Sept. 27, 1932. W. H. MULLINS 1,880,147

SHOW WINDOW

Filed Sept. 8, 1930 4 Sheets-Sheet 1

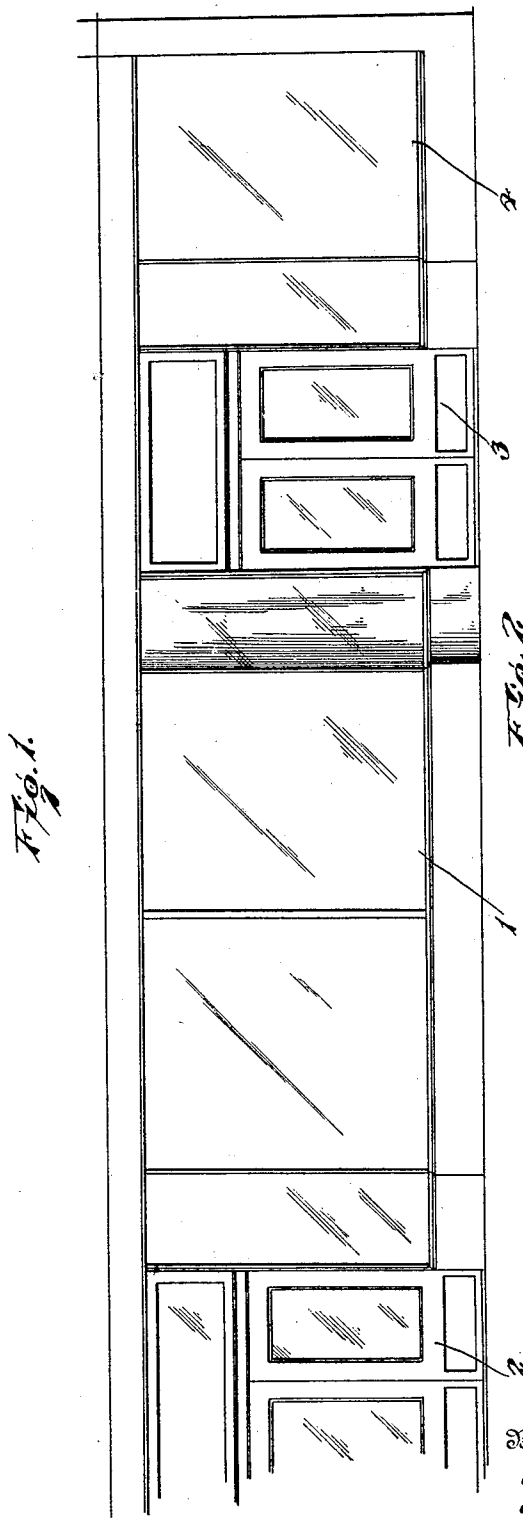


Fig. 1.

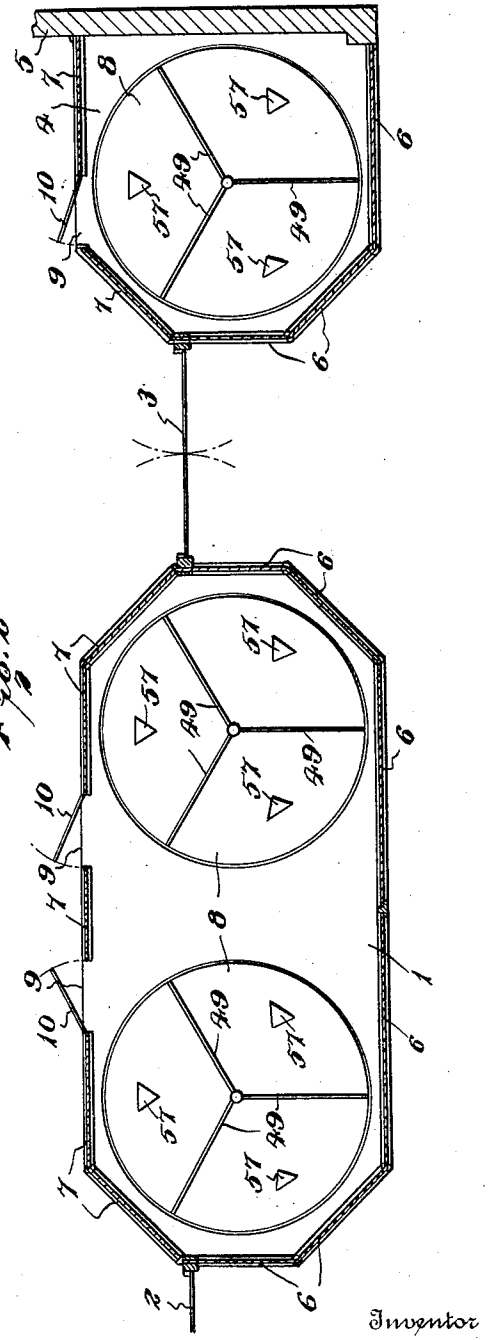


Fig. 2.

