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Menkel

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[54] **DISPLAY STAND**

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[52] **U.S. Cl.**..... **211/72**, 206/45, 211/74, 248/152, 248/450

[51] **Int. Cl.**..... **A47b 73/00**, A47b 97/04, A47f 5/11

[58] **Field of Search**..... 206/45.14, 45; 108/92; 211/128, 52, 55, 135, 74, 60 M, 60 A, 60 G, 72, 133, 71, 60 R, 130, 73; 248/450, 152, 459

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Primary Examiner—Roy D. Frazier
Assistant Examiner—Abraham Frankel
Attorney—Robert D. Spille

[57] **ABSTRACT**

An article display stand is disclosed in which a first plate, having a stepped surface defined by a plurality of angularly related step and riser surface portions is secured to a second plate, superimposed upon the first plate, and having a plurality of surface portions respectively associated with the risers in the first plate. At least portions of the associated surfaces of the second plate are located in spaced relation to the risers in the first plate, to define a plurality of rows of upwardly opening receptacles between the plates in which articles to be displayed may be received and supported. Means are provided for supporting the plates in a generally inclined configuration for display of articles placed in the receptacles, and in one embodiment, the support means is formed integrally with one of the plates.

16 Claims, 11 Drawing Figures

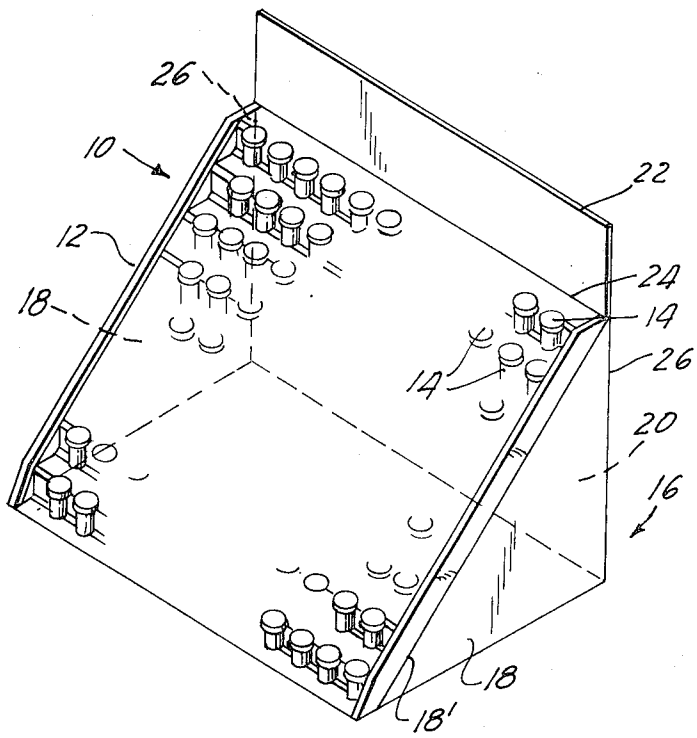
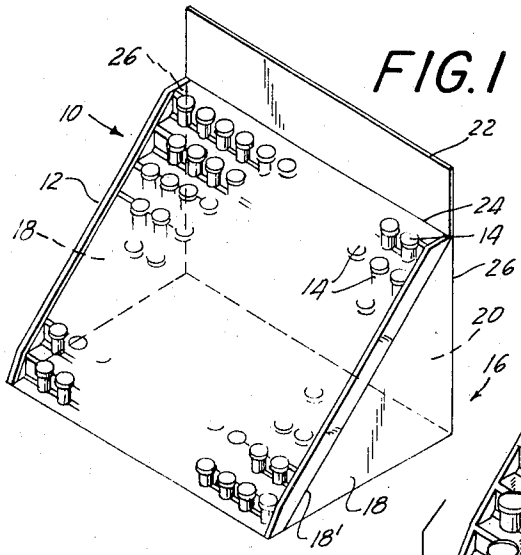


FIG. 1


26
10
12
18
22
24
14
14
26
20
16
18
18'

