

Oct. 20, 1942.

J. T. FAIRHURST

2,299,573

FOLDABLE PARTITIONS

Filed March 25, 1940

4 Sheets-Sheet 1

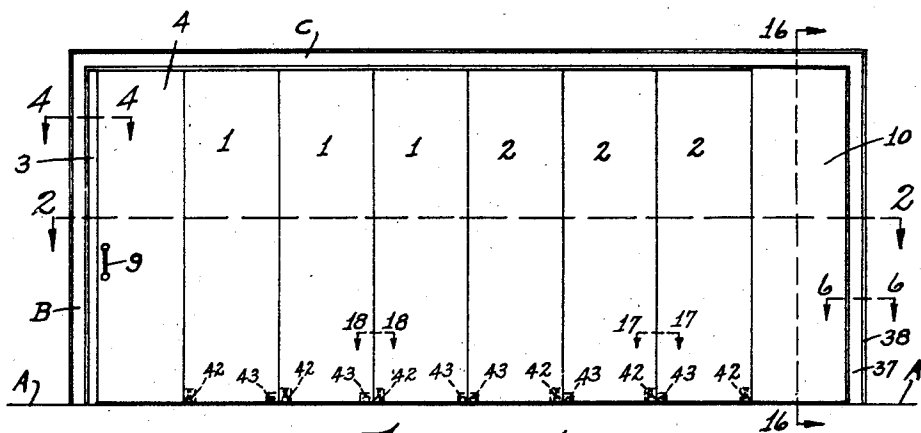


FIG. 1.

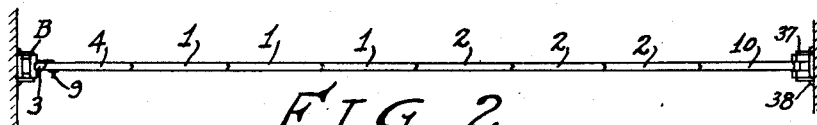


FIG. 2.

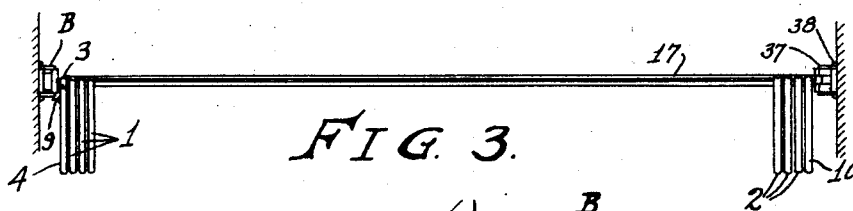


FIG. 3.

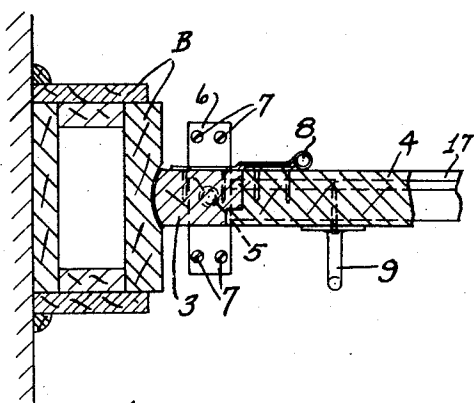


FIG. 4.

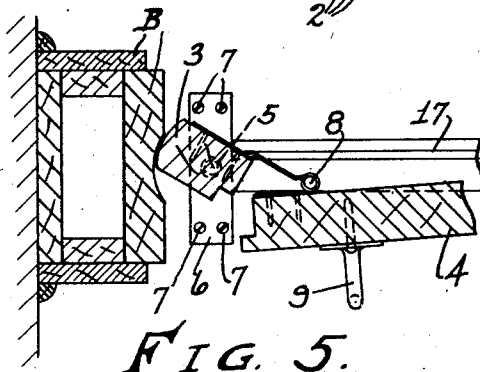


FIG. 5.

JOHN T. FAIRHURST,
INVENTOR.

BY *Donald E. Windle.*
ATTORNEY

Oct. 20, 1942.

J. T. FAIRHURST

2,299,573

FOLDABLE PARTITIONS

Filed March 25, 1940

4 Sheets-Sheet 2

FIG. 6.

