

Aug. 20, 1935.

A. BARRON

2,012,117

FLOOR STAND OR SIMILAR ARTICLE

Filed May 11, 1934

4 Sheets-Sheet 1

Fig. 1.

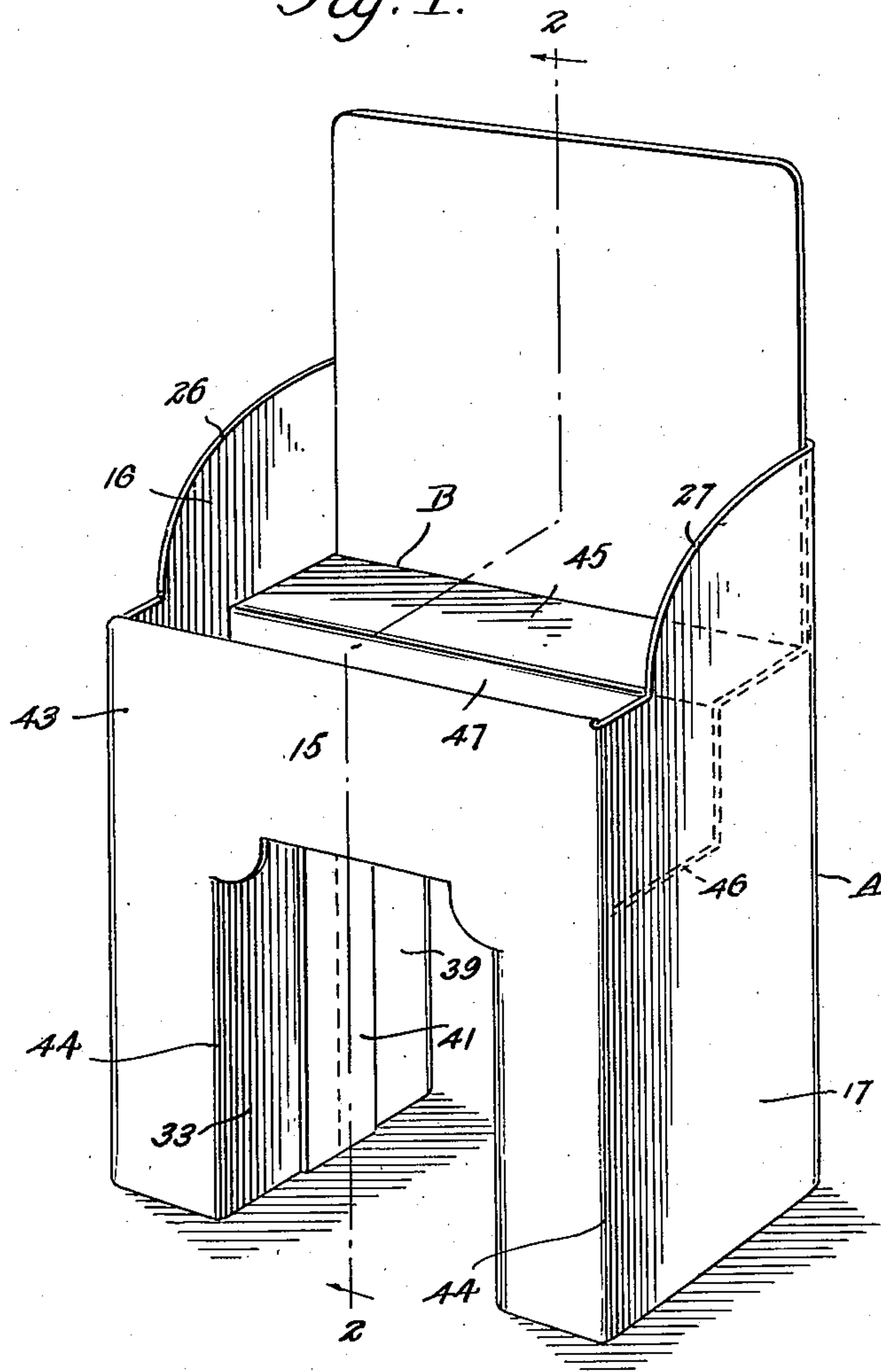


Fig. 2.

