July 7, 1925. 1,544,823

J. T. FAIRHURST

FOLDING PARTITION

Filed Dec. 7, 1923 3 Sheets-Sheet 1

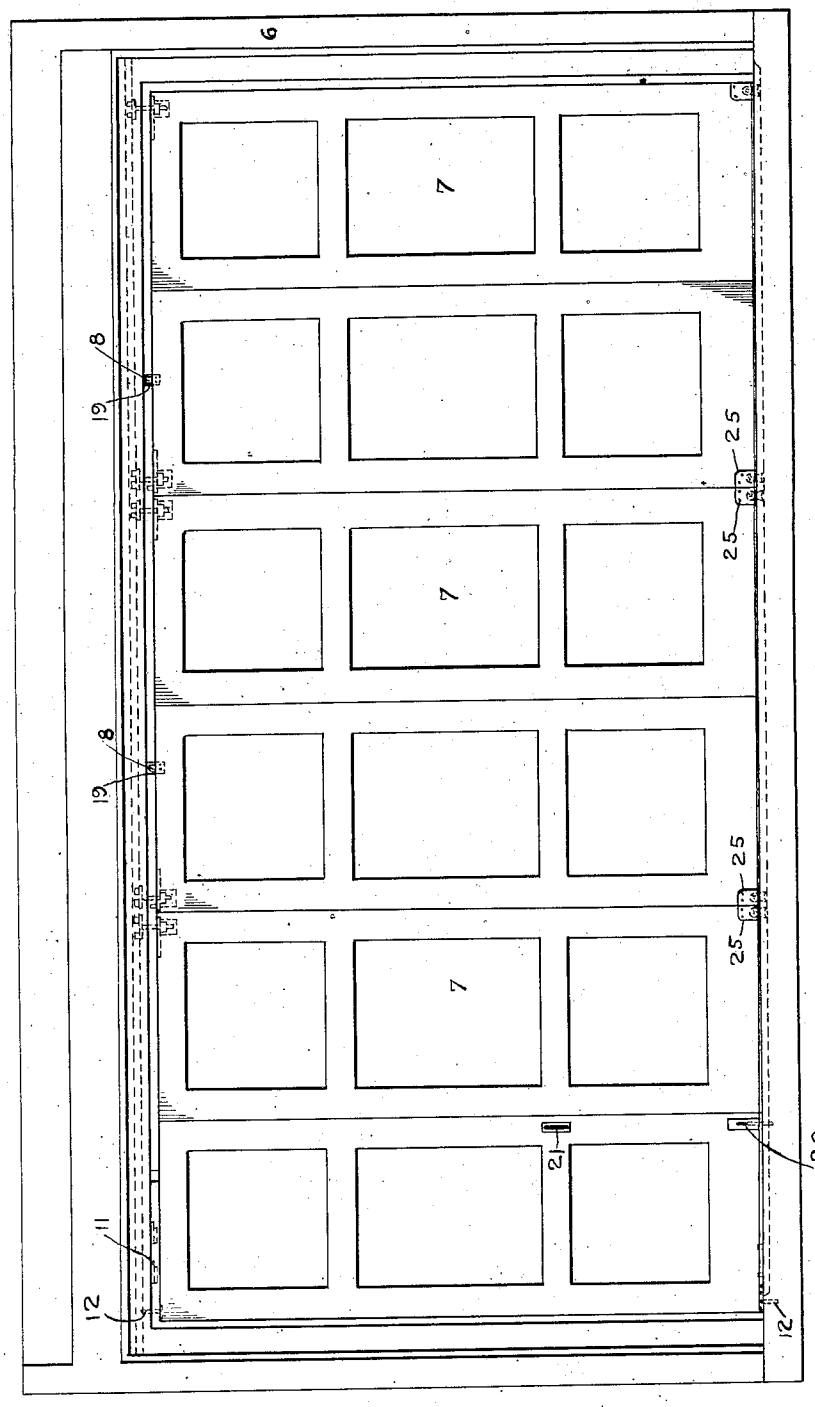


Fig. 1.

