United States Patent [19]

Surrette et al.

[11] **3,891,092**

[45] **June 24, 1975**

[54] **SUNGLASS DISPLAY STAND**

[75] Inventors: **Richard H. Surrette**, Hudson; **Alfred M. Braga**, Fitchburg, both of Mass.

[73] Assignee: **Foster Grant Co., Inc.**, Leominster, Mass.

[22] Filed: **Aug. 22, 1973**

[21] Appl. No.: **390,662**

[52] **U.S. Cl.** **211/13**; 211/163; 248/DIG. 2

[51] **Int. Cl.**[2] **A47F 7/00**; A47F 5/02

[58] **Field of Search** 211/13, 126, 163; 220/23.4; 312/107; 206/45.12, 45.14; 248/DIG. 2

[56] **References Cited**

UNITED STATES PATENTS

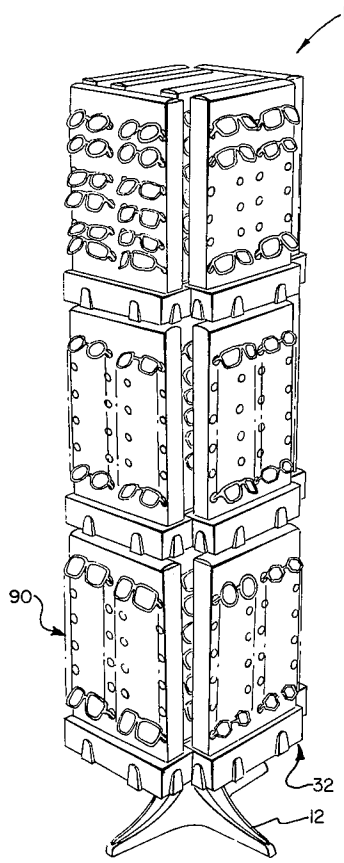
2,309,753	2/1943	Cowles	206/5 R X
3,351,208	11/1967	Siegel	211/13
3,452,880	7/1969	Kovacik et al.	211/163
3,502,226	3/1970	Marschak	211/163
3,701,079	10/1972	Bowden	220/23.4
3,704,792	12/1972	Wiese	211/126

Primary Examiner—Paul R. Gilliam
Assistant Examiner—Andrew M. Calvert
Attorney, Agent, or Firm—Leonard S. Selman

[57] **ABSTRACT**

A rotary display stand adapted to display a large number of sunglasses in an attractive manner and having a "strip-down" feature such that the rack holding capacity may be substantially reduced while avoiding an empty or unbalanced appearance. The rack is constructed of elements that can be connected together to increase rack capacity and then broken down later to reduce it, all done simply and quickly without requiring tools. Further, the rack employs display members which hold a dozen sunglasses in a unique manner. The entire display member is discardable when empty and a new display member is provided to refill the rack by reloading a dozen pair of sunglasses at one time.

