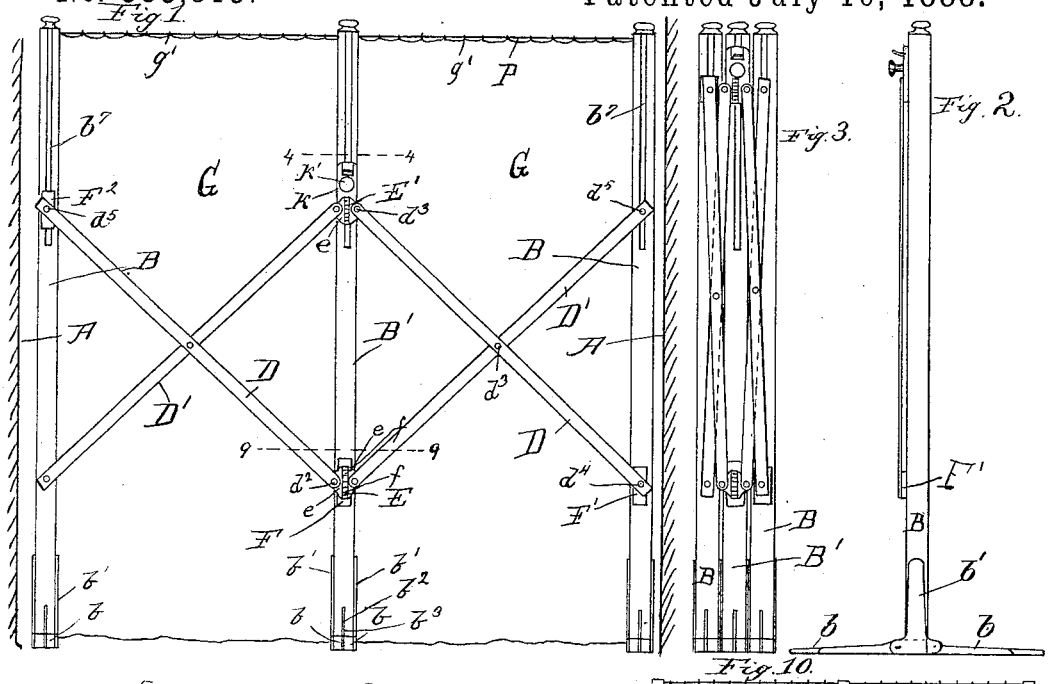
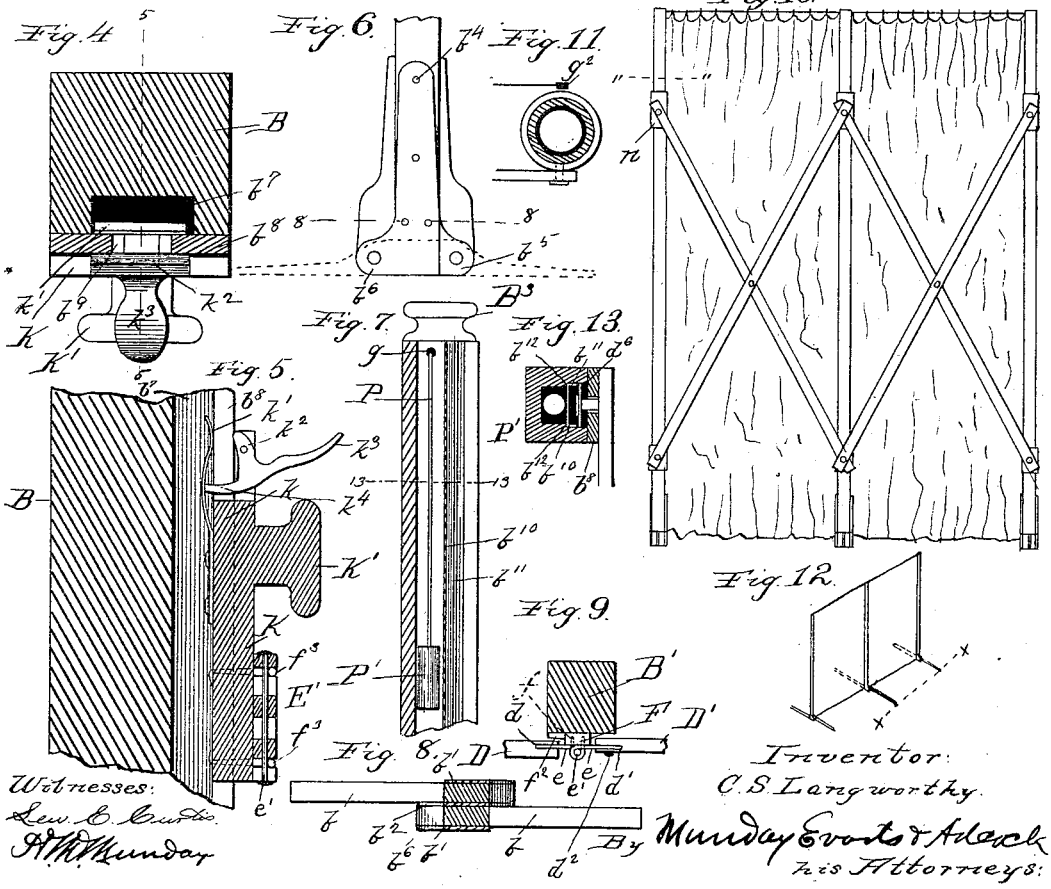
(No Model.)