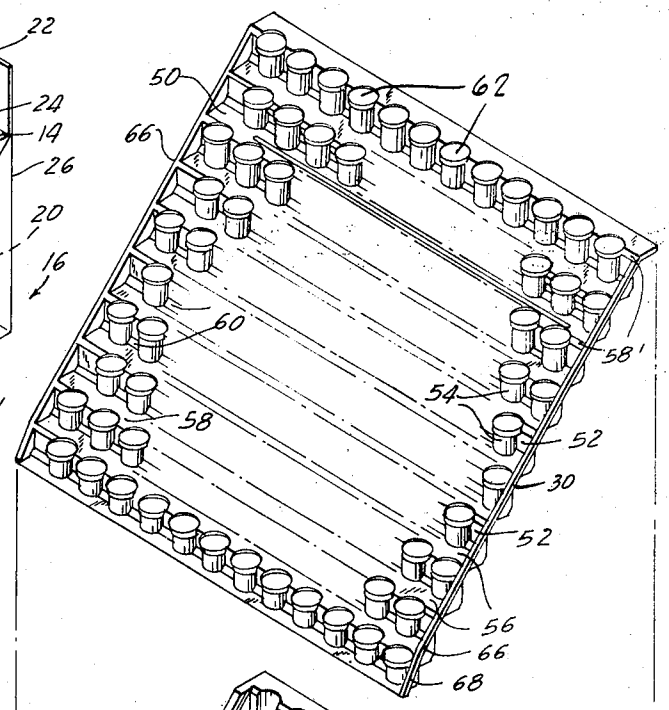

50
62
66
60
58'
54
58
52
30
52
56
66
68

FIG. 2

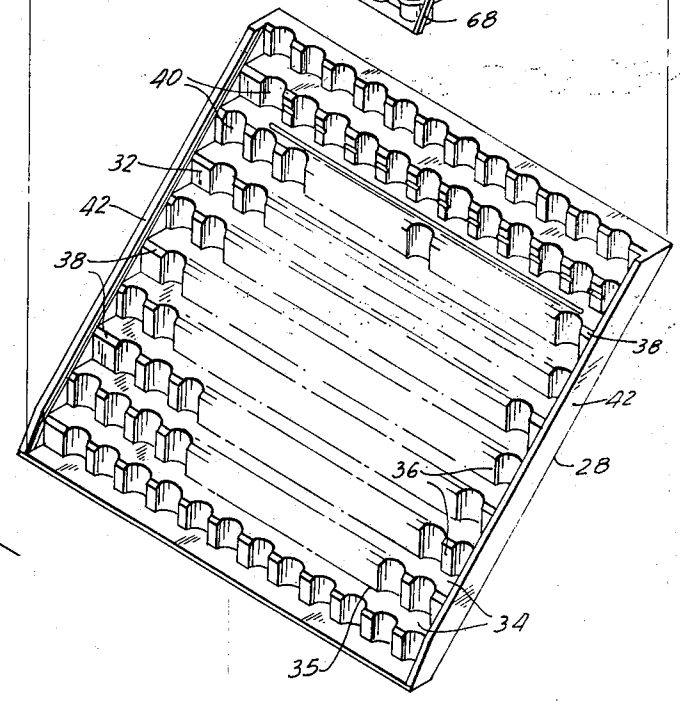

40
32
42
38
38
42
36
28
34
35

FIG. 3

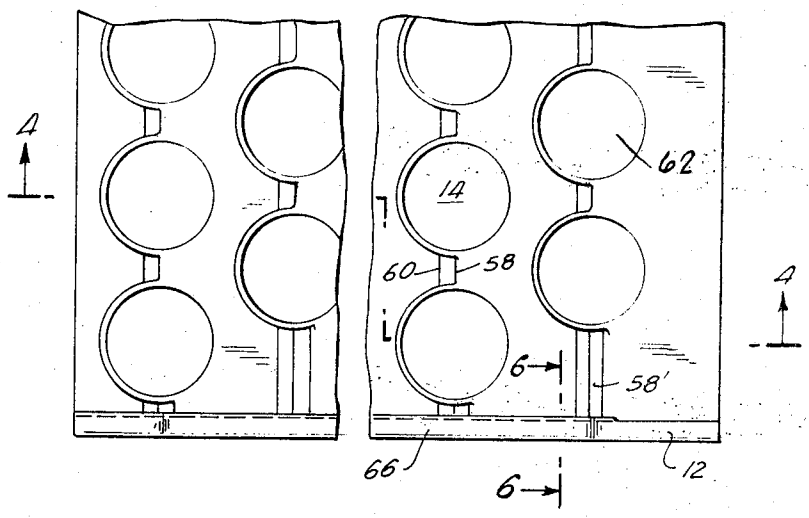
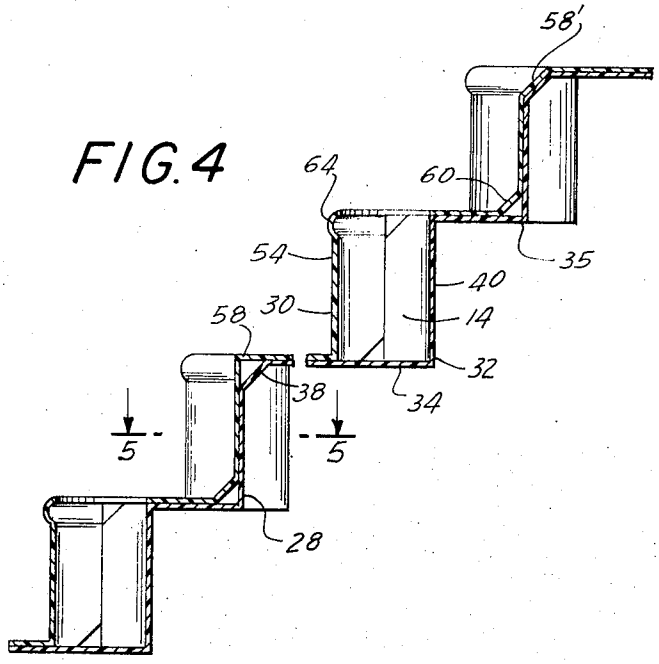