Inventor

W. H. Mullins.

By Lacey & Lacey,

Attorneys

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SHOW WINDOW

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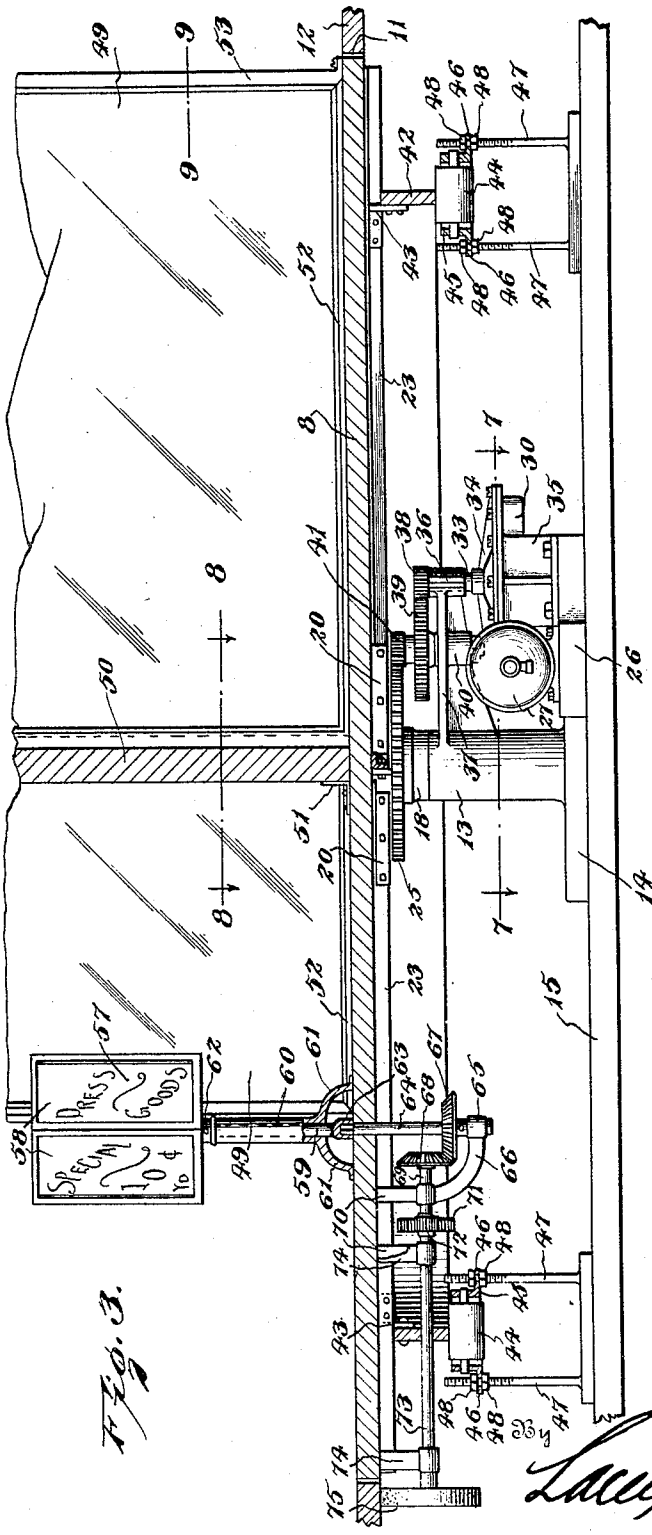


Fig. 3.