C. S. LANGWORTHY.

ADJUSTABLE FOLDING CURTAIN PARTITION FOR HOUSES.

No. 385,813. Patented July 10, 1888.





Witnesses:
Lew. E. Curtis.
A. W. Munday

Inventor:
C. S. Langworthy.
Munday, Evarts & Adcock
his Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES S. LANGWORTHY, OF CHICAGO, ILLINOIS.

ADJUSTABLE FOLDING CURTAIN-PARTITION FOR HOUSES.

SPECIFICATION forming part of Letters Patent No. 385,813, dated July 10, 1888.

Application filed September 12, 1887. Serial No. 249,428. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. LANGWORTHY, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Adjustable Folding Curtain-Partitions for Houses, of which the following is a specification.

The object of my invention is to provide a removable folding curtain-partition of a simple, cheap, light, and durable construction, the length or width of which may be readily adjusted according to the width or size of the room in which it is placed, so that the same partition will be adaptable to any position or use desired.

In my invention a series of upright posts are employed, each provided with a pair of folding feet pivoted at the bottom of the post on opposite sides thereof, and which extend in opposite directions alongside each other under the end of the post, so that the weight of the post rests directly upon the pivoted feet and serves to hold them rigidly extended. These upright posts are connected together by cross-bars pivoted together at their middle and pivoted to the posts at their lower ends, the upper ends of the cross-bars being pivoted in longitudinal slots or grooves formed in the upright posts, so that the posts may be adjusted closer together or farther apart, as desired, the cross-bars serving to hold the posts upright and parallel to each other whatever their distance apart. The extreme or end posts of the partition are furnished with pockets or receptacles for the weights which keep the curtain-supporting cord taut, so that whatever the distance between the posts the curtain will be properly supported. In place of these weights springs may be substituted. The partition is provided with a door by providing the middle or one of the intermediate posts with hinges, to which the adjoining cross-bars are secured, so that the end section of the folding partition may serve as a door. All the intermediate posts may be provided with hinges, if desired, so that the partition may be made to form two, three, or more sides of an inclosure instead of a straight partition. The number of upright posts may be varied as desired. I ordinarily prefer to employ three.

My invention consists in the novel devices and novel combinations of devices herein shown and described, and more particularly pointed out in the claims.

In the accompanying drawings, which form a part of this specification, and in which similar letters of reference indicate like parts, Figure 1 is a side elevation of a device embodying my invention, showing in section a portion of the walls of a room in which it is placed. Fig. 2 is an end or edge view. Fig. 3 is a side elevation showing the same folded. Fig. 4 is an enlarged cross-section on line 4 4 of Fig. 1. Fig. 5 is a detail vertical section on line 5 5 of Fig. 4. Fig. 6 is a detail view showing the feet of the upright post folded. Fig. 7 is a partial longitudinal section of one of the end upright posts. Fig. 8 is a cross-section on line 8 8 of Fig. 6. Fig. 9 is a section on line 9 9 of Fig. 1. Fig. 10 shows the invention when the upright posts are made of metal tubes, and Fig. 11 is a cross-section on line 11 11 of Fig. 10. Fig. 12 is a small perspective view illustrating the length of the feet. Fig. 13 is a section on line 13 13 of Fig. 7.