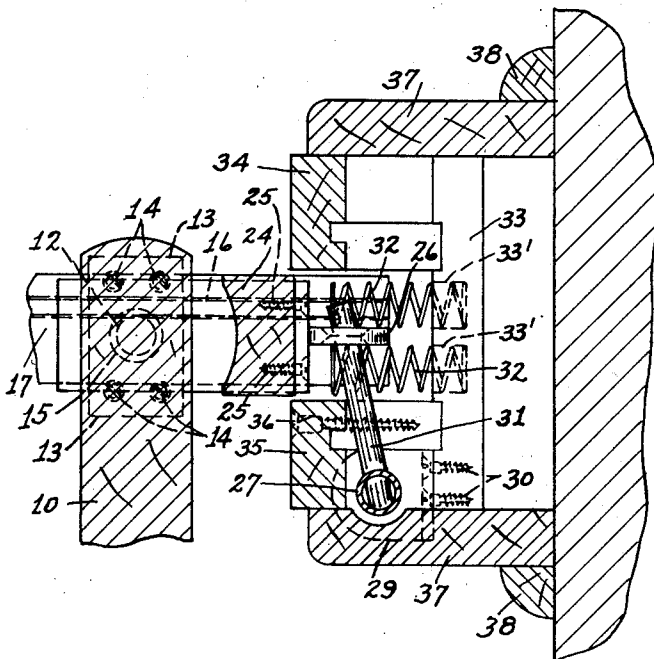
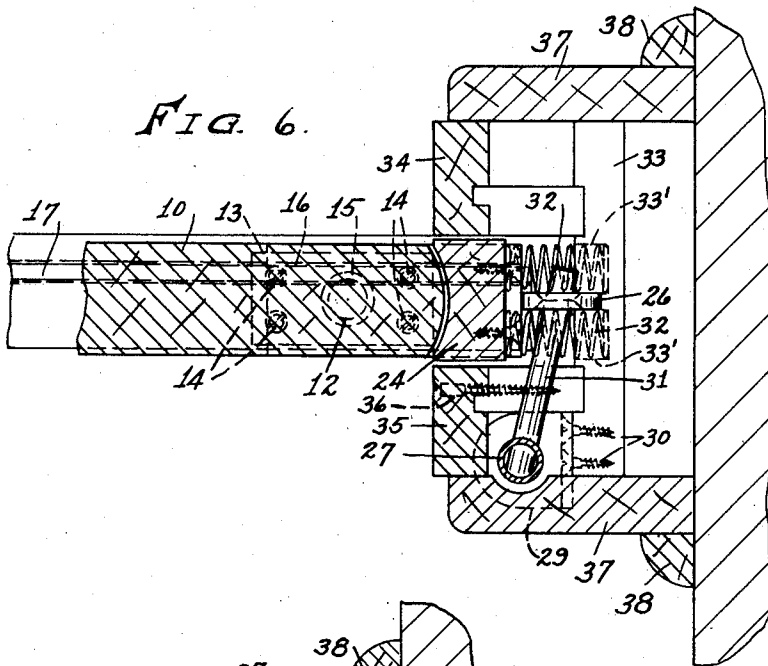


FIG. 7.

JOHN T. FAIRHURST,
INVENTOR.

BY *Ronald E. Windle*
ATTORNEY

Oct. 20, 1942.