FIG. 4



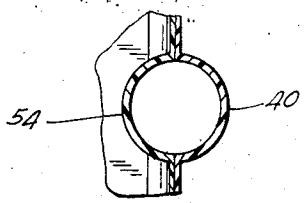
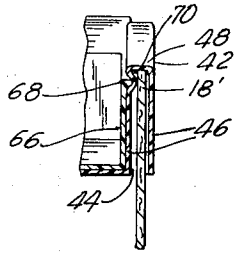


FIG. 5

FIG. 6



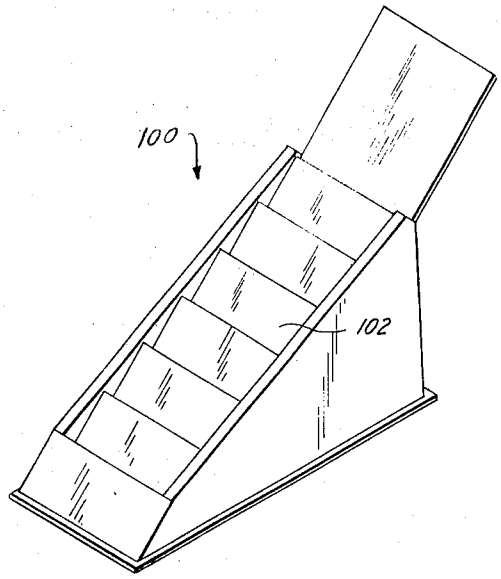
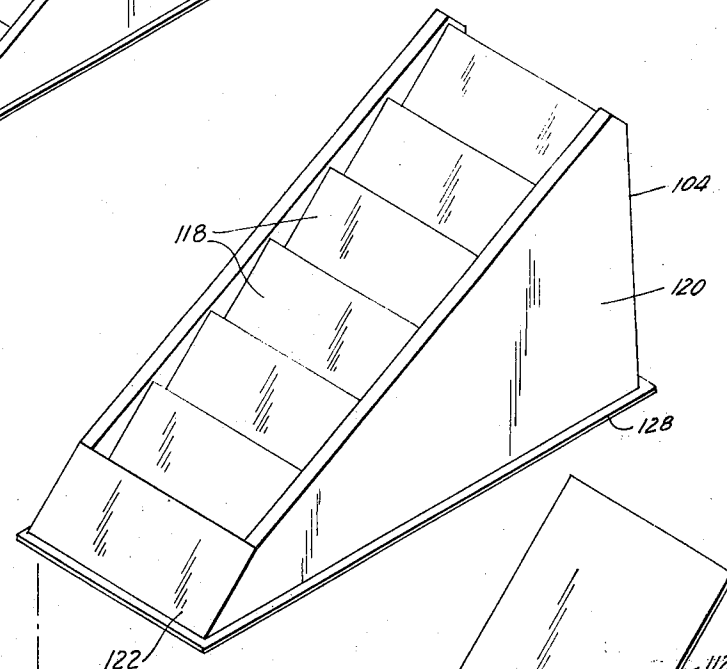