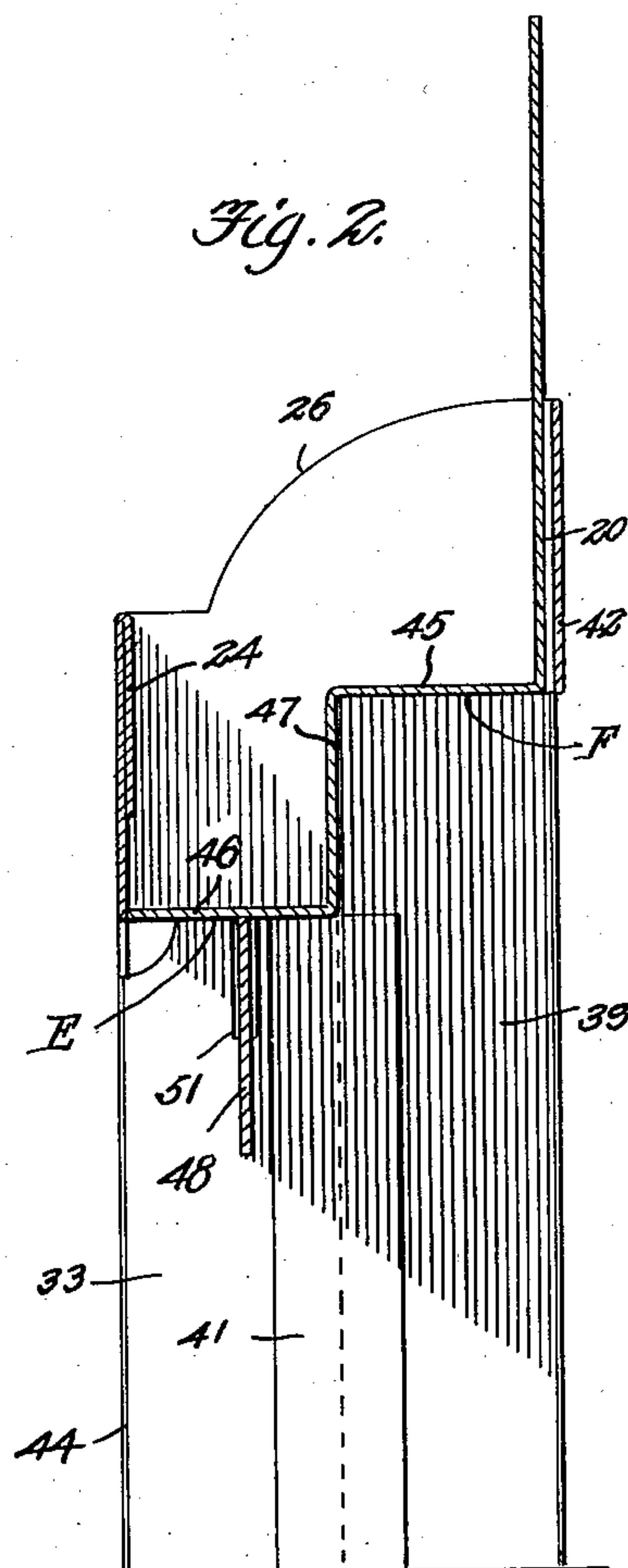
