W. H. H. MOUNT, JR.

OFFICE PARTITION STRUCTURE.

APPLICATION FILED MAY 27, 1918.

1,430,672.

Patented Oct. 3, 1922.

2 SHEETS—SHEET 1.

Fig. 1.

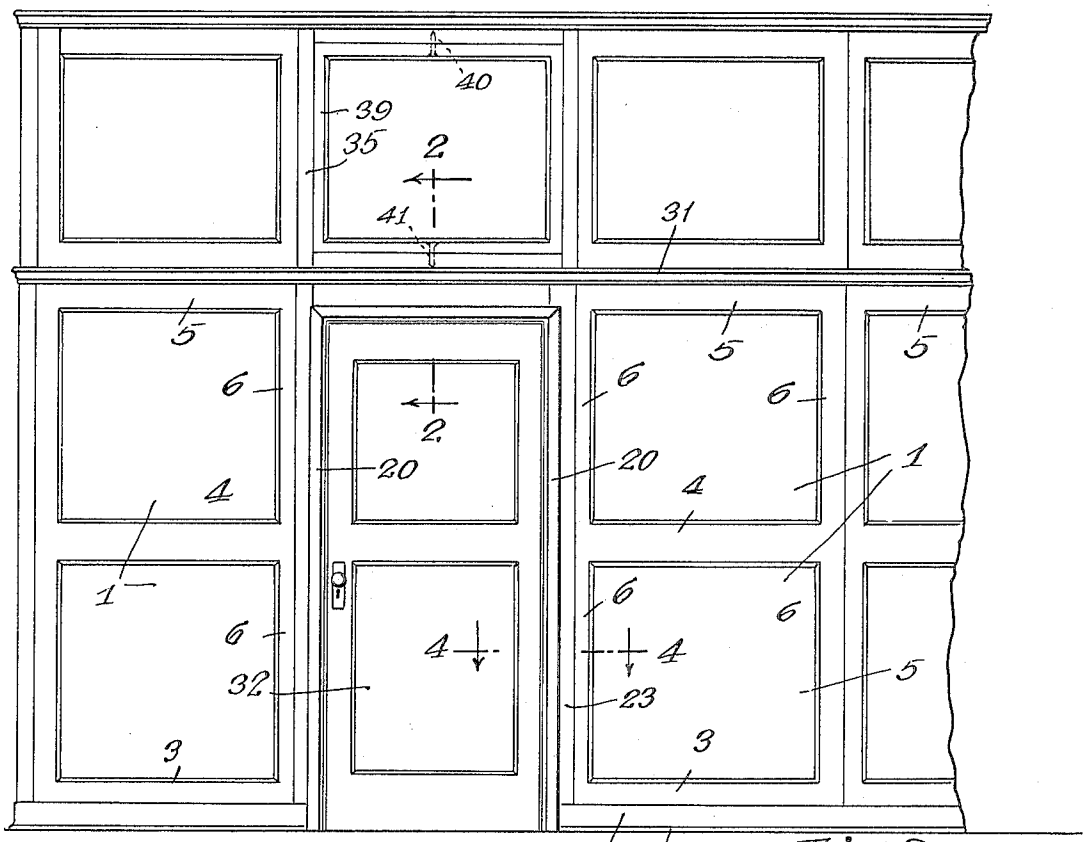
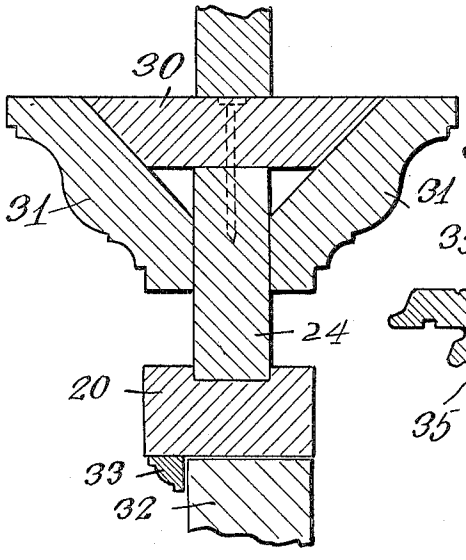


Fig. 7.

Fig. 2.



