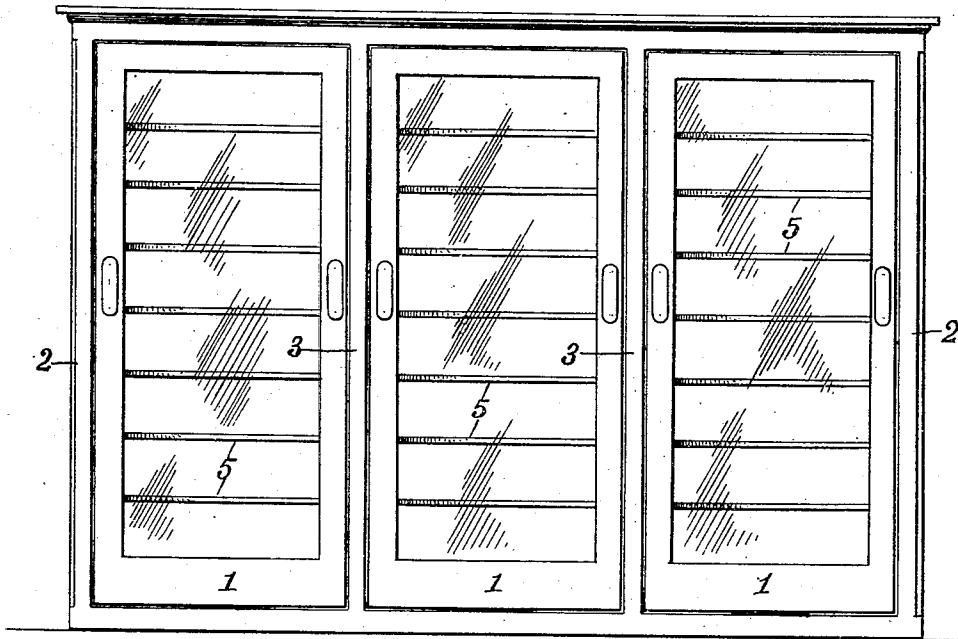


935,249.

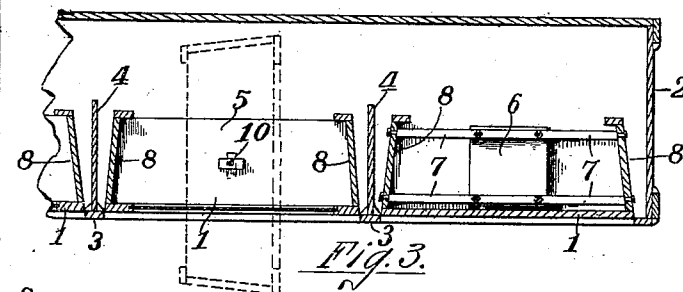
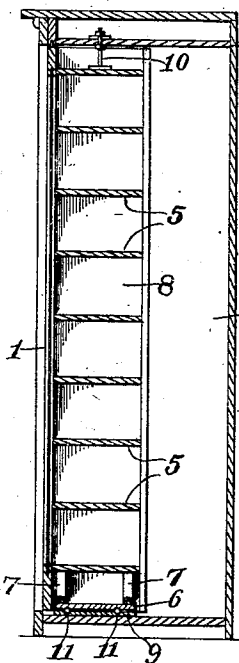
J. A. DOXTATOR.  
REVOLVING INCLOSED SHELVING.  
APPLICATION FILED FEB. 25, 1909.

Patented Sept. 28, 1909.

2 SHEETS—SHEET 1.

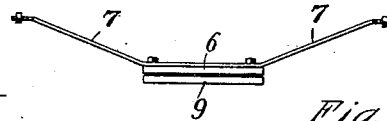


*Fig. 1.*

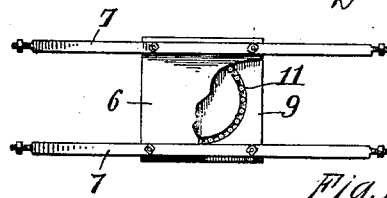


*Fig. 3.*

*Fig. 2.*



*Fig. 9.*



*Fig. 10.*

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2 SHEETS—SHEET 2.