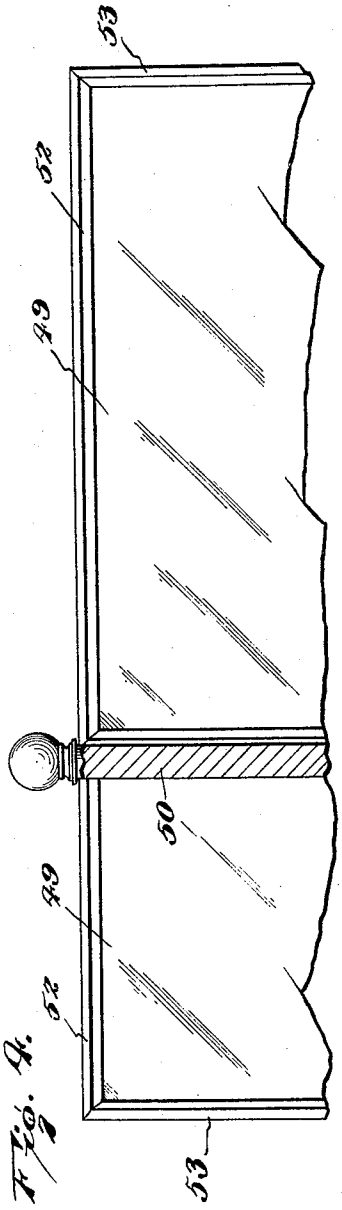


Fig. 4.

Inventor
W. H. Mullins

By Lacey & Lacey,
Attorneys

Sept. 27, 1932. W. H. MULLINS 1,880,147

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Fig. 5.

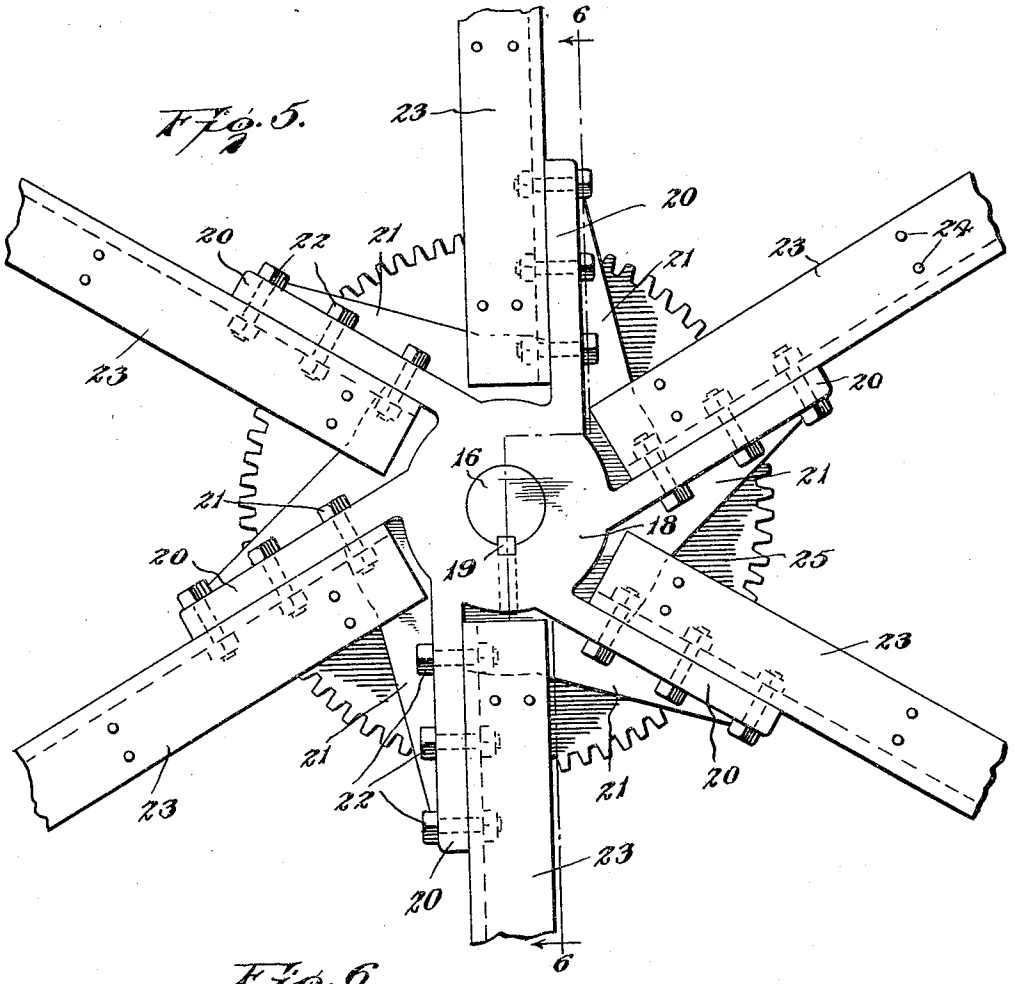
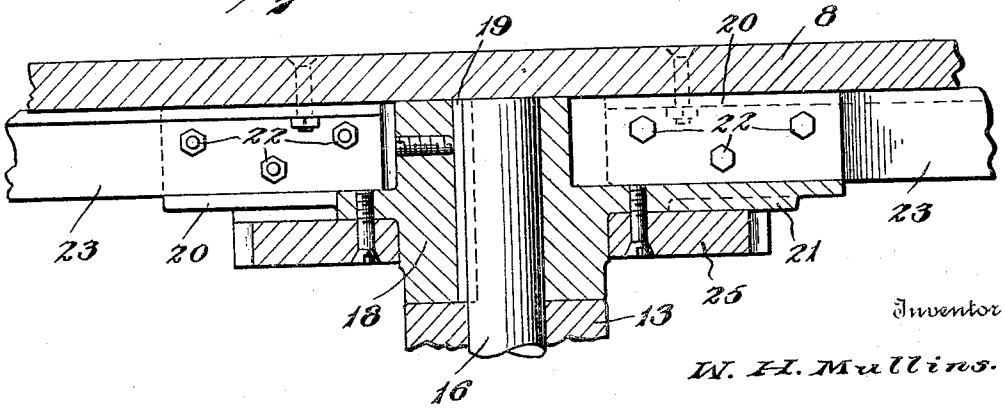


