

(No Model.)

4 Sheets—Sheet 1.

A. REHBERGER.

OVERHANGING TRANSPARENT SHELF SYSTEM FOR STORES.

No. 464,344.

Patented Dec. 1, 1891.

Fig. I.

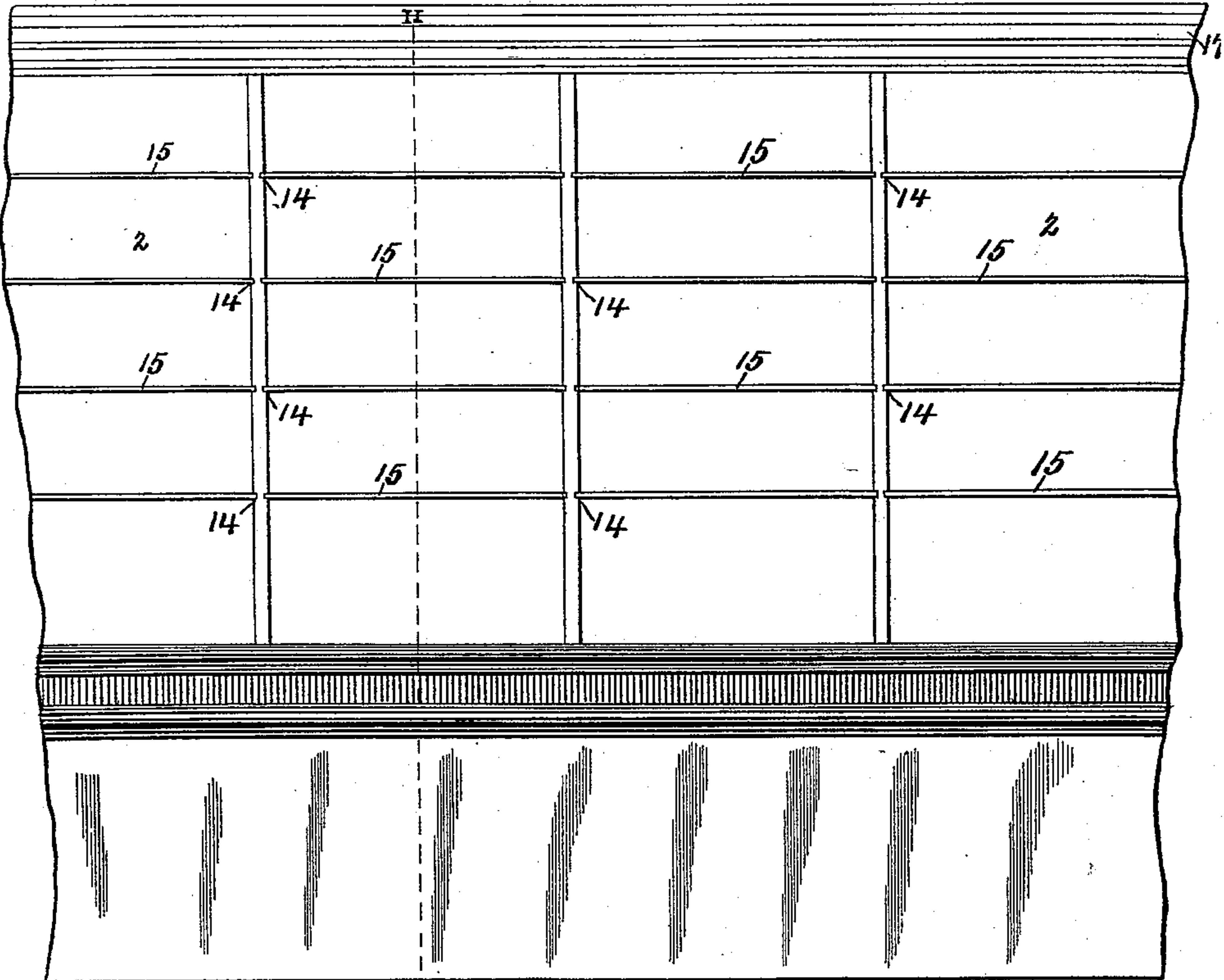
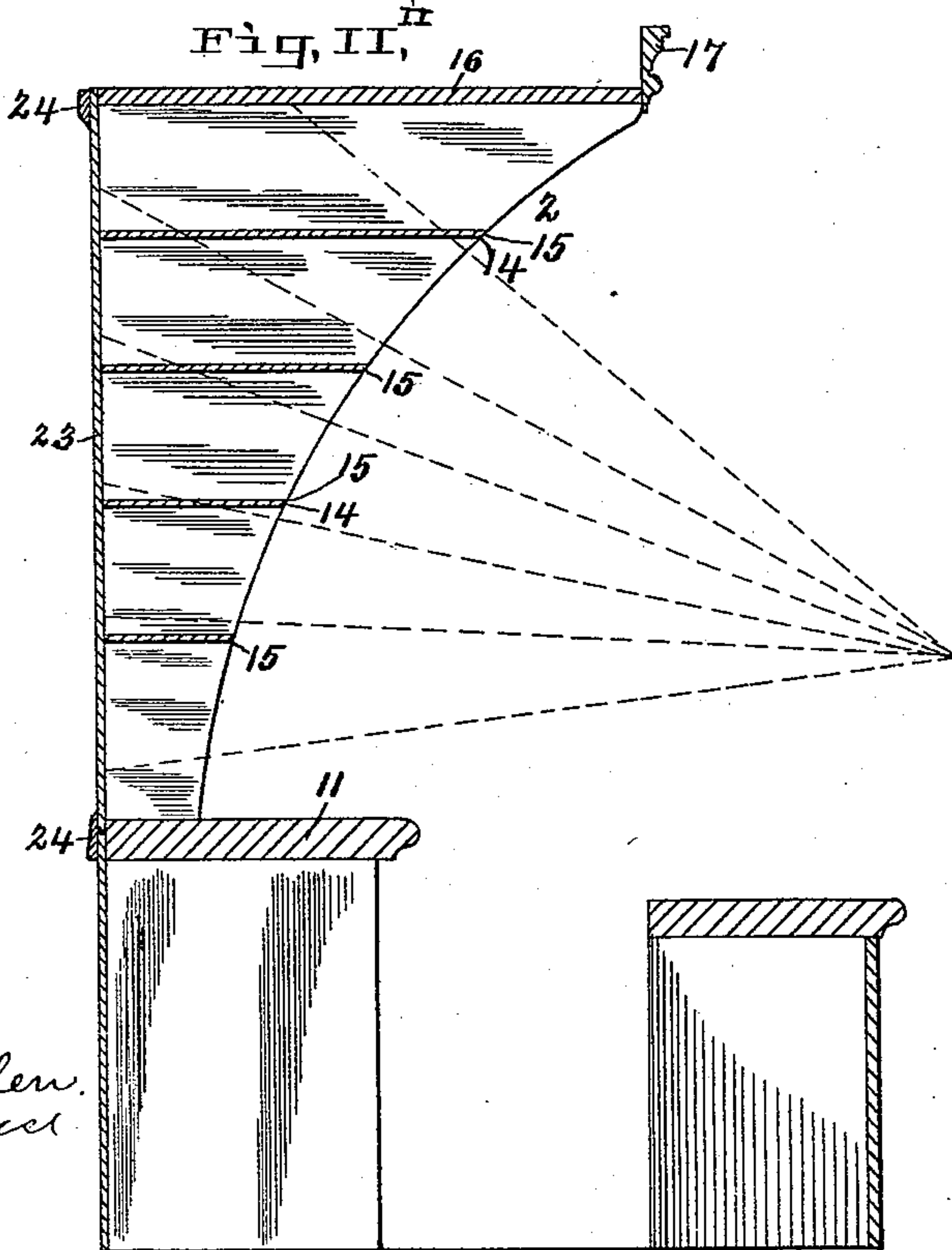