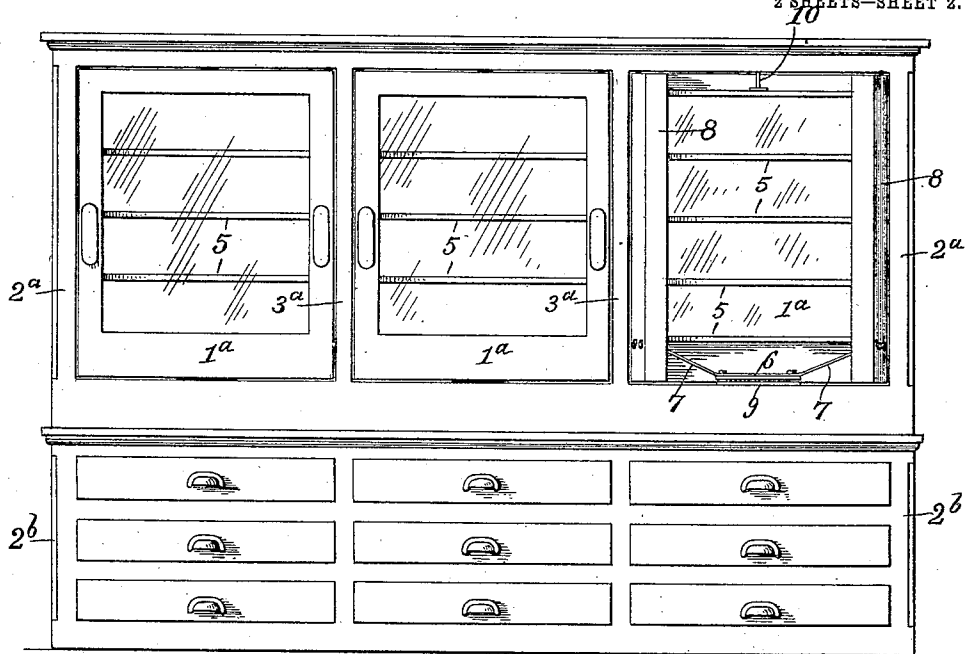


Fig. 4.

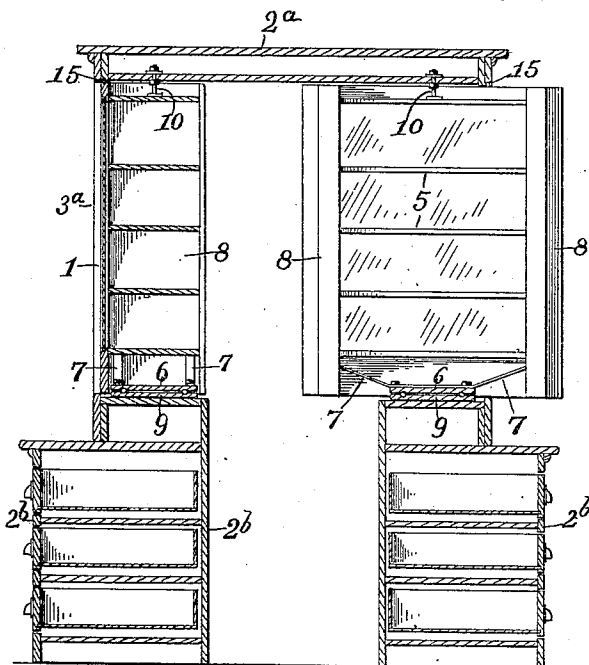


Fig. 5.

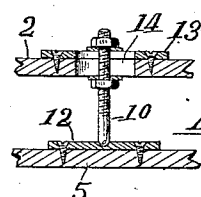


Fig. 6.

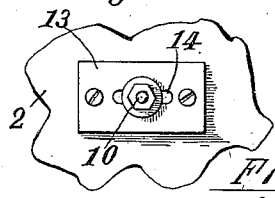


Fig. 7.

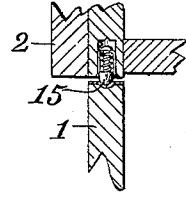


Fig. 8.

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# UNITED STATES PATENT OFFICE.

JOHN A. DOXTATOR, OF GRAND RAPIDS, MICHIGAN.

REVOLVING INCLOSED SHELVING.

935,249.

Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed February 25, 1909. Serial No. 479,857.

*To all whom it may concern:*

Be it known that I, JOHN A. DOXTATOR, a citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Revolving Inclosed Shelving; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in revoluble inclosed shelving and more particularly to shelving for stores, and other like establishments, an dits object is to provide a device in which the goods may be kept under cover of glass and be readily accessible for removal or sale as occasion may require, and to provide the device with various new and useful features, hereinafter more fully described and particularly pointed out in the claims.

My invention consists essentially of shelving divided vertically into short sections, each section being mounted as a separate structure and revoluble on a vertical axis, each section also being provided with a glass front; and also open at the back and having a series of superposed shelves, whereby the goods may be displayed through the glass front and kept under cover free from dust or other exposure and readily removed therefrom by turning a section upon its vertical axis as occasion may require. The sections are preferably mounted in a continuous case having pilasters between the respective sections of shelving.

My invention also consists in various novel features of construction and arrangement as will more fully appear by reference to the accompanying drawings, in which:

Figure 1. is a front elevation of a device embodying my invention; Fig. 2. a transverse vertical section of the same; Fig. 3. a horizontal section of the same in two different planes; Fig. 4. a modification of my device shown in front elevation with one section reversed; Fig. 5. a transverse section of the same. Fig. 6. an enlarged detail of the upper pivot in vertical section; Fig. 7. a plan view of the same; Fig. 8. an enlarged sectional detail of the spring stop; Fig. 9. an elevation of the bottom support or truss; and, Fig. 10. a plan view of the same partially broken away to show the ball bearing.

Like numbers refer to like parts in all of the figures.