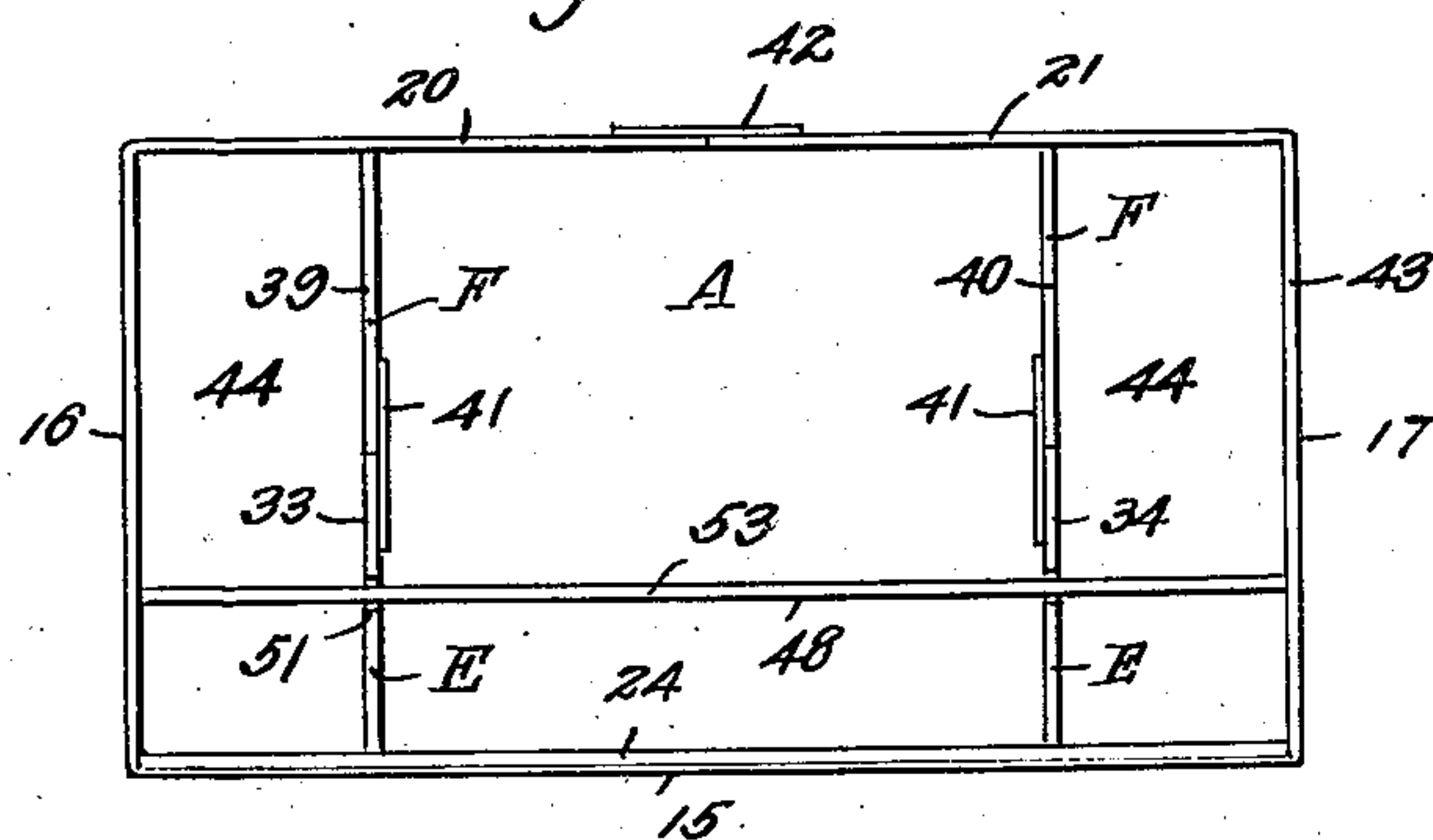