Fig. II.



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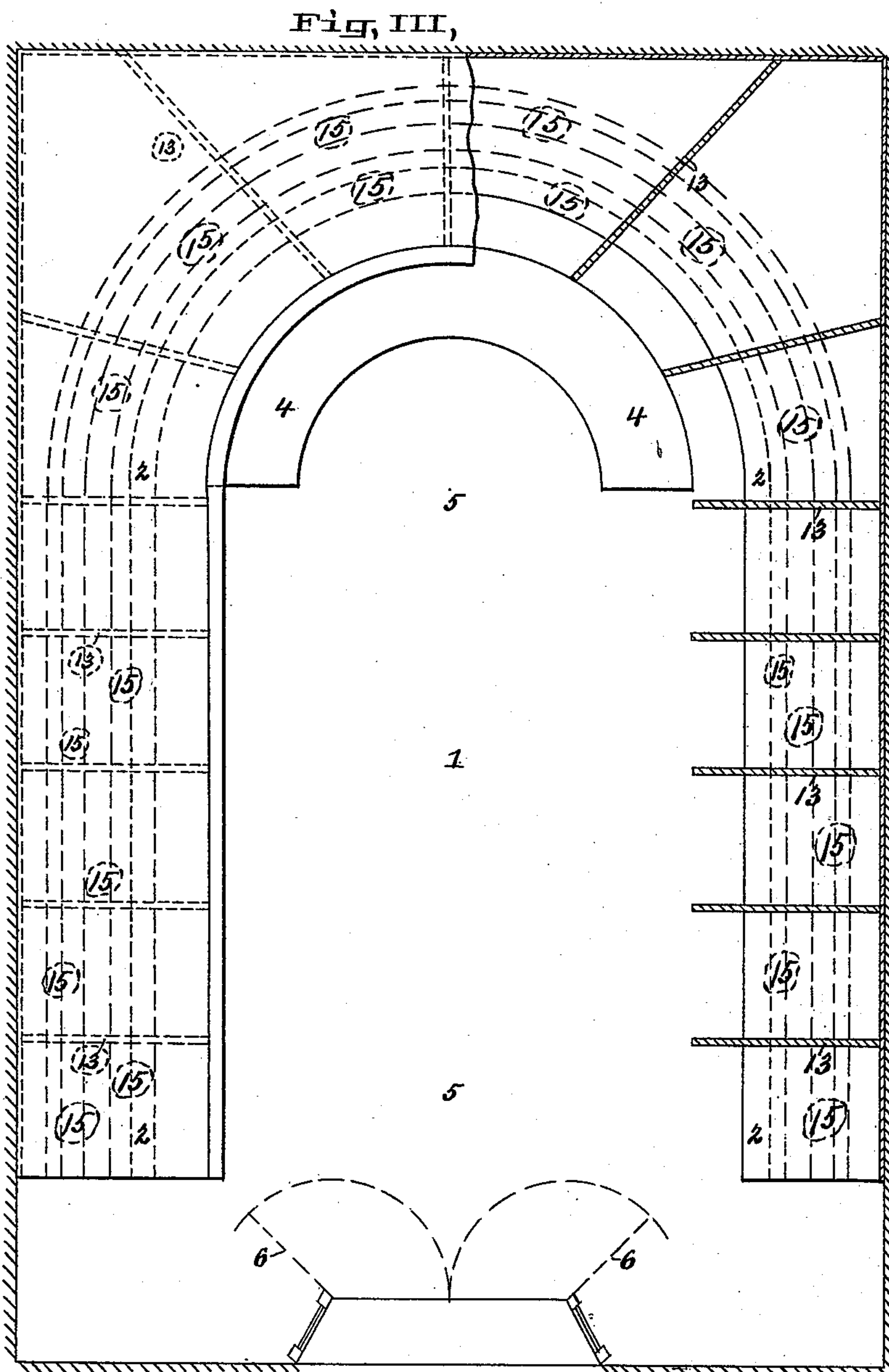
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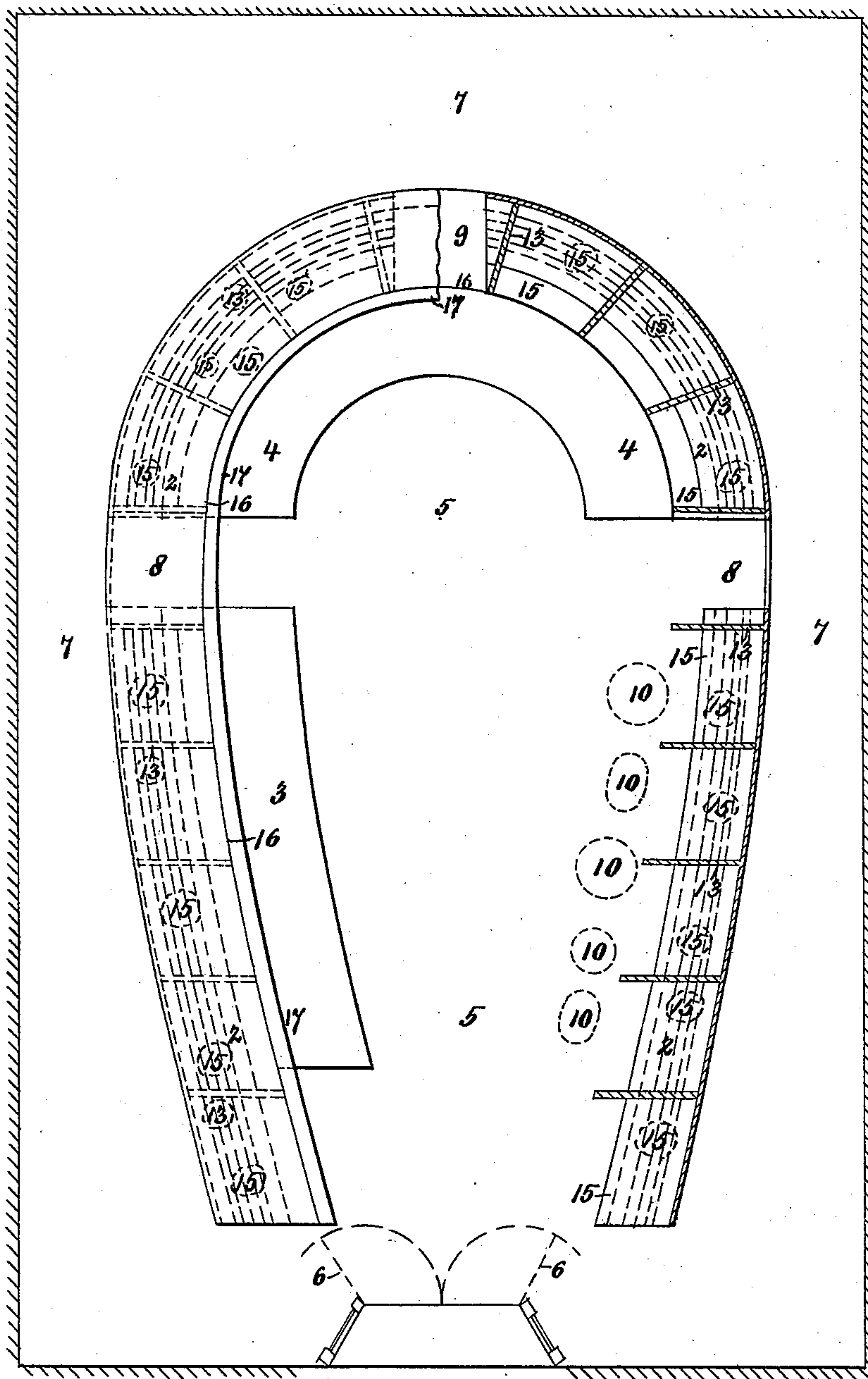
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No. 464,344.