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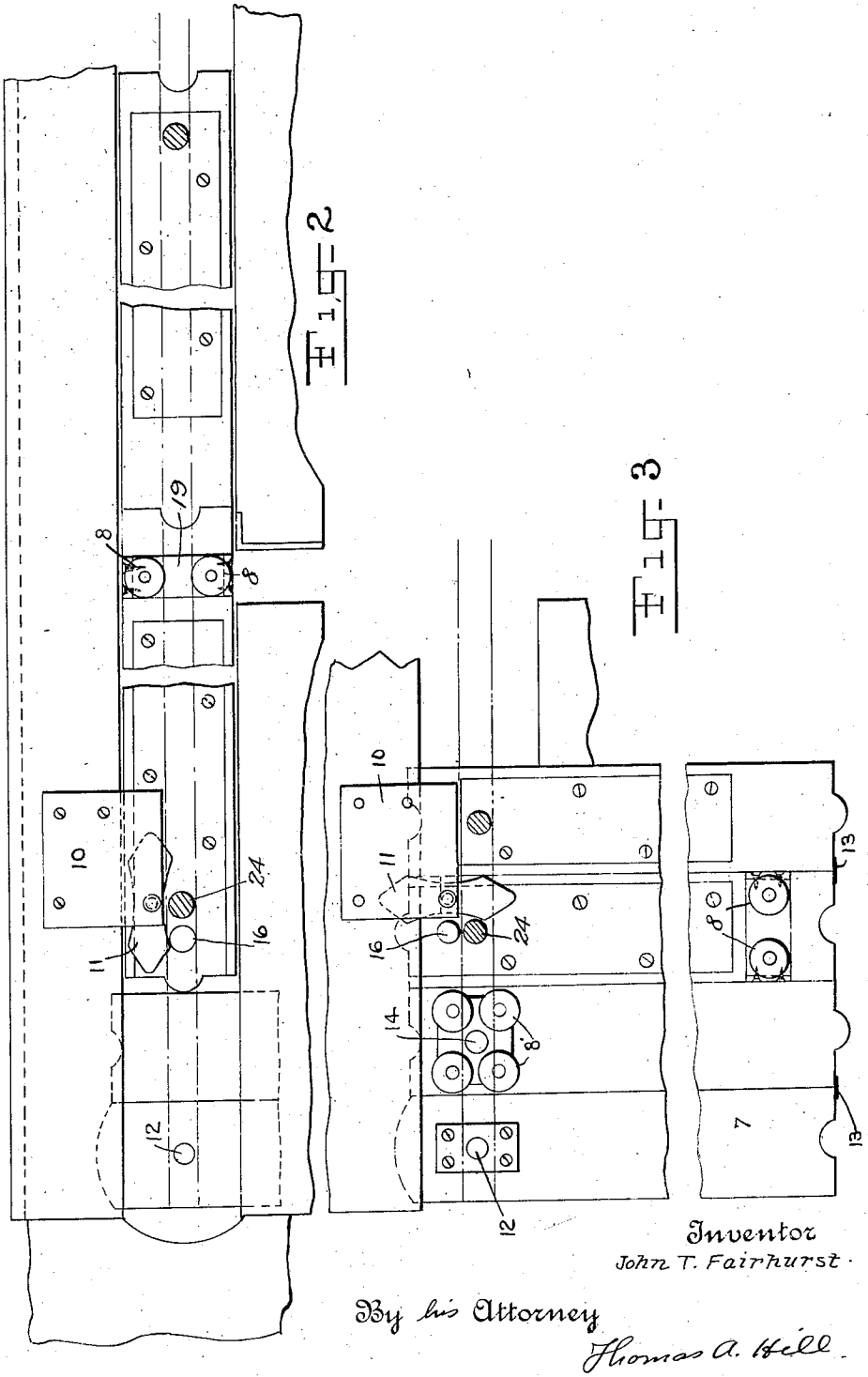
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FIG. 2

FIG. 3



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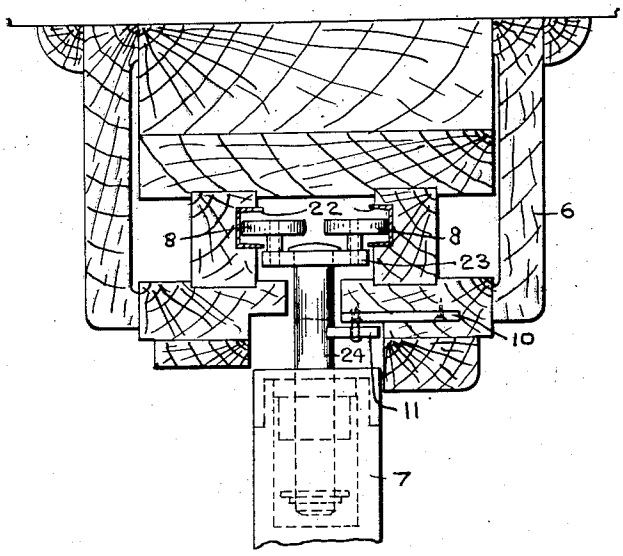