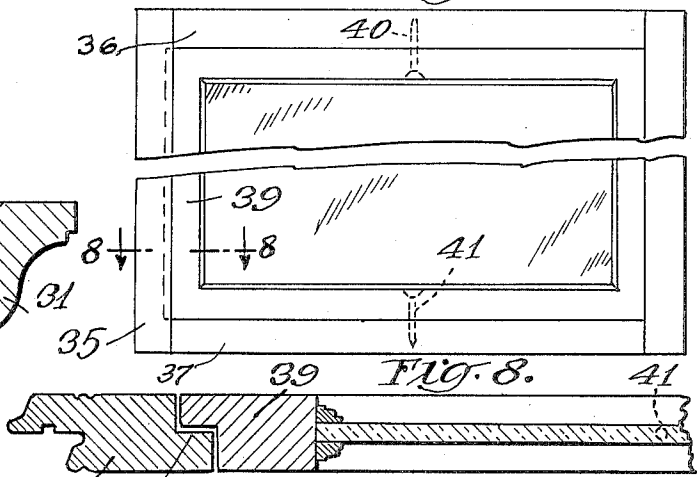


Fig. 8.

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2 SHEETS—SHEET 2.

Fig. 3.

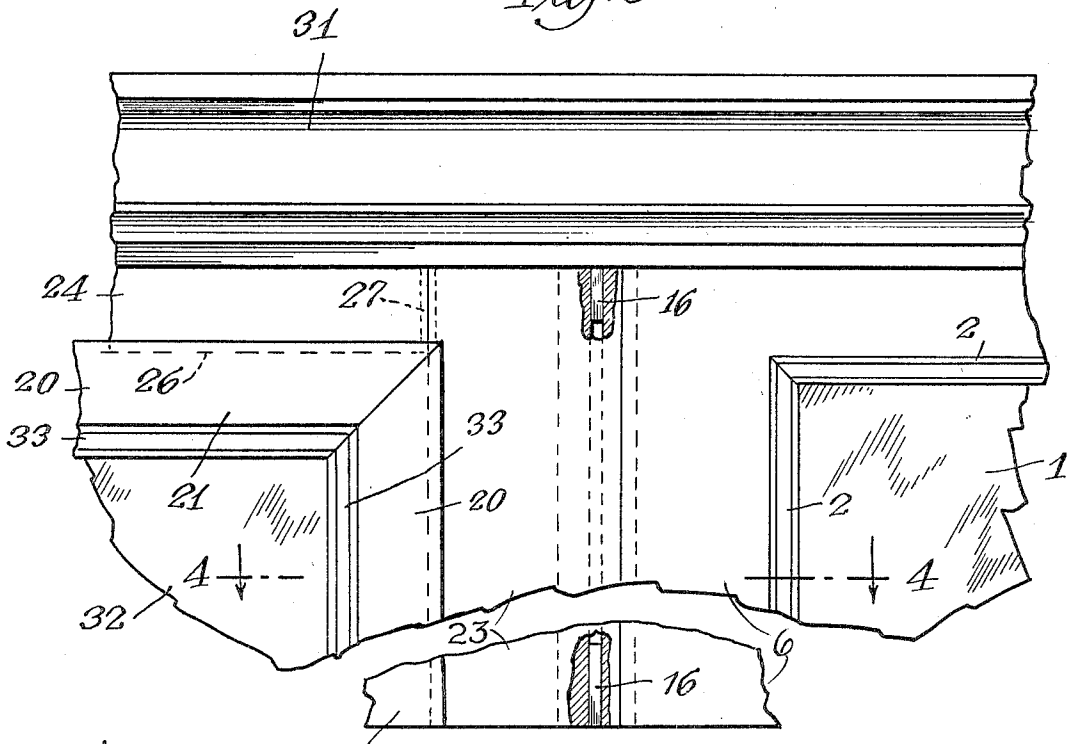


Fig. 4.

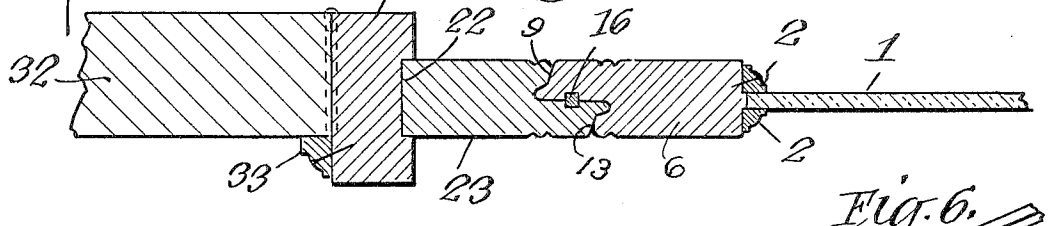


Fig. 6.

