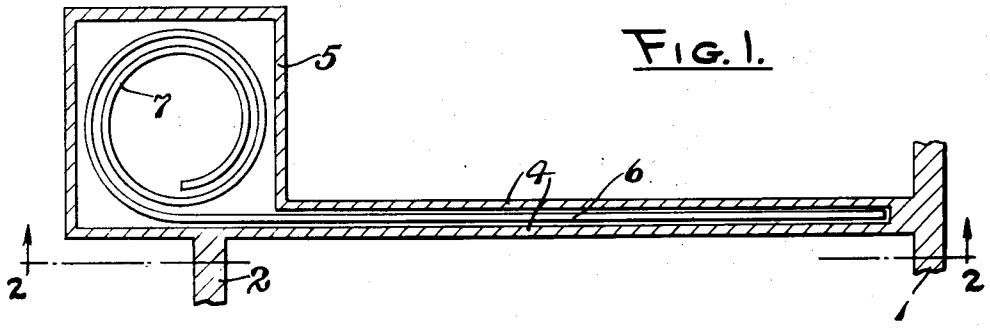
Sept. 16, 1952 T. SCHAAP 2,610,681

ROLL PARTITION

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FIG. 1.



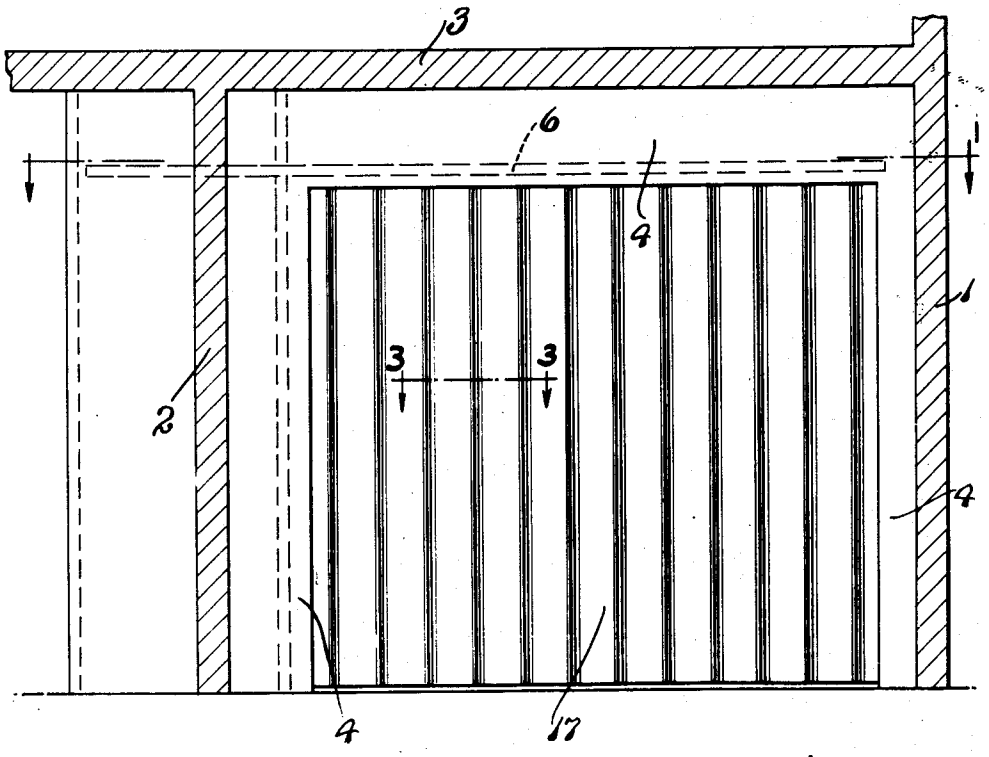


FIG. 2.

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FIG. 3.