In said drawings, A A represent the walls of a room which is to be partitioned or divided by my folding adjustable curtain-partition.

B B are the two extreme or end upright posts of the partition, and B′ is the middle or intermediate post. Each of these posts B and B′ is furnished with a pair of folding feet, *b b*, which extend at right angles to the plane of the partition on each side of the post, at the lower end thereof. The feet of the middle post are made somewhat longer than those of the end posts, as is clearly illustrated in the small perspective view, Fig. 12. By making the feet of the middle post, B′, longer than those of the outside posts it is obvious that in order for the partition to tip over one of its ends will have to be raised entirely clear from the floor, while the partition tips or turns on the oblique line *x x*, drawn from the end of the middle post to the end of the end feet as a pivot. By this means, therefore, the partition is given much greater stability than if all the feet were made of even length. The post is furnished at its lower end with three metallic hinge-plates, *b′*, *b′*, and *b²*, all of which pro-

ject beyond the lower end of the post. The middle hinge-plate, b^2, is secured in a central vertical slot, b^3, made in the end of the post, and the two outside hinge-plates, b' b', are secured to the opposite sides of the post by rivets b^4, the same rivets also passing through the middle hinge-plate. The middle hinge-plate is also furnished with two ears or wings, b^5 b^5, which project at the front and back of the post, and the side hinge-plates, b' b', are each furnished with projecting ears or wings b^6 b^6, the ear on one of the plates projecting to the front and that on the other to the back. The two feet b b are pivoted to the ears b^5 b^6, at opposite sides or edges of the post, so that when the feet are extended the end of the post rests on top of the feet. The whole weight of the partition thus serves to keep the two feet extended flat and rigidly upon the floor. As is shown in Figs. 2, 6, and 8, the feet b b extend under the end of the post, so that the post, resting on the feet, will hold them rigid and extended flat. The end of the post serves as a shoulder, so to speak, to prevent the feet b b from shutting or turning on their pivots upward when the feet are extended and project in opposite directions under the post. The thickness of the feet b b should be just half the thickness of the post. Each of the feet b is pivoted at its large end to a bracket, b^6, at one side of one of the posts B B', and extends across under the lower end of the post to and projects beyond the opposite side thereof, as is clearly indicated in the drawings. Each of the posts B B' is furnished with a longitudinal T-shaped groove or slot extending down from the upper end of the post somewhat less than half the length of the post. To form the T-slots, I make a wide groove or channel, b^7, in the main part of each of the posts, and furnish each post with a thin strip, b^8, which forms the front of the post, and which is furnished with a narrow slot, b^9. The slotted front strips, b^8, are glued or otherwise firmly secured to the posts. The grooves b^7 receive the head or washer of the sliding pivot-pins, which connect the upper ends of the cross-bars D D' to the posts B B. The grooves b^7 in the two end posts, B B, are made deeper and divided into two parts by a vertical strip of sheet metal, b^{10}, which has flanges b^{11} at its edges, and is secured at the shoulders b^{12} formed in the posts by making the outer part of the groove b^7 slightly wider than its deeper portion. The sheet-metal division-plates b^{10} thus form pockets or receptacles for the curtain-cord P and its weights P'.

