Dec. 16, 1952 W. E. TEICH 2,621,429

DISPLAY DEVICE

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Fig. 1.

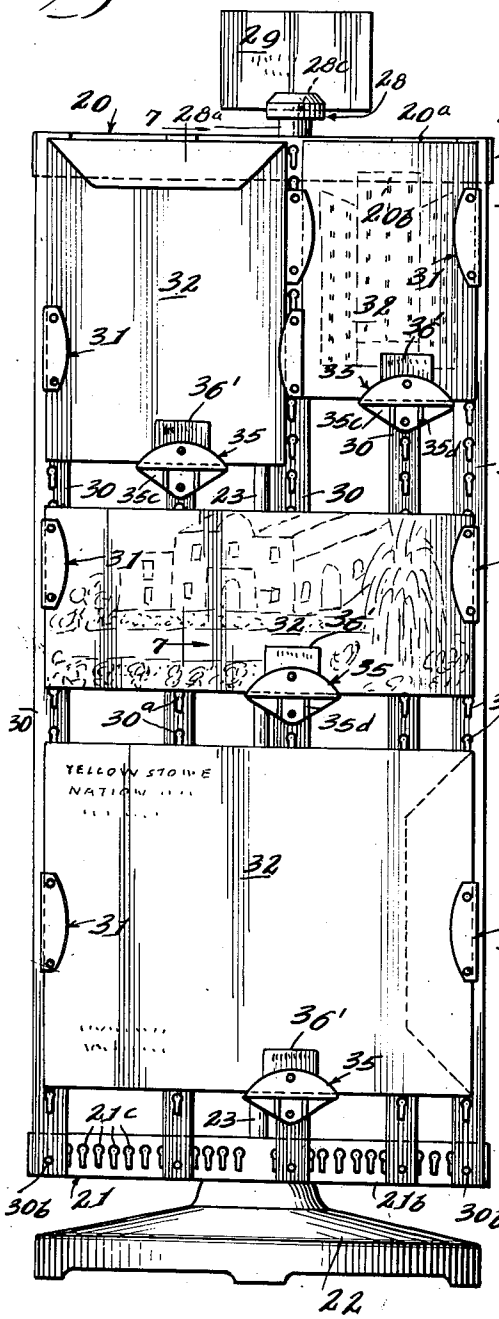
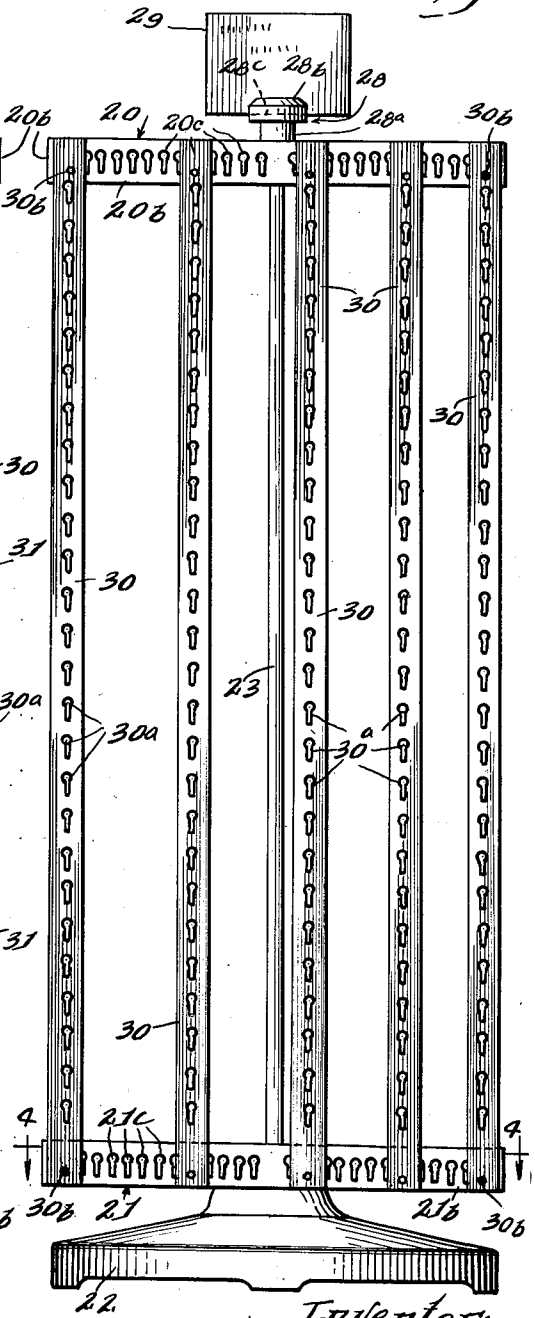


Fig. 2.



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DISPLAY DEVICE

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Fig. 3.