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Fig. IV



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Fig. V

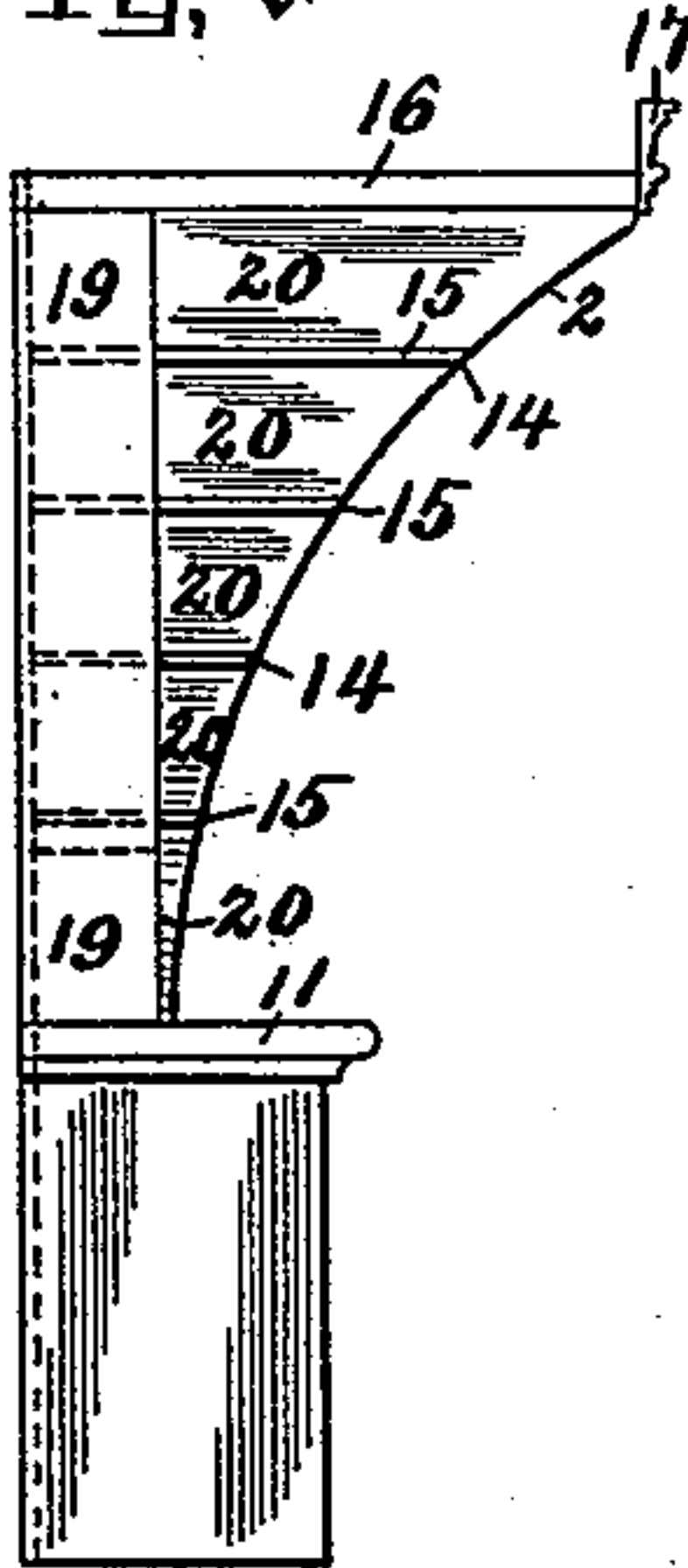


Fig. VI

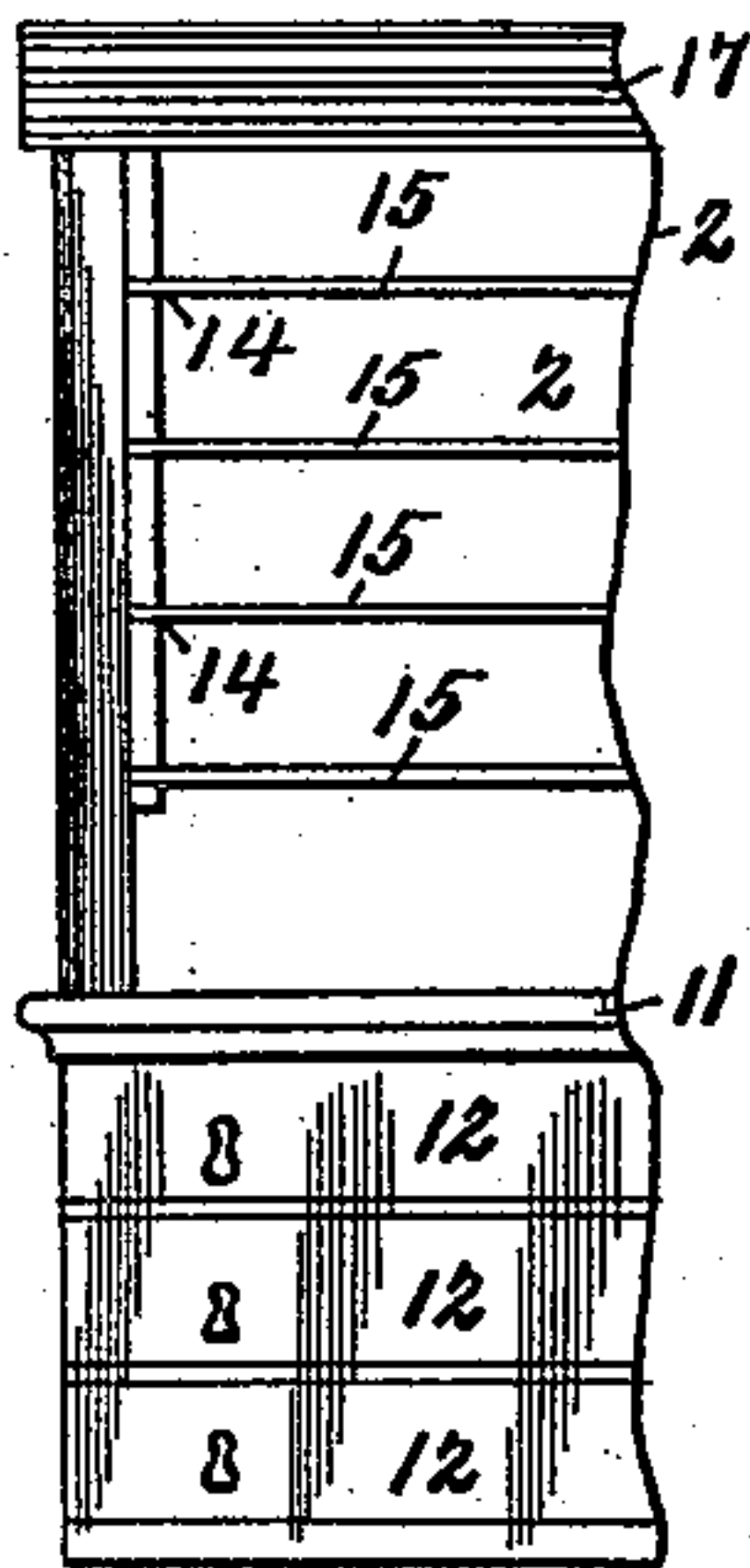