FIG.7



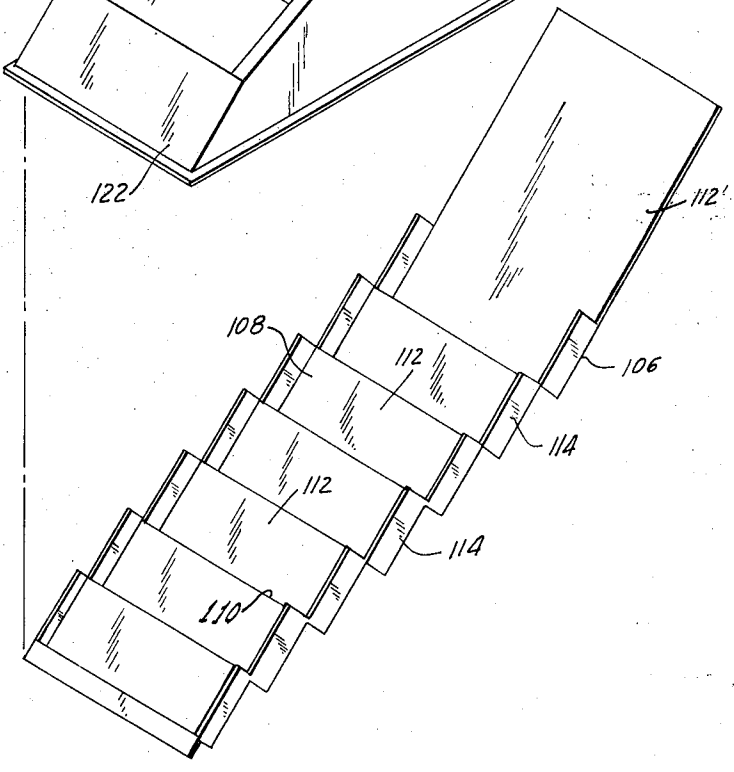


FIG.8

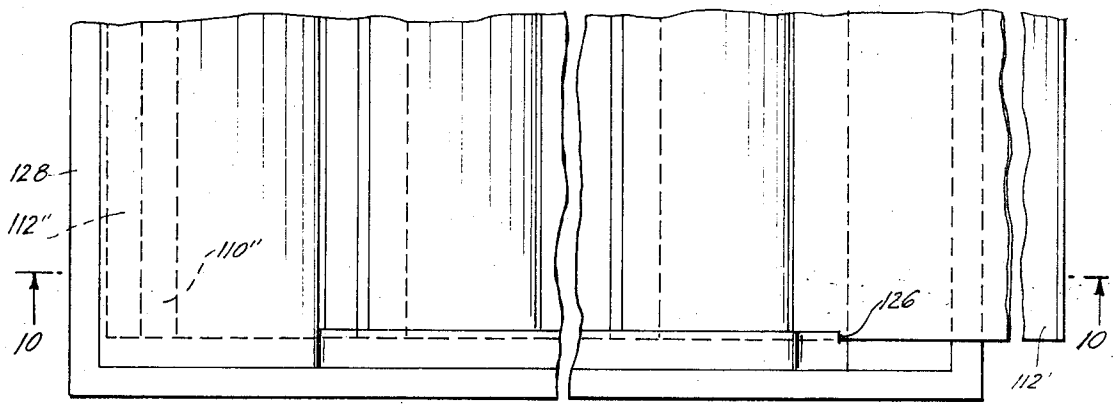


FIG. 9

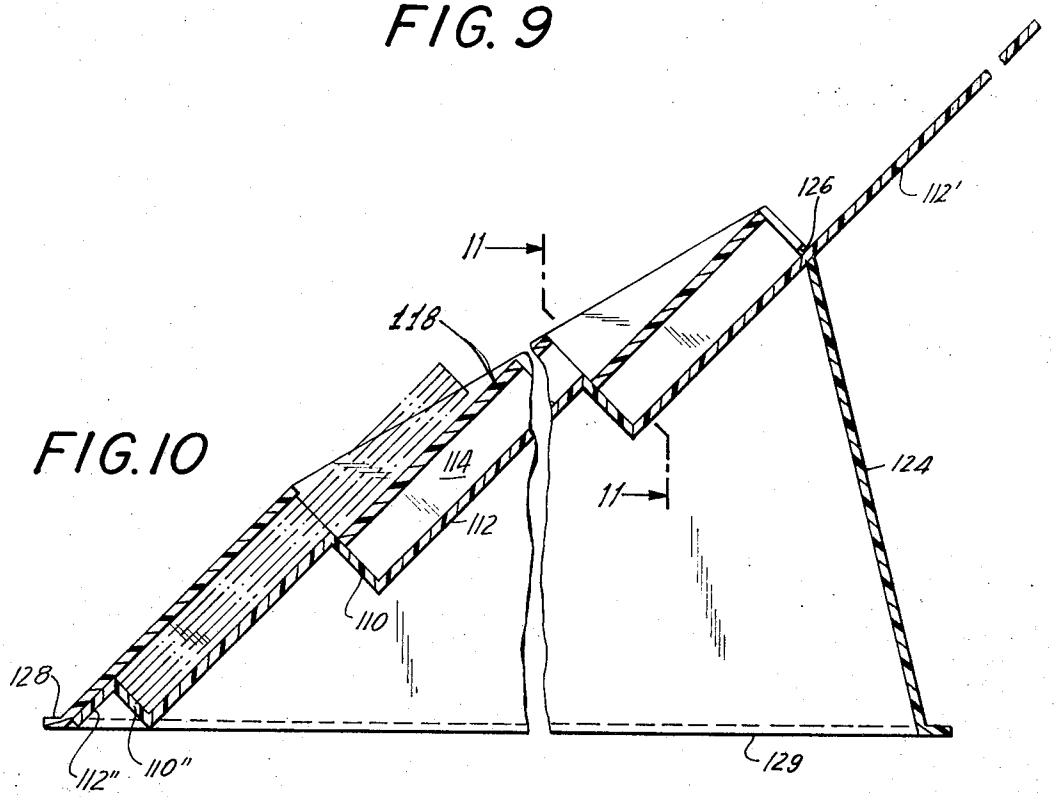


FIG. 10

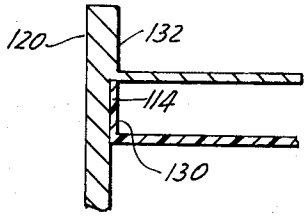


FIG. 11

DISPLAY STAND

The present invention relates to display stands, and in particular to display stands in which rows of individual articles may be displayed.