Fig. 4

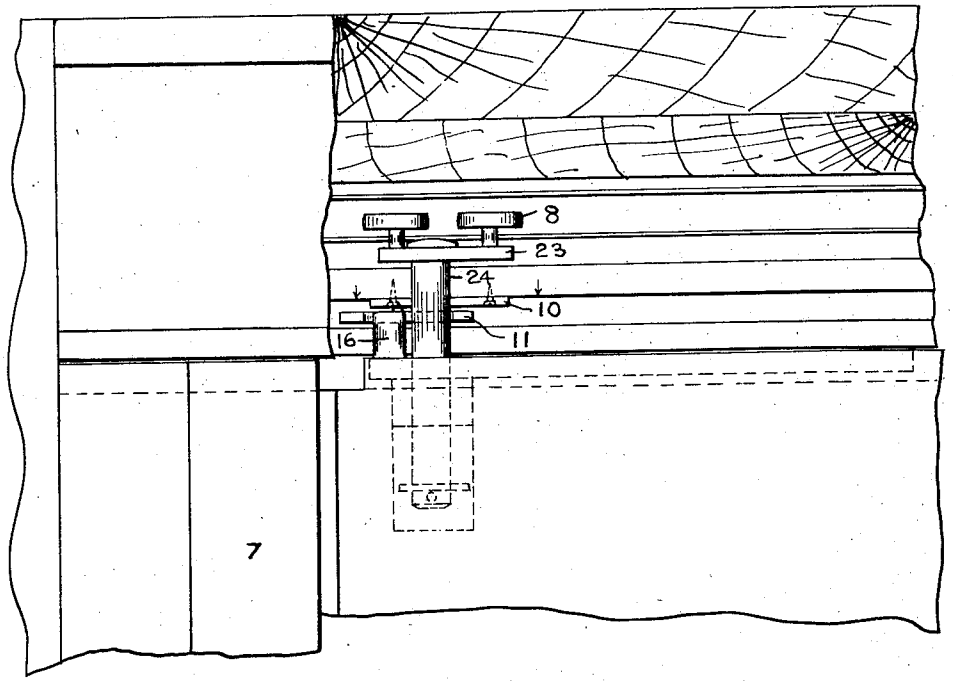


Fig. 5

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UNITED STATES PATENT OFFICE.

JOHN T. FAIRHURST, OF ELIZABETH, NEW JERSEY, ASSIGNOR TO THE J. G. WILSON CORPORATION, OF NEW YORK, N. Y.

FOLDING PARTITION.

Application filed December 7, 1923. Serial No. 679,116.

To all whom it may concern:

Be it known that I, JOHN T. FAIRHURST, a subject of the King of England, residing at Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Folding Partitions, of which the following is a specification, reference being had therein to the accompanying drawing.

The present invention relates to new and useful improvements in partitions and more particularly to partitions of the folding type.

It is one of the primary objects of the present invention to provide a new and improved form of guiding means for the several sections of a sectional partition of the folding type.

It is a further object of the invention to provide a new and improved means for retaining the several sections of the partition against accidental movement when the sections are in their folded position.

It is a still further object of the invention to construct the guiding means in such a manner that the several sections may be moved independently of each other from their extended to their folded position.

With the above and other objects in view reference is had to the accompanying drawings, in which:

Figure 1 is a view in front elevation showing a partition comprising a plurality of sections each of which consists of a pair of doors or similar elements hingedly connected together;

Figure 2 is a detail view partly in plan and partly in section showing the guiding means;

Figure 3 is a similar view showing position of the various parts of the guiding and retaining means when the sections of the partition are in their folded position;

Figure 4 is a detail vertical sectional view showing a portion of the guiding means and the relative position of the parts when the sections of the partition are in their extended position; and

Figure 5 is a view taken at right angles to Figure 4 with a portion of the frame broken away.

Referring more specifically to the drawings the reference numeral 6 designates an outer frame employed to define an opening adapted to be closed either partially or completely by the folding partition.

The partition comprises a plurality of sections 7 and each section consists of two doors or similar members hingedly connected together as at 13 in Figure 3. It is to be understood that the sections 7 are not hinged together and that the hinges 13 only pivotally connect the elements of the sections.

The upper portion of the frame 6 constitutes a housing as shown in Figure 4 and suitably mounted in said housing in opposed relation there are two channel irons 22 constituting a track. The left hand section 7 in Figure 1, has its left hand element pivotally mounted in the frame as at 12. The weight of the several sections is supported by casters 25, the specific construction of which is disclosed in my copending application, Serial No. 686,508, filed January 16, 1924.