26 Claims, 15 Drawing Figures



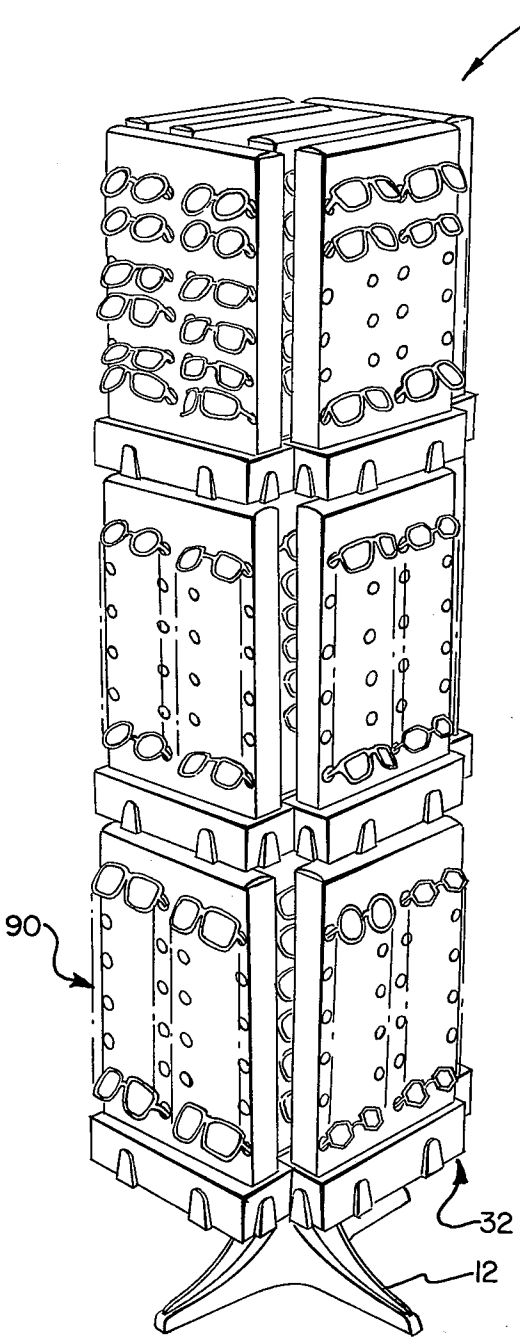


FIG. 1

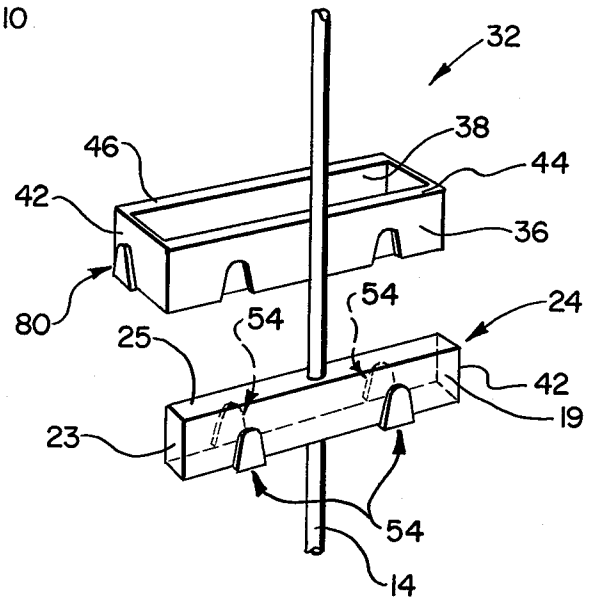


FIG. 3

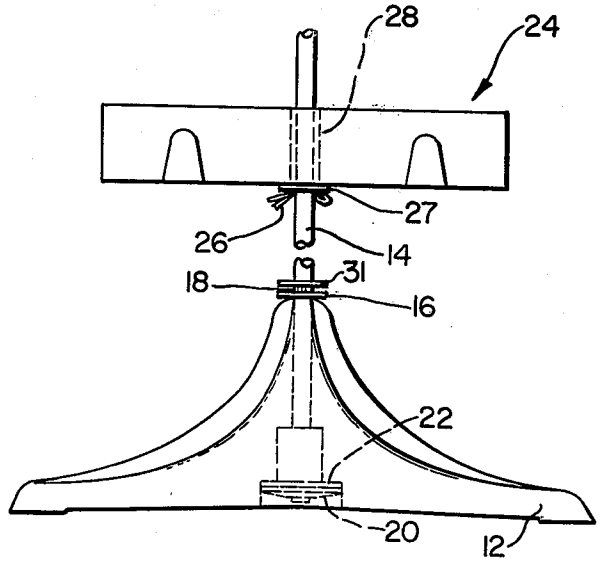


FIG. 2

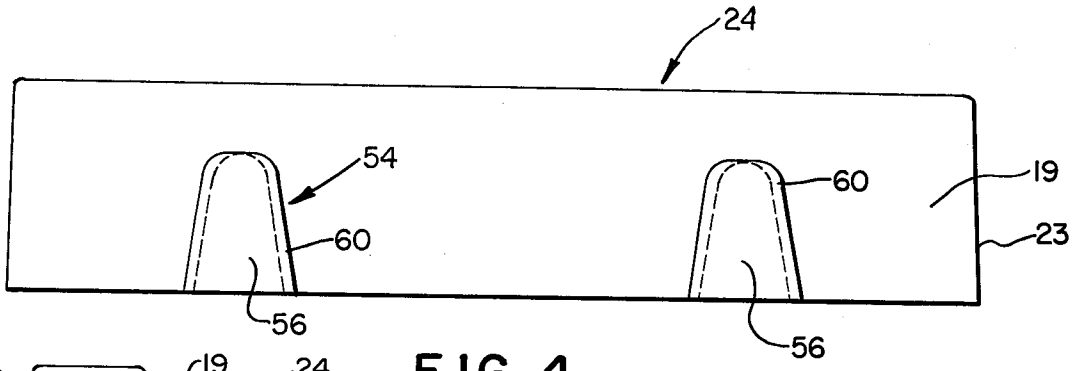


FIG. 4

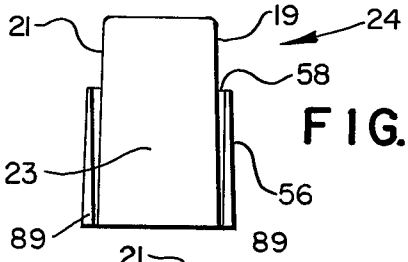


FIG. 5

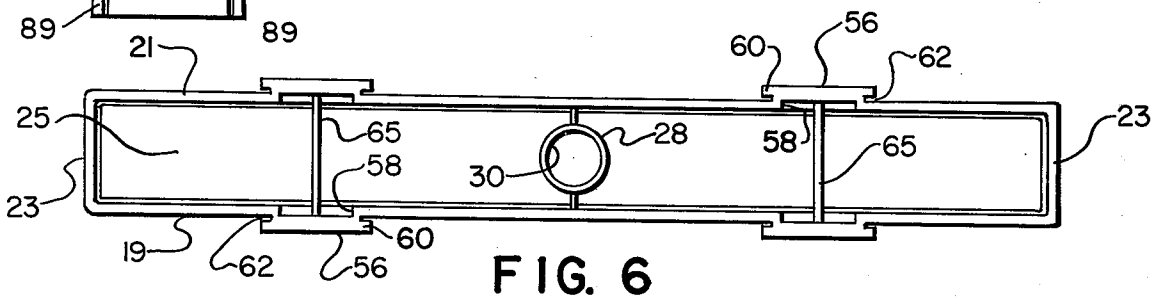


FIG. 6

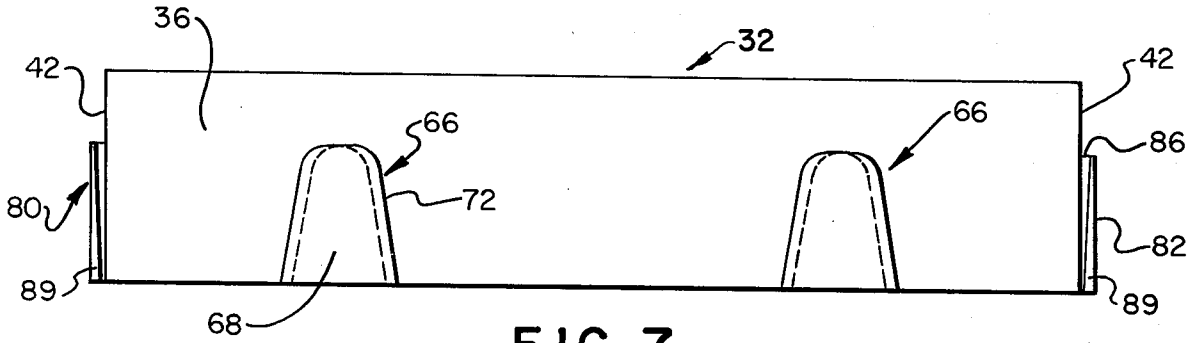


FIG. 7

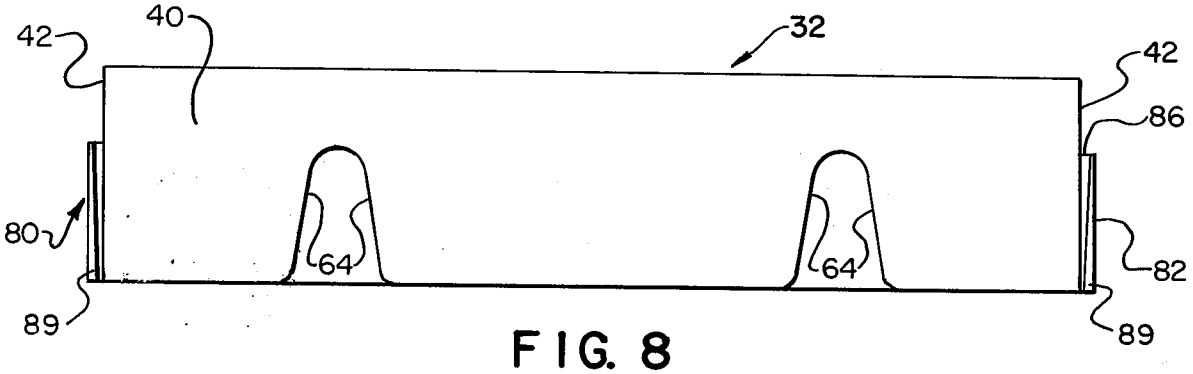


FIG. 8

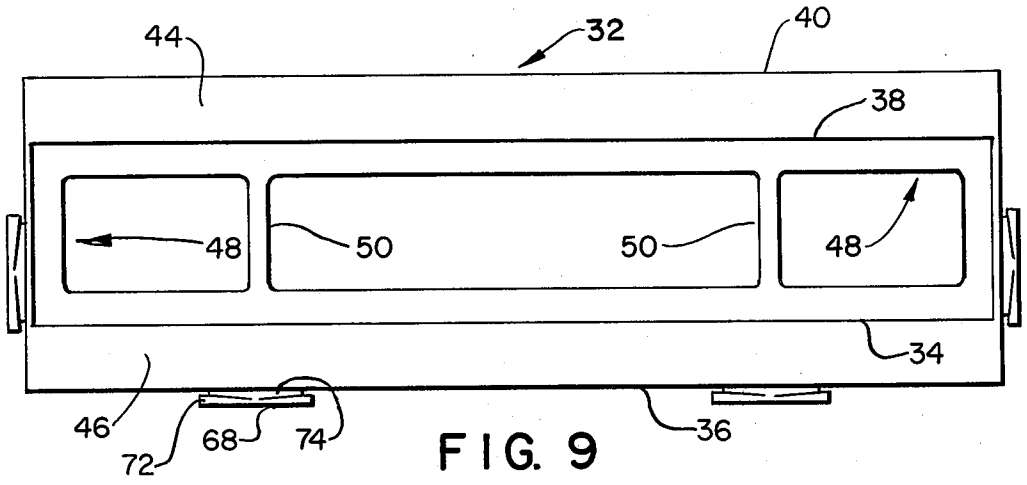


FIG. 9

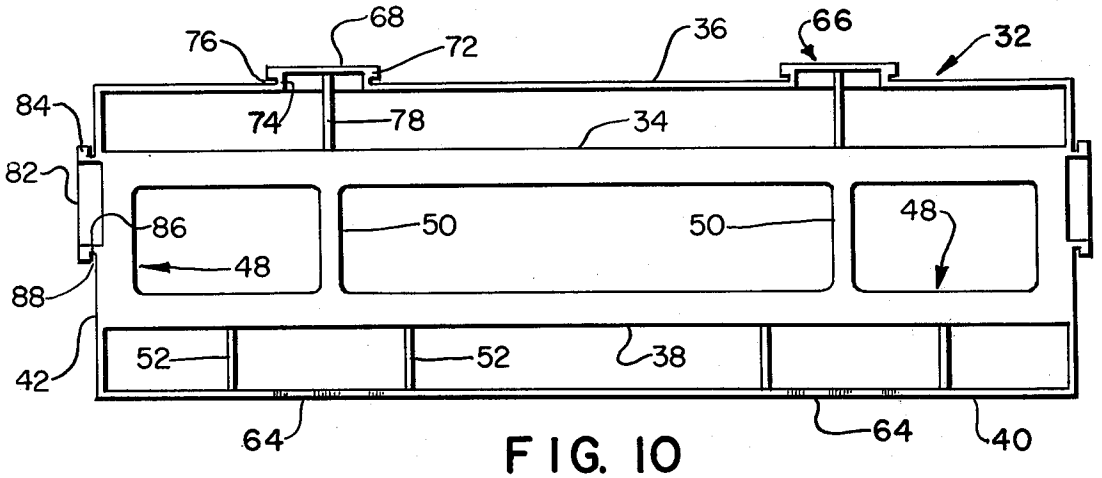


FIG. 10

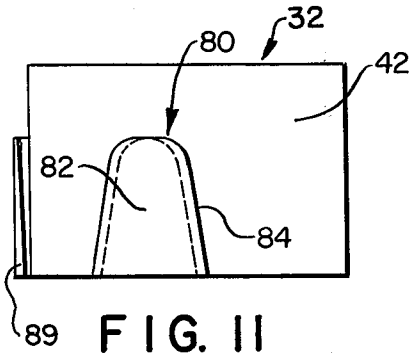


FIG. 11

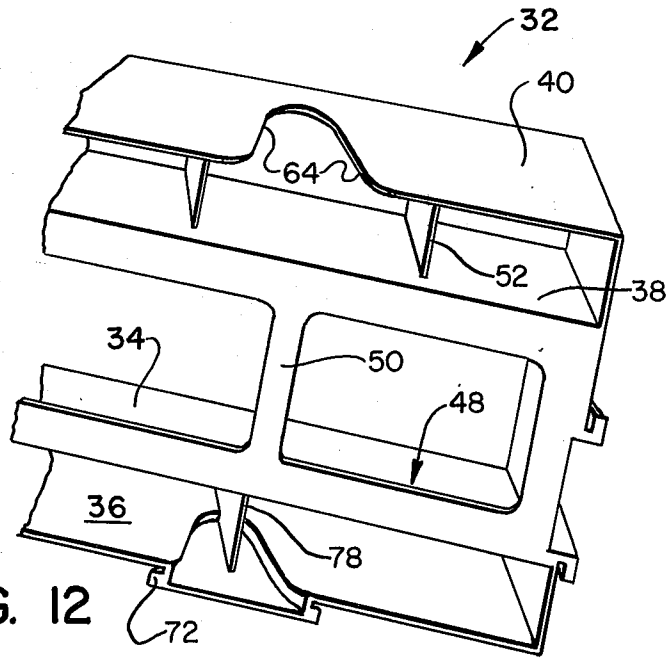


FIG. 12

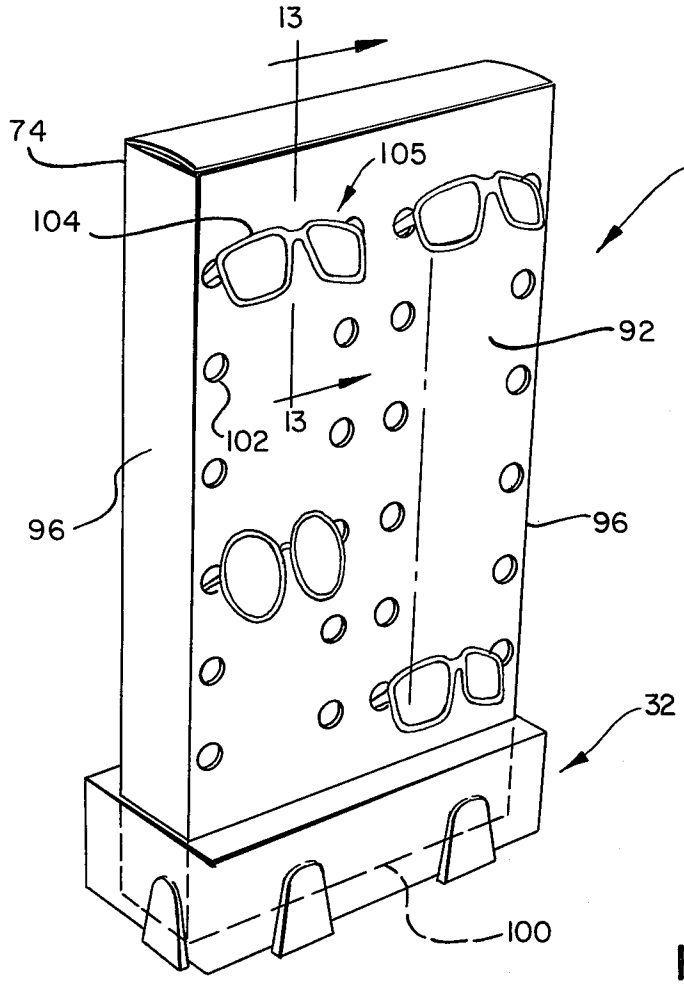


FIG. 13

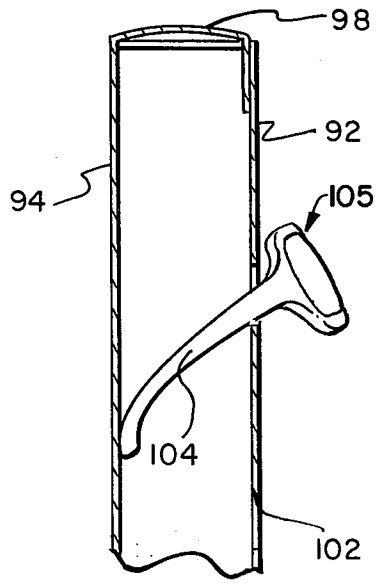


FIG. 14

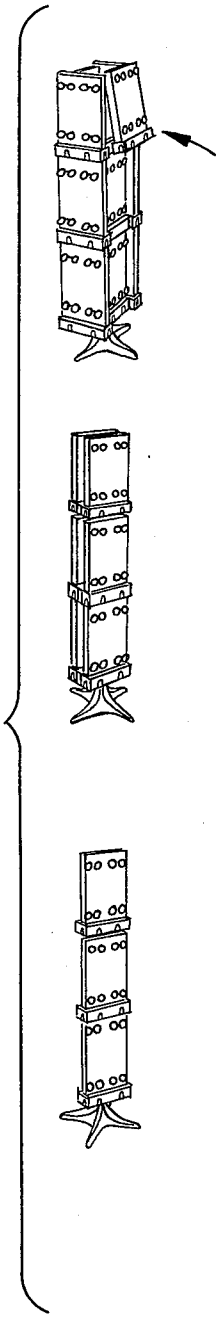


FIG. 15

SUNGLASS DISPLAY STAND

BACKGROUND AND OBJECTS OF THE INVENTION

This invention is directed toward a display stand for sunglasses for use in retail stores such as large supermarkets or variety stores. The stand has the primary purpose of displaying the sunglasses in an attractive manner but also must meet other requirements which are of great importance due to its utilization.

Among these requirements is the ability to carry a large number of sunglasses so that in a busy store where the turnover is high the stand does not need constant refilling. Further, if and when refilling is required it should be able to be accomplished quickly and easily. The stand must also be such that it can display the large number of glasses required without requiring an inordinate amount of floor space, since of course, display area in any store is limited and must be used as efficiently as possible. Another requirement, somewhat peculiar to sunglasses and perhaps other seasonal goods is the ability of the display to attractively hold and display a large quantity of goods in the Spring, for example, and a much smaller quantity of goods in the Fall when the consumer buying wanes. The display stand should accomplish this while maintaining its attractive appearance and avoiding an empty or unbalanced look with all the goods on one side or the other.