Fig. 3.



INVENTOR.
ABRAHAM BARRON
BY *Clark & Ott*
ATTORNEYS.

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A. BARRON

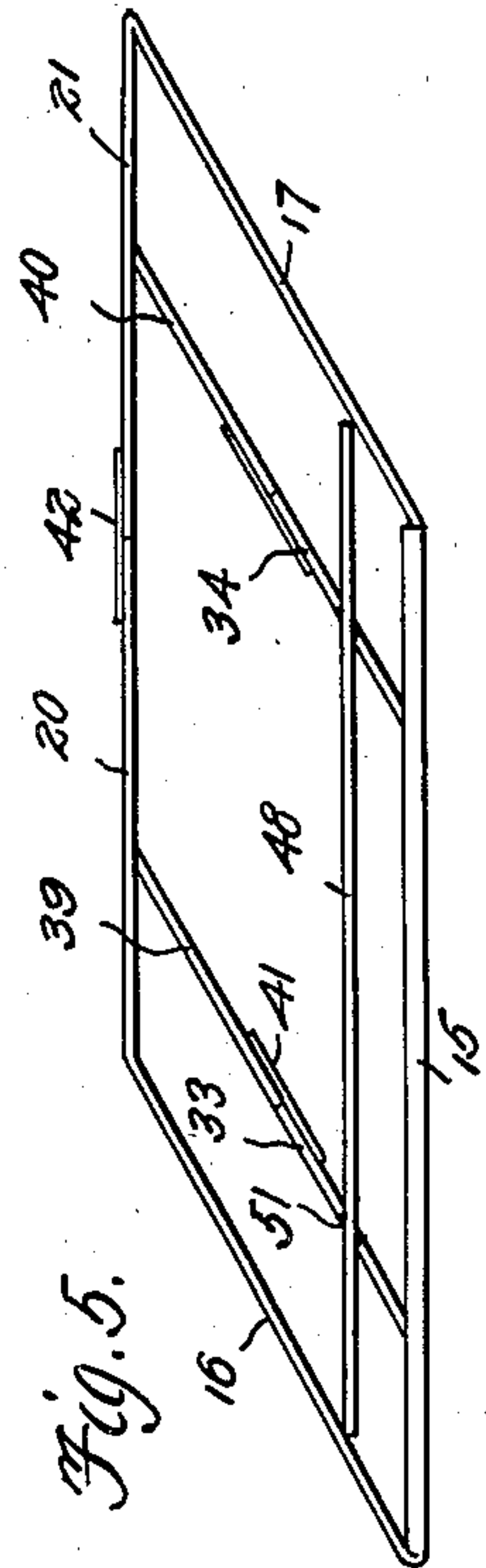
