

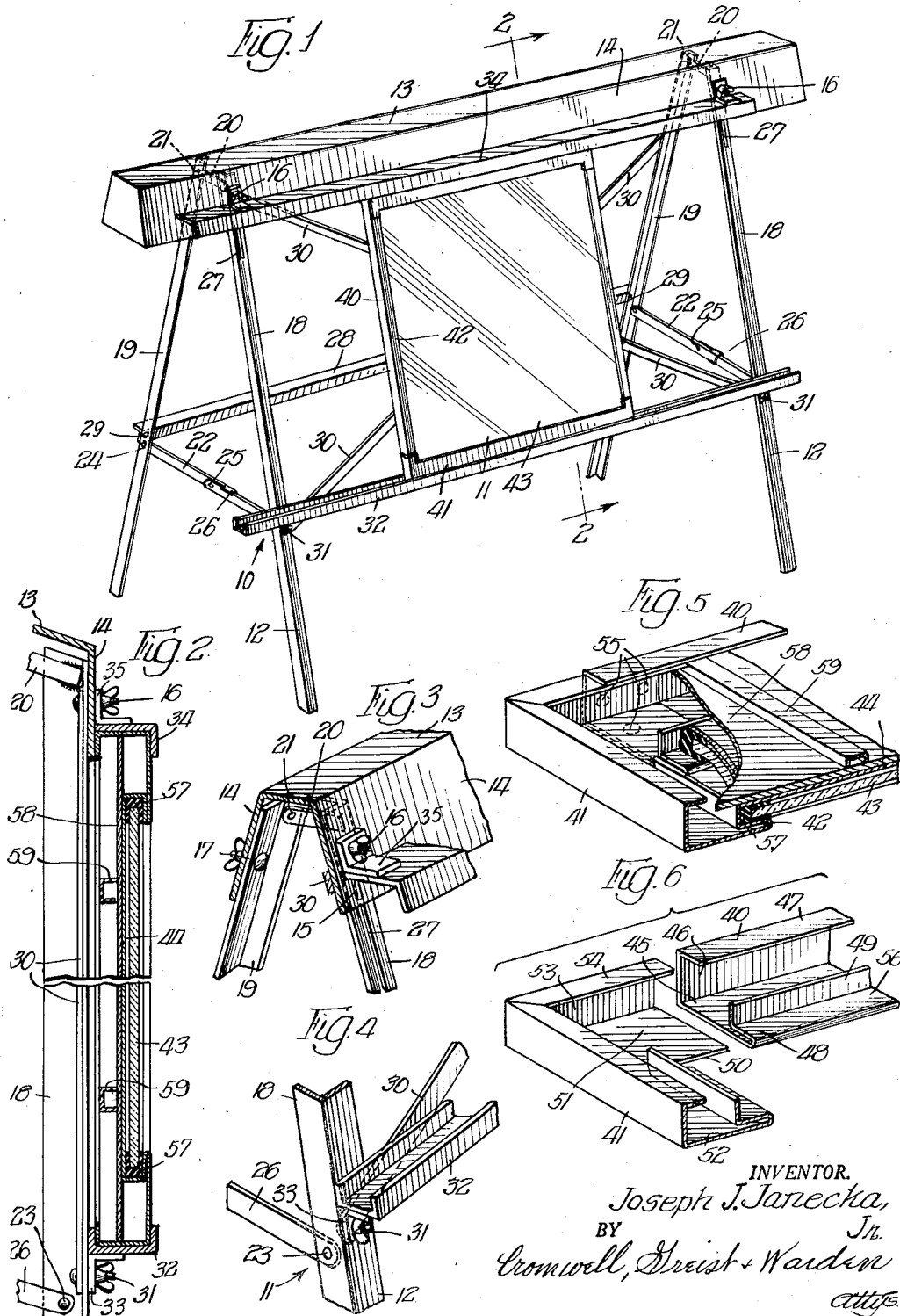
Sept. 1, 1959

J. J. JANECKA, JR

2,902,239

COLLAPSIBLE DISPLAY DEVICE

Filed Jan. 13, 1956



INVENTOR.
Joseph J. Janicka,
Jr.
BY
Cromwell, Dreist & Warden
attys

1

2,902,239

COLLAPSIBLE DISPLAY DEVICE

Joseph J. Janecka, Jr., Riverside, Ill.

Application January 13, 1956, Serial No. 558,985

5 Claims. (Cl. 248—197)

This invention relates to devices for displaying articles at exhibitions or the like and is more particularly concerned with improvements in an upright, collapsible easel type rack having one or more generally rectangular frames thereon which are adapted to receive postage stamps or like articles for display or exhibition purposes.

It is a general object of the invention to provide a collapsible rack in the form of an easel and one or more cooperating generally rectangular frames thereon which have provision for receiving display material such as found at stamp shows and other exhibitions of a similar character.