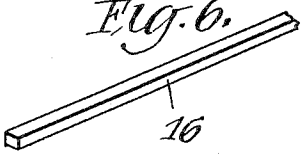
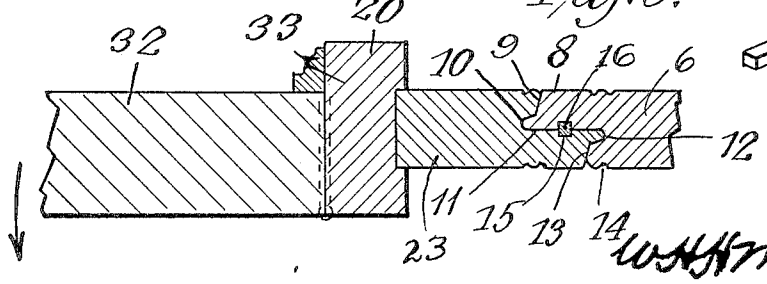


Fig. 5.



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UNITED STATES PATENT OFFICE.

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OFFICE-PARTITION STRUCTURE.

Application filed May 27, 1918. Serial No. 236,776.

To all whom it may concern:

Be it known that I, WILLIAM H. H. MOUNT, Jr., a citizen of the United States, and a resident of Millington, in the county of Somerset and State of New Jersey, have invented certain new and useful Improvements in Office-Partition Structures, of which the following is a specification.

The invention relates to sectional partitions such as are used in offices and business buildings to subdivide room spaces in the building to meet the needs and requirements of any particular business, and in certain aspects the invention relates more particularly to an interlocking panel joint and section, and also to a cooperating interlocking door section, and cooperating parts.

Objects and advantages of the invention will be set forth in part hereinafter, and in part will be obvious herefrom or may be learned from practice with the invention; such objects and advantages being attained through the combinations and instrumentalities pointed out in the appended claims.

The invention consists in the novel parts, constructions, arrangements, combinations and improvements herein shown and described.

The accompanying drawings herein referred to and constituting a part hereof, illustrate one embodiment of the invention, and together with the description serve to explain the principles thereof.

Of the drawings:—

Fig. 1 is an elevation of a partition and door embodying the invention;

Fig. 2 is an enlarged fragmentary vertical section on line 2—2 of Fig. 1;

Fig. 3 is an enlarged fragmentary view corresponding to the upper central part of Fig. 1;

Fig. 4 is an enlarged fragmentary horizontal section on line 4—4 of Fig. 1;

Fig. 5 is a similar view to Fig. 4 but showing the door reversely hung;

Fig. 6 is a detail fragmentary isometric perspective of the tenon or key;

Fig. 7 is a fragmentary elevation of a transom or swinging panel section; and

Fig. 8 is an enlarged fragmentary horizontal section on line 8—8 of Fig. 7.

In partitions designed for erection within the permanent partition walls of buildings which partitions are designed to subdivide space for privacy, economy and convenience in the transaction of business, it is essential or desirable to combine or realize attractive appearance, compactness, strength, and rigidity of construction, with simplicity of construction, rapidity and economy of manufacture and of fitting and erection, which objects and advantages are realized and increased by the present invention.

In Fig. 1 of the present drawings, a partition is shown having the same general arrangement shown and described in my copending application Ser. No. 90,355 filed April 11, 1916, but differing therefrom in certain features, which are shown in other figures of the present drawings and correspondingly described herein. The present invention provides a novel and superior interlocking joint between panel and door sections which is locked against movement either along or across the partition without the use of nails, screws or other driven fastenings, and without clamps or any means visible from the exterior of the sections or which would in any wise impair the appearance of the work. Other novel features of the present partition will be pointed out hereinafter.

The present invention, in accordance with one feature thereof, provides portable and interchangeable sections of partition, which may be assembled without the use of nails, or driven or screwed or other like fastenings, and which resultantly can be disassembled readily without having to withdraw or detach such fastening devices. The partition also comprises panel sections and door sections which are both structurally and dimensionally interchangeable; the door frame and the surrounding cooperating parts constituting an interchangeable unit or structural equivalent for a panel section, without special measurement or fitting and also doors of different sizes may be used in a given size of section.

Referring more in detail to the accompanying drawings, a panel section, as embodied, comprises a bottom rail 3, an intermediate rail 4, and a top rail 5 connecting at their ends with stiles 6. The panels so formed may be filled with glass, wood, or other suitable material 1, held in place by moldings 2, or by other suitable means.

The sections abut along their vertical edges one against the other directly, without any intervening filling pieces or other extra and expensive and to me non-essential

parts The bottom of the sections is preferably provided with a base-board 7, which need not be described in further detail herein. The sections are also finished at the top as will be hereinafter more fully described.