The display stand of the present invention is structured so that it meets all of the above requirements and does so in a simple and unique way. A most unique feature is its ability to change from a display rack holding for example as many as 18 dozen sunglasses to a rack holding 12 dozen, then 6 dozen and finally 3 dozen while it still has a "full-look." This is all accomplished without any tools, in a few seconds. Likewise refilling the rack is done quickly and simply by reloading a dozen pair of sunglasses at one time.

Thus it is an object of this invention to provide a versatile sunglass display rack which can hold and display relatively small or large numbers or sunglasses attractively.

It is a further object of this invention to provide a sunglass display rack that can be "stripped down" to a smaller display quickly and easily without tools.

It is a still further object of the invention to provide a sunglass display rack that can be refilled simply and quickly.

SUMMARY OF THE INVENTION

The foregoing and other objects are achieved in a sunglass display stand of the vertical rotary type. A pedestal base supporting the stand may rest on the floor or on a counter depending upon the size of the display. A shaft extends upwardly from the pedestal providing an axis for rotation. Rotatably mounted on the shaft is at least one rotary support member. Both front and back of the support members have attaching means provided thereon whereby a pair of holding members may be connected to the front and back, respectively. The holding members each support a sunglass display member which preferably hold a dozen sunglasses in a manner that they are easily removable to be tried on by the customer and can easily be returned to their display position.