It is a more specific object to provide an easel type rack or supporting frame formed of light metal members which is adapted to be set up and to receive on one side thereof one or more generally rectangular display frames such as commonly employed for exhibiting stamps, paintings and other display material of a like character.

It is another object of the invention to provide a collapsible easel type display rack or frame of the character described which comprises relatively light metal frame members adapted to be detachably connected when the rack is in set-up condition and an elongate tray-like container or housing to receive the frame members when in knocked-down condition, which housing is adapted to form a rigid top brace member on the rack when the same is erected for use.

It is a further object of the invention to provide a device for exhibiting or displaying postage stamps or similar material which is adapted to be arranged in a generally rectangular frame and supported on an upright stand wherein the frame comprises side and end members formed of metal plate which is bent to provide a generally channel shaped cross section with a front wall, a side wall extending normal thereto from the outer edge thereof and terminating in a relatively narrow inverted flange, the latter being in a plane generally parallel with the front wall, the front wall having at its inner edge a relatively narrow flange member extending normal thereto and spaced inwardly thereof in the direction of the side wall, the flange member being connected to the front wall by a reversely bent portion whereby to form a generally rectangular opening having a recess around the periphery thereof for receiving a pane of glass or other transparent covering for the display material.

It is another object of the invention to provide a display frame comprising connected side and end forming members and formed of metal plate which is bent to provide a front wall, a side wall and an inner reversely bent portion terminating in a flange which is normal to the front wall and spaced inwardly of the inner edge thereof and in which the corner joints are formed by telescoped and rigidly joined portions of adjoining ends of the side and end forming members.

These and other objects and advantages of the invention will be apparent from a consideration of the dis-

2

play device which is shown by way of illustration in the accompanying drawings, wherein:

Fig. 1 is a perspective view of a display rack and frame having incorporated therein the principal features of the invention;

Fig. 2 is a section taken on the line 2—2 of Fig. 1 to an enlarged scale and with portions broken away;

Fig. 3 is a fragmentary perspective view, partly in section, showing a top frame joint;

Fig. 4 is a fragmentary perspective view, to an enlarged scale, of one of the bottom frame joints;

Fig. 5 is a fragmentary perspective view to an enlarged scale of a corner section of the rectangular display frame; and

Fig. 6 is an exploded perspective view of the corner portions of the frame members which are shown in Fig. 5 illustrating the manner of assembling the same to form the corner joint.

Referring to the drawings, there is illustrated a supporting device or easel-like rack structure 10 which is designed to support thereon three generally rectangular picture frame type display members 11 for exhibiting postage stamps or similar material which is conventionally mounted on album pages or other sheet material, only one of the frame display members being shown in position on the easel.

In the illustrated form of the invention, the supporting rack or easel 10, when in set-up upright condition as shown in Fig. 1, comprises two longitudinally spaced collapsible A frames 12, which may be identical, and which when set up are connected by a top brace forming member 13. The brace forming member 13 is of inverted truncated triangular or V-shaped cross section with its widest face open and in downwardly facing relation. It may be conveniently formed of bent metal plate, and is shaped to provide a container or housing of substantial depth and of sufficient size to receive the other members of the rack 10 when the latter is in collapsed and knocked-down condition. The member 13 has oppositely disposed, downwardly and outwardly tapered side walls 14 which are provided with elongate apertures or slots 15 for receiving clamping bolts 16 and 17 on the upper ends of the end A frames 12.

Each of the end frames 12 comprises a pair of upright leg members 18 and 19 which are connected at the top by a relatively short connecting bar or plate member 20 which is welded or otherwise secured to the front leg 18 and pivotally connected at 21 to the back leg 19. At a point intermediate the top and bottom ends of the legs 18 and 19 a double link brace bar 22 is provided which is pivotally connected at opposite ends at 23 and 24 to the respective legs 18 and 19, the two links being pivotally connected to themselves at 25 with a suitable catch or stop member 26 on the one link for engaging the other to hold the bar in its extended position as shown in Fig. 1. By collapsing the brace bar 22 and pivoting the back leg 19 about the pivot 21 the two legs 18 and 19 may be brought into collapsed parallel relation so that they may be positioned within the housing 13. The legs 18 and 19 of the end frames 12 are connected to the housing 13 by means of the bolts 16 and 17 which extend through the slots 15 in the housing walls 14. The bolts 16 and 17 are arranged below the upper ends of the legs 18 and 19 and are provided with suitable thumb nuts for detachably securing the same in the slots 15, the latter permitting vertical movement or adjustment of the housing 13 relative to the frame 12 so that the housing fits snugly over the top portions of the legs. Preferably, one of the bolts 17 is made removable so that the frame 12 may be collapsed with the other leg remaining pivotally attached to the housing 13 and the entire frame may be pivoted about the re-

3

maining bolt into the housing when it is collapsed. The leg 18 is slotted at 27 to permit it to slide, in the direction of its length, on the bolt 16 so that it may be adjusted relative to the member 13 to permit it to fit into the same when the frame is collapsed.