Fig. 6



Inventor

W. H. Mullins.

By Lacey & Lacey,

Attorneys

Sept. 27, 1932. W. H. MULLINS 1,880,147

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Fig. 7.

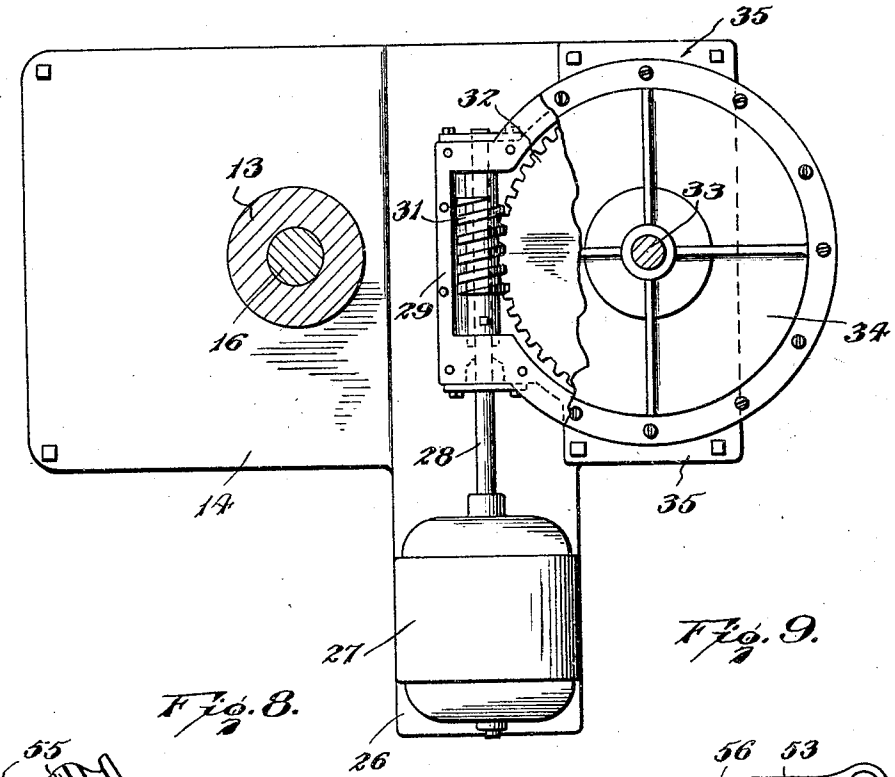


Fig. 9.

Fig. 8.