Fig. VII

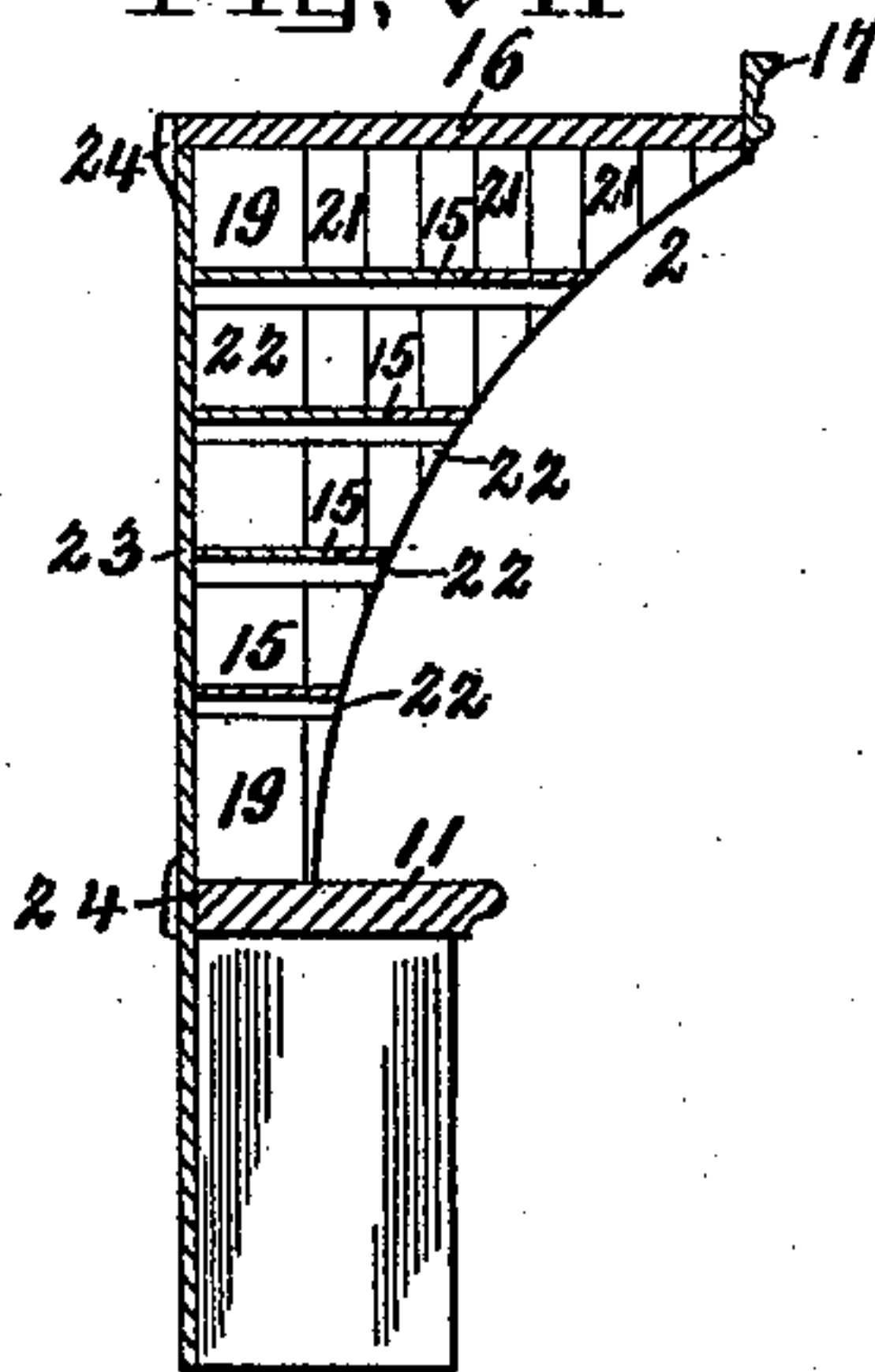
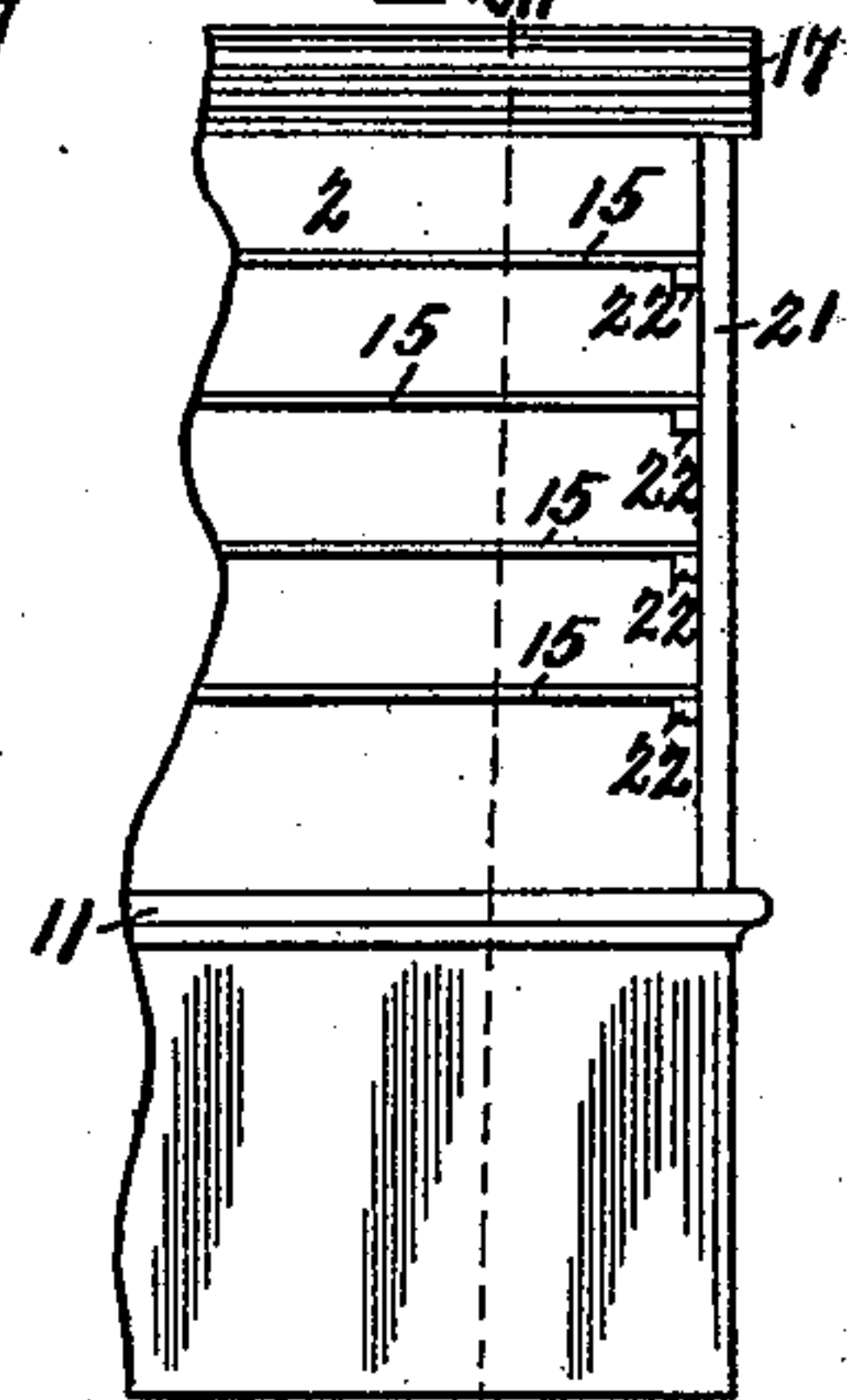