The end frames 12 are connected by a back brace bar 28 which is detachably secured at its ends by separable bolts 29 to the rear legs 19 of the two frames. The frames 12 are braced in the front by an X brace consisting of two bar members 30 pivotally connected at their center and each connected at the opposite ends thereof to the bolts 16 and 31 in the front legs 18 of the frames 12. The back brace bar 28 and the X brace 30 may be removed and the latter collapsed when the rack is knocked down for storage. The end frames 12 support a bottom channel member 32 which is positioned in upwardly opening or upwardly facing relation and secured to the front leg members 18 by a pair of angle brackets 33 which are rigidly secured by welding or the like to the web of the channel member 32 and which are apertured to receive the bolts 31. A cooperating top angle bar 34 is supported on the front wall 14 of the top frame member 13. Angle brackets 35 are welded or otherwise secured to the top leg of the bar 34 and suitably apertured to receive the bolts 16. The angle bar 34 faces downwardly and the distance between the bottoms of the guideways formed by the bottom and top bars 32 and 34 is slightly more than the depth of the frames 11 so that the latter may be inserted at the ends of the bars and slid into the desired position on the rack 10.

The display frames 11 are especially designed to cooperate with easel 10. Each of the frames 11 is generally rectangular in shape and has side and end frame members 40 and 41 which are formed from bent sheet metal to provide a generally rectangular central opening 42 for receiving a pane of glass 43, and a sheet or board 44 supporting the material which is to be displayed through the glass 43. The side frames 40 are formed from a single piece or strip of sheet material which is bent to provide a front wall 45 and outer peripheral side wall 46 which terminates in an inturned flange 47 which is in a plane parallel with the plane of the front wall 45. At its inner edge the front wall 45 has a reversely bent portion 48 which terminates in an upstanding relatively narrow flange 49, the latter being spaced a substantial distance from the outer wall 46 and being generally parallel therewith. The depth or height of the flange 49 is substantially less than the distance between the flange 47 and the front wall 45. The end frame members 41 are also formed from a single strip of sheet material which is bent to provide the same cross sectional form as the side frame members 40 except at the ends thereof. Portions of each end thereof are shaped to telescope within the end of the adjoining side wall sections 40 to form the corner joint. The end portion of the plate member 41 is cut on the line 50 to provide an extension 51 on the front wall forming portion 52 and the terminal end portions of the strip from which the member is formed are cut and folded to provide a short side wall section 53 and an inturned flange 54 which corresponds with the side wall sections 46 and the inturned flange 47 of the side frame member 40. The width of the extension 51 is slightly less than the width of the adjoining portion of the front wall 45 of the side member 40 and the joint forming portion of member 41 is adapted to be telescoped within the end portion of the side member 40 as indicated in Figs. 5 and 6 with the two frame members being secured against separation by spot welding as indicated at 55. The members may, of course, be secured in any other manner to provide a rigid frame having the glass receiving recess 56 extending around the opening 42 to accommodate the glass 43 and a gasket 57 of rubber or similar cushioning material. The board 44 provides surface space for

4

mounting thereon the display material which is to be placed beneath the glass 43 and a backing board 58 is inserted which bridges the sides of the rubber gasket 57 and which is held in position by one or more clamp bars 59. The latter may be channel shaped as shown and of sufficient length to extend at the ends beneath the opposed flanges 47 of the side frame members 40, with the bars 59 being of sufficient thickness or depth to bear against the backing board 58 and hold the entire assembly in position by friction.

The frames 11 are assembled and stored or shipped separately from the easels or racks 10. The easels 10 are readily collapsed by removing the brace bars 28, 30 and the frame supporting bars 32 and 34. The end A frames may be collapsed and folded into the casing 13 with the cross frames and supporting bars placed therein so that the casing 13 functions as a container for the entire rack structure for storage or shipment.

While the invention has been disclosed in connection with the display of material, such as postage stamps, the frames and easel may be adapted for displaying documents, paintings, maps or any material of a similar nature which may be secured or mounted in the frames. Also the particular materials used in the construction of the frames and easel may vary and it is contemplated that materials other than those specifically referred to which have the required strength and rigidity may be employed.

I claim:

1. An upright rack for supporting generally rectangular display frames, said rack comprising an elongate open tray-like housing of bent plate material having a bottom member and side walls inclined thereto to form an inverted truncated V-shaped cross section, end frame members each comprising a pair of leg members and means connecting adjacent upper ends of said leg members for relative pivotal movement, said leg members having a collapsible brace intermediate their ends, one leg member of each end frame having a clamp bolt adjacent its upper end and one side wall of said housing having longitudinally spaced elongate slots extending transversely thereof to receive the bolts on said leg members, cross brace members extending between corresponding legs of said end frame members and top and bottom bars mounted in parallel spaced relation on said housing and said end frame members, which bars are provided with guideway formations for receiving the top and bottom edges of said display frames.