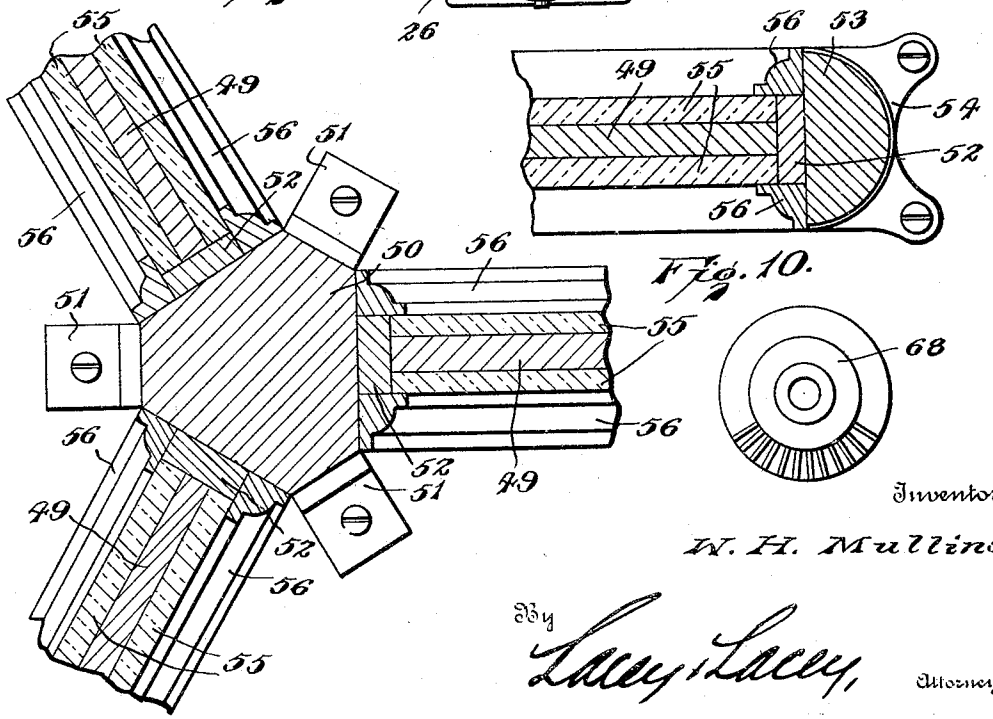


Fig. 10.

Inventor

W. H. Mullins.

By Lacey & Lacey,

Attorneys

Patented Sept. 27, 1932

1,880,147

UNITED STATES PATENT OFFICE

WILLIAM H. MULLINS, OF SOUTH BOSTON, VIRGINIA

SHOW WINDOW

Application filed September 8, 1930. Serial No. 480,539.

This invention relates to show windows and particularly to show windows of the type used for display purposes in stores. At the present time it is customary when erecting a show window of a store to have the rear or inner wall formed of solid construction. This has been found to be inconvenient as it very often happens that a customer will see a particular article in a show window and after entering the store cannot identify the article without walking out of the store with a clerk and showing the clerk the particular article desired.

Therefore, one object of the invention is to provide a show window having its inner walls transparent as well as its outer walls, thereby permitting articles in the window to be seen from within the store as well as from the street and permitting a customer to very easily show a clerk an article displayed in the show window.

Another object of the invention is to so form the show window that a portion thereof will project into the store, thereby increasing the depth of the show window and not only add to the attractive appearance of the window but also permit articles to be more effectively displayed.

Another object of the invention is to provide a show window having mounted therein one or more turntables which may be divided into sectors by vertically extending partitions carrying mirrors. By this arrangement different types of merchandise may be placed upon the turntable and since they will be reflected in the mirrors all portions of the merchandise may be viewed and in addition the impression may be given that a large number of the same type of articles have been placed in the show window.

Another object of the invention is to provide improved means for rotatably mounting the turntable and also improved means for imparting rotary motion thereto.

Another object of the invention is to equip the turntable with display stands which are rotatably mounted and will have rotary motion intermittently transmitted to them as the turntable moves. By this arrangement the display stands may be turned as the turntable moves in order that all portions thereof may be viewed by persons looking into the window and at the same time allow the stands to remain stationary a sufficient length of time for a person to obtain a good view of various articles supported by the stand.

