they are generally conjugately shaped to allow mutual slidable engagement.

The assembly of the expandible or retractable partition structure **10** is perhaps most clearly shown in FIG. **2**. The connecting member **22** is slidably inserted into the first guide means **19** formed in the base portion **13** of the partition members **11**. The generally circular cross-section second guide means **24** slidably fits the interior channel **20** of each partition member **11**. The flattened central body portion **23** of the connecting member **22** slidably fits the narrowed opening portion **21** of each partition member **11**. Each partition member **11** is independently slidable relative to the connecting member **22** to effect the extension or retraction of the partition structure, while lateral movement is restrained.

It will be readily appreciated that the present partition structure has good structural rigidity resulting from the large area of contact between the coupling means and the partitions along the length of the coupling means, with the contact being the greatest in the center of the structure where it is most desirable. Further structural stability is had from the broadened base portion of the partition members which on the assembled structure cooperate to form a broad supporting base.

The structure described, with identical partition members eliminates the need for a separate molding or stamping set-up, and the need to keep track of mating sections. The structure is very easily assembled.

In a particular embodiment of the present invention illustrated in FIG. **4***a*, the vertical body portion **12***a* is inclined at a slight predetermined angle from the perpendicular toward the flush base side **14**. The resilience of each vertical body portion is such that when slidably inserted onto the connecting member they are biased toward each other giving further rigidity to the partition structure.

In FIGS. **6** and **7** is illustrated a means of connecting together a plurality of such extendible and retractable partition structures **10**. A union member **25** is connectable to the ends of vertical body portions **12** of the partition structure **10**.

It can be appreciated that any number of individually extendible and retractable partition structures can thus be assembled together to form a longer partition or counter edge.

It has been found desirable to provide a resilient anchoring means at the end of the partition structure **10** already described. Two distinct embodiments for such resilient anchoring means are shown in FIGS. **8** and **9**. In FIG. **8** a fragmentary view of a modified end of the linearly extending member **11** is seen. The vertically extending leg **26** extends from an end of the vertical body portion **12**. The base portion **13** does not extend the entire length of the linearly extending member **11** but is joined to the vertically extending leg **26** via a diagonal member **27** which functions to give the anchoring means a degree of resiliency. The vertically extending leg **26** fits into a shelf aperture or in a slot provided in a counter molding. A further mounting means is shown as a downwardly extending post **28** which extends from the bottom **18** of base **13**. The post **28** fits into an aperture or slotted shelf to increase the rigidity of the partition structure. In FIG. **9** the resilient anchoring means is further modified by the provision of a horizontally extending leg **29** which extends from the vertical leg **30** which is joined to the vertical body portion **12**. A clamping means or hook **31** terminates the horizontally extending leg **29**, and is adapted to clamp onto a counter edge or molding.

The resilient anchorings means shown in FIG. **9** also includes a vertically directed resilient member **32** which extends upward from horizontally extending leg **29**, proximate the leg **30** and end portion of the vertical body portion **12** of the partition structure. The resilient member **32** is inclined at a slight angle from the perpendicular to the leg **29** and the base of the partition structure, directed toward the end portion of the partition structure. The top portion **33** of resilient member **32** is curved back away from the end portion of the partition structure to facilitate forceable insertion of the banding structure **34**. The linearly extending banding structure **34** of predetermined height thickness is thus frictionally supportable between the resilient member **32** and the end portion of the partition structure. Such banding structures are well known in the art and would extend between two such partition structures to form the edge of the display area. It is apparent that such a resilient member, for attachment of a banding structure to a partition structure, can be part of any conventional design anchor portion which extends beyond the end of the partition structure.

I claim:

1. An extendible and retractable partition structure for display shelving and the like comprising:

a. a pair of elongated partition members each comprising a vertical planar body portion and a generally horizontal base portion integral therewith extending along the length of said partition member, the vertical extent of the vertical body portion being substantially greater than the transverse horizontal extent of the horizontal base portion, said partition members are disposed in parallel contiguous relationship in slidable contact with each other, with one side of the base portion being flush with a side of the vertical body portion, and integral first guide means comprising an interior channel defined by the base portion, said interior channel opening from both ends of said base portion and from the side base portion flush with the side of the vertical body portion in opposed relationship to the channel opening in the other of said partition members;

b. an elongated coupling member including second guide means which are slidably interconnected with the first guide means of each partition member;

c. anchoring means included at one end of each elongated partition member extending from the vertical body portion generally in the same vertical plane as the vertical body portion, whereby when the pair of elongated partition members are con-

nected in parallel contiguous relationship each end of the partition structure can be attached to a support structure.

2. The structure as specified in claim 1, wherein said anchoring means includes a vertically extending resilient member which extends proximate an end portion of said elongated partition member whereby a banding structure is frictionally supportable between said resilient member and the end portion of said elongated partition member.

3. The structure as specified in claim 2, wherein said vertically extending resilient member is inclined at a slight angle to the perpendicular to the anchor means, and toward the end portion of the partition structure.

4. The structure as specified in claim 3, wherein the top portion of said vertically extending resilient member is curved back away from the end portion of the partition structure.

5. The structure as specified in claim 1, wherein at least one end of said partition structure includes means for connection to another such extendible and retractable partition structure.

6. The structure as specified in claim 1 wherein one side of said base portion is broadened beyond the side of said vertical body portion, with the broadened bottom surface of said base portion being planar to rest upon a supporting structure.

7. The structure as specified in claim 1, wherein the side of the vertical body portion flush with the base portion side in inclined at a predetermined angle from the perpendicular to the generally flattened bottom portion, toward the flush side, whereby when each partition member is slidably interconnected with said coupling member said vertical body portions are biased toward each other.

8. The structure as specified in claim 1, wherein said coupling member comprises a central body portion and said second guide means extend from opposite ends of the central body portion.

9. The structure as specified in claim 1, wherein said second guide means are generally circular in cross-section.

10. The structure as specified in claim 1, wherein said interior channel has a narrowed inlet portion extending inward from the flush base side to a generally square cross-sectional portion which slidably receives the generally circular second guide means, and half of said central body portion slidably fits the narrowed inlet portion.

11. The structure as specified in claim 1 wherein said vertically downwardly extending leg has a horizontally extending portion directed generally along the same line as said base portion of said binning structure, said horizontally extending portion having means thereon for attaching said partition structure to a shelf or shelf molding.

* * * * *

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3692191 Dated September 19, 1972

Inventor(s) David M. Moore

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

On the first page of the patent, insert data element (73):

Assignee: Armstrong Store Fixture Corporation, Pittsburgh, Pa.

Signed and sealed this 13th day of March 1973.

(SEAL)
Attest:

EDWARD M.FLETCHER,JR.
Attesting Officer

ROBERT GOTTSCHALK
Commissioner of Patents