Fig. VIII



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Fig. IX

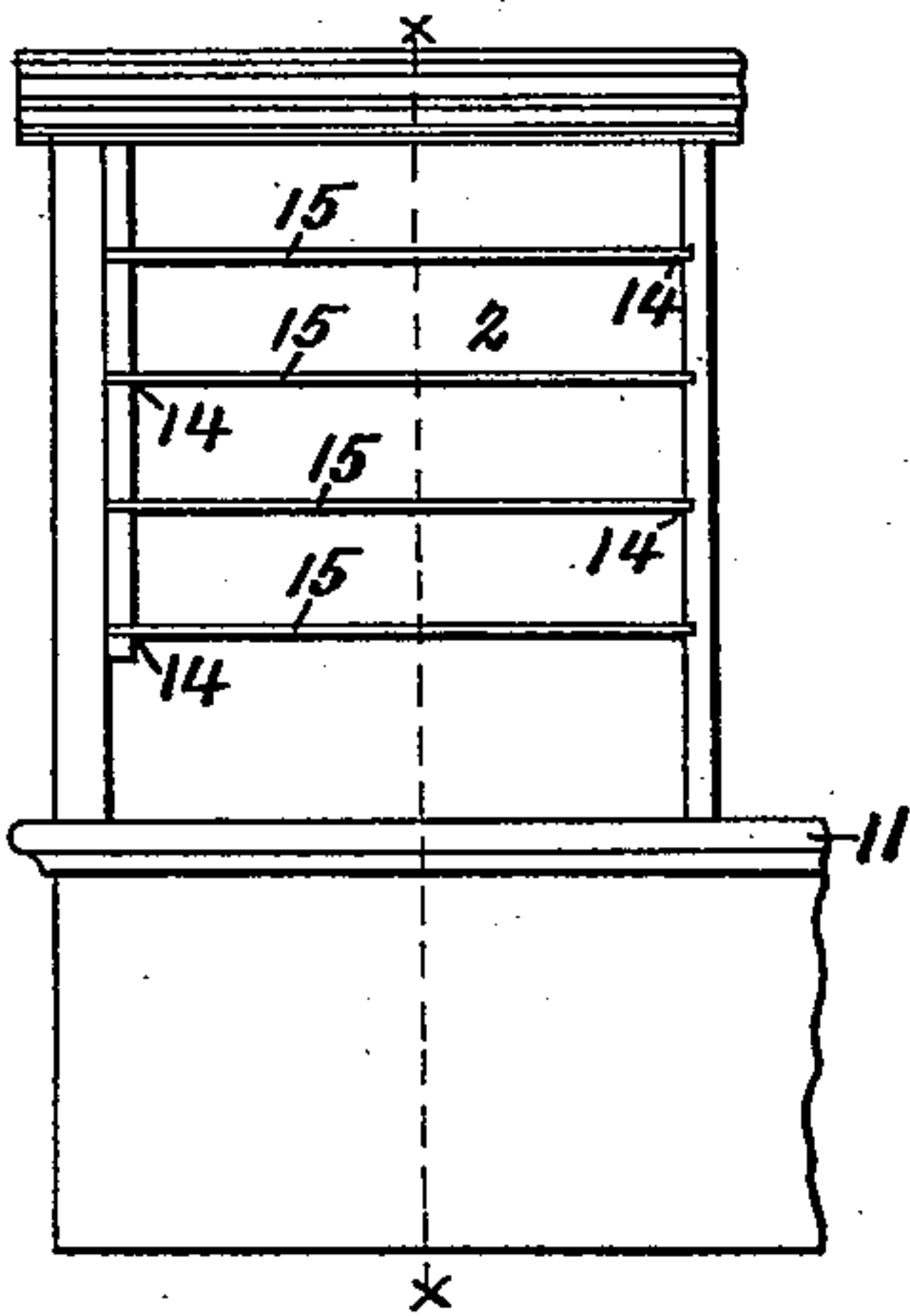


Fig. X

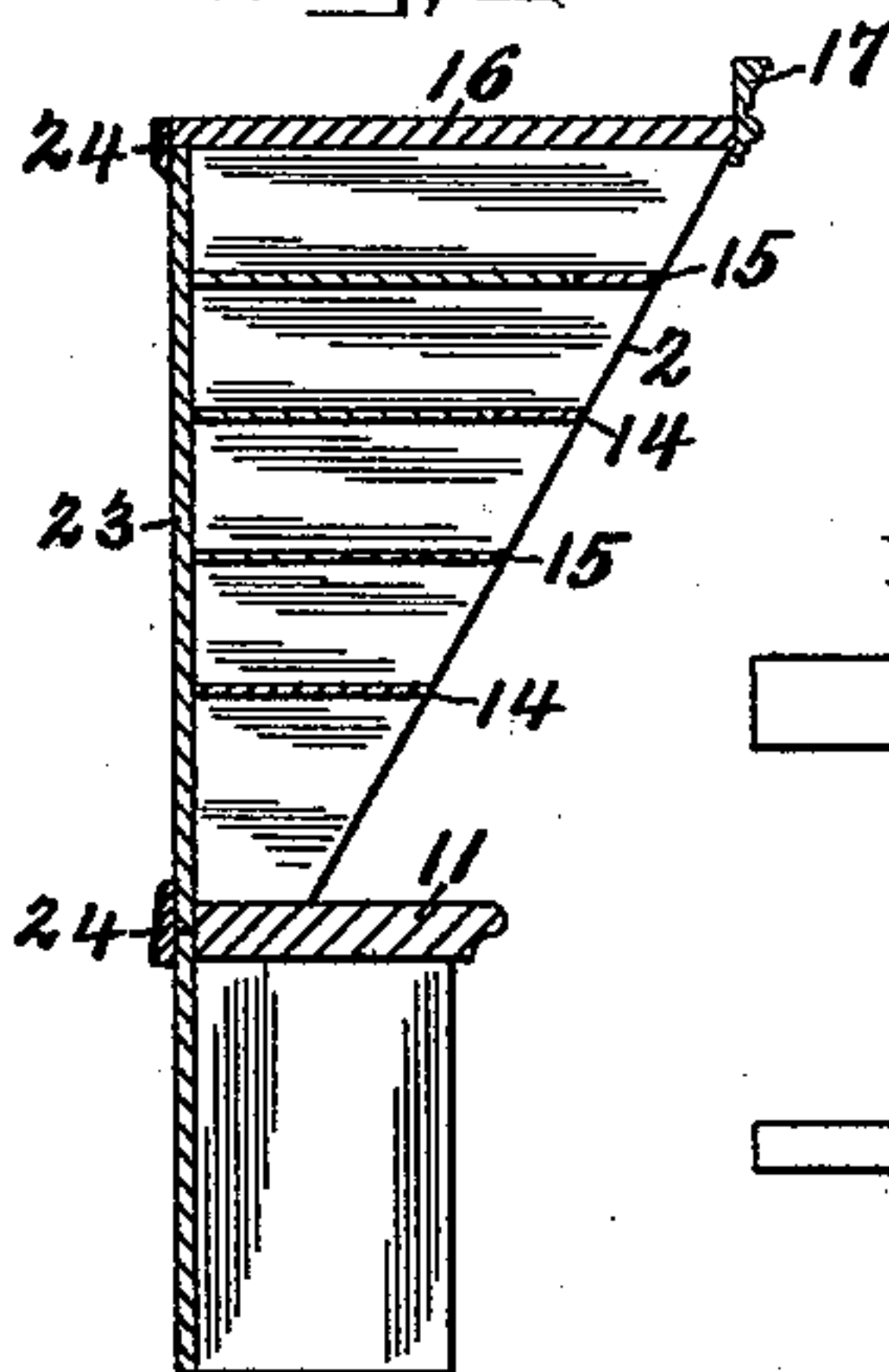


Fig. XI



Fig. XII



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# UNITED STATES PATENT OFFICE.

AUGUST REHBERGER, OF ST. LOUIS, MISSOURI.

## OVERHANGING TRANSPARENT-SHELF SYSTEM FOR STORES.

SPECIFICATION forming part of Letters Patent No. 464,344, dated December 1, 1891.

Application filed August 20, 1891. Serial No. 403,245. (No model.)

*To all whom it may concern:*

Be it known that I, AUGUST REHBERGER, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Overhanging Transparent-Shelf Systems for Stores, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 This invention relates to a system of overhanging transparent glass show-shelves for stores, &c., in which, as the customers sit, stand, or walk alongside the counter, as each surmounting shelf overhangs those below, 15 and being transparent and preferably made of glass, the articles on the shelves are not only convenient for handling, but also the system utilizes to a greater extent than is now customary the upper part of the store-room 20 not occupied by either the clerks or customers, and, what is of still more importance, as said overhanging shelves are transparent, the articles thus stored on the shelves are at the same time transparently held to view on the 25 line of vision, which passes not only to but through the overhanging glass shelves.

The invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

30 Figure I is a front detail view of the counter and shelving. Fig. II is a vertical section taken on line II II, Fig. I, and shows the overhanging transparent glass show-shelves that afford to the customer a good view of the 35 goods on and through said overhanging transparent shelves. It also shows a mirror-back to said transparent shelves. Fig. III is a top plan view and shows the divisional counter and upright supports between the shelving, with the 40 transparent overhanging shelves, the canopy being partly broken away to show the counter-shelf, and shows in broken lines the respective depths of the underlying shelves. It also shows the swinging doors by which the customers enter the store. Fig. IV is a like view and 45 shows an additional side counter and show baskets and boxes for the display of goods. It also shows an outlying storage for goods back of the display-shelving, with passages 50 through which the clerks pass after goods to replenish the shelves. Fig. V is an end view and shows one means of attaching the

horizontal supports of my overhanging transparent shelves to the former vertical partitions to which the common wooden shelves 55 were attached of uniform width. Fig. VI is a front view of the same. Fig. VII is a vertical section taken on line VII VII, Fig. VIII, and shows matched vertical siding supports for the shelves attachable to the former vertical partitions in previous use. Fig. VIII is a front view of the same. Fig. IX is a front view and shows the overhanging shelves supported at one end between the horizontal siding, as shown in Figs. V and VI, and at the 65 other end supported in transverse slots in the vertical siding supports shown in Figs. I and II. Fig. X is a vertical section taken on line X X, Fig. IX, and shows a straight angle frontal line to the increasing depth of the 70 overhanging shelves. Fig. XI is a shelf the rear portion of which is of wood and the front portion thereof of transparent glass, to enable the customers and clerks to have a clear view through said transparent portion to the 75 goods displayed and stored above; and Fig. XII is a shelf constituted entirely of transparent glass to provide an unrestricted view of said goods.