The invention is illustrated in the accompanying drawings, wherein

Figure 1 is a view in elevation of a show window constructed in accordance with this invention, the view being taken outside a building,

Fig. 2 is a longitudinal sectional view taken horizontally through Fig. 1,

Fig. 3 is an enlarged vertical sectional view through one of the turntables taken longitudinally of the show window,

Fig. 4 is a fragmentary view of the upper portions of the partitions carried by the turntable, one of the partitions being shown in section,

Fig. 5 is a top plan view of the means for rotatably mounting the turntable,

Fig. 6 is a sectional view taken on the line 6—6 of Fig. 5,

Fig. 7 is a transverse sectional view taken on the line 7—7 of Fig. 3,

Fig. 8 is a sectional view through the partitions taken on the line 8—8 of Fig. 3,

Fig. 9 is a sectional view taken horizontally through the outer portion of one partition on the line 9—9 of Fig. 3, and

Fig. 10 is a view of a gear by means of which rotary motion is intermittently transmitted to the rotary display stand shown in Fig. 3.

The improved show window forms a portion of a store building, and by referring to Figs. 1 and 2 it will be seen that a large window 1 has been erected between the entrance 2 and 3 of the store and a smaller window 4 between the entrance 3 and the wall 5 of the building. Each of these show windows has its outer or street wall formed in the usual manner of glass panels 6 which may be flat or curved transversely according to the outline to be imparted to the window. The inner walls also consist of panels 7 which are formed of glass and, therefore, a person standing within the store may see

into the show window and if a clerk has trouble in identifying an article seen by the customer when standing outside the store the customer can show the article to the clerk from within the store instead of walking outside the store with the clerk. By referring particularly to Fig. 2, it will be seen that the show windows project into the store as well as outwardly therefrom, thereby imparting greater depth to the show windows and not only permits merchandise to be very effectively displayed but also permits relatively large turntables 8 to be mounted in the show windows. Entrances 9 are formed through the inner walls through which access may be had to the show windows and these entrances are normally closed by doors 10 which may be provided with glass panels so that they will be transparent or of a solid construction.

The turntables are of a duplicate construction and each is set into an opening 11 formed in the floor 12 of the show window in which it is located. The turntable is circular in shape so that it may rotate in the opening 11. In order to support the turntable, there has been provided a pedestal 13 which rises from a base 14 secured upon a suitable foundation 15 below the floor of the show window and in this pedestal is rotatably mounted a shaft 16 which projects upwardly from the pedestal. A spider 18 fits upon the upper end of the shaft 16 and is held firmly thereon by a key 19 so that the spider and shaft will rotate together. Suitable bearings for the shaft may be provided in the pedestal. This spider has arms 20 each of which extends at a tangent to the axis of the shaft and these arms are reinforced by webs 21 and formed with openings to receive bolts 22 by means of which bars 23 of angle metal are secured to the arms. By referring to Figure 5, it will be seen that the bars 23 extend radially of the shaft 16 and hub of the spider, and by referring to Figure 3 it will be seen that the bars are of such length that their outer ends terminate adjacent the marginal edges of the turntable. Openings 24 are formed in the horizontal flanges of the bars 23 to receive bolts or equivalent fasteners by means of which the turntable is to be secured upon the arms, and it will be understood that any number of the openings 24 may be provided according to the number of fasteners found necessary. The turntable may be of a solid construction but is preferably formed in sections or sectors each of which is removable and rests upon a pair of arms and is detachably secured thereto by fasteners which pass through the sections and through the openings in the horizontal flanges of the bars. A large gear 25 fits about the hub of the spider 18 below the arms 20 and may be firmly secured to the spider in any manner desired. By making the turntable in sections and detachably securing said sections to the horizontal flanges of the angle bars 23, any desired section may be readily removed to permit inspection of or repairs to the turntable rotating mechanism and other operating parts housed beneath the floor without the necessity of entirely removing the turntable and its associated parts.

Upon an extension 26 of the base 14 is mounted an electric motor 27, the shaft 28 of which extends towards the opposite side of the base, as shown in Figure 7, and is engaged through a side pocket 29 of a gear housing 30 and carries a worm 31 meshing with a worm gear 32 located within the gear housing and fixed upon a shaft 33 which projects upwardly through the cover 34 of the gear housing. Depending brackets 35 are provided at opposite sides of the gear housing and secured upon the base. The shaft 33 extends upwardly through a bearing 36 at the outer end of an arm 37 projecting radially from the pedestal and this shaft carries a small gear or pinion 38 meshing with a larger gear 39. The shaft of the larger pinion is rotatably mounted in a bearing 40 intermediate the length of the arm 37 and at its upper end carries a small gear or pinion 41 which meshes with the large gear 25. It will thus be seen that rotary motion will be transmitted from the motor shaft at a reduced rate of speed to the gear 25 and the turntable will rotate slowly.