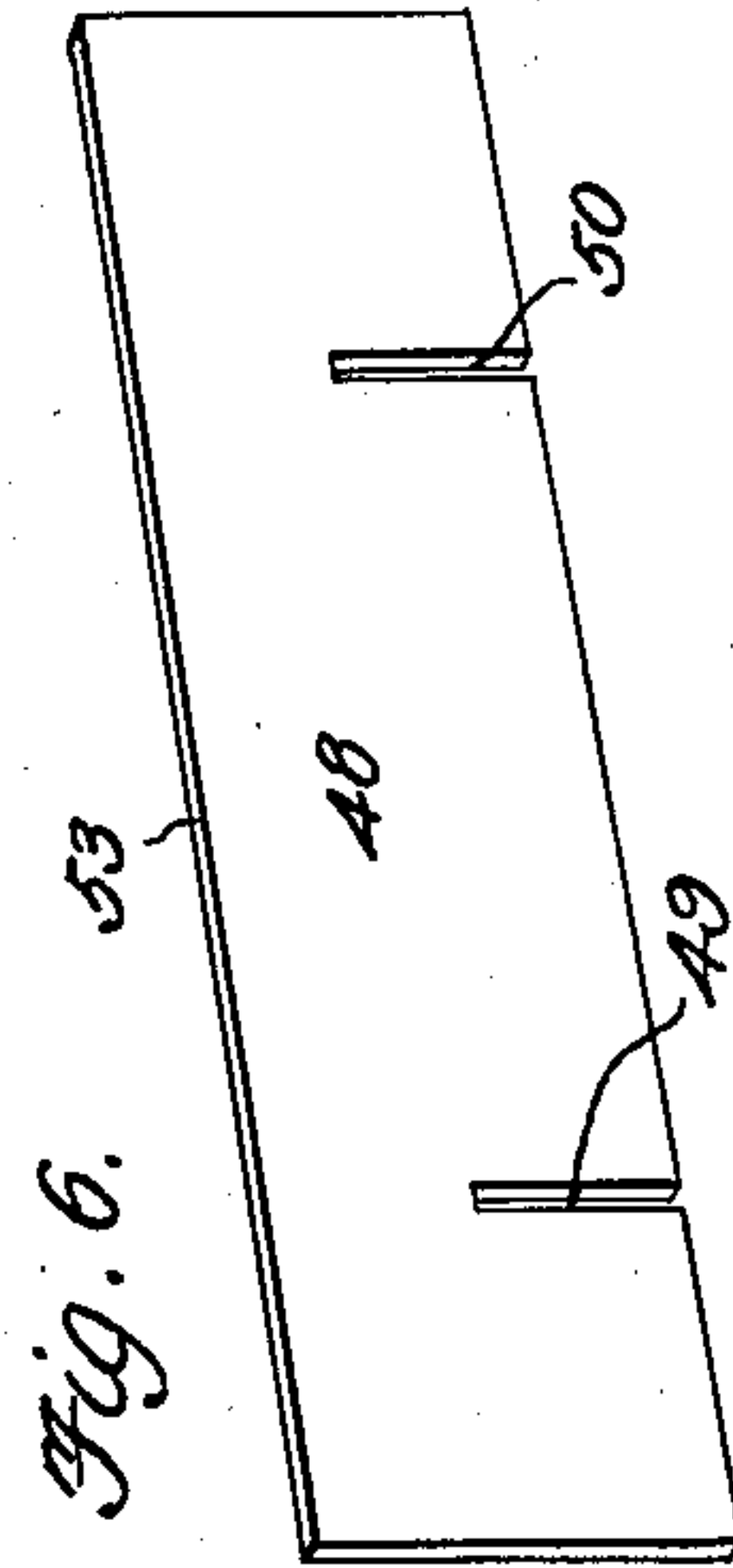
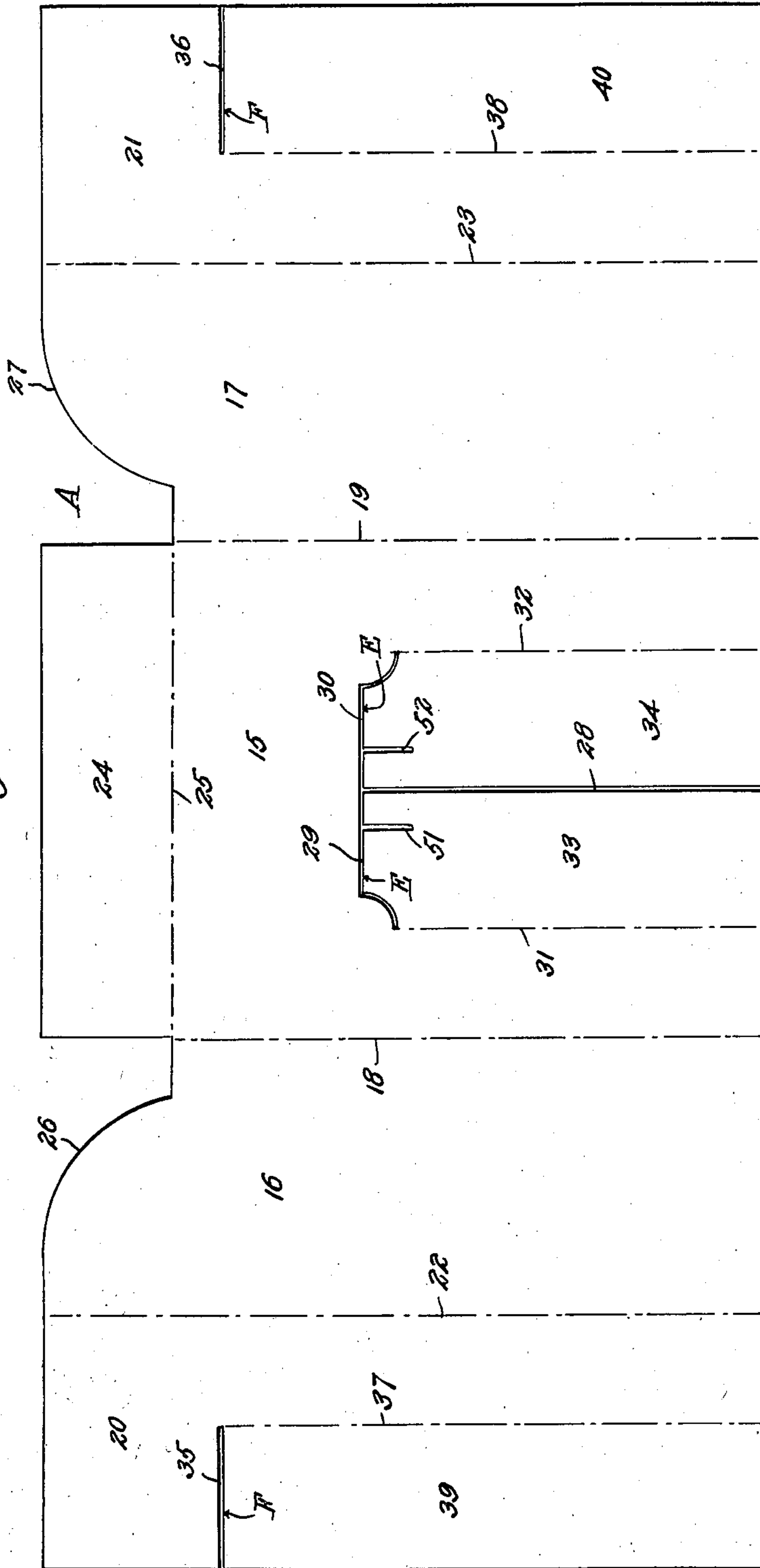
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Fig. 4.