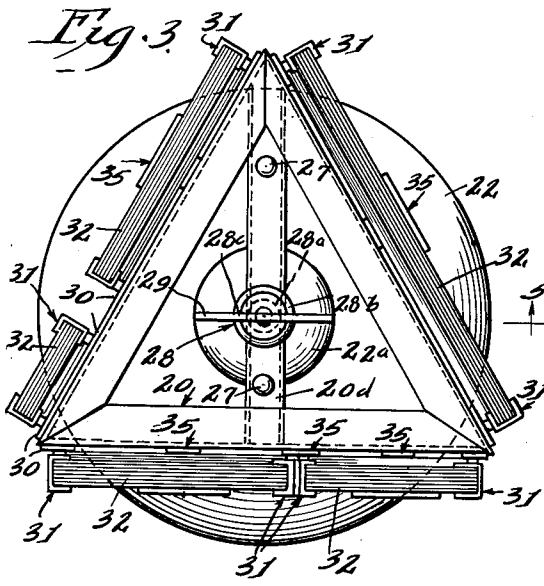


Fig. 4.

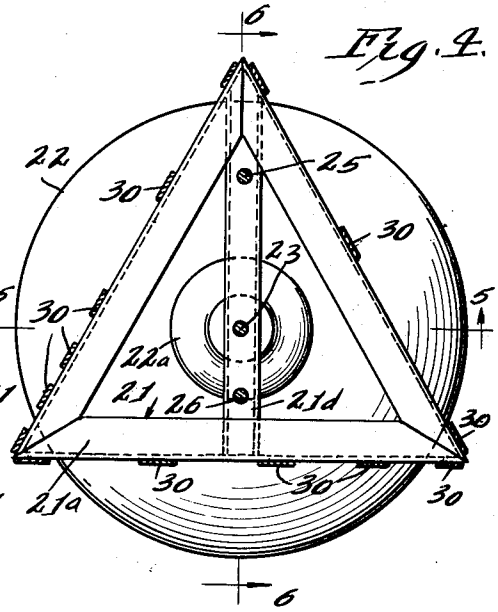


Fig. 5.

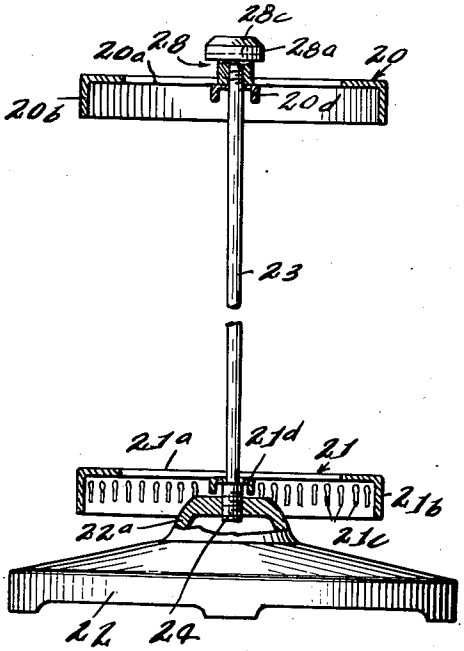
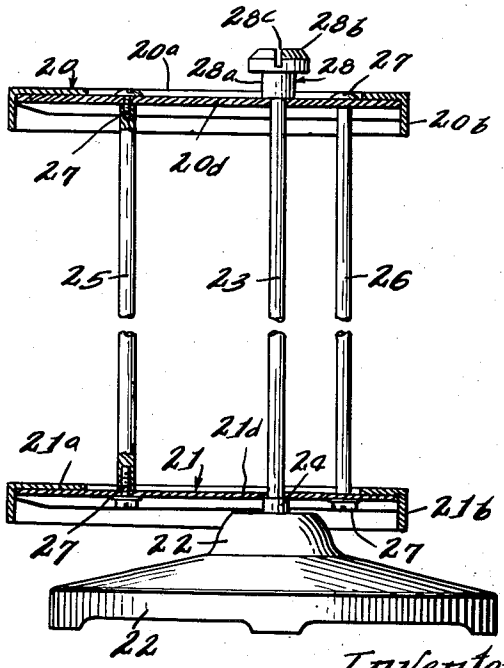


Fig. 6.



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DISPLAY DEVICE

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Fig. 7.