The holding members which are attached to the front and back of the rotary support member each have further attaching means thereon whereby another holding means may be attached to it in front to back relationship so that a plurality of holding members may be connected together extending outwardly from said axial shaft in opposing directions. A sunglass display member holding a dozen sunglasses is supported by each of the holding members. When all of the dozen sunglasses are sold or removed from the display member, the empty member may be discarded and replaced by a new full display member.

When a plurality of holding members are connected in front to back relationship extending outwardly from the shaft in opposing directions as described it is also possible to connect a further pair of holding members each of which is bridged between or connects two other of the outwardly extending holding members. This provides a four sided display arrangement about the axial shaft. To connect these bridging holding members attaching means are provided on the side of each of the holding members also.

For a floor standing display as many as three of the rotary support members are spaced vertically on the axial shaft. Thus many dozens of sunglasses may be held for display in a full rack (i.e. 18 dozen). However, if one wants to reduce the size of the display he may, for example, strip it down so that only one or two holding members are connected to each rotary support member. Since each holding member holds a display member carrying a dozen sunglasses the rack can hold 3 or 6 dozen sunglasses, for example, and still present a well balanced full appearance.

Other objects and features of the invention will become apparent by reference to the following specification and drawings of the presently preferred embodiment.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of a full rotary sunglass display stand embodying the invention and holding eighteen dozen pairs of sunglasses.

FIG. **2** is a fragmentary view in elevation of the lower portion of display stand, showing the pedestal, vertical axial shaft and rotary support member mounted thereon.

FIG. **3** is a perspective fragmentary view showing a rotary support member mounted on the vertical axial shaft and a holding member about to be connected thereto.

FIG. **4** is a front elevational view of a rotary support member.

FIG. **5** is a side elevational view of a rotary support member.

FIG. **6** is a bottom plan view of a rotary support member.

FIG. **7** is a front elevational view of a holding member.

FIG. **8** is a rear elevational view of a holding member.

FIG. **9** is a top plan view of a holding member.

FIG. **10** is a bottom plan view of a holding member.

FIG. **11** is a side elevational view of a holding member.

FIG. **12** is a fragmentary rear bottom perspective view of a holding member.

FIG. **13** is a perspective view of a sunglass display member supported by its associated holding member.

FIG. **14** is an enlarged sectional view taken on line **14—14** of FIG. **13.**

FIG. 15 is an illustration of how the display stand may be stripped down to 12 dozen, 6 dozen and 3 dozen pairs of sunglasses.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the drawings and in particular to FIGS. 1 and 2 there is shown a rotary sunglass display stand 10 supported by a pedestal 12. Extending vertically upwardly from the pedestal is an axial shaft 14. The pedestal is attached to the axial shaft between a washer 16 held in place by several deformed portions 18 of the hollow shaft 14 and an end cap 20 which locks against an integrally formed ledge portion 22 of the plastic molded pedestal.