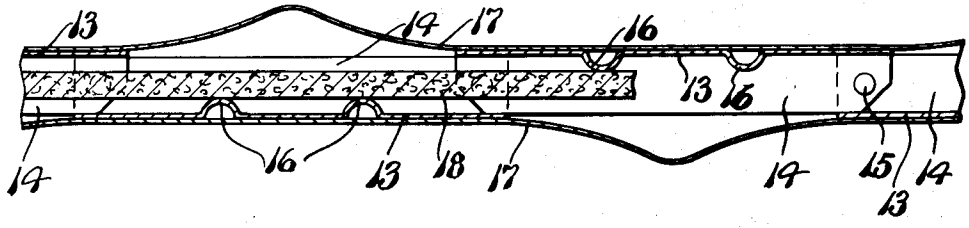
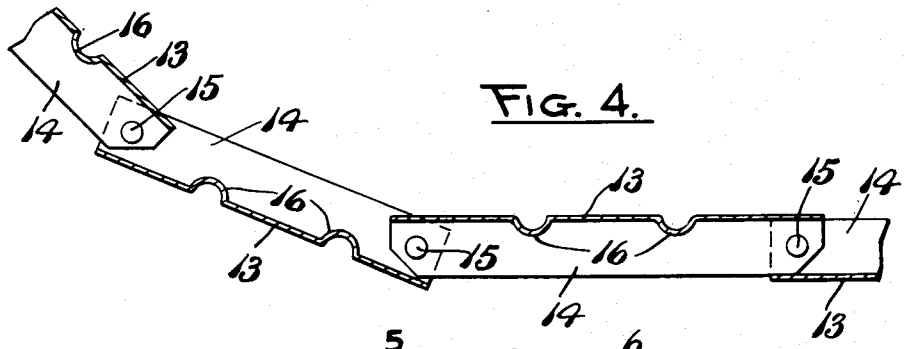


FIG. 4.



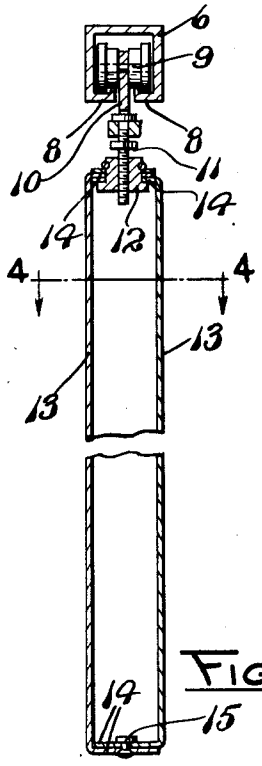


FIG. 5.

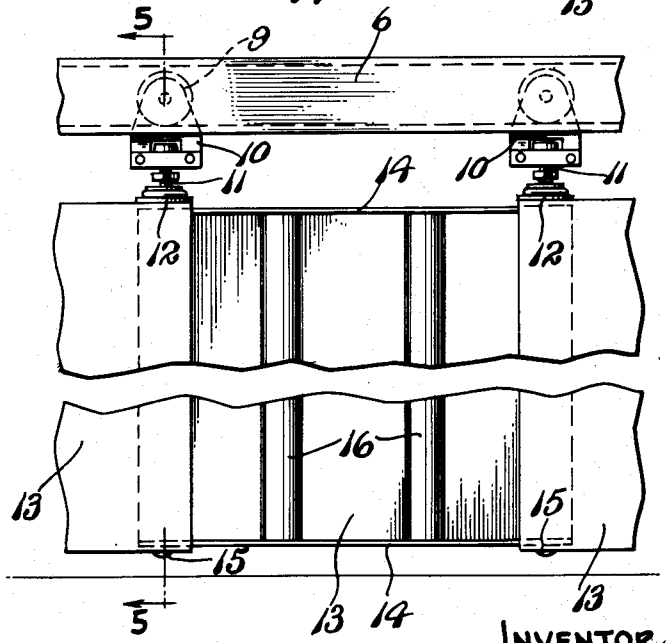


FIG. 6.