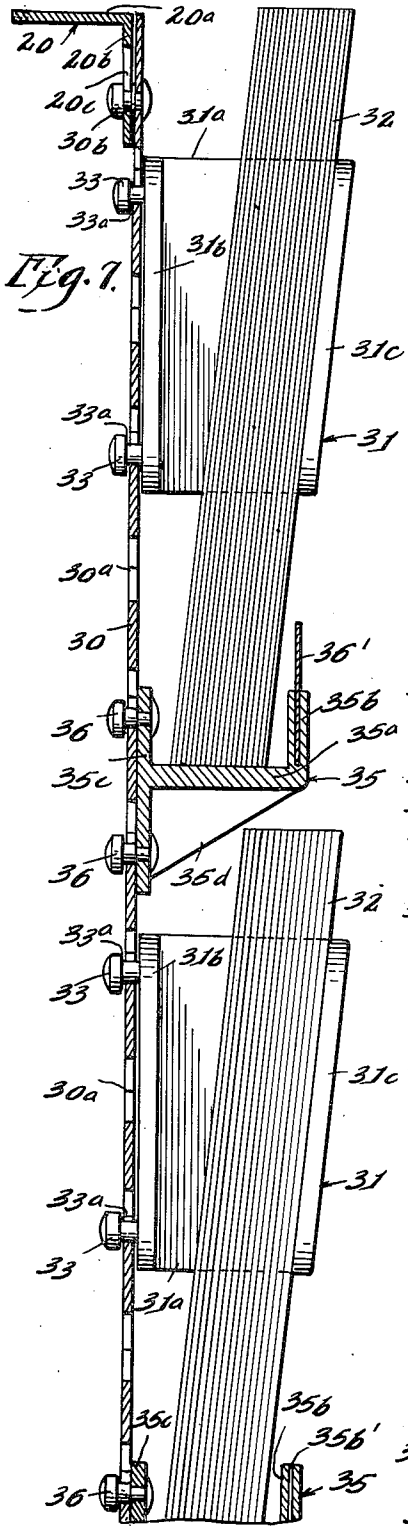


Fig. 8.

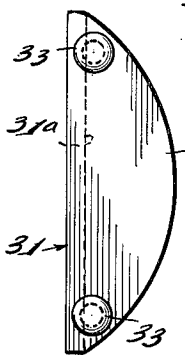


Fig. 9.

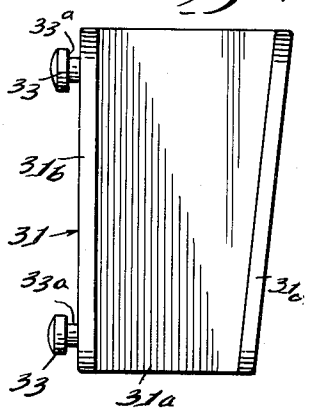


Fig. 10.

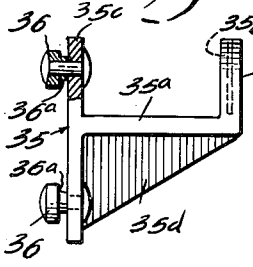


Fig. 11.

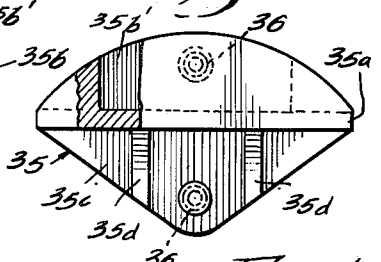


Fig. 12.

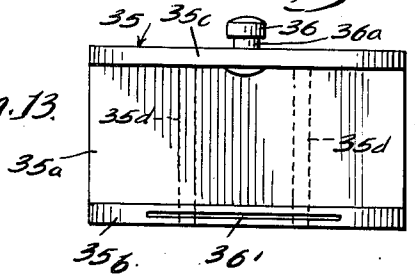
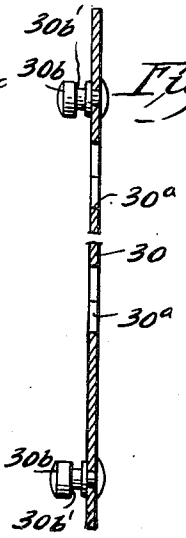


Fig. 13.



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Fig. 14.