Referring to the preferred embodiment of the abutting and interlocking vertical edge faces of the section, the stiles 6 have their joining parts and surfaces constructed to interlock against displacement in any direction, that is, against displacement or disjuncture longitudinally of the partition, or perpendicularly thereto, or otherwise transversely. In such embodied form, the stile 6 has its external edge comprising a series of adjoining surfaces in definite angular relation to each other. Referring to Figs. 4 and 5, and beginning at the external surface 8 of the stile 6, the adjacent vertical edge surface 9 is somewhat outwardly inclined from a right angle with reference to the surface 8, and is preferably provided with a tongue 10 extending along the internal edge thereof. The angled surface 9, or the tongue 10, has next adjacent thereto, a vertically disposed surface 11, which is preferably parallel to the external surface 8 of the stile. The surface 11 terminates preferably in a groove 12, located and dimensioned to receive the tongue 10 upon the edge of the other interlocking stile 6, substantially as shown in Figs. 3, 4 and 5. The surface 11 or groove 12, has next adjoining thereto an inclined face 13 extending outwardly to the other outer face 14 of the stile 6, the inclination of the surfaces 9 and 13 being preferably equal and parallel.

The interlocking edges of two fitted together stiles of the construction just described, are fixed or locked against transverse or perpendicular displacement, and cooperating therewith are provided means for preventing the sections from being displaced longitudinally, that is, in the direction of or parallel to, the partition itself. As embodied, in each face 11 of the interlocked stiles there is a vertically disposed or arranged groove 15 extending partly or entirely along the stile or section, the grooves or recesses on the two adjoining stiles being in alinement or registry the one with the other. Fitting into the alined or registered grooves 15 are one or more locking strips 16.

In actual and ordinary assembling of the sections, the workman will usually set up a section and true it to the room wall or other abutting surface or structure, and will scribe it to the floor. The section is then in permanent position. The workman will then place a locking strip 16 of short length say a few inches, in the bottom of the groove 15 of the stile. The stile of the next succeeding section is brought into line with the stile of the positioned section, but so elevated that the top of the locking strip 16 will pass into the bottom of the groove 15 of this second stile. The stile will then slide downwardly, and be interlocked against movement in any direction, as shown in Figs. 4 and 5. A short length of the locking strip 16 may then be slid or driven into the top end of the alined grooves 15 of the two abutting stiles; and the two sections are thus held firmly against displacement in any direction. The second section can then be scribed to the floor, and may be removed and replaced easily and rapidly, and the use of clamps or temporary nails or other fastenings, together with attendant defacement of the wood is avoided. It will also be seen that all nailing, screwing, or other like permanent fastening of the sections is unnecessary, there is no defacement whatsoever of the external surfaces of the wood, and the fastening means are entirely within and hidden away from view. The work of assembling is likewise very easy and rapid.

Referring now to the door structure and section which is made interchangeable with a panel section, door jambs 20 are provided with a door head 21 extending therebetween at the top. The jambs 20 on their outer sides or faces are provided with a dado or groove 22 extending longitudinally thereof. Fitting into the dado or groove 22 is a correspondingly shaped edge or face of a door stile 23, the other vertical edge or face of which is shaped or constructed, as already described for the panel stiles, to interlock with the vertical edges of the stiles 6 of said panel sections.

Where the door frame is shorter than the panel sections, a fillet 24 is provided extending horizontally along the top of the door head 21, the top surface of the door head having a dado or groove 26, into which the bottom edge of the fillet fits, just as the door stiles fit into the grooves or dados 22 on the jambs, as shown in Figs. 4 and 5.

The door stile 23 at its top end will abut on the end of the fillet 24, as shown in Fig. 3, and their juncture or abutting surfaces are provided with registered or alined recesses, similar to the recesses 15 into which a locking strip 27 is inserted. The door stile 23 and the fillet 24 are thereby interlocked the one with the other, and each is interlocked with the door frame against transverse displacement.

The top rails 2 of the panel sections and also the fillet 24, preferably abutt along their top edges upon the bottom side of a cap rail 30, or into a groove formed therein, to which cap rail is fitted at either side a crown molding 31.

The door 32 may be hung to open in either direction with the construction described, and a door stop 33 may be attached at either

side of the jambs and head, dependent upon the way in which the door is hung, as shown in Figs. 4 and 5.