Referring to the drawings, 1 represents a 80 store in which my system of overhanging transparent shelving 2 is used.

3 are the side counters, and 4 the semicircular counter at the end of the exhibiting-floor 5. 85

6 represents the swinging doors at the entrance of the store, which open on the radius shown in Figs. III and IV.

7 represents the supplemental storage-room around the exhibiting-floor and the overhanging system of transparent shelving around 90 said exhibiting-floor.

8 are the passage-ways from the exhibition-floor adjacent to the counters, and through said counters to said supplemental storage-room for access by the clerks to the main stock of goods and to the duplicates of those 95 displayed on the shelves, and 9 is a passage-way for the clerks for the same purpose through the shelving-counter and shelves at 100 the rear center of the system; but said latter passage does not preferably pass through the main counter.

10 represents barrels, trays, baskets, &c.,



placed in the same respective position on one side of the exhibiting-floor 5 as is occupied by the side counter on the other side of said floor, and in which depositories goods are exhibited for the inspection of customers.

11 represents the shelving-counters beneath and that support the overhanging shelves, and 12 are the drawers beneath said counters.

13 represents the divisional partitions between the shelves and that support the same, and which are themselves supported by the shelf-counters 11. The said partitions are formed of an increasing width as they ascend to correspond with the respectively increasing widths of the overhanging shelves, and are provided, preferably, with channel-grooves 14, recessed in their sides, in which grooves the shelves 15 are slid and seated. The frontal forms of said side partitions between said shelves accord with the overhanging increased width of the surmounting shelves, and are preferably of a concave curvilinear contour in front, as shown in Figs. II, V, and VII; but the increased width of said partitions as they ascend and of the shelves they carry may be evenly graduated on a straight line of ascent from the narrow base next the supporting-shelving counter 11 to the wide overhanging canopy-top 16, surmounted by its cornice 17.

While with most classes of goods that are exhibited on my overhanging shelving it is preferred that the shelves should be entirely of glass from front to back, so as to utilize to the full the ability to look over the goods on the narrower underhung shelves and through the transparent overhung shelves to the goods thereon to the very back of said shelves, all the shelves being preferably of glass; but while it is with the display of most goods preferred that the shelves should in their entirety be of glass, as shown in Fig. XII, so as to provide a more effective display, yet shelves may be made of any suitable material, or they may be made, as shown in Fig. II, of wood 18 or other suitable material at the back and of glass 15<sup>a</sup> in front.