FIG. 2 of the drawing shows a plastic molded rotary support member 24 mounted on the shaft 14 for rotation at a predetermined height. The member 24, as also shown in FIGS. 3–6 includes a front wall 19, a back wall 21, a pair of end walls 23 and a top wall 25. The bottom of members 24 are left open to save material. The support member is mounted for rotation by means of a cotter pin 26 which extends through a small opening in shaft 14. Resting on the cotter pin is a large washer 27. The rotary support member 24 has an integrally molded bearing portion 28 which has its bottom portion 30 resting on the large washer. Thus the member 24 is free to rotate on top of the washer 26. In the construction of the display stand illustrated in FIG. 1, a total of three rotary support members 24 are utilized each supported on the shaft 14 for rotation as described above. The washer 31 shown in FIG. 2 supported by portions 18 may support a rotary support member 24 for rotation immediately above the pedestal 12, in the same manner as washer 27. The members 24 are spaced on the shaft 14 so that the members to be described which are connected to them will not interfere with one another when they are rotated about the shaft.

FIG. 3 shows one of the rotary support members 24 about to have connected thereto a holding member 32. The holding members 32 are illustrated in detail in FIGS. 7–12. Each holding member is identical and are preferably molded of a plastic material. By utilizing identical members the cost of the display stand can be kept at a minimum since a single plastic mold can be used to make all of such members. Also since all the holding members are interchangeable it is unnecessary to inventory and keep track of a great number of different parts.

Each holding member 32 as shown in FIGS. 3 and 7–12 includes a pair of inner and outer front walls 34 and 36, a pair of inner and outer back walls 38 and 40 and a pair of end walls 42. A pair of thin top portions 44 and 46 join the inner and outer front and back walls, respectively. A four-sided thin ledge 48 is located at the bottom of the inner walls 34 and 38 and end walls 42 and a pair of equally thin brace members 50 extend between two of the longer ledge members. This ledge is shown best in the top, bottom and perspective views, FIGS. 9, 10 and 12 respectively, of the holding member. Also shown in the bottom view FIG. 12, are a plurality of brace elements 52 extending between the inner and outer back walls 38 and 40 of the holding member 32.

It is now desirable to describe the structure utilized and explain how the holding members 32 are connected to the rotary support members 24. As shown in FIGS. 3, 4, 5 and 6 of the members 24 are provided for the purpose with attaching means which include a pair of integrally molded abutments 54 formed on the front and back wall portions thereof. Each of the identical abutments have a planar surface 56 which is displaced outwardly from the front and back wall portions and connected thereto by means of a short stem portion 58. At the edge of the surface 56 on each abutment is an undercut lip means 60 which extends along opposing side edges thereof which taper toward each other in an upward direction. Under each undercut lip means 60 is a slot 62 which is a portion of an interlocking means. A complimentary interlocking means is located on the back wall 40 of each of the holding members 32 in the form of a portion 64 of the outer back wall 40 which forms the periphery of a cutout portion, shown in FIGS. 11 and 15. As shown in FIG. 3 the holding members 32 are connected to both the front and back of the rotary support members 24 by sliding the portions 64 of each holding member into the slot 62 formed under each undercut lip means 60, from above. The cutout portions defined by the portions 64 on the back wall of the holding members are shaped so that the widest portion is at the bottom making it easy to slip the portions 64 under the inwardly and upwardly tapered undercut lip means 60. The portion 64 contacts stem portion 58 which serves as a stop means to limit the sliding movement of portion 64 under lip means 60. To strengthen the rotary support member 24 a pair of integrally molded brace member 65 extend between the planar abutment surfaces 56 of each pair of opposing abutments 54 located on the front and back walls of the support member.

Each of the holding members 32 has as attaching means a pair of abutments 66 on the outer front wall complimentary thereof which are identical to the abutments 54 just described. They include a planar wall 68 which has about it side edges undercut lip means 72 which taper toward each other in an upward direction. The surface 68 is displaced outwardly from the outer front wall 36 and connected thereto by means of a short stem portion 74. Under each undercut lip means 72 is a slot 76 which is a portion of an interlocking means. The portions 64 of the outer back wall 40 which form the periphery of the pair of cutout portions thereof serve as a complementary interlocking means. Thus two holding members 32 may be connected together in front to back relationship by sliding the portions 64 on the outer back wall of each holding member into the slots 76 formed under each undercut lip means 72. The stem portions 74 serve as stop means by contacting portions 64 to limit the sliding movement thereof under the lip means 72. To strengthen the holding member an integrally molded brace member 78 extends between the inner wall 34 thereof and the outer planar wall 68 of each abutment 66.

As shown in FIG. 14 further attachment means in the form of abutment means 80 are located on each of the end walls 42 of each holding member 32. These abutments are identical to abutments 50 and 66 already described and include an outer planar wall 82 which is defined at its opposing side edges with upwardly and inwardly tapering undercut lip means 84. The planar wall is connected to the end walls by means of a short stem member 86 and a groove 88 is located under said lip means 84 which serve as an interlocking means. These

end wall abutment means **80** engage with the complimentary interlocking means already described on the outer back wall of each holding member **32**, specifically the portion **64** which slips into the groove **88** under the lip means **84**.