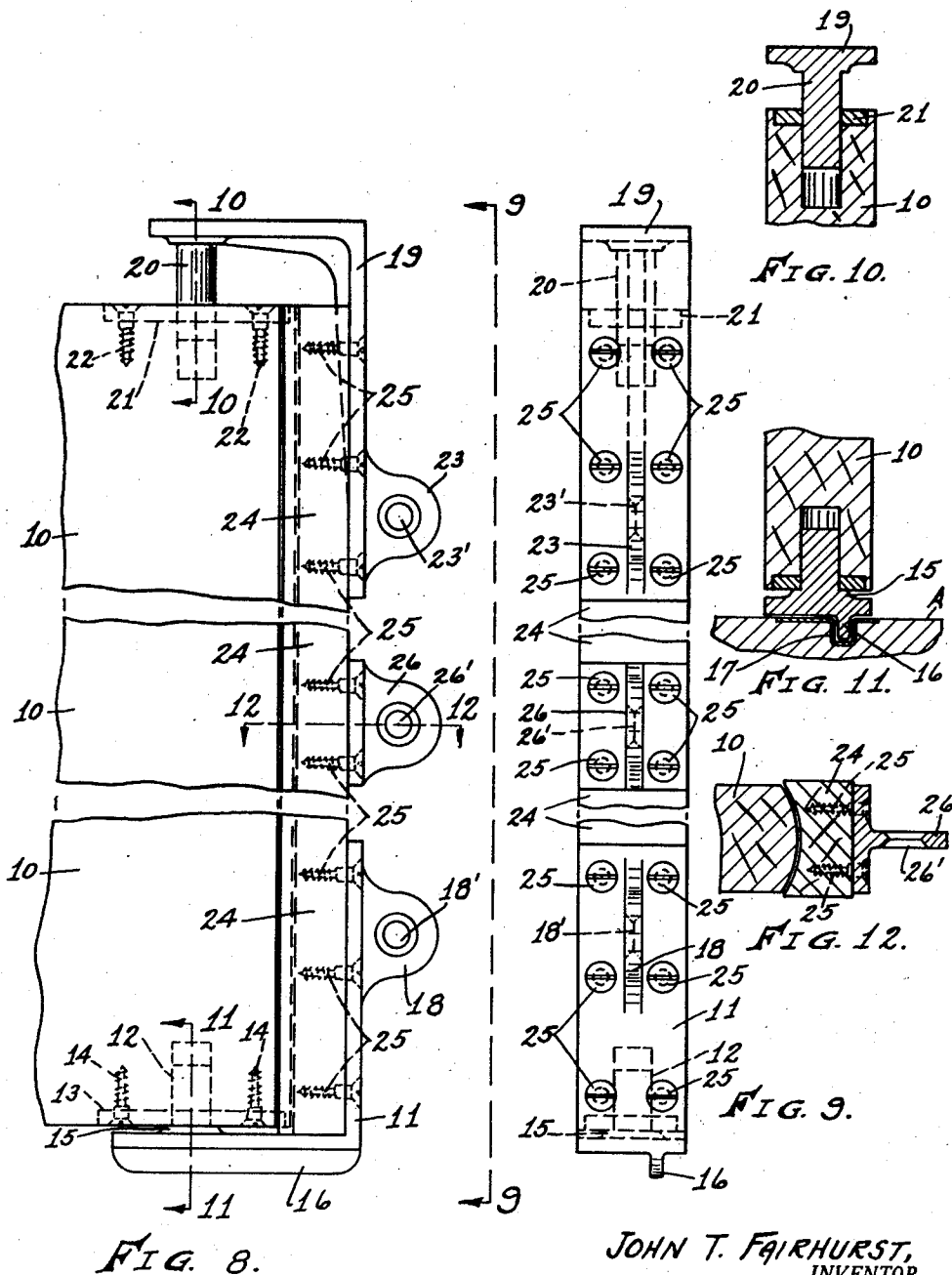
J. T. FAIRHURST

2,299,573

FOLDABLE PARTITIONS

Filed March 25, 1940

4 Sheets-Sheet 3



JOHN T. FAIRHURST,
INVENTOR.

BY *Donald E. Wendle*
ATTORNEY.

Oct. 20, 1942.