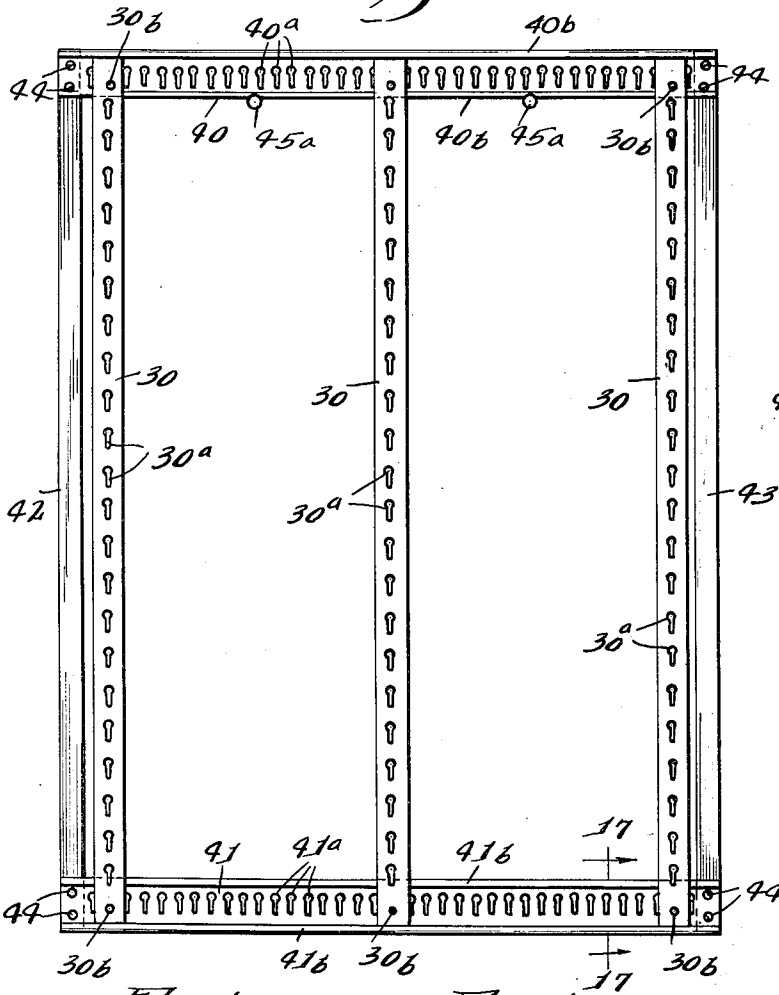


Fig. 15.

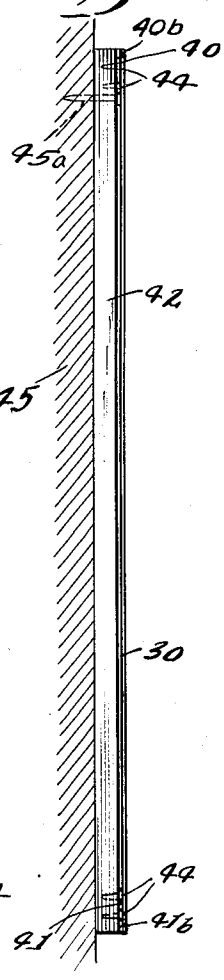


Fig. 16.

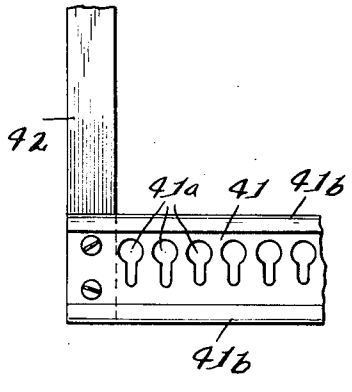
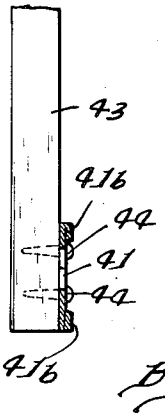


Fig. 17.



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Patented Dec. 16, 1952

2,621,429

UNITED STATES PATENT OFFICE

2,621,429

DISPLAY DEVICE

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Application February 11, 1949, Serial No. 75,782

11 Claims. (Cl. 40—68)

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This invention relates to a display device, and more particularly to a display device having readily adjustable means for holding different size display items in different positions.

While there have been many display devices for holding display items such as picture postcards and souvenir folders of various types and sizes, all of these devices known to the art have had fixed pockets or other holding means so that it has not been possible readily to modify the size and vertical or horizontal location of the holding means in order to permit the device to be utilized for all different sizes and types of display items.

One feature of this invention is that it provides an improved display device wherein the position and arrangement of the means for holding the display items are readily changeable so that said means are adapted to hold different types and sizes of items in various desired arrangements; another feature of the invention is that it provides a plurality of supporting strip members mounted to extend vertically between corresponding points on two spaced frame members, at least one of said strip members being readily movable horizontally to different positions to permit ready adjustment of the width of the display item holding means; a further feature of the invention is that it provides means for holding display items on the strip members, such means being readily movable and being attachable to the vertical strip members at a plurality of points along the length thereof; an additional feature of the invention is that it provides openings and complementary studs on the respective frame and strip members providing means for mounting the strip members in a plurality of positions; yet another feature of the invention is that the openings are in forms of slots with portions of different width and the studs are provided with notched heads for readily removably engaging such slots; still another feature of the invention is that the strip members are provided with a longitudinally extending row of slots having portions of different width and the means for holding the display items comprise a plurality of side-holding brackets having studs adapted readily removably to engage the slots and at least one bottom-holding bracket having studs adapted to engage the slots; yet a further feature of the invention is that there is a pair of studs on each bracket spaced to engage a pair of slots and each stud has an annularly notched head; still an additional feature of the invention is that the side-holding brackets are constructed to dispose said display

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items at an angle to the plane of the supporting strips; and still another feature of the invention is that each bottom-holding bracket has a vertical fin with a guiding edge extending angularly from adjacent the supporting strip for guiding the display items, and said bottom-holding bracket may have a narrow slot for carrying a thin sheet member.