D D' are cross-braces pivoted at their opposite ends to the upright posts B B', and pivoted together at their middle points, where they cross each other. The post B' is furnished with hinges E E', to the two leaves e e of which the adjoining ends of the cross-bars D D' are pivoted, so that one of the two sections of the partition may be used as a door. The lower hinge, E, is secured to a stationary block, F, by metal staples f, which pass over or astride of the barrel or central pivot portion, e', of the hinge. The leaves e e of the hinge enter slots d d', cut in the ends of the adjoining pivot-bars D D'. The slot d is cut near the back edge of the bar D, while the corresponding slot, d', is cut near the front edge of the adjoining bar, D', so that the bars in crossing each other may fit close together when folded. The block F is, for like reason, furnished with a shelf or projection, f^2, at one side. The two parallel bars D D fit over or outside the two parallel bars D' D'. The bars D D' are secured to the leaves e e of the hinges by rivets d^2, and are pivoted together where they cross by rivets or bolts d^3. The lower end of the bar D, which is pivoted to the post B, is pivoted thereto through a block, F', which serves to raise the bar slightly from the post, and thus permit the cross-bars D D' to properly fold together. The lower ends of the bars D D', which are connected to the posts B B, are pivoted thereto by bolts or wood-screws d^4 d^4. The upper ends of the bars D D' are pivotally secured to the posts B B by bolts or rivets d^5 d^5, which fit in longitudinal slots or grooves b^7 b^7, cut in the posts B B. The rivets d^5 d^5 are furnished with rollers or rolling-washers d^6 d^6, which are somewhat less in diameter than the width of the slot b^7, so that the roller cannot bear against the opposite sides or walls of the slot at the same time. The holes in these roller-washers should also be somewhat larger than the pivots d^5. The washers d^6 serve to keep the pivots d^5 from bearing against the walls of the narrow slot b^9 in the facing-strip b^8, and cause the cross-arms D D' to slide easily up and down on the posts B B'. The upper end of the bar D, which is connected to the outside post, B, is furnished with a block, F^2, to hold it away from the plane of the post, and thus permit the cross-bars D D' to properly fold together.

The upper hinge, E', of the middle post, B', to the leaves of which the adjoining upper ends of the bars D D are pivoted by the rivets d^3, is secured by metallic staples f^3 to a sliding block, K, having a tongue, k, which fits in the slot b^9 of the post-strip b^8. This sliding block K is furnished with a guide-spring, k', that slides in the groove b^7, and presses against the inner face of the strip b^8. The block K is further provided with a pivoted dog, k^2, having a handle, k^3, and an arm, k^4, against which the spring k' presses, and by which it may be operated. The post or post-strip b^8 is clamped between the sliding block and the spring, whereby the sliding block is locked or held at any desired height on the post B. By simply pressing down on the handle k^3 with the thumb when taking hold of the knob K', the pressure of the spring and dog is released, and the operator may then readily raise or lower the block K on the post B', and thus contract or extend the posts B B and the width of the partition. When lowering the block K, the partition should be lifted or partially lifted from the floor with one hand, while the block K is

pressed down with the other hand on the knob K'. To raise the block K and draw the posts B B toward each other, all that is necessary is to lift on the knob K'.

The weight-cord P passes through holes *g* in the posts B B near their tops. The posts B B should be furnished with ornamental tops B^3, which may be fitted in the holes or grooves b^7 on the top of the posts.

The curtain G is furnished with rings *g'*, through which the cord P passes. At the ends of the partition the curtain is tacked or glued to the end posts, B B. Where, however, the end posts are made of metal tubes provided with outside sliding sleeves, *n*, as indicated in Figs. 10 and 11, I provide the end edges of the curtain with a sheet-metal strip, g^2, folded over its edges, to stiffen the same and hold it straight and in position.

In Fig. 10 it will be observed that the middle post is shown without hinges. Where no hinges are used to form a door of one of the sections, an opening or passage-way may be formed by simply contracting the partition, the opening being closed by again extending the partition.

I claim—

1. An adjustable folding curtain-partition, consisting of upright posts provided with feet extending forward and back of the partition, connecting cross-bars having pivotal connections at one of their ends to said upright posts and sliding pivotal connections to said posts at their other ends, and a flexible curtain supported on said posts, substantially as specified.

2. In an adjustable folding curtain-partition, the combination, with upright posts B B', furnished with folding feet *b b*, of cross-bars D D', one pair of said cross-bars D D' being hinged to said post B', and a flexible curtain supported by said posts, substantially as specified.

3. The combination, with an adjustable folding curtain-partition, of the upright posts thereof, and folding feet *b b*, extending under the ends of said posts and pivoted on opposite sides thereof, substantially as specified.