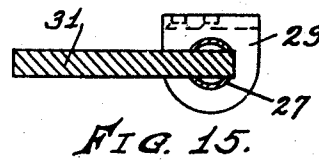
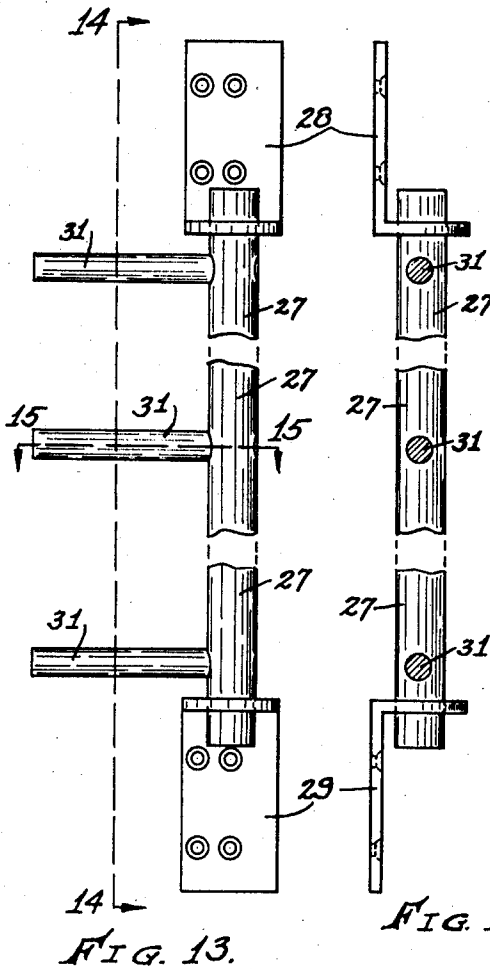
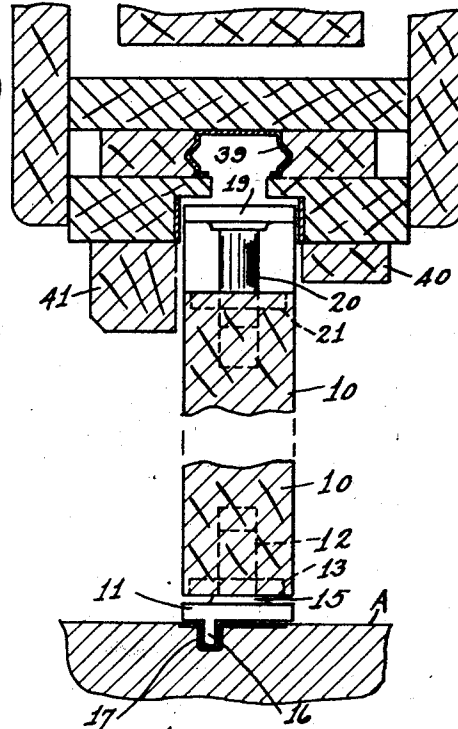
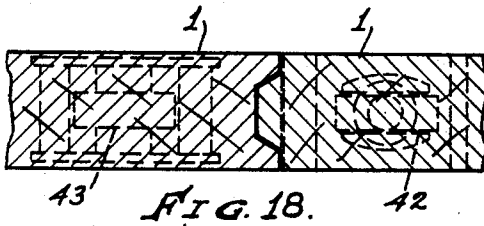
J. T. FAIRHURST

2,299,573

FOLDABLE PARTITIONS

Filed March 25, 1940

4 Sheets-Sheet 4



JOHN T. FAIRHURST,
INVENTOR.

BY *Donald E. Windle*
ATTORNEY

UNITED STATES PATENT OFFICE

2,299,573

FOLDABLE PARTITION

John T. Fairhurst, Forest Hills, Long Island, N. Y.

Application March 25, 1940, Serial No. 325,735

9 Claims. (Cl. 20—19)

My present invention relates to foldable partitions, especially the type used in dividing large areas into smaller areas whereby privacy is procured in each of the smaller areas. The partition is comprised of a plurality of independent sections with the same being slidably operated between a track member let into the floor at the bottom and a guide track located above the tops of the sections. Provisions for pivotally opening each of the intermediate sections is substantially the same as shown and described in my United States Patent No. 2,052,089. The partition has one end thereof provided with a two-piece hinged-together section similar to that shown and described in the above-mentioned patent.

The present invention relates more particularly to means forming a spring-actuated jamb which permits the intermediate sections of the partition to be folded to each side of the opening. I am aware that spring jambs, particularly the spring jamb shown and described in my United States Patent No. 1,934,299, have been provided in connection with folding partitions. The type of spring jamb shown in United States Patent No. 1,934,299 is extremely satisfactory for use with partitions in which the sections open to one side of the opening, but the same is not adaptable for partitions in which the sections fold to each side of the opening. Therefore, the principal object of the present invention is the provision of a jamb construction whereby the sections of the partition may be folded to each side of the opening, and whereby the sections are held tightly against each other when the same are in closed position.

Another object of the invention is the provision of means for providing both a pivotal and a sliding action to an end member of the partition.

A further object of the invention is the provision of means compensating for expansion and contraction of the partition sections due to changes in climatic conditions.

Other objects and advantages of the invention will suggest themselves in the course of the following description, and that which is new will be pointed out in the appended claims.

The preferred manner of carrying out the principles of the invention in a practical and efficient manner is shown in the accompanying four sheets of drawings, in which;

Figure 1 is an elevational view of a partition embodying the principles of the invention and with the sections of the partition being shown in normally closed position.

Figure 2 is a plan view of the partition as taken on line 2—2 of Figure 1.

Figure 3 is a plan view of the partition similar to Figure 2 except that the sections of the partition are shown in open position.