Additional features and advantages of the invention will be apparent from the following description and from the drawings in which:

Fig. 1 is a side elevational view of a display device constructed in accordance with the invention;

Fig. 2 is a view similar to Fig. 1 but with the display items and the brackets for holding the items removed;

Fig. 3 is a top plan view of the apparatus of Fig. 1;

Fig. 4 is a horizontal section taken along the line 4—4 of Fig. 2;

Fig. 5 is a fragmentary vertical section taken along the line 5—5 of Fig. 4, but with the supporting strips removed;

Fig. 6 is a fragmentary vertical section taken along the line 6—6 of Fig. 4, but with the supporting strips removed;

Fig. 7 is an enlarged fragmentary vertical section through one of the supporting strip members taken along the line 7—7 of Fig. 1;

Fig. 8 is a back elevational view of one of the side-holding brackets;

Fig. 9 is a side view partly in section of said side-holding brackets;

Fig. 10 is an end elevational view, partly in section, of one of the bottom-holding brackets;

Fig. 11 is a front view, partly in section, of said bottom-holding brackets;

Fig. 12 is a top plan view of said bottom-holding bracket;

Fig. 13 is a detail view showing a fragment including opposite ends of one of the supporting strip members;

Fig. 14 is a front elevation of a modified form of display device;

Fig. 15 is a side view of the device of Fig. 14;

Fig. 16 is an enlarged fragmentary detail view of a corner of the device of Fig. 14 with the vertical supporting strip removed; and

Fig. 17 is an enlarged fragmentary section taken along the line 17—17 of Fig. 14 with the vertical supporting strip removed.

Referring now more particularly to the drawings, the display device comprises a plurality of horizontally disposed frame members, means for

supporting the frame members in spaced vertical relationship, a plurality of supporting strip members, means for mounting the strip members to extend vertically between corresponding points on two of said frame members, at least one of the strip members being readily movable horizontally to different positions, and means for holding display items on the strip members.

In the embodiment disclosed in Figs. 1–7 upper and lower horizontal frame members are designated generally at 20 and 21, respectively. The frame members are of similar polygonal shape (here shown as triangular, although it will be obvious that other polygonal shapes may be used) and the member 20 comprises an upper horizontally disposed peripheral frame 20*a* having vertically extending side flange portions 20*b* of substantial area. The side flanges are provided with a plurality of slots 20*c* with portions of different width, these slots preferably being of keyhole shape as shown, being vertically disposed, and extending in a row longitudinally on said side portions along the entire length thereof. A channel shaped girder support member 20*d* is provided as shown in Figs. 3, 5 and 6 and may be secured to the horizontally extending frame portions 20*a* by welding or other means.

The bottom frame member 21 is preferably exactly similar to the top member 20 and comprises a horizontally disposed peripheral frame 21*a* of triangular shape identical with the frame portion 20*a* and having vertically extending side flanges 21*b* of substantial area provided with a longitudinally arranged row of slots 21*c* preferably of keyhole shape with portions of different width. A channel shaped girder support member 21*d* is provided as shown in Figs. 4, 5 and 6.

Means for rotatably supporting the frame members 20 and 21 in spaced vertical relationship about a common axis comprise a base 22 having a central upstanding rod 23 extending therefrom. As shown in Fig. 5 the rod may be provided at its lower end with a threaded terminal collar 24, this collar being threaded into a dome portion 22*a* on the base 22, and as shown in Fig. 5 the top surface of the collar provides a supporting seat for the lower frame member 21, the upstanding rod 23 extending through the girder member 21*d* and said girder member resting on the top of the collar 24. The rod 23 also extends through an opening in the girder member 20*d* of the frame member 20 and the members 20 and 21 are held in spaced vertical relationship by a pair of spacer rods 25 and 26, these spacer rods being secured to the respective frame members by studs 27. With this construction the frame members 20 and 21 are freely rotatable as a unit assembly about the common axis provided by rod 23.

At the upper end of the rod 23 above the frame member 20 a member 28 is provided having a collar 28*a* with a bore which is threaded onto the rod 23 as shown in Fig. 5. The member 28 has a body 28*b* having an elongated slot 28*c* across its upper side for the reception of a display item 29 which may contain advertising or other matter as desired.