INVENTOR.
ABRAHAM BARRON
BY *Clark & Ott*
ATTORNEYS.

Aug. 20, 1935.

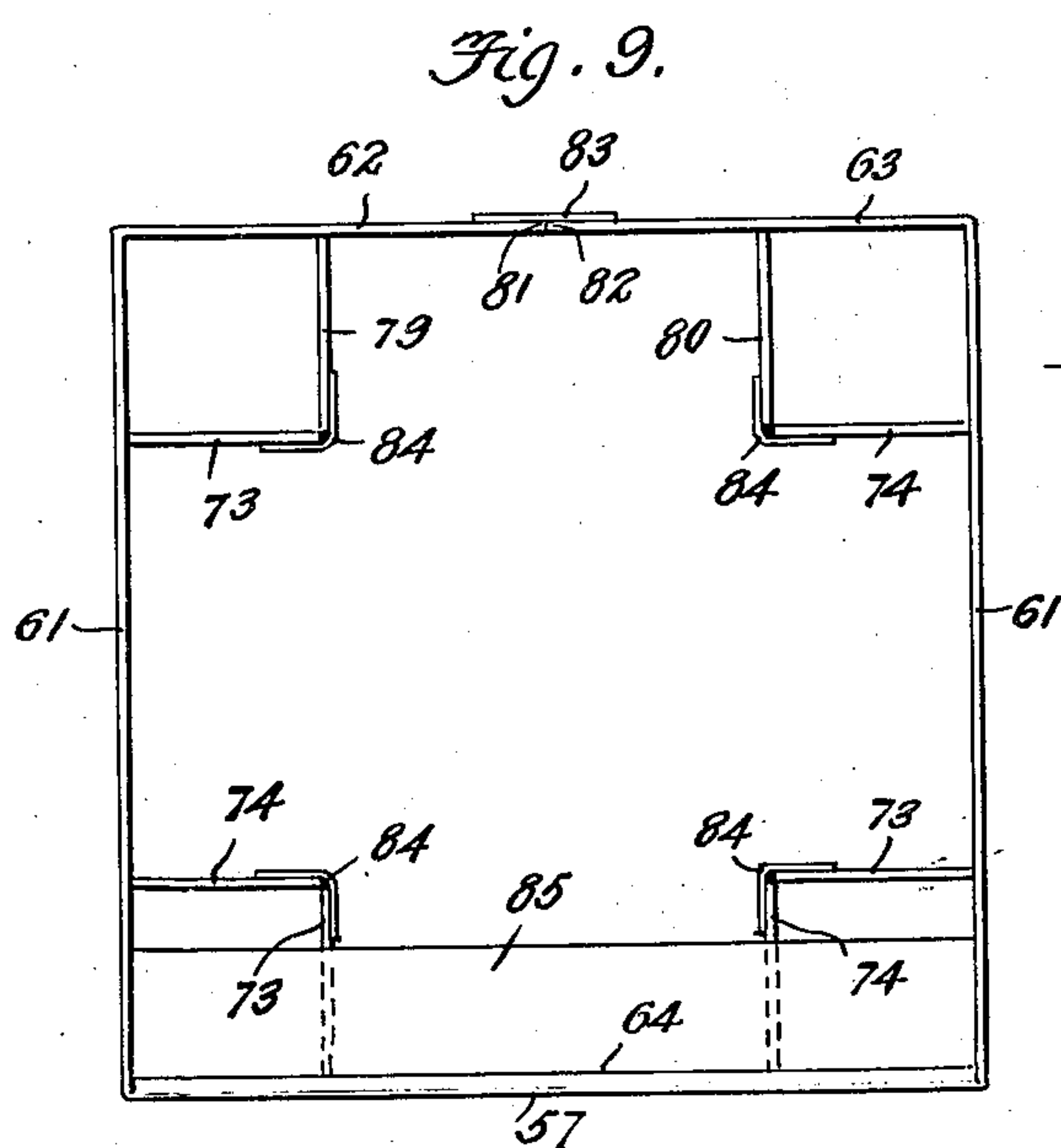
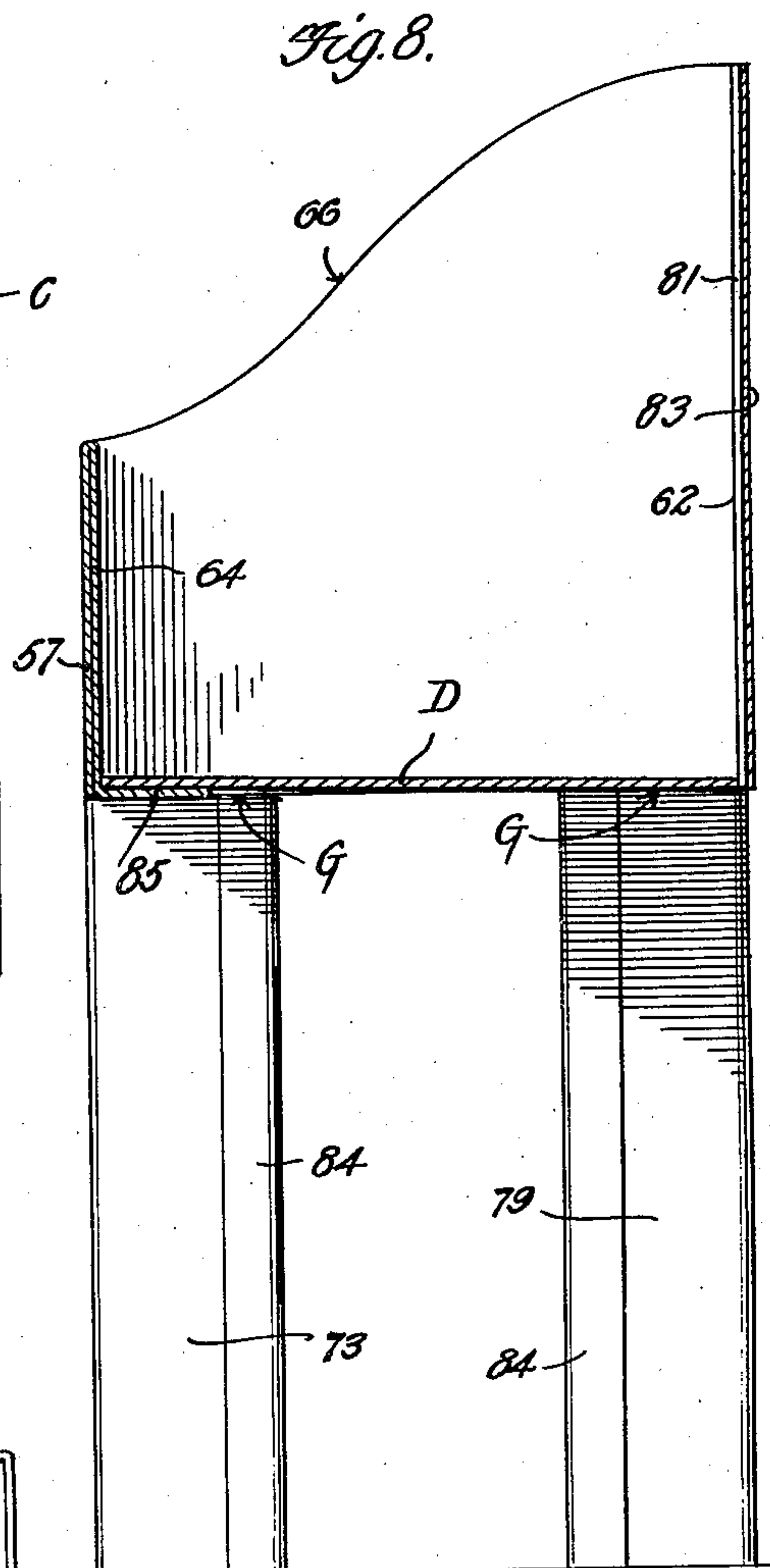