4. The combination, in an adjustable folding curtain-partition, of the upright posts thereof furnished with hinge-plates projecting beyond the end of the post, and folding feet *b b*, extending under the end of the post and pivoted to said hinge-plates at opposite sides or edges of the post, said feet folding up lengthwise with the post, substantially as specified.

5. The combination, in an adjustable folding curtain-partition, of the upright posts thereof furnished with hinge-plates projecting below the end of the post, and folding feet *b b*, extending under the end of the post and pivoted to said hinge-plates at opposite sides or edges of the post, said feet folding up lengthwise with the post, the middle hinge-plate being secured in a central slot in the end of the post and having two ears, b^5, and the outer hinge-plates having each one ear, b^6, said ears projecting in opposite directions, substantially as specified.

6. The combination, in an adjustable folding curtain-partition, of the upright posts B B' B, having feet *b b*, with pivoted cross-bars D D', curtain G, cord P, and weights P', said end posts, B B, being made hollow or furnished with pockets for said weights, substantially as specified.

7. The combination, with upright posts B B' B, having feet, of cross-bars D D' D D', and hinges E E', having their pivot-pins or barrels pivotally connected to said post B' and furnished with leaves *e e*, to which the adjoining ends of said cross-bars D D' are pivoted, substantially as specified.

8. The combination, with upright posts B B' B, having feet, of cross-bars D D' D D', and hinges E E', having their pivot-pins or barrels pivotally connected to said post B', and furnished with leaves *e e*, to which the adjoining ends of said cross-bars D D' are pivoted, said hinge E' being connected to said post through or by means of a sliding block, K, substantially as specified.

9. The combination, with upright posts B B' B, having feet, of cross-bars D D' D D', and hinges E E', having their pivot-pins or barrels pivotally connected to said post B', and furnished with leaves *e e*, to which the adjoining ends of said cross-bars D D' are pivoted, said hinge E' being connected to said post through or by means of a sliding block, K, and said hinge E being connected to said post by a block, F, substantially as specified.

10. The combination, with upright posts B B' B, having feet, of cross-bars D D' D D', pivotally connected to said posts, the outer parallel pair of said cross-bars D D' having blocks $F' F^2$, through which they are connected to said outer posts, B B, and hinges E E', connected to blocks F K, and having leaves *e e*, secured in slots in the ends of the adjoining cross-bars D D', the slots in one pair of said cross-bars being made near their front and in the other pair near their back, substantially as specified.

11. In an adjustable folding curtain-partition, the upright posts B B' B, having feet *b b*, the feet of the middle post, B', being longer than those of the end posts, B B, substantially as specified.

12. In an adjustable folding curtain-partition, the combination of the posts B B' B, having feet, with pivotal cross-bars D D' D D', the upper ends of said cross-bars sliding longitudinally on said posts, said middle post, B', having a sliding block, K, to which the adjoining upper ends of said cross-bars D D' are pivotally connected, said sliding block being provided with a knob, K', for operating the same, substantially as specified.

13. In an adjustable folding curtain-partition, the combination of the posts B B' B, having feet, with pivotal cross-bars D D' D D', the upper end of said cross-bars sliding longitudinally on said posts, said middle post, B', hav-

ing a sliding block, K, to which the adjoining upper ends of said cross-bars D D′ are pivotally connected, said sliding block being provided with a knob, K′, for operating the same, and a guide-spring, k', pivoted dog k^2, furnished with handle k^3 and arm k^4, substantially as specified.

14. In an adjustable folding curtain-partition, the combination, with folding pivotal cross-bars D D′, of upright posts B B′ B, having feet and provided with slots b^7, and front strips, b^8, having slot b^9, the slots in said posts B B being furnished with sheet-metal strips b to form the weight-pockets, the pivots of said cross-bars D D′, which reciprocate in the slots b^7 of the posts B B, being furnished with rolling washers d^6 smaller in diameter than the width of said slots, substantially as specified.

CHARLES S. LANGWORTHY.

Witnesses:
EDMUND ADCOCK,
H. M. MUNDAY.