In order to support the weight of the turntable and remove strain from the shaft 16, there has been provided a depending ring or track 42 which is secured against the lower edges of the vertical flanges of the bars 23 by brackets 43. This ring or track rests upon rollers 44 which are rotatably mounted in frames 45, and by referring to Figure 3 it will be seen that each frame has outstanding side flanges 46 having openings formed therein to recieve threaded stems 47. These stems carry nuts 48 between which the flanges 46 are disposed and by properly adjusting the nuts the frames 45 may be raised or lowered and firmly secured in set positions. Therefore, the rollers may be mounted for engagement by the lower edge of the ring or track 42. It will be understood that a single roller may be mounted in each frame or the frames formed of such length that two or more rollers may be carried by each frame.

Partitions 49 divide the turntable into sections corresponding to the sectors or sections of the floor of said turntable and while three partitions have been shown disposed respectively at the meeting edges of adjacent turntable sections it will be understood that any number desired may be used according to the number of turntable sections employed. These partitions extend from a post 50 rising from the center of the turntable and secured thereto at its lower end by brackets 51 attached to the turntable and lower end of

the post between the partitions. Each partition has a frame 52, the outer bar 53 of which has its lower end secured to the turntable by a base bracket 54 and against opposite faces of each partition are disposed mirrors 55 secured by bordering strips or beads 56. By this arrangement the turntable will be divided into sections of equal size and when articles placed on display in the show window are supported upon the turntable these articles will be reflected by the mirrors and thereby give the impression that a number of similar articles have been placed on display and in addition permit all sides of the article to be seen. Therefore, a very effective display will be provided.

In order to support articles, display stands may be set upon or carried by the sections of the turntable, and in the present illustration each section of the turntable carries a display frame 57 which is in the form of a triangular frame intended to carry signs, as shown at 58 in Figure 3. These signs refer to merchandise exhibited for sale and the frame 57 is provided with a shaft 59 rotatably received in a vertical sleeve or bearing 60 and having feet 61 which rest upon the adjacent section of the turntable. The frame is releasably secured to the upper end of the shaft by a set screw 62 and at its lower end the shaft is formed with a socket 63 to engage the squared upper end of a shaft 64 extending through an opening formed in the turntable and having its lower end engaged in the bearing 65 of a bearing bracket 66 carried by the turntable. Since the lower end of the shaft 59 is releasably engaged with the squared upper end of the shaft 64, the display frame may be bodily removed from the turntable when its use is not desired. A bevel 67 carried by the shaft 64 is engaged by a gear 68 carried by a shaft 69 journaled in bearing brackets 70 extending downwardly from the turntable and since the gear 68 is only formed with teeth for a portion of its circumference it will be seen that, while the shaft 69 may rotate continuously, rotary motion will be only intermittently transmitted to the shaft 64 and display frame. A gear or pinion 71 fixed upon the shaft 69 meshes with a smaller gear or pinion 72 fixed upon a drive shaft 73 rotatably mounted in bearing brackets 74 and this shaft 73 projects outwardly beyond the margins of the turntable and carries a disk 75 having its edge face contacting with the under face of the floor 12 of the show window. The edge face of the disk 75 is preferably faced with leather, rubber or any other material to cause frictional engagement with the under face of the floor 12, and it will be readily understood that as the turntable rotates rotary motion will be imparted to the drive shaft 73 and from this shaft to the shaft 69 at a reduced rate of speed. Therefore, the shaft 69 will rotate slowly as the turntable rotates but at a faster rate of speed than the gear 25 and as each section of the turntable moves into position where it may be seen by a person looking into the show window the display will be intermittently rotated. Therefore, a person looking into the show window will have an opportunity to see all of the signs carried by the display frame and since the display frame is only intermittently rotated it will remain stationary a sufficient length of time to permit the signs to be read.

Having thus described the invention, I claim:

1. A show window for a building having inner and outer walls of transparent material whereby contents of the window may be viewed from within and outside the building, a turntable in said window rotatably mounted, means below the turntable for imparting rotary motion thereto, a display device rotatably mounted and projecting upwardly from the turntable, and means to rotate said display device as the turntable rotates.