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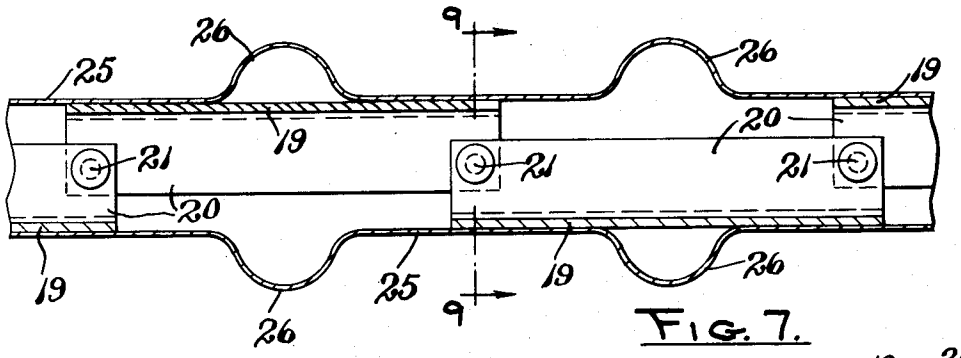


FIG. 7.

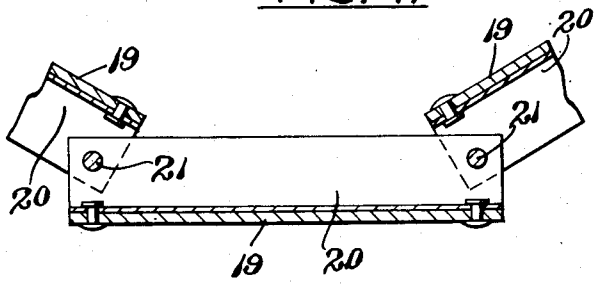


FIG. 8.

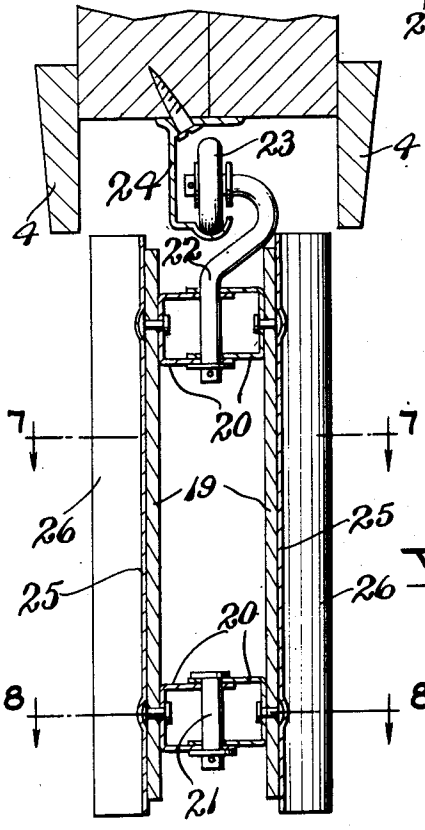


FIG. 9.

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UNITED STATES PATENT OFFICE

2,610,681

ROLL PARTITION

Theodore Schaap, Muskegon, Mich.

Application October 12, 1950, Serial No. 189,729

2 Claims. (Cl. 160—230)

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The present invention relates to a roll partition which may be entirely disguised and out of sight when not in use, and by means of which an interior space may be divided into separated spaces or rooms by drawing the partition out to its operative position. The retractable and extensible partition may be used in many ways, either one or a plurality of such partitions being usable, to divide a room space into one or more enclosed spaces where it is desirable that such setting off of space as a separate room from the larger space of the usual room is wanted.