The right hand element of this section 7 is provided near the outer edge of its upper end with a spindle 24. This spindle 24 is rotatable in its mounting and has pivotally mounted on its upper end as at 14, a yoke member 23. This yoke member 23 carries a plurality of rollers 8′ of which there are preferably four, as shown in Figure 3, and these rollers 8′ travel in the track formed by the channel irons 22. It is to be understood that the housing formed in the top of the outer frame 6 is provided with a suitable passageway through which the spindle 24 travels.

The center section of the partition shown in Figure 1 is provided upon each of its side edges and in its upper end with a spindle 24, yoke 23 and rollers 8′, as is also the right hand sections of the partition, this construction being shown in Figure 1.

In addition to the spindle 24 and its associated parts the two right hand sections of the partition in Figure 1 are provided with guide rollers 8, which rollers move through a portion of the passageway provided for the spindle 24 and engage the side walls of this passageway to guide the sections in their sliding movement.

Secured to the upper portion of the outer frame 6 at spaced intervals adjacent the left hand side of Figure 1 are two pivoted plates 11. These plates 11 are adapted to occupy

a position parallel with the passageway through which spindle 24 travels, in which position one of the plates is shown in Figures 2, 4 and 5 or at substantially right angles thereto, in which position one of the plates 11 is shown in Figure 3.

Carried by the top edge of each of the sections 7 and adjacent the spindle 24 there is an up-standing stud 16 and the said stud 16 is so arranged as to engage its respective pivoted plate 11 when the several sections of the partition are moved from the extended position to the folded position. The pivoted plates 11 heretofore mentioned are each carried by a plate 10 suitably secured in the outer frame 6.

As shown in Figure 2, the passageway through which the spindle 24 travels is intercepted by passageways 19 at substantial right angles thereto, as indicated in Figures 1 and 2 and these passageways 19 are to permit of the guide rollers 8 passing out of the housing formed in the upper side of the outer partition 6 during the folding operation of the sections.

With the parts in the position shown in Figure 1 in which the several elements of the partition are in their extended position, the pivoted plates 11 occupy a position parallel with the passage through which the spindle 24 operates as shown in Figure 2. To move the sections of the partition to the position in which they are shown in Figure 3, the latch bolt 20 is lifted and the two elements of the left hand section 7 in Figure 1 are moved to the position shown in Figure 3, this action being permitted by reason of the hinge 13. The two elements of the next adjacent section are then moved to the position shown in Figure 2, at which time the guide rollers 8 will be opposite or in line with the passage 19, through which they are to pass when the two elements of this section are moved to the position in which they are shown in Figure 3.

With the parts in the position shown in Figure 2, if the two elements of the intermediate section be moved about their hinges 13, the spindles 24 will serve as pivots for the elements of this section. During this swinging movement of these elements, the guide rollers 8 will pass through the passage 19 and the stud 16 will engage the pivoted plate 11 rocking the same around its pivotal point to the position shown in Figure 3. It will be noted that the stud 16 during the folding of the elements of this section, will pass to a position in line with the pivotal point of the plate 11 and thus prevent sliding movement of the intermediate section while the same is retained in its folded position.

With any of the several sections in the folded position, as shown in Figure 3, to extend the sections, it is only necessary to slide the outer element thereon through the passage. In this movement the spindle 24 engages its respective pivoted plate 11 and moves the same about its pivotal point, causing it to follow its respective stud 16. When two elements of the section, being moved, have moved to a position where they are in alignment with each other or extended, the plate 11 will then occupy a position parallel with the passageway through which the spindle 24 travels and in this position the entire section may be moved by sliding the same within the opening formed by the outer frame 6.

The passageways 19 heretofore mentioned may be so positioned that they will be in direct line with the guide rollers 8 or slightly offset with respect thereto, which latter position would entirely eliminate all possibility of accidental pivoting of the elements of the section.

Having thus described the invention, what is claimed is:

A folding partition construction comprising a frame having a guiding passage, hingedly connected doors mounted for sliding movement in the frame and for pivotal movement relatively thereto, means on the doors for engaging in said guiding passage to guide the doors during their sliding movement, said frame having an intercepting passage leading from said guiding passage, and means on certain of the doors for engaging in said guiding passage to prevent pivotal movement of the doors until the doors reach a predetermined position and for then passing through the intercepting passage to allow pivotal movement of the doors, said means comprising a pair of spaced rollers arranged to engage the sides of the guiding passage and also arranged to engage the sides of the intercepting passage.

In testimony whereof I hereunto affix my signature.

JOHN T. FAIRHURST.