2. A show window for a building having inner and outer walls of transparent material whereby contents of the window may be viewed from within and outside the building, a turntable in said window rotatably mounted and divided into sectors by upstanding partitions, a display device projecting upwardly from each sector of the turntable and rotatably mounted, and means to intermittently rotate each display device as the turntable rotates.

3. In a show case, a flooring having an opening formed therein, a turntable in the opening of said flooring, partitions rising from said turntable and dividing the turntable into sections, means for rotating said turntable, a display device above said turntable rotatably mounted, and means to rotate the display device having a drive shaft extending beneath the floor of the show case and carrying a drive wheel bearing against the floor.

4. In a show case, a flooring having an opening formed therein, a turntable in the opening of said flooring, partitions rising from said turntable and dividing the turntable into sections, means for rotating said turntable, a display device rising from said turntable and rotatably mounted, and means to rotate the display device actuated by movement of the turntable.

5. In a show case, a flooring having an opening formed therein, a turntable in the opening of said flooring, partitions rising from said turntable and dividing the turntable into sections, means for rotating said turntable, a display device rising from said turntable and rotatably mounted, and means to intermittently rotate said display device during rotation of the turntable.

6. In a show case, a flooring having an

opening formed therein, a turntable in the opening of said flooring, partitions rising from said turntable and dividing the turntable into sections, means for rotating said turntable, a display device above said turntable and having a shaft rotatably mounted and extending through the turntable, a drive shaft rotatably mounted beneath the turntable with one end extending beneath the floor of the show case and carrying a friction drive wheel engaging the floor, a gear upon the first shaft, and means for transmitting rotary motion from the drive shaft to the first shaft having a segmental gear to engage the first gear and intermittently impart rotary motion to the display device.

7. A show case, a turntable in said case rotatably mounted, means for imparting rotary motion to the turntable, a display device rotatably mounted above said turntable, and means to rotate said display device as the turntable rotates.

8. A show case, a turntable in said case rotatably mounted, means for imparting rotary motion to the turntable, a display device rotatably mounted above said turntable, and means to intermittently rotate said display device as the turntable rotates.

9. A show case, a turntable in said case rotatably mounted, means for imparting rotary motion to the turntable, a display device rotatably mounted above said turntable, and means actuated by rotation of said turntable to impart motion to said display device as the turntable rotates.

10. A show case having a flooring, a turntable in said show case rotatably mounted, means for rotating said turntable, a display device rotatably mounted above said turntable, and means to impart motion to said display device carried by said turntable having a drive shaft carrying a drive wheel rotated by engagement with the floor as the turntable rotates.

11. In a show window, a flooring having an opening therein, a turntable in the opening of said flooring and comprising removable sections, partitions rising from said turntable at the meeting edges of adjacent removable sections and constituting mirrors arranged at an angle of 120° and dividing the turntable into sections corresponding to the removable sections, and means for rotating said turntable.

12. A show window, a turntable in said window rotatably mounted and formed of removable segmental sections, partitions rising from said turntable at the meeting edges of adjacent removable sections and extending radially thereof at an angle of 120° and dividing the turntable into sections corresponding to the removable sections, and means for rotating said turntable.

13. In a show window, a flooring having an opening therein, a spider disposed at the center of the opening and provided with radiating arms, supporting bars secured to said arms, a turntable supported by said arms and formed of segmental sections detachably secured to the arms, partitions rising from said turntable at the meeting edges of adjacent segmental sections and constituting mirrors arranged at an angle of 120° and dividing the turntable into sections corresponding to the segmental sections, and means for rotating the turntable.

14. In a show window, a flooring having an opening therein, a turntable in the opening of said flooring and comprising removable segmental sections, partitions rising from said turntable at the meeting edges of adjacent segmental sections and constituting mirrors, and means for rotating the turntable.

15. In a show window, a flooring having an opening therein, a spider disposed at the center of the opening and provided with radiating arms, angle bars secured to said arms and provided with horizontal flanges, a turntable supported by said bars and formed of a plurality of removable segmental sections, fastening devices extending through the removable sections and through the horizontal flanges of the angle bars, partitions rising from the turntable at the meeting edges of the adjacent segmental sections, mirrors secured to the partitions and disposed at an angle of 120°, frames surrounding the mirrors and secured to the partitions, and means for rotating the turntable.

In testimony whereof I affix my signature.

WILLIAM H. MULLINS. [L. S.]