Figure 4 is a detail section through the opening jamb taken on line 4—4 of Figure 1 and showing the left end leaf in normally closed position.

Figure 5 is a detail section similar to Figure 4, but with the end leaf of the partition being shown in a broken condition to allow the same to be swung to open position as shown in Figure 3. The end leaf also assumes the same position upon the closing of the partition just prior to the position assumed as shown in Figure 4.

Figure 6 is a detail section, taken on line 6—6 of Figure 1, and showing the orientation of the several parts comprising the spring jamb, and with the right end leaf being shown in closed position.

Figure 7 is a detail section similar to Figure 6 except that the leaf is shown in open position.

Figure 8 is a detail elevation of the edge of the right end leaf and the spring-actuated stile and showing the several members attached thereto.

Figure 9 is an edge view of the spring-actuated stile, taken from line 9—9 of Figure 8.

Figure 10 is a detail vertical section through the top pivot member, taken on line 10—10 of Figure 8.

Figure 11 is a detail vertical section through the bottom pivot member and the slidable guide member, taken on line 11—11 of Figure 8.

Figure 12 is a detail section through the edge of the door and the intermediate finger sleeve member, taken on line 12—12 of Figure 8.

Figure 13 is an elevational view of the pivot post and finger members together with the top and bottom brackets therefor.

Figure 14 is a vertical detail section through the finger members with the pivot post member and the top and bottom bracket members being shown in elevation, the same being taken on line 14—14 of Figure 13.

Figure 15 is a detail section through one of the finger members and the pivot post member, as taken on line 15—15 of Figure 13.

Figure 16 is a detail vertical section through the right end leaf member of the partition, taken on line 16—16 of Figure 1.

Figures 17 and 18 are detail sections taken on lines 17—17 and 18—18 respectively of Figure 1.

and show the relation of the swivel and follow rollers in the intermediate sections.

Like characters of reference designate like parts throughout the several views.

In order that the construction, the advantages, and the utilization of the invention may be more fully understood and appreciated, I will now take up a detailed description thereof, in which I will set forth the same as fully and as comprehensively as I may, reference being had to the accompanying drawings.

In the drawings, A designates the floor line, B designates the left side jamb, and C designates the members comprising the head of the opening.

The intermediate sections of the partition opening toward the left side of the opening are designated by the numerals 1, and the intermediate sections opening toward the right side are designated by the numerals 2. The pivotally mounted portion of the left end section is designated by the numerals 3 with the swingable portion thereof being designated by the numerals 4. The section 3 is pivotally mounted by means of top and bottom pivot members 5 which are rigidly secured to mounting plates 6 (the top pivot member and its plate are not shown in the drawings), and with the bottom and top mounting plates being rigidly secured to the floor and the head construction respectively by means of the threaded screws 7. The portion 4 of the left end leaf is swingably secured to the pivotal portion thereof by means of bottom and top hinge members 8 (the top hinge member not being shown). A handle pull 9 is secured near the hinged edge of the swinging leaf and provides a means for breaking the sections from the position as shown in Figure 5. The breaking of the left end section, as shown in Figure 5, releases the section so that the same may be swung to full open position as shown in Figure 3. After the left end section, comprising the members 3 and 4, is swung to open position, the intermediate sections 1 can then be moved to the position as shown in Figure 3. Upon breaking the left end section, as shown in Figure 5, all of the other sections comprising the partition are released for movement to their respective open positions. In order to allow the right end section to swing to open position as shown in Figure 7, it is necessary to slide the intermediate sections 2 slightly to the left.

The right end leaf 10 of the partition is supported by means of the lower corner bracket 11 which has the pivot pin 12 formed integrally therewith. A pivot plate 13 is secured in the bottom surface of the section 10 by means of the threaded screws 14, with an aperture being formed through the plate for the reception of the pivot pin 12, and with the plate bearing on the boss portion 15 of the corner bracket 11. A downwardly-projecting guide member 16 is formed longitudinally on the under side of the corner bracket 11, and provides means for guiding the right end section in a sliding movement in the floor track 17. A lug member 18 is formed integrally on the upstanding leg of the corner bracket 11 and has the aperture 18' formed therethrough, the purpose of which will be hereinafter set forth.