Article display stands of the above type have been previously proposed and manufactured, but they have been relatively expensive to produce and as a result have proved to be unsatisfactory. Typically, independent compartments or receptacles are formed in order to display individual articles or groups of articles. For example, in order to display cards, separate pocket-like receptacles must be formed in the display stand. This has heretofore been provided by means of wood frames forming the pockets or by metal wires shaped to form individual supports. These arrangements are relatively expensive to produce since both the materials and labor required to form the stands are expensive.

Further, it has been found to be desirable to display individual cigars in a display stand wherein the cigars are readily selected by the purchaser. Generally, cigars are contained within the conventional cigar box and, particularly when the box is full, individual cigars are difficult to remove and select. Moreover, only the top row of cigars in the box can be observed for selection by the purchaser so that the selection from the entire box is in effect limited. By displaying each of the cigars individually in a display stand, as contemplated by the present invention, a greater selection is made available for the purchaser and a more pleasing and decorative display stand is provided.

Accordingly, it is an object of the present invention to display individual articles or groups of articles in a display stand which is relatively simple and inexpensive in construction.

Yet another object of the present invention is to form an article display stand from a pair of molded plastic sheets of material.

Yet another object of the present invention is to provide a display stand which is adapted to support individual articles or groups of articles which is inexpensive in construction and durable in use so as to have an extended life.

In accordance with an aspect of the present invention, the display stand comprises a first plate formed of a plastic sheet material having a stepped surface defined by a plurality of angularly related step and riser portions molded in the plate. A second plate is secured in superimposed relation to the first plate and has a plurality of surface portions thereof respectively associated with the risers in the stepped surface of the first plate. At least a portion of the second plate surfaces are located in spaced relation to the risers of the first plate so as to define a plurality of rows of upwardly opening receptacles between the plates. In one embodiment, the riser portions of the first plate each have a plurality of semi-cylindrical depressions formed therein and the spaced portions of the second plate each comprise complementary depressions formed therein which extend oppositely to the depressions in the first plate. The depressions in the first and second plates cooperate to form the receptacles as rows of cylindrical pockets adapted to receive and support cylindrical articles such as cigars or the like therein. The plates are secured together either by a frictional engagement therebetween or by an adhesive material and they are supported in an inclined configuration, so that each successive row of articles is rearward and slightly higher than a preceeding row. As a result, the articles contained within the receptacles of each row are fully displayed and readily selected by a purchaser.

In another embodiment of the present invention the spaced surface portions of the second plate and the risers of the first plate are relatively flat members extending parallel to each other but in spaced relationship so as to define rows of generally rectangular openings which are adapted to receive flat items such as greeting cards or the like therein.

By forming the display stand of the present invention of two plates having complementary recesses therein or by having flat spaced parallel surfaces, a supporting receptacle for articles is conveniently provided without the necessity of special wire stands or wooden bracing. The plates are formed of an inexpensive molded conventional plastic material of relatively thin stock, but having substantial rigidity so that they are relatively inexpensive to produce and manufacture. Moreover, the manufacturing process is relatively simple in that it can be a simple stamping or molding operation so that numerous operating manufacturing steps and numerous employees required by previously proposed arrangements are not required.

The above, and other objects, features and advantages of this invention will be apparent in the following detailed description of an illustrative embodiment thereof which is to be read in connection with the accompanying drawings, wherein:

FIG. 1 is a schematic perspective view of an article display stand constructed in accordance with one embodiment of the present invention;

FIG. 2 is an exploded enlarged view of the two plate members forming the display stand of the embodiment shown in FIG. 1;

FIG. 3 is an enlarged plan view of a section of the display stand illustrated in FIG. 1;

FIG. 4 is a partial side sectional view taken along line 4—4 of FIG. 3;

FIG. 5 is a sectional view taken along line 5—5 of FIG. 4;

FIG. 6 is a sectional view of the edge portion of the display stand taken along line 6—6 of FIG. 3;

FIG. 7 is a perspective view of a display stand constructed in accordance with another embodiment of the present invention;

FIG. 8 is an exploded view, similar to FIG. 2, of the components utilized to form the display stand illustrated in FIG. 7;

FIG. 9 is a partial plan view of one end of the display stand illustrated in FIG. 7;

FIG. 10 is a sectional view taken along line 10—10 of FIG. 9; and

FIG. 11 is a sectional view of an edge portion of the embodiment illustrated in FIG. 9 and taken along line 11—11 of FIG. 10.

Referring to the drawings in detail, and initially to FIG. 1 thereof, it will be seen that an article display stand 10 embodying the present invention, as shown therein, has an inclined article support tray 12 in which is formed a plurality of generally cylindrical receptacles or pockets 14 adapted to receive individual articles such as cigars or the like, for display in the stand.