2. An upright rack for supporting generally rectangular display frames, said rack comprising a top member in the form of an elongate open tray-like housing having an inverted truncated generally V-shaped cross section, end frames each comprising a pair of leg members with means pivotally connecting adjacent upper ends and a collapsible brace intermediate the ends thereof, said leg members each having a separable clamp bolt adjacent its upper end and the side walls of said housing having oppositely disposed apertures adjacent the ends thereof to receive said bolts, with the apertures in one wall of said housing being elongate transversely extending slots, separable cross brace members extending between corresponding leg members of said end frames in spaced relation to said housing, and one of the leg members on each of said end frames having an axially extending slot for receiving the upper clamp bolt in sliding relation therein whereby when said end frames are collapsed they may be folded into said top housing and when said end frames are erected said housing will fit snugly over the upper ends thereof.

3. An upright rack for supporting one or more generally rectangular display frames, said rack comprising an elongate open tray-like top member having an inverted truncated V-shaped cross section, collapsible end A frames each comprising a pair of leg members pivotally connected adjacent their upper ends and having a collapsible brace spaced therefrom, said leg members being of a

5

length which is less than the length of said top member, said leg members having removable bolts adjacent their upper ends and the side walls of said top tray member having oppositely disposed elongate transversely extending slots adjacent the ends thereof to receive said bolts, cross brace members separably connected in parallel spaced relation between corresponding legs of said end frame members, the bottom one of said cross brace members being formed to provide a bottom channel for receiving said rectangular display frames and the top one of said brace members being angular and mounted on said housing to provide a top channel for receiving said display frames.

4. An upright rack for supporting generally rectangular display frames, said rack comprising an elongate open tray-like housing forming a top member and collapsible end frames connected by separable cross bracing, said housing member being formed of plate material and having an inverted truncated V-shaped cross section, said end frames being of inverted truncated V-shape in erected condition and each comprising a pair of leg members pivotally connected by a relative short link member adjacent the upper ends thereof, said pair of leg members being connected by a collapsible brace intermediate their ends, one of the leg members of said pair thereof being pivoted to the inside of an inclined side wall of said housing member, the other of the leg members of said pair having a separable clamp bolt adjacent the upper end, said housing having a transversely extending slot in the side wall adjacent the end thereof to receive the clamp bolt, and top and bottom channel forming bars removably mounted on said housing and extending between said end frames, said channel forming bars providing opposed guideway forming recesses for receiving the top and bottom edges of said display frames.

5. An upright rack for supporting generally rectangular display frames, said rack comprising a top member in the form of an elongate open tray-like housing having an inverted truncated generally V-shaped cross section, end frames at opposite ends of said housing each comprising a pair of leg members of lesser length than said housing, said leg members being pivotally connected by a

6

link member adjacent the upper ends so as to present an upper end of the same shape and dimensions as the cross sectional shape and dimensions of said housing and having a collapsible connecting brace spaced below said upper ends, one of said leg members of each end frame having a separable clamp bolt adjacent the upper end and the side walls of said housing having oppositely disposed elongate slots adjacent the ends thereof to slidably receive the bolts in the leg members of the end frames, separable and collapsible cross brace members extending between corresponding leg members of said end frames in the lengthwise direction of said housing, one of the leg members on each of said end frames having an axially extending slot for receiving the upper clamp bolt in sliding relation therein whereby said end frames are adapted to be collapsed and folded into said top housing, said housing being adapted to telescope over the upper ends of said end frames when the latter are erected so as to form a relatively rigid top brace between said end frames, a lower supporting bar separably connected between corresponding legs of said end frames and having an upwardly opening recess for receiving the lower edge of a display frame, and an upper retaining bar separably connected between said end frames and providing a downwardly opening axially extending recess for confining the top portion of a frame positioned in the recess in said lower supporting bar.

References Cited in the file of this patent

UNITED STATES PATENTS

574,486	Jones	Jan. 5, 1897
613,323	Scott	Nov. 1, 1898
933,650	Kramer	Sept. 7, 1909
945,626	Smith	Jan. 4, 1910
1,435,738	Reiman	Nov. 14, 1922
1,751,614	Born	Mar. 25, 1930
1,823,871	Beasley	Sept. 22, 1931
2,002,128	Reidenbaugh	May 21, 1935
2,480,702	Bradford	Aug. 30, 1949
2,593,195	Rosenberg et al.	Apr. 15, 1952
2,749,636	Viglietta	June 12, 1956