When it is desired to adopt my overhanging shelf system in stores where the frames for ordinary shelving have already been erected, the upright partition-boards 19 can be effectively utilized after the removal of the common shelves between said partitions by the attachment of the horizontal shelf-supporting boards 20 (shown in Figs. V and VI) to said upright partitions. An intervening space equivalent to that of the channel-grooves 14, and so also marked, is left between said respective horizontal partition-boards 20 for the slide seating and support of the shelves. The said horizontal supporting-boards 20 are cut in front, as shown in Fig. V, with a concave increasing overhanging length, the one board above the other, so as to support the increasing width of the surmounting overhanging shelves and of the surmounting overhanging canopy above, or said

frontal line of said boards may be cut on a straight angle line, as shown in Fig. X. Otherwise vertical matched tongue-and-grooved partition-boards 21 may be used instead of the horizontal boards 20, as shown in Figs. VII and VIII, in which case cleats 22, secured to both said vertical matched boards and to the original vertical partition-board 19, both holds together said matched boards and secures them to said original partition-board, and said cleats support the shelves.

A mirror-glass plate 23 is inserted in the frames 24 at the back of such of the shelving whereon articles of especial display are exhibited, and the reflection of said mirror aids by reflecting light upon the objects, and by means of refraction brings into view objects out of the direct line of vision and also adds brilliancy to the display.

To make the most effective display of the goods on show and sale, my overhanging transparent shelving provides opportunities for artistic taste in the dressing of the shelves with the goods fully equal to that which can be exercised in dressing show-windows. (See lines of vision in Fig. II, passing over the narrow lower shelves and through the wide overhanging ones.) Thus articles of no great altitude that will not obstruct the view can be placed on the front part of the shelves and higher articles behind them. Then, after taking into calculation the transparency of the shelves, the dresser of the shelf provides for open avenues in the line of vision through the shelves themselves, the underhung narrow width of the lower shelves also offering facilities for an unobstructed view not only onto but over them and through their surmounting shelves; also, goods capable of suspension can suitably and effectively be hung in positions that will not obstruct the view. Again, the mirrors still further aid the view that has had given to it the special advantages of the overhanging construction of the surmounting shelves and their transparency, as said mirrors reflect the parts of the objects hid from view, and by means of both reflection and refraction bring to view objects out of the line of direct vision.

The most prominent goods displayed on the front of all the shelves by the concave frontal contour of the arrangement of said shelves provides about the same length of vision of the front display for the inspection of the customers. (See Fig. II.) It will also be seen that in my system of overhanging shelves each surmounting shelf protects those beneath and the goods displayed thereon from the injurious effects of settling dust, as also does the overhanging canopy that surmounts and projects beyond the whole system. Another advantage of this overhanging transparent-shelf system is that what would be otherwise waste room above the heads of the people is utilized by said wide outreaching upper shelves. Again, as the said shelves are transparent both the customers and clerks



can see the goods displayed through said upper shelves, because, in the first place, said shelves project beyond those beneath them, and in the second place the line of vision above which they are elevated is not barred by them, as it is by the usual opaque shelves when above the heads of the customers and clerks; but in my transparent overhanging shelves, however elevated, the eyes see through said shelves to the goods displayed thereon, as shown in Fig. II.

The system of overhanging transparent shelving may be duplicated at the back of the above-described shelving in the supplemental storage-room 7 to hold any required extra supply of goods in storage convenient for the clerks to find and handle.

I have shown (see Figs. III and IV) and described the horseshoe form of arranging my system of overhanging transparent shelving, because in said form the shelving is well braced and a good view can thus be obtained of the whole display by customers as they walk up the aisle along the exhibition-floor and view the display on the overhanging transparent shelves.

I have shown and described my overhanging transparent-shelf system as adapted for stores; but its use is not confined to stores, for it may be advantageously used in many other places. Light goods can also be stored and placed on exhibition on top of the canopy 16, that forms a broad overhanging shelf.

I claim as my invention—

1. In a shelf system for stores, &c., the combination of the overhanging transparent shelves so arranged that a line of vision passes over the display on the underhung lower shelves and through the overhung transparent shelves, substantially as and for the purpose set forth.

2. In a shelf system for stores, &c., the combination of the system of overhanging shelves in which each surmounting shelf is of increased width to that immediately beneath it and the overhanging canopy 16, the said shelving arranged to aid the view of the goods displayed thereon and preserve said goods from the intrusion of dust, substantially as and for the purpose set forth.

3. In a shelf system for stores, &c., the combination of the system of transparent overhanging shelves in which each surmounting

shelf is of larger width than that beneath, and said shelves being transparent a clear view is had over the subordinate shelves and through the overhanging surmounting shelves, the overhanging canopy above said shelves, and the shelving-counters 11 and drawers 12 beneath them, substantially as and for the purpose set forth.

4. In a shelf system for stores, &c., the combination of the shelving-counters 11, the divisional overhanging partitions 13, provided with the channel-grooves 14, the glass shelves 15, each succeeding surmounting shelf of which is of increased diameter, and the overhanging canopy 16, all arranged, as described, to aid the view of the goods displayed on said system of transparent overhanging shelves and to protect said goods from dust.

5. In a shelf system for stores, &c., the combination of the shelving-counters 11, the divisional overhanging partitions 13, the transparent glass shelves 15, each succeeding surmounting shelf of which is of increased diameter, the overhanging canopy 16, and the reflecting and refracting mirrors 23, all arranged to aid the view of the shelf-displays and to preserve said displays from dust, substantially as and for the purpose set forth.

6. In a shelf system for stores, &c., the combination of the exhibiting-floor 5, the main side counter, the semicircular end counter, the receptacles 10 for the display of exhibits, the shelving-counters 11, the divisional overhanging partitions 13, the overhanging transparent glass shelves 15, the overhanging canopy 16, and the reflecting and refracting mirrors 23, substantially as and for the purpose set forth.

7. In a shelf system for stores, &c., the combination of the exhibiting-floor 5, the main side and semicircular end counters, the shelving-counters 11, the supplemental storage-room 7, provided with entrances from the exhibiting-floor to said room, the overhanging partitions 13, the overhanging transparent shelves 15, the overhanging canopy 16, and the reflecting and refracting mirrors 23, substantially as and for the purpose set forth.

AUGUST REHBERGER.

In presence of—

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