With my invention a very practical, useful and serviceable roll partition structure is provided which, when not in use, is retracted to an enclosing chamber or closet therefor, from which it may be quickly withdrawn to divide one part of a space from another, or to be placed across a relatively large entrance between rooms or spaces in a single room connected by said entrance. Furthermore, it is an object and purpose of my invention to provide a novel, very practical, useful partition which may be rolled into small compass when not in use, readily extended, which may be insulated against noise transmission from one part of the space cut off from another part, which is economical to manufacture and presents an attractive and desirable appearance.

An understanding of the invention may be had from the following description, taken in connection with the accompanying drawings, in which:

Fig. 1 is a horizontal section substantially on the plane of line 1—1 of Fig. 2.

Fig. 2 is a vertical section and elevation showing the partition in use, the plane of the section being substantially the line 2—2 of Fig. 1 and looking in the direction indicated.

Fig. 3 is a fragmentary, enlarged horizontal section through the extended partition, substantially on the plane of line 3—3 of Fig. 2.

Fig. 4 is a fragmentary enlarged horizontal section on the plane of line 4—4 of Fig. 5, showing the alternate sections or panels of the partition angularly disposed with respect to each other.

Fig. 5 is a vertical section through the partition and one of the suspending carriages therefor, and the track for the carriage, substantially on the plane of line 5—5 of Fig. 6.

Fig. 6 is an elevation of the partition without the outer covering thereon.

Fig. 7 is a fragmentary enlarged horizontal section through a modified form of structure, substantially on the plane of line 7—7 of Fig. 9.

Fig. 8 is a horizontal section substantially on

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the plane of line 8—8 of Fig. 9 with the sections or alternate panels of the partition angularly disposed with respect to each other, and

Fig. 9 is a transverse vertical section through the upper part of the partition and its movable carriage, substantially on the plane of line 9—9 of Fig. 7.

Like reference characters refer to like parts in the different figures of the drawings.

The extendable and retractable partition of my invention may be used to extend between opposite vertical walls 1 and 2 of a room which has a ceiling 3. In the installation of such partition horizontal spaced guides 4 underneath the ceiling and vertical guides 4 extending inwardly from the walls 1 and 2 may be used leaving a large opening surrounded thereby. An enclosed chamber or closet 5 is provided for receiving the partition when it is not in use. A horizontal track 6 is located between the upper spaced guides 4, suspended from above, and continued into the chamber or closet 5 where it is in a spiral form as indicated at 7. Such track 6, in one form thereof shown in Fig. 5, is an inverted channel having lower terminal flanges 8 extending toward each other but spaced apart leaving a continuous slot between the adjacent edges of the flanges 8.

A plurality of spaced roller carriages 9 ride upon the flanges 8 within the track 6, from the axle of each of which a plate 10 extends downwardly below the track on which a threaded shank 11, with a head at its upper end, is swivelly mounted, turnable about a vertical axis. The lower threaded shank passes through a nut 12, one of which is at each end of each of the metal sections or panels of the partition.

In the panel structure a body 13 of thin metal, which preferably may be aluminum, is used which at each of its upper and lower edges is formed with a flange 14 bent at right angles to the plane of the panel 13. Such panels are located generally in alignment with the flanges 14 thereof extending toward each other and overlapping at adjacent ends, the substantially vertical flat sections 13 of the panel being alternately spaced in parallel vertical planes. The overlapping end portions of the flanges 14 at the lower end of the partitions are pivotally connected together by pivots 15. The end portions of the flanges 14 overlapping each other at the upper end of the consecutive panels are connected with the nuts 12, through which the threaded shanks of the headed swivel members 11 pass, and may be used for adjustment in raising and lowering the partition with relation to the floor below, as

is evident. Each of the panels 13 preferably at spaced distances horizontally are reinforced by inwardly pressed vertical beads 16.