Tray 12 is supported in an inclined configuration by a three-sided support member 16 which has a pair of generally triangularly shaped side members 18 whose

long sides 18' engage the edges of the tray, as more fully described hereinafter, to support the latter in an inclined configuration. A rear side 20, formed integrally with sides 18, interconnects the sides and provides stability to the stand. Side 20 is substantially larger than sides 18 so that an extended portion 22 thereof is exposed above the top edge 24 of the tray 12. The exposed surface of extended portion 22 is thus available for placement of advertising literature, indicia or the like, as may be suitable for use with the articles displayed in the stand. Typically, support member 16 is formed of a hard cardboard material which is relatively inexpensive to produce and which is folded along lines 26 to form sides 18 and rear side 20.

Tray 12 is formed of two superimposed sheets or plates 28, 30, molded from a relatively hard and rigid plastic material. The first or inner plate 28 is formed with a stepped surface 32 in which each of the steps is defined by a relatively horizontal stepped portion 34 and a generally vertically extending riser portion 36. The step portions 34 are joined to riser portions 36 at the base thereof at generally right angles 35 and risers 36 are joined at their top edges to the front of the steps 34 along inclined surfaces 38, for reasons more fully described hereinafter. In this manner, the steps provided on surface 32, when viewed from the side, as in FIG. 4, appear as a conventional stepped surface or stairway so that each of the successive risers is located rearwardly and upwardly from the preceeding riser in the sheet.

A plurality of semicircular depressions 40 are formed along each of the risers 36 in plate 28. These depressions open outwardly of the plate and the depressions in each row are staggered, as seen in FIG. 3, with respect to the recesses formed in the adjacent rows. These recesses form one half of the circular pockets 14 in the completed display stand, as more fully described hereinafter.

Plate 28 is formed with integral side end walls 42 at each end of the steps formed in its surface. End walls 42 are formed as inverted U-shaped members having a channel 44 formed between the legs 46 thereof. The long side or edge 18' of plates 18 are received in their associated recesses 44 and engaged with the bight portion 48 of the side walls 42 to support the completed stand in the configuration shown in FIG. 1.

Plate 30, which, in the completed construction of the invention is superimposed upon plate 28, is also provided with a stepped surface, indicated as 50. This plate and surface is provided with surface portions or risers 52 which extend generally parallel to the risers 36 of plate 28 when the plates are in superimposed relation. Risers 52 are provided with semicircular depressions 54 formed therein, which depressions extend in the opposite direction from the depressions 40 formed in plate 28, and which are complementary to depressions 40, so that when the plates are in superimposed relation, as illustrated in FIG. 4, cylindrical pockets or receptacles 14 are defined thereby. Risers 52 are interconnected by generally horizontally extending step portions 56, which are joined to the tops of adjacent risers at right angles, as at 58, and to the base of the oppositely adjacent riser by an inclined surface 60. This arrangement is illustrated in FIG. 4, wherein it is seen that the inclined surface portions 38 of first plate 28 are located adjacent the right angle portions 58 of plate 30 while the inclined portions 60 of plate 30 are adjacent the right angle portions 35 of plate 28, when the plates are in superimposed relation. Accordingly, this arrangement or configuration permits a close fitting or the two plates in superimposed relation, without interference of right angle surfaces or any irregularities that may be formed thereat during the pressing of molding operation. This insures a close, tight fit between those portions of risers 36 and 52 which extend between the depressions 40 and 54 formed in the two plates, whereby the depressions form fully enclosed cylindrical receptacles.

Steps 56 between risers 52 in the top or second plate 30 are provided with apertures 62 formed therein which correspond to the circular opening in cylindrical pockets 14 formed by the depressions in the two plates, so that a cylindrical article such as a cigar or the like can be inserted and supported in the receptacle upon the steps 34 of lower or inner plate 28. In addition, depressions 54 in upper plate 30 are provided with auxiliary semicircular depressions 64 formed adjacent their top edge (see FIG. 4) which depressions serve to improve the appearance of the stand and in addition, reinforce the top edge of depressions 54, thereby to avoid damage thereto upon insertion and removal of the articles being displayed.

Plate 30 may be secured to plate 28 by conventional adhesive material so as to form a completed, integral display tray 12. Alternatively, it is contemplated that plate 30 may be frictionally held or snapfit between the inner legs 46 of side walls 42 in plate 28. In this case, the width of plate 30 would be substantially the same as the distance between legs 46 of walls 42 so that the end walls of the steps 50 formed in second plate 30 would be frictionally engaged between the side walls and held in place by that engagement. In yet another embodiment, such as that illustrated in FIGS. 2 and 6, the end walls of plate 30, along the ends of steps 50, are provided with side walls 66 having a small outwardly extending lip 68. Complementary recesses 70 are formed in the legs 46 of walls 42, which recesses are adapted to receive the lips or extensions 68 therein, as by snapfitting. In this manner the display stand is capable of being disassembled for shipment, and later reassembly. In this embodiment, the points of juncture between the risers 52 and steps 56 in plate 30, may, adjacent the walls 66, be formed with inclined surfaces 58' in lieu of the right angular juncture provided throughout the remainder of plate 30 so that a smooth transitional appearance appears between the steps and the top surface of the side walls, as is illustrated in FIGS. 2 and 4.