1 represents a series of any convenient number of short sections of shelving arranged in line in a case 2. This case has a front opening corresponding to each section of the shelving, these openings being preferably separated by suitable pilasters 3. To further strengthen the case and support the top, I prefer to insert partial partitions 4 at the rear of each pilaster. Each section of shelving consists of any convenient number of superposed shelves 5 fixed in end supports 8, thus forming a suitable detached structure. Each section is also provided with a glass front through which the goods on the shelves may be viewed, and also mounted on a vertical axis and preferably supported at the bottom upon a truss provided with a ball bearing, which truss consists of upwardly diverging braces 7 attached to a revoluble plate 6, below which is a bed plate 9, and between these plates is arranged a circular series of balls running in circular grooves in the plates, whereby the section is supported and easily revolved about its vertical axis.

To adjust and steady the upper part of the section, a vertically disposed pivot pin 10 is adjustably mounted in the top of the case and engages a pivot plate 12 on the upper shelf 5. This pin is in line with the axis of the ball bearing below. To nicely adjust the section to fit properly between the pilasters at the front when closed, this pivot pin 10 is provided with clamping nuts and screw threads and is inserted in a slot 14 in the top of the case, which slot is reinforced by a slotted metal plate 15, as shown in Fig. 6.

To yieldingly hold the fronts of the sections in alinement, spring stops 15 of the usual construction are provided as illustrated in Fig. 8. The modified construction shown in Figs. 4 and 5 is intended mainly for arrangement in a store or other suitable location where double shelving can be used. In this construction, I have also shown a base portion 2<sup>b</sup> provided with drawers and a vertically reduced construction of the revoluble section 1<sup>a</sup> and a case 2<sup>a</sup> reduced to correspond. The device otherwise is substantially the same as heretofore described. Two series of these shelves with their cases are arranged back to back and properly

spaced apart as shown in Fig. 5, whereby an inclosed space therebetween is provided in which can be placed boxes or other packages of goods, and a person may also enter  
5 therein, thus providing a convenient place for marking and placing the goods upon the shelves without in any wise encumbering the store or interfering with the usual business therein. At the ends the space between  
10 these double cases may be inclosed in any convenient manner by any suitable door (not shown) and the top of the case also inclosed as shown in Fig. 5, if preferred, whereby the interior and space between the case will form  
15 a suitable inclosure to store surplus goods, or boxes, or other articles, as occasion may require.

Obviously the shelves may be displaced by any other convenient means of supporting  
20 goods, such as racks or bars as occasion may require; also various other modifications may be supplied without departing from my invention.

What I claim is:

25 1. A revoluble inclosed shelving, comprising a case having a series of alined front openings, partitions between said openings, and a back spaced apart from the partitions and shelves, superposed shelving vertically  
30 divided into short sections, each section being pivoted on a central axis, end supports for each section, a glass front on each section, and a circular series of balls supporting each section.

35 2. A revoluble inclosed shelving, comprising a case having a series of alined front openings, and a back spaced apart from the shelving, a series of short shelves opposite each opening, end supports to which the  
40 shelves are attached, a truss to support each series of shelves, a rotative plate supporting each truss and centrally pivoting the shelves, a base plate below each rotative plate, and a circular series of balls between each pair  
45 of plates.

50 3. A revoluble inclosed shelving, comprising a case having a series of front openings, pilasters between the openings, a series of short superposed shelves opposite each opening, a transparent front attached to each series of shelves and closing the respective openings, end supports attached to the shelves, a ball bearing support for each se-

ries of shelves, and a guide pin above each series of shelves.

55 4. A revoluble inclosed shelving, comprising a case having a front opening, a pilaster at each side of the opening, a series of short shelves opposite the opening, end supports for the shelves, inclined truss rods supporting the shelves, a rotative plate to which the  
60 truss rods are attached, a base plate below the rotative plate, a circular series of balls between the plates, and an adjustable guide pin in the top of the case engaging the upper  
65 shelf.

5. A revoluble inclosed shelving, comprising a series of short shelves, end supports and a transparent front fixed thereto, a bed plate beneath the same, a rotative plate above  
70 the bed plate, a circular series of balls between said plates, upwardly and outwardly diverging truss rods attached to the rotative plate and supporting the shelves, a vertically  
75 disposed guide pin above the shelves and in line with the axis of the series of balls, said guide pin being provided with nuts and adjustable in a slotted opening in the top of the case.

6. A revoluble inclosed shelving, comprising  
80 two cases arranged parallel and spaced apart back to back, each case containing a series of sections of short revoluble shelving mounted therein, said sections of shelving  
85 each having attached thereto a transparent front, and being open at the rear, and means for rotating each series of shelving about a vertical axis.

7. A revoluble inclosed shelving, comprising  
90 two cases having a series of front openings in the upper part and a series of drawers in the lower part, said cases being arranged back to back and spaced apart, the space therebetween being inclosed, a series  
95 of short sections of revoluble shelves mounted in each case, each section having a transparent front fixed thereto, and open at the rear, and means for revolving each section about its vertical axis.

In testimony whereof I affix my signature 100 in presence of two witnesses.

JOHN A. DOXTATOR.

Witnesses:

GEORGIANA CHACE,  
LUTHER V. MOULTON.