A plurality of supporting strip members 30 are adapted to extend vertically between each corresponding side between the two frame members. These strip members are preferably made of sheet metal and may be each about one inch wide. Referring now more particularly to Fig. 13 which shows a fragment of one of the strip members, it will be seen that the members are provided with studs 30*b* extending from each end thereof, each of these studs having an annular notch 30*b'*. Each stud is so formed that its head may be received in the upper widened portion of one of the slots 20*c* or 21*c* and only the notched portion, but not the head, can pass through the lower narrowed portion of said slots. With this construction a plurality of supporting strips 30 may be arranged as desired at a plurality of points along the length of the sides of the frame members, and these strip members may readily be removed and relocated in another position closer to or farther from adjacent strips. While in the emodiment shown all of the strip members are similar and are provided with studs having notched heads, if desired a permanent or semi-permanent construction for the strip members which are at the ends of the sides may be had by providing these end strip members with rivets or bolts in which event only the strip members which are intermediate the ends of the sides are readily removable and replaceable. An advantage of such a construction is that the strip members themselves may be used to space the frame members and to support the upper frame member 20, in which event the spacer rods 25 and 26 may be eliminated. Of course, if desired these rods may be eliminated merely by welding or otherwise securing a supporting collar on the axial rod 23. While the strips are not so shown in the drawings, they may also be provided with an inwardly turned horizontally extending flange at one end which would rest upon the frame portion 20*a* and help to support the strips thereon.

Each of the strip members is provided with a plurality of vertical slots 30*a* having portions of different width and preferably being of keyhole shape similar to the slots 20*c* and 21*c*. Each slot 30*a* is arranged to extend longitudinally of the strip member and the slots are arranged in a longitudinal row throughout substantially the entire length of each strip member.

The means for holding display items on the strip members comprise side-holding brackets designated generally at 31 and bottom-holding brackets with are designated generally at 35 as shown best in Figs. 7–12. These brackets preferably are formed of a clear, transparent plastic material. The side holding brackets 31 are generally U-shaped, having an elongated base 31*a* and transversely extending arms comprising back and front sides 31*b* and 31*c*. As shown in Fig. 8 the side edges preferably, though not necessarily, are formed as a segment of a circle.

The base 31*a* is narrower at one end (the bottom end in operation) than at the other end so that the side 31*c* is not parallel to the side 31*b*. This construction allows display items 32 to be disposed in a plane angular to the plane of the strips 30, as shown in Fig. 7.

Each bracket has a pair of studs 33 extending outwardly from the back side member 31*b* and spaced to engage a pair of slots 30*a* in a strip member. Referring to Figs. 7 and 9 it will be seen that each of these studs 33 has an annular notch 33*a* in its head similar to the notch 30*b'* in the studs 30*b*.

The construction of the bottom-holding brackets designated generally at 35 is shown best in Figs. 7, 10, 11 and 12. These brackets having a bottom base portion 35*a* and a transversely extending front wall flange 35*b* and a transversely extending back wall flange 35*c* forming a U-shaped member. The back wall flange 35*c* extends on both sides of the base portion 35*a* and a pair of fins 35*d* are provided, these fins having

a guiding edge extending angularly from adjacent the strip 30 for guiding the display items. As shown in Figs. 7, 10 and 12 the front flange 35b of each bottom holding bracket is provided with a narrow slot 35b' for carrying a thin sheet member 36' which may advertise the price of each particular display item.

The upper and lower portions of the back flange 35c carry a spaced pair of studs 36, these studs having annular notches 36a as shown.

If desired the display device may be shipped in knocked down condition with the supporting strips 30 disassembled from the frame members, the member 28 removed from the rod 23, the frame assembly removed from said rod, and the rods 23, 25 and 26 detached from the respective base and frame members. In assembling the device no tools other than a screwdriver are needed. The rod 23 may be turned into a threaded opening provided in the dome 22, the frame may be assembled with the rods 25 and 26 mounted to space the members 20 and 21, the frame assembly may be slipped over the center rod 23 and the member 28 may be threaded onto the top of the rod 23. With the device in this condition the final assembly depends upon the arrangement of holding means desired. For example, in Fig. 1 a pair of corresponding sides of the frame have mounted thereon a supporting strip 30 at each end thereof and three supporting strips intermediate said end strips. The supporting strips may be mounted on the frame in this or any other desired relation merely by inserting the heads of the studs adjacent each end of the strip into the widened portion of the respective slots in the frame members 20 and 21, and the strip may then be moved downward with respect to the frame to engage the annular notches in the narrow portion of said slots. If it is desired to move any strip horizontally to provide a wider or narrower holding arrangement, the strip is merely lifted up with respect to the frame to bring the head of the studs in registry with the upper widened portion of the slots and the strip may then be removed from the slots and replaced at some other point along the side of the frame members.