In accordance with one feature of the invention window or transom panels are provided which are sectional and interchangeable. In the embodied form thereof, window stiles 35 are provided, having interlocking edges, like the stiles 6 and 23 for the panel and door sections. There are rails 36 and 37 at the top and bottom. The stiles 35 are provided on their inner vertical edges with rabbets 38. Mounted within the frame formed by the stiles 35 and rails 36 and 37 is a window frame or transom 39 rabbeted correspondingly with the stiles, and swinging on vertical pivots 40 and 41. The interlocking stiles and rabbeted joints provide a substantially dust and sound proof construction.

The structure of my invention is practicable and desirable for small and delicate structures, such as toy houses, or other work in which the use of nails, glue and other such fastening means are objectionable, and the parts are repeatedly assembled and disassembled, as well as in office partitions and such large work. The structure is simple and relatively economical of manufacture, and is of unusually attractive appearance partly through its fewness of parts. It lends itself also without loss or marring and relatively small labor to rearrangement to meet business changes or otherwise.

It will be understood that departures may be made from the exact structure shown and described, within the scope of the accompanying claims, without departing from the principles of the invention and without sacrificing its chief advantages.

What I claim is:—

1. A sectional partition including in combination two abutting sections having their vertical edge faces provided with a plurality of variously disposed complementary contacting surfaces and relatively short locking strips cooperating only with internal surfaces of the sections within the joint at the top and bottom thereof.

2. In a sectional partition, the combination of abutting sections having stiles with outer edge faces in direct engagement to form a continuous partition, each of the mutually engaging sections having its edge face formed with two transverse surfaces and an intermediate longitudinally extending surface therebetween and approximately parallel to the exterior faces of the section and having a locking groove formed longitudinally therein, said transverse surfaces forming acute angles with said intermediate surface, and a short locking strip at each end in the alined grooves of the abutting intermediate surfaces of the sections.

3. In a sectional partition structure, structurally and dimensionally interchangeable door and panel sections, the sections having their abutting edges formed to interlock against horizontal displacement, the door panel comprising in less than its width the door frame having jambs, the jambs having a dado formed longitudinally in their exterior faces, and a separate stile fitting into the dado on each jamb, the stiles completing the full width of the door panel, the stiles extending the full length of the panel and on their exterior edges interlocking with the edges of the abutting panel sections.

4. In a sectional partition structure, structurally and dimensionally interchangeable door and panel sections, having their abutting edges formed to interlock against horizontal displacement, the door panel comprising in less than its width the door frame having jambs, with a dado formed longitudinally in the outer face of each jamb, a pair of separate stiles each with its inner side fitting into the dado on the abutting jamb, the stiles completing the full width of the door panel, the stiles extending the full length of the door panel, and a plurality of relatively very short locking strips engaging with separated and relatively short parts of the internal contacting and interlocking surfaces of the abutting panels.

5. In a sectional partition structure, structurally and dimensionally interchangeable door and panel sections, having their abutting edges interlocked, the door jambs having vertical dados, separate stiles with edges fitting the dados on the jambs and their opposite edges interlocking with the edges of the panel sections, a stop adapted to be attached to the inner face of the door jambs on either side of the door to permit of swinging the door in either direction at the time of assembling the panels.

6. In a sectional partition structure, structurally and dimensionally interchangeable door and panel sections, having their abutting edges formed to interlock against horizontal displacement, the door panel comprising in less than its width the door frame having jambs, with a dado formed longitudinally in the outer face of each jamb, a pair of separate stiles each with its inner side fitting into the dado on the abutting jamb, the stiles completing the full width of the door panel, the stiles extending the full length of the door panel, a fillet above the door head and set into a dado formed in the top surface of the door head, and means interlocking the ends of the fillet with the stiles of the door panel.

7. In a sectional partition, a door section comprising a door frame with dados in the external surfaces of the door head and of the jambs, separate stiles at either side of the jambs and fitting into the jamb dados and extending above the door, the stiles on their

external faces being formed to interlock with adjacent sections against horizontal displacement, and a fillet fitted into the door head dado and at its ends interlocking with said stiles.

8. In a sectional partition of less height than the room where it is to be assembled, panels having vertical edges formed into a plurality of surfaces interlocked against horizontal displacement, alined grooves formed in the contacting inner surfaces of the abutting panel edges and short locking strips in the grooves at the top and bottom of the panel sections.

9. In a sectional partition a door section comprising a door frame, separate stiles fitting into either jamb and having exterior edges interlocking with adjoining panel sections, and a fillet fitting into but extending laterally beyond the door head and interlocking at its ends with the jamb stiles.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM H. H. MOUNT, JR.

Witnesses:

JOHN D. MORGAN,

MAYBELLE C. SMITH.