At the outer sides of the connected panels a covering 17 of suitable flexible material is secured, the covering at each side of the partition being cemented or otherwise permanently secured to the outer sides of the alternate panels and bridging the spaces between as shown in Fig. 3. At such spaces where not connected with the panels the covering is extended outwardly as shown, the flexibility of the covering material and such greater horizontal length of each bridging section of the material used in securing to the panels permitting the partition to be moved into the chamber or closet 5 and follow the spiral portion 7 of the track. When withdrawn from the chamber or closet 5 the assembled panels fill the space between the walls 1 and 2 substantially between the ceiling and floor. Sound insulation material in flat sections, indicated at 18, may be located between the panels 13 extending the full length of the partition but such sound insulating material is not necessarily used in all installations. It is flexible to bend when necessary in following the spiral track at 7 within the chamber or closet 5.

In Figs. 7, 8 and 9, instead of the alternate sheet metal panels 13, they are replaced by flat, thin tempered press wood panels 19, at the inner side of which, at both upper and lower end portions, elongated channel members 20 of light metal, preferably aluminum, are permanently secured, the ends of the upper and lower flanges of successive panels overlapping each other. Vertical pivots 21 at the lower ends of the partition, and the vertical lower end portions of hangers 22 serve as pivotal connections for panels as shown. Such hangers 22 terminate each at its upper portion in a horizontal pintle upon which a roller 23 is mounted for rotation, which rides upon a track 24 of channel form, the lower flange of which is shaped to receive the roller, the upper flange being permanently fastened to the overhead support immediately below the room ceiling. The covering members 25 are similar to the cover members 17 previously described which, in both, will preferably be of a plastic flexible material, and which, opposite each panel 19, will have an outwardly extending generally semicircular projecting portion 26, the full vertical length of the covering.

The insulation previously described may also be used with this form of structure which is equivalent in all respects and retractable and withdrawable in the same manner as that first described. The last described structure is preferred as easier to operate, the carriages supporting the partition traversing the track at both its straight spiral sections without danger of binding. The pivotal connection of the successive panels described, best shown in Fig. 9, is of a stronger and more durable character.

The structure described has been made and tested and has proven very practical and useful. It is particularly useful in buildings or halls in which at times the entire room space is wanted for use, and at other times portions of the space are to be set off from other portions thereof. Such rooms or halls generally are those at which large public attendance is common. Especially, in conjunction with churches, rooms are many times to be thrown together and at other times separated, there being large connecting openings between the room spaces which may be covered completely by the novel partition of my invention.

The invention is defined in the appended claims and is to be considered comprehensive of all forms of structure coming within their scope.

I claim:

1. In a structure as described, a series of vertical panels adapted to be located in a common vertical plane and spaced from each other at adjacent vertical edges, a second series of vertical panels adapted to be located in a vertical plane parallel to and spaced from the plane of the first series of panels, also spaced from each other at adjacent vertical edges, the panels of one series of panels being located opposite the spaces between the panels of the other series of panels, means connected with said panels at the inner sides thereof extending toward and overlapping each other, the vertical edge portions of one series of panels overlapping adjacent vertical edge portions of the other series of panels, pivot means connecting said last mentioned means adjacent the overlapping panel portions, whereby the panels are pivotally connected to turn about vertical axes, and a curtain secured onto the outer sides of the panels of each series of panels, covering said panels and the spaces between the adjacent vertical edges of each of the series of panels.

2. In a structure as described, a series of vertical panels of rectangular form of thin material adapted to be located in a common vertical plane, having adjacent vertical edges of the panels spaced from each other a distance less than the width of the panels, a second series of like panels adapted to be located in a vertical plane parallel to but spaced from the vertical plane of the first panels, said panels of the second series of panels being vertically spaced from each other and located opposite the spaces between the adjacent vertical edges of the first series of panels, adjacent vertical edge portions of the panels of the two series overlapping each other, means located horizontally adjacent each of the upper and lower ends of each panel of each series of panels, each of said means having an inwardly extending horizontal flange, the flanges on opposite series of panels overlapping each other at adjacent ends, vertical pivots extending through the overlapped flanges, and a flexible curtain secured at the outer sides of the panels of each of the series of panels, and extending across the spaces between vertical edges of adjacent panels of each series.

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