The side and bottom-holding brackets may be mounted on the strips in a similar manner, the heads of the studs on these brackets being inserted in the wide upper portion of slots in a strip member and the bracket being then moved downwardly with relation to the strip to engage the annular notches of the studs in the narrow slot portion. After this assembly, display items 32 may be inserted in the pockets formed by the side and holding brackets. These items may comprise picture postcards, souvenir folders, etc., and may be of various sizes. At any time that it is desired to place a different size item in the display device the desired size pocket can readily be formed by moving the strips 30 horizontally as described or by adding additional strips if necessary, and by moving the bottom and side-holding brackets vertically as described or by adding additional brackets if necessary. The angular arrangement in the construction of the side-holding brackets permits the display items 32 to rest at an angle in the device as shown in Fig. 7, thereby making them more readily readable and increasing the capacity of the display device. This angular arrangement in combination with the fins 35d insures that the display items may be lifted out of the device without catching on the bottom supporting bracket immediately above said items. As shown in Fig. 7 since the items are angularly arranged they may be drawn out of the device without touching the bottom bracket immediately above them, and should the upper end of the display items be pushed in toward the rack the angular edge of the fins 35d will guide the items out of the rack with no danger of knocking the bottom-holding bracket immediately above said items out of position.

The invention also contemplates the provision of a floor display device which would be similar to that illustrated, but having a larger and heavier base and a central rod 23 two or three times the height of the one shown with one or more additional frame assemblies mounted one above the other on the rod 23. The rod 23 would be provided with supporting means as a collar or bushing providing about an inch or more spacing between the top and bottom frame members of each frame assembly so that each assembly may be rotated independently of the other.

In Figs. 14–17 a modified form of the invention is disclosed which may be used to provide a wall display. In this form a rectangular frame which may be mounted on a wall has a plurality of vertically extending supporting strip members mounted thereon, and the means shown in Figs. 8–12 are adapted to be mounted on said supporting strips for holding display items.

The rectangular frame comprises horizontally extending peripheral top and bottom members 40 and 41 and vertically extending peripheral side members 42 and 43. The top and bottom members 40 and 41 preferably comprise strips of sheet metal, while the side members 42 and 43 may be formed of wood, if desired. The members 40, 41, 42 and 43 are secured together by means of screws 44 or similar fastening means at the corners to provide a rigid rectangular frame, the top and bottom edges of the top and bottom members preferably being folded over as shown at 40b and 41b to strengthen the members and to provide rounded edges. A plurality of vertical slots 40a are arranged in a row longitudinally throughout substantially the entire length of the member 40, and similar slots 41a are arranged in a row extending throughout substantially the length of the member 41. Each slot has portions of different width, the slots preferably being of keyhole shape.

A plurality of the supporting strip members 30 may be mounted to extend vertically between corresponding points on the top and bottom members. The members 30 may be the strip members shown in Figs. 7 and 13, these strip members having studs 30b adjacent each end which engage the respective slots 40a and 41a. As in the earlier described structure, each stud has an annular notch and the head portion of one of the studs is admitted through the upper widened portion of a slot in each member 40 and 41 and the strip is then moved downwardly with respect to the frame so that the annular notch on the stud engages the lower narrow portion of the slots. The members 30 are provided with a longitudinally extending row of vertical slots 30a, as earlier described, and side holding brackets 31 and bottom holding brackets 35 (Figs. 8–12) may be mounted at different points along the length of the supporting strip members, the brackets being readily movable vertically of the strip members as earlier described. The strip members 30 are readily movable horizontally, so that various desired arrangements for holding display items may be provided. While three strip members are shown mounted between the members 40 and 41,

obviously a greater number of strip members could be used to provide a plurality of vertical rows of pockets for holding display items.

As shown in Figs. 14 and 15, the frame may be supported on a wall 45 by means of studs 45a which project from the wall. These studs may be in the form of a hook, if desired.

While I have shown and described certain embodiments of my invention, it is to be understood that it is capable of many modifications. Changes, therefore, in the construction and arrangement may be made without departing from the spirit and scope of the invention as disclosed in the appended claims.

I claim:

1. A display device of the character described, comprising: a plurality of polygonal horizontally disposed frame members; means for rotatably supporting said frame members in spaced vertical relationship about a common axis; a plurality of supporting strip members; means for mounting said strip members to extend vertically between corresponding sides of two of said frame members, at least one of said strip members being readily movable to different positions along the length of said sides; and means for holding display items on said strip members.

2. A display device of the character described, comprising: a plurality of polygonal horizontally disposed frame members; means for rotatably supporting said frame members in spaced vertical relationship about a common axis; a plurality of supporting strip members; means for mounting said strip members to extend vertically between corresponding sides of two of said frame members, at least one of said strip members being readily movable to different positions along the length of said sides; and means for holding display items on said strip members comprising side-holding brackets and bottom-hoiding brackets, each having means for attachment to said strip members at a plurality of points along the length thereof.