The abutments **80** on the end walls **42** of the holding member are located thereon so that when a holding member **32** is connected to both the front and back of a rotary support member **24** the two abutments **80** will be spaced apart perfectly to interengage with a third holding member which can be connected between the previous two. The third holding member is connected by slipping the portions **64** surrounding the cutout portions on the back wall of the third holding member into the groove **88** under the lip means **84** of each of the end wall abutment means **80** of the two holding members to be bridged. Thus as shown in FIG. **1** by connecting holding members to each end wall of the holding members connected to the front and back of the rotary support member a four-sided display is provided.

Another feature of the invention relates to the attachment means and especially the undercut lip means **60, 72** and **84** located on the rotary support members **24**, the outer front wall of the holding members **32** and the end walls of the holding members **32**, respectively. As shown in FIGS. **5, 7, 8** and **11** the edge portions **89** of each of the lip means **60, 72** and **84** becomes wider in a downward direction thus causing the groove under each of the lip means to narrow. FIG. **12** illustrates how the portion **64** of the rear wall of the holding member **32** is wider at the top and narrows toward the bottom portion thereof. Thus when portions **64** is slid under one of the undercut lip means the narrow front edge of portion **64** will first enter the wide portion of the groove under the lip means allowing easy entry. As the portion **64** is slid further into the groove into its fully seated position, the dimensions of the elements are such that the portion **64** will encounter a snug friction fit against the walls of the groove. Thus once engaged the elements will not be accidently jarred loose by someone bumping into the stand, for example.

As shown in FIGS. **1** and **13** each holding member **32** supports a sunglass display member **90.** Each sunglass display member consists of a front panel **92** and a rear panel **94** joined by a pair of side panels **96.** In the preferred embodiment the display members **90** are made in the form of a cardboard box and includes top and bottom panels **98** and **100** also. The front panel **92** of the display member is provided with a dozen pairs of spaced apart openings **102** with six pair running down each side of the panel. The openings **102** are spaced apart a predetermined distance so that each opening may easily receive the temple **104** of a pair of sunglasses **105** to be displayed thereon.

An important feature of the sunglass display member is illustrated in FIG. **14** which illustrates how a pair of sunglasses is held in its proper display position in a most simple and convenient manner which requires a minimum of structure. This is accomplished by carefully spacing the rear panel **94** from the front panel a predetermined distance, i.e. 2¼ inches for a display member holding adult sunglasses. This structure is such that sunglasses may have their temples **104** inserted through openings **102** and by tilting the front frame portion **106** upwardly and the temples downwardly as shown in FIG. **6** the temples are frictionally engaged by the rear panel **94.** In this position the front frame portion **106** of the sunglasses are prevented from rotating downwardly and slipping from their upwardly tilted position and off said front panel.

The bottom portion of each sunglass display member **90** is received and supported by a holding member **32** as shown in FIG. **13.** The inner front wall **34** and inner rear wall **38** of the holding member are spaced so that the bottom portion of display member **90** is received therebetween with a snug friction fit. The display member **90** is manually inserted into the holding member and slid downwardly between walls **34** and **38** until the bottom panel **100** thereof contacts the supporting ledge **48** at the base of the holding member. The ledge **48** will then serve as a narrow supporting platform around four sides of the bottom panel **100.** When the display members are empty or near empty of sunglasses the remaining pairs may be transferred to another display member with places therefor and the old display member is then discarded and replaced by a new one holding another dozen pair. When stored or shipped the display member with the sunglasses in place are preferably wrapped in a clear plastic sheet material for protection and ease of handling.

To assemble the display, as shown in FIG. **1** for example, one begins with a unit consisting of the pedestal **12,** the axial shaft **14** upstanding therefrom and three rotary support members **24** mounted for rotation, as previously described, in vertically spaced relationship to each other on the shaft. By means of the attachment means described a holding member **24** is then connected to the front and rear walls of each rotary support member. The next step is to connect a further holding member **24** to the outer front walls of each of the already connected holding member using the attachment means described. Thus there is a pair of holding members extending outwardly from each of the front and rear walls of each rotary support member. Finally utilizing the end wall attachment means described a holding member is connected between each of the end walls of the pair of holding members connected to the front and rear walls of the rotary support member resulting in the four-sided arrangement shown in FIG. **1.** Each holding member has a sunglass display member inserted therein which holds a dozen pair of sunglasses and thus a total of 18 dozen sunglasses are included in the display just described.

The strip-down feature of the invention is illustrated in FIG. **15** which from top to bottom illustrates the reduction in sunglasses displayed from 12 dozen to 6 dozen and finally to 3 dozen. In each instance no tools are required since the engaging elements of the interlocking means on the holding members and rotary support members are easily slipped apart. The display maintains its full and balanced look all the way down from 18 dozen as shown in FIG. **1** to the 3 dozen as shown in FIG. **15.**

The terms front and rear and upwardly and downwardly as used in the above description refer to the orientation of the elements of the display stand as illustrated in the drawings.

Thus it is clear from the above description that the sunglass display stand as described will fulfill the objects of the invention as stated and incorporates many features and advantages not heretofore known in such devices.

We claim:

1. A rotary display stand for sunglasses comprising:

a pedestal;

an axial shaft extending substantially vertically upwards from said pedestal;

at least one rotary support member rotatably mounted on said axial shaft, said support member having opposing front and rear walls and a bearing portion supporting it on said shaft for rotation;

at least one holding member removably connected to one of said walls of said rotary support member; and

a sunglass display member removably supported by said holding member, said display member including means for removably displaying a plurality of sunglasses thereon.

2. The rotary display stand of claim **1** wherein each of a pair of holding members are selectively connected to opposing front and rear walls of said rotary support member and a sunglass display member is supported by each of said holding members.