It is thus seen that a relatively simple and inexpensive display stand is provided in which cylindrical articles such as cigars can be supported for individual selection and display. The stand is of relatively lightweight and durable construction while also being inexpensive to manufacture. Because the stand is molded out of a plastic material it is possible to form the stand in innumerable designs and colors, in accordance with the advertising requirements of the article to be displayed in the stand. Thus, the stand has an increased appeal for advertising purposes as it can be decorated or colored to conform with particular products being displayed, while being sufficiently inexpensive to manufacture so that an individual stand can be provided for each type of product.

While the above described embodiment of the invention has been illustrated with cylindrical depressions formed in the plates **28** and **30**, it is comtemplated that other types of depressions may be utilized depending upon the article to be displayed. In particular, it is comtemplated that rectangularly shaped depressions and even irregularly shaped depressions may be provided for holding a variety of articles. Similarly, the shapes of the depressions may be varied within the same display stand so that numerous shaped articles can be displayed in a single stand.

Referring to FIGS. **9–11**, another embodiment of the invention is disclosed in which a display stand **100** is provided having rectangularly shaped receptacles or pockets **102** formed therein for receipt of correspondingly shaped articles such as greeting cards and the like. Display stand **100** is formed from two plates or sheet members **104, 106,** which are preferably made of a hard plastic material, positioned in superimposed relationship with respect to each other.

The inner or first plate **106** is provided with a stepped surface **108** formed by steps **110** and elongated risers **112.** The last riser in the series, at the top of plate **106,** is provided with an extended portion **112'** upon which advertising indicia or the like may be placed, as is more fully described hereinafter. In addition to the steps **110** and risers **112,** plate **106** is provided with side wall segments **114** located at the ends of risers **112.** Wall segments **114** have a predetermined width and cooperate with plate **104,** as is also more fully described hereinafter, to define the generally rectangular compartments **102** within the display stand.

The outer or second plate **104** is formed of a plurality of individual, relatively flat plate portions **118.** (It is noted that as used herein the term "plate" refers to a plate of individual surfaces, such as **118** or a plate formed of steps and risers such as the plates **104, 28** and **30**). Surface portions **118** of plate **104** are adapted to be positioned adjacent. to and in spaced relation from the risers **112** of plate **106,** thereby cooperating with risers **112** to form receptacles **102.**

Plate **104** is provided with triangularly shaped end walls **120** integrally formed with the surface of plate portions **118,** in order to support the latter and plate **106,** which is secured thereto. Side walls **120** are interconnected at the front by an integral cross piece **122** and at the rear by a wall **124.** The latter has a slot **126** therein in which the extended portion **112'** of plate **106** is received. Walls **120, 122,** and **124** are surrounded by a shoe or flange portion **128** integrally formed therewith which provides stability to the completed stand assembly.

In this embodiment, surfaces **112** and **112'** are available for the placement of advertising indicia or the like for use with the articles displayed in the stand. This indicia therefore would be located in a convenient position adjacent the articles being displayed.

In assembling the device of this embodiment of the invention, plate **106** is inserted through the open bottom **129** of member **104** and the extended portion **112'** thereof is placed through slot **126.** Plate **106** is then brought forwardly towards surface portions **118** until the side wall portions **114** of plate **106** are engaged against the lower surfaces of plate portions **118,** as shown in FIG. **11.** As mentioned, wall portions **114** have a predetermined width, and when engaged with the lower surface of plates **118** defined the receptacles **102,** each of which has a predetermined width corresponding to the widths of wall portions **114.** It is noted that, as seen in FIG. **11,** the side walls **120** of the stand may have reduced thicknesses on the side thereof below wall surface portions **118** so that the inner surface **130** of wall segments **114** will be in alignment with the inner surface **132** of wall **120** above surface portion **118.**

The width of plate **106** may be substantially the same as the distance between the interior surface of walls **120** so that when the plate is inserted in the member **104,** with wall portions **114** thereof engaged against surface portions **118,** plate **106** is held in a fixed position therein by the frictional engagement of the walls **114** with the walls **120.** In addition, as illustrated in FIG. **10,** the plate **106** will be supported at its base portion by the lowermost step **110''** and riser **112''** and at its upper end by the engagement of extended portion **112'** in slot **126.** Moreover, it is contemplated that plate **106** may be secured in position by the use of conventional adhesive material between the plates **104** and **106.**

It is thus seen that a relatively simple stand is provided for supporting and displaying greeting cards and the llke by the utilization of the same concepts as in the previously disclosed embodiment. The stepped inner plate of the invention provides substantially one half of the receptacle which receives the displayed article and the stepped portions thereof provide support for the article in the display stand. A single, complementary superimposed sheet or member is utilized to complete the display stand in both embodiments of the invention and thus in each case a relatively simply constructed stand is provided.