3. A display device of the character described, comprising: a plurality of polygonal horizontally disposed frame members having vertically extending side portions of substantial area; means for rotatably supporting said frame members in spaced vertical relationship about a common axis; a plurality of supporting strip members, there being slots with portions of different widths and complementary studs for engagement in said slots on said respective side portions and strip members providing means for mounting said strip members to extend vertically between corresponding sides of two of said frame members, at least one of said strip members being readily movable to different positions along the length of said sides; and means for holding display items on said strip members.

4. A display device of the character described, comprising: a pair of polygonal horizontally extending frame members having vertically extending side portions of substantial area provided with a plurality of vertical slots with portions of different widths, said slots being arranged in a longitudinal row on said side portions; means for rotatably supporting said frame members in spaced vertical relationship about a common axis; a plurality of supporting strip members; a stud extending from each strip member adjacent each and thereof, each stud having an annularly notched head adapted to engage one of said slots for mounting said strip members to extend vertically between corresponding sides of two of said frame members, at least one of said strip members being readily movable to different positions along the length of said sides; and means for holding a plurality of display items on said strip members comprising side-holding brackets and bottom-holding brackets, each having means for attachment to said strip members at a plurality of points along the length thereof.

5. A display device of the character described, comprising: a plurality of polygonal horizontally disposed frame members carried in spaced vertical relationship, said members having vertically extending side portions of substantial area; a plurality of supporting strip members, there being openings and complementary studs on said respective side portions and strip means providing members for mounting said strip members to extend vertically between corresponding sides of two of said frame members, at least one of said strip members being readily movable to different positions along the length of said sides, and each strip member having a longitudinally extending row of vertical slots with portions of different width; a plurality of side-holding brackets having a pair of studs spaced readily removably to engage a pair of slots in a strip member; and a plurality of bottom holding brackets each having a pair of studs spaced readily removably to engage a pair of slots in a strip member.

6. A display device of the character described, comprising: a plurality of substantially similarly shaped frame members each describing a closed figure; means operably attached to the frame members and holding them substantially parallel to each other; a plurality of supporting strip members; means for mounting said strip members to extend vertically between corresponding points on two of said frame members, at least one of said strip members being readily movable horizontally to different positions; and means for holding display items on said strip members.

7. A display device of the character described, comprising: a plurality of substantially similarly shaped frame members each describing a closed figure; an upstanding support member centrally located with respect to said closed figures and holding said frame members substantially parallel to each other; a plurality of supporting strip members; means for mounting said strip members to extend vertically between corresponding points on two of said frame members, at least one of said strip members being readily movable horizontally to different positions; and means for holding display items on said strip members.

8. A display device of the character described, comprising: a plurality of substantially similarly shaped frame members each describing a closed figure; means operably attached to the frame members and holding them substantially parallel to each other; a plurality of supporting strip members; and means for holding display items on said strip members comprising side-holding brackets and bottom-holding brackets, each having means for attachment to said strip members at a plurality of points along the length thereof.

9. A display device of the character described, comprising: a plurality of substantially similarly shaped frame members each describing a closed figure; an upstanding support member centrally located with respect to said closed figures and holding said frame members substantially parallel to each other; a plurality of supporting

strip members; means for mounting said strip members to extend vertically between corresponding points on two of said frame members, at least one of said strip members being readily movable horizontally to different positions; and means for holding display items on said strip members comprising side-holding brackets and bottom-holding brackets, each having means for attachment to said strip members at a plurality of points along the length thereof.

10. A display device of the character described, comprising: a plurality of substantially similarly shaped frame members each describing a closed figure; means for rotatably supporting said frame members in spaced vertical relationship about a common axis; a plurality of supporting strip members; means for mounting said strip members to extend vertically between corresponding sides of two of said frame members, at least one of said strip members being readily movable to different positions along the length of said sides; and means for holding display items on said strip members.

11. A display device of the character described, comprising: a plurality of substantially similarly shaped frame members each describing a closed figure; means for rotatably supporting said frame members in spaced vertical relationship about a common axis; a plurality of supporting strip members; means for mounting said strip members to extend vertically between corresponding sides of two of said frame members, at least one of said strip members being readily movable to different positions along the length of said sides; and means for holding display items on said strip members comprising side-holding brackets and bottom-holding brackets, each having means for attachment to said strip members at a plurality of points along the length thereof.

WALTER E. TEICH.

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1,282,557	Feldtkeller	Oct. 22, 1918
1,475,041	Alstott	Nov. 20, 1923
1,876,869	Lorenzo	Sept. 13, 1932
1,963,544	Burt	June 19, 1934
2,006,573	Isenhour	July 2, 1935
2,245,851	Campbell	June 17, 1941