A second corner bracket 19 is provided at the upper corner of the right end leaf and has the pivot pin 20 formed integrally therewith and extending downwardly therefrom. A pivot plate 21 is secured in the top of the section 10, and

is secured therein by means of the threaded screws 22, with the plate 21 having an aperture formed therethrough for the reception of the pivot pin 20. A lug 23, having an aperture 23' formed therethrough, is formed integrally with the upper corner bracket 19.

A vertical stile member 24 is provided at the edge of the right end section, with the same being of substantially the same height as the end section. The lower end portion of the stile member 24 is rigidly secured to the lower corner bracket 11, and the upper end portion thereof is rigidly secured to the upper corner bracket 19, both of the ends being secured to their respective corner brackets by means of threaded screws 25. The stile member 24 has one side thereof formed concave and into which the convex edge of the section 10 is adapted to member when the section is in closed position as shown in Figure 6.

An intermediate lug member 26 is secured approximately midway of the height of the stile member with the same being secured thereto by means of threaded screws 25, and with an aperture 26' being formed therethrough. It will be noted that the stile member, being secured to the corner brackets, is movable therewith.

The post member 27 is pivotally secured to the right jamb members by means of top and bottom bracket members 28 and 29 respectively, the bracket members being secured to the jamb members by means of threaded screws 30. Finger members 31 are rigidly secured in vertical alignment through the pivot post member 27 and project therefrom. The outer end portions of the finger members 31 are adapted to extend through the apertures 18', 23' and 26' of the lugs 18, 23 and 26 respectively, as shown in Figures 6 and 7.

Compression springs 32 are provided and have one end thereof inserted in apertures 33' of the structural jamb members 33. The opposite ends of the compression springs bear against the adjacent side of the stile member 24, and provide means maintaining all of the partition sections in close contact with the adjacent sections when the entire partition is in closed condition.

It will be noted that, due to the finger members 31 being in vertical alignment, the same maintain the stile member 24 in vertical position through the lugs 18, 23 and 26. The partition section 10 is therefore maintained in a vertical position by means of the bottom and the top pivots 12 and 20 respectively.

The jamb members 34 and 35 form guides for the stile member 24. It will be noted that the member 35 is removably secured to the jamb construction by means of threaded screws 36 which permit removal of the member 35 for access to the pivot post or the supporting brackets. Trim members 37 and 38 are provided for closing the jamb construction, and to provide a pleasing appearance thereto.

A guide track 39 is provided in the head construction to receive guide members of the intermediate sections of the partition.

It will be noted, in Figure 16 that the member 40 is of less thickness than the member 41, which permits the right end leaf 10 to pivot from its closed position as shown in Figure 6 to its open position as shown in Figure 7.

Each of the intermediate partition sections is provided with a swivel roller 42 and a follow roller 43 in the lower edge thereof with each of the rollers traveling on the comparatively wide flat surface of the floor track 17, and with a downwardly extending guide member (not shown)

being provided in connection with each of the swivel rollers and projecting downwardly into the groove of the floor track. It will be noted that the swivel rollers are located adjacent the leading edges of the sections, the leading edge being the edge nearest the jamb toward which the section moves in opening.

It will be noted that the spring jamb construction has been shown and described as being at the right side of the partition. The same may however, be reversed, and the operation of the partition and the several parts connected therewith will produce the same results as herein described.

I desire that it be understood that minor changes may be made in the several details and in the arrangement of the parts herein shown and described, insofar as the changes may fall within the scope of the appended claims.

Having now fully shown and described the invention, what I claim and desire to secure by Letters Patent of the United States is:

1. In a foldable partition, the combination of a plurality of independent sections slidably engaging a floor track and a head track and with a jamb positioned adjacent each end section of the partition, a spring-actuated stile member slidably positioned in one of the jambs with lugs secured on the stile member, a lower bracket secured on the lower end of the stile member with a guide formed on the bracket and engaging the floor track, an upper bracket secured on the upper end of the stile member with the bracket being engageable with the head track, pivotal connections formed on the upper and lower brackets and engageable with the adjacent end section of the partition and maintaining the end section in predetermined spaced relation with the stile member and carried thereby with the slidable action of the spring-actuated stile member being transferred to the adjacent end section and with the end section being pivotally movable between the upper and the lower brackets, and with means located in the jamb maintaining the spring-actuated stile and the adjacent end section in vertical alignment throughout its slidable movement.