3. The rotary display stand of claim **2** wherein each of said holding member has another holding member connected thereto so that a plurality of holding members are connected together extending outwardly from said axial shaft and a sunglass display member is supported by each of said holding members.

4. The rotary display stand of claim **3** including at least two other holding members each of which are connected between two other of said holding members extending outwardly from said axial shaft and a sunglass display member supported by each of said holding members to provide for displaying said sunglasses in a four-sided arrangement about said shaft.

5. The rotary display stand of claim **1** wherein said display member comprises:

a front panel having a plurality of pairs of spaced apart openings through which the pairs of temples of each pair of sunglasses or spectacles extend rearwardly;

a rear panel connected to said front panel and spaced therefrom a predetermined distance so that the temples of each pair of sunglasses frictionally bear against said rear panel; whereby the pairs of sunglasses or spectacles are supported on the display members with the temple portions each extending through an opening and tilted downwardly with respect to the upwardly tilted front frame of said sunglasses and the front frames are prevented from rotating downwardly and slipping from said upwardly tilted position and off said front panel by the frictional contact of said temple portions with said rear panel.

6. The rotary display stand of claim **1** wherein said rotary support member includes attaching means for connecting one or more of said holding members thereto, each of said attaching means comprising an interlocking means which slideably engages and interlocks with a complimentary interlocking means on each of said holding members.

7. The rotary display stand of claim **6** wherein the interlocking means on said rotary support member comprises an undercut lip means which interlocks with a portion of each holding member which slides under said undercut lip means in engaging relationship therewith.

8. The rotary display stand of claim **7** wherein said interlocking means are located on the opposing front and rear walls of said rotary support member.

9. The rotary display stand of claim **7** wherein said undercut lip means form the edge of at least one abutment extending outwardly from said front wall of said rotary support members, the abutment being connected to said front wall by a stem member.

10. The rotary display stand of claim **9** wherein a pair of abutments extend outwardly from said front wall of said rotary support member.

11. The rotary display stand of claim **7** wherein said undercut lip means comprise portions which are inclined toward each other in an upward direction to facilitate the sliding thereunder of the portions which engage therewith.

12. The rotary display stand of claim **9** wherein said interlocking means includes a stop means limiting the sliding movement of the portions under the undercut lip means.

13. The rotary display stand of claim **12** wherein said undercut lip means and said portion which slides thereunder are configured to provide a snug friction fit in their fully engaged position to prevent their accidental disengagement.

14. The rotary display stand of claim **6** wherein each of said holding members have outer front and rear walls and interlocking means are located on said outer front and rear walls whereby said holding members may be connected to said rotary support members or connected together.

15. The rotary display stand of claim **14** wherein said interlocking means on said outer front wall of said holding members comprise an undercut lip means and the interlocking means on the outer rear wall of said holding members comprises a portion which slides under such an undercut lip means in engaging relationship therewith.

16. The rotary display stand of claim **15** wherein said undercut lip means form the edge of at least one abutment extending outwardly from said outer front wall of said holding members, the abutment being connected to said front wall by a stem portion.

17. The rotary display stand of claim **16** wherein a pair of abutments extend outwardly from said front wall of said holding members.

18. The rotary display stand of claim **15** wherein said undercut lip means comprise portions which are inclined toward each other in an upward direction to facilitate the sliding thereunder of the portions which engage therewith.

19. The rotary display stand of claim **18** wherein said interlocking means includes a stop means limiting the sliding movement of the portions under the undercut lip means.

20. The rotary display stand of claim **19** wherein said undercut lip means and said portion which slides thereunder are configured to provide a snug friction fit in their fully engaged position to prevent their accidental disengagement.

21. The rotary display stand of claim **14** wherein interlocking means are located on each of the end walls of each of the holding members whereby a holding member may be connected to the end walls of each of a pair of holding members.

22. The rotary display stand of claim **21** wherein said interlocking means on said end walls of said holding members comprises an undercut lip means which interengage with portions on the outer back wall of another

such member which slide under said undercut lip means.

23. The rotary display stand of claim **1** wherein as many as three rotary support members are rotatably mounted spaced vertically on said axial shaft.

24. In combination:

a holding member for supporting a sunglass display member in display position on a sunglass display stand, said sunglass display member comprising:

a front panel having a plurality of pairs of spaced apart openings through which the pairs of temples of each pair of sunglasses or spectacles extend rearwardly;

a rear panel connected to said front panel and spaced therefrom a predetermined distance so that the temples of each pair of sunglasses frictionally bear against said rear panel; whereby the pairs of sunglasses or spectacles are supported on the display members with the temple portions each extending through an opening and tilted downwardly with respect to the upwardly tilted front frame of said sunglasses and the front frames are prevented from rotating downwardly and slipping from said upwardly tilted position and off said front panel by the frictional contact of said temple portions with said rear panel.

25. A rotary sunglass display for holding and displaying a large number of pairs of sunglasses at one time and a greatly reduced number of another time in an attractive manner comprising:

a plurality of sunglass display members each holding a plurality of sunglasses thereon,

a holding member for each display member to hold it in display position, said holding members including attachment means for selectively connecting each to the other in groups on said rotary display, whereby smaller or large groups may be utilized to determine the number of sunglasses to be displayed,

a plurality of rotary support members having attachment means for connecting to certain of said holding members to support said groups for rotation about a central axis,

a vertically extending axial shaft upon which said rotary support members are rotatably mounted; and

a pedestal supporting said axial shaft.

26. The rotary sunglass display stand of claim **25** wherein each of said holding members and said rotary support members are substantially identical.

* * * * *