Accordingly, it is seen that relatively simple and inexpensively constructed display stands for individual articles and groups of articles, such as cigars, cards or the like, are provided by the simple arrangement of two superimposed plates of preformed molded plastic material. The display stands are relatively lightweight and are thus conveniently transported or moved in order to be set up in various locations.

Although illustrative embodiments of the present invention have been described herein with reference to the accompanying drawings it is to be understood that the invention is not limited to those precise embodiments and that various changes and modifications may be effected therein by one skilled in the art without departing from the scope or spirit of this invention.

What is claimed is:

1. An article display stand comprising a first plate having a stepped surface defined by a plurality of angularly related step and riser portions formed in said plate, a second plate secured in superimposed relation to said first plate and having first surface portions thereof located adjacent to and in predetermined spaced relation from the riser portions of said first plate, thereby to define a plurality of rows of upwardly opening receptacles between said first and second plates, and means for supporting said plates in a generally inclined configuration; said riser portions of said first plate each having a plurality of depressions formed therein and said first surface portions of said second plate having complementary depressions formed therein, which latter depressions extend oppositely of the depressions in said first plate; whereby the depressions in said plates cooperate to form said receptacles

as pockets adapted to receive and support articles to be displayed, said first surface portions in said second plate being formed in rows corresponding to said rows of receptacles and said first surface portions in each row being connected to the first surface portions in adjacent rows in said second plate by step portions extending therebetween, said last mentioned step portions being in contact with the step portions in said first plate.

2. The display stand as defined in claim **1** wherein said depressions in said first and second plates are generally semi-circular in sectional configuration, thereby to form said pockets as generally cylindrical pockets adapted to receive and support generally cylindrical articles to be displayed.

3. The display stand as defined in claim **1** wherein said first and second plates are formed of plastic.

4. The display stand as defined in claim **2** wherein said semicylindrical depressions on said surfaces of the second plate each have an auxiliary semicircular depression adjacent the top edge thereof for reinforcing said depressions.

5. The display stand as defined in claim **4** wherein the base of each of said first surface portions in said second plate is connected to its adjacent step portion by an inclined surface portion and the upper portion thereof is connected to its adjacent step portion at a right angle.

6. The display stand as defined in claim **5** wherein the base portion of each of the riser portions formed in said first plate is connected at right angles to its adjacent step portion and the upper portion thereof is connected to its adjacent step portion by an inclined surface.

7. The display stand as defined in claim **1** wherein said first plate has an inverted generally U-shaped side wall secured at each side thereof, which side walls extend generally perpendicularly of said stepped surface, and said support means comprises a generally triangularly shaped plate member associated with each of said side walls and having one edge thereof received between the legs of its associated inverted U-shaped wall member.

8. The display stand as defined in claim **7** wherein said support plate members are interconnected by a third support plate member having an extended portion thereof extending beyond the top edge of said plates.

9. The display stand as defined in claim **7** wherein said side walls each have an elongated depression formed in the leg thereof adjacent said stepped surface, and extending along the length of said side wall, said second plate having side edges received in said elongated depression to secure said second plate to said first plate.

10. The display device as defined in claim **1** wherein said second plate is secured to said first plate by an adhesive material.

11. An article display stand comprising a first plate, formed of plastic material, having top, bottom and side edges, and having a stepped surface defined by a plurality of angularly related step and riser portions formed therein and extending between said side edges, a second plastic plate superimposed upon said first plate and having top, bottom and side edges, said second plate being formed with a plurality of first surface portions respectively associated with the riser portions in said first plate and having at least portions thereof located in spaced relation to said riser portions, thereby to define a plurality of rows of upwardly opening receptacles between said plates, and means for supporting said plates in a generally inclined configuration; said riser portions of said first plate each having a plurality of depressions formed therein and said spaced portions of said second plate first surface portions comprising complementary depressions formed in said second plate first surface portions, which latter depressions extend oppositely of the depressions in said first plate, whereby the depressions in said plates cooperate to form said receptacles as rows of pockets adapted to receive and support articles therein; said second plate first surface portions, between said depressions, being in contact with said riser portions of said first plate.

12. The display stand defined in claim **11** wherein one of said first and second plates has side walls formed along its side edges and the other one of said plates is positioned between said side walls.

13. The display device as defined in claim **12** wherein the width of said other one of said plates is substantially equal to the distance between said walls whereby said other one of said plates is secured to said one plate by the engagement of its side edges with said side walls.

14. The display device as defined in claim **12** wherein said plates are secured together by an adhesive material.

15. The display stand as defined in claim **11** wherein said depressions in said first and second plates are generally semi-circular in sectional configuration, thereby to form said pockets as generally cylindrical pockets adapted to receive and support generally cylindrical articles to be displayed.

16. The display stand as defined in claim **15** wherein the cylindrical pockets in each row are staggered with respect to cylindrical pockets in adjacent rows.

* * * * *