2. In a foldable partition having a jamb at each end thereof, a spring-actuated stile member slidably positioned in one of the jambs with brackets being secured to the upper and the lower ends thereof and extending therefrom, an end section of the partition carried by the upper and lower brackets, means located within the jamb engaging the spring-actuated stile and maintaining the spring-actuated stile and the partition section adjacent thereto in a vertical position, and with the upper and lower brackets providing means maintaining the partition member next adjacent the stile member in predetermined spaced relation with the stile member.

3. In a foldable partition comprising a plurality of independently movable sections with a jamb being provided at each end thereof, a spring-actuated stile member slidably positioned in one jamb and providing compression against the sections when the sections are in closed condition, means located within the jamb maintaining the spring-actuated stile in a vertical position throughout its slidable movement, and means secured to the ends of the spring-actuated stile supporting and maintaining the section adjacent thereto in predetermined spaced relation therewith and with said means providing pivots upon which the adjacent section is pivotally supported and slidably carried.

4. In combination with a pair of spaced-apart jambs having a head assembly extending therebetween at the upper ends thereof and with a grooved floor track extending between the lower ends thereof, a plurality of movable sections positioned between the jambs, a spring-actuated stile member slidably positioned in one of the jambs with a bracket being secured to the upper end thereof and engageable with the head assembly and with a second bracket being secured to the lower end thereof and engageable with the floor track, a pivot pin carried by each of the brackets with the movable section next adjacent the spring-actuated stile member being pivoted between the pivot pins and being slidably carried thereby, and means located within the jamb and engageable with the brackets maintaining the spring-actuated stile member and the adjacent section in vertical alignment.

5. In a foldable partition comprising a plurality of sections independently operable between jamb members, with the upper ends of the sections being guided in their movement by engagement with a head assembly and with the lower ends thereof having guides engaging a floor track, a spring-actuated stile slidably positioned in one of the jambs and with brackets being secured to the upper and lower ends thereof engaging the head assembly and the floor track respectively, a pivot pin carried by each of the brackets, with the partition section adjacent the spring-actuated stile being pivotally supported between the pivot pins, with the slidable movement of the spring-actuated stile being transferred to the adjacent partition section through the brackets, and with the adjacent partition section being pivotally positioned with relation to the spring-actuated stile from which it is supported, and means located within the jamb engaging and maintaining the spring-actuated stile and the adjacent section in a vertical position.

6. In a foldable partition of the class described, a pair of spaced-apart jamb members having a head assembly extending between the upper ends thereof and a floor track extending between the lower ends thereof, a plurality of sections movably positioned between the jamb members, a spring-actuated stile slidably positioned in one of the jamb members and operable between the head assembly and the floor track, brackets secured to the upper and the lower ends of the spring-actuated stile and supporting the adjacent section, and with the adjacent section being slidable with and pivotally supported by the spring-actuated stile by means of the brackets, and means positioned within the jamb maintaining the spring-actuated stile and the adjacent section in vertical position throughout their movements.

7. In a foldable partition composed of a plurality of vertically positioned movable sections located between a pair of spaced-apart jambs, a floor track located below the sections and a head assembly forming a guide at the top of the sections, an end section of the partition pivotally supported by means of a spring-actuated stile slidably positioned in one of the jambs on a bracket engaging the floor track with a top guide member secured to the upper end of the spring-actuated stile and engaging the head assembly, with the end section being slidably movable with the spring-actuated stile and pivotally positioned with relation thereto, and means located within the jamb maintaining the spring-actuated stile and the end section carried thereby in a vertical position throughout the movements thereof.

8. In a foldable partition of the class described, an end section, a spring-actuated slidable stile member located adjacent thereto, a bracket secured to the upper end of the stile member with a pivot pin extending downwardly from the bracket and engaging the top of the end section, a second bracket secured to the lower end of the stile member with the pivot pin extending upwardly therefrom and engaging the bottom of the end section, and with the end section being carried by the slidable stile member and with the end section being pivotally positioned with relation to the slidable stile member.

9. In a foldable partition comprising a plurality of sections and having a slidable spring- 15

actuated stile member located in the jamb construction thereof, lugs secured to the spring-actuated stile member, a vertically positioned post member located within the jamb, fingers secured through the pivot post and extending therefrom and through the lugs with the same slidably engaging the lugs, with the fingers maintaining the spring-actuated stile in a vertical position throughout its slidable movement by their engagement with the lugs, and with an end section of the partition being carried by the spring-actuated stile by means of brackets secured to the upper and lower ends thereof.

JOHN THOS. FAIRHURST.