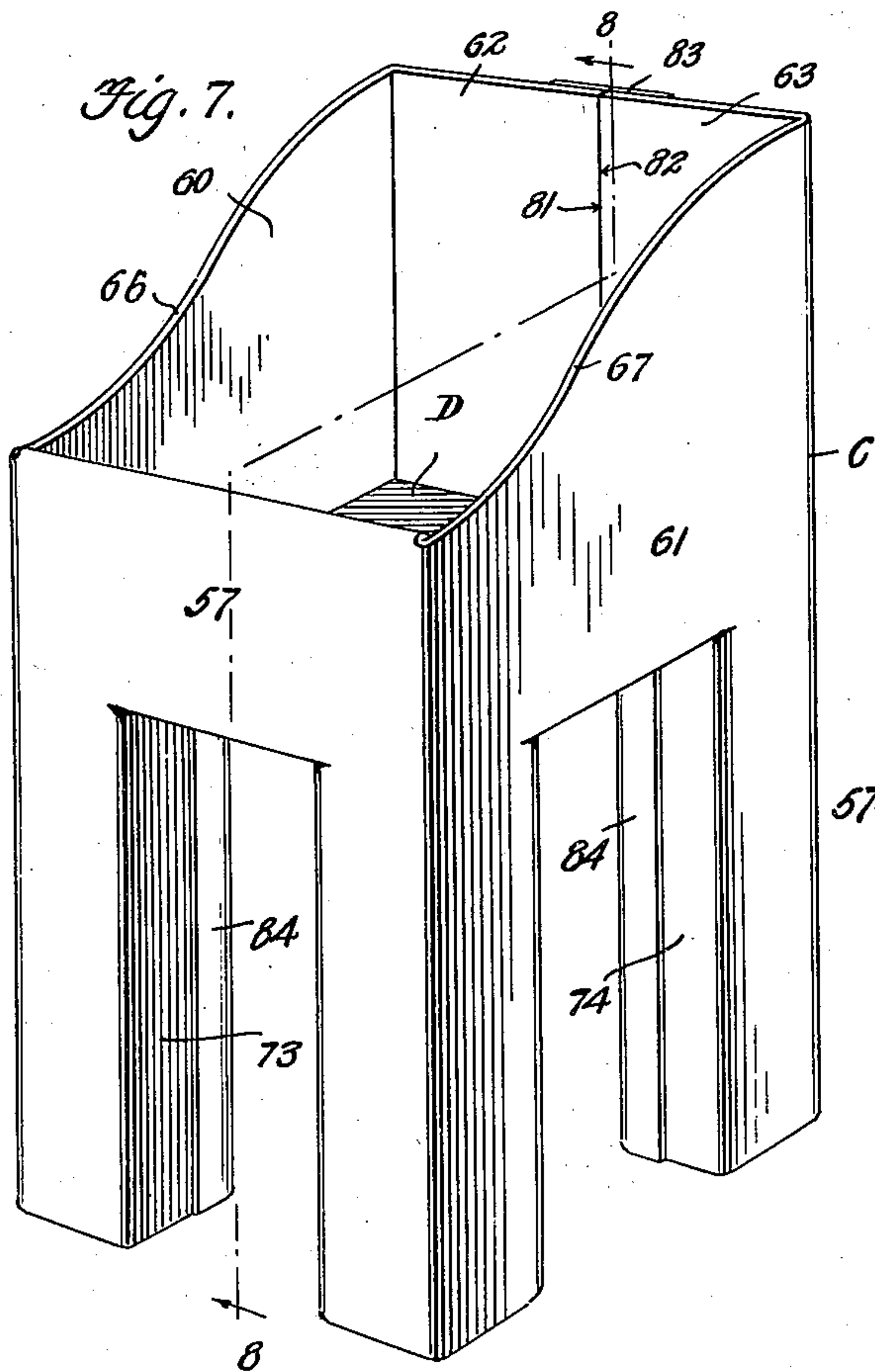
A. BARRON

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FLOOR STAND OR SIMILAR ARTICLE

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INVENTOR.
ABRAHAM BARRON
BY *Clark & Ott*
ATTORNEYS.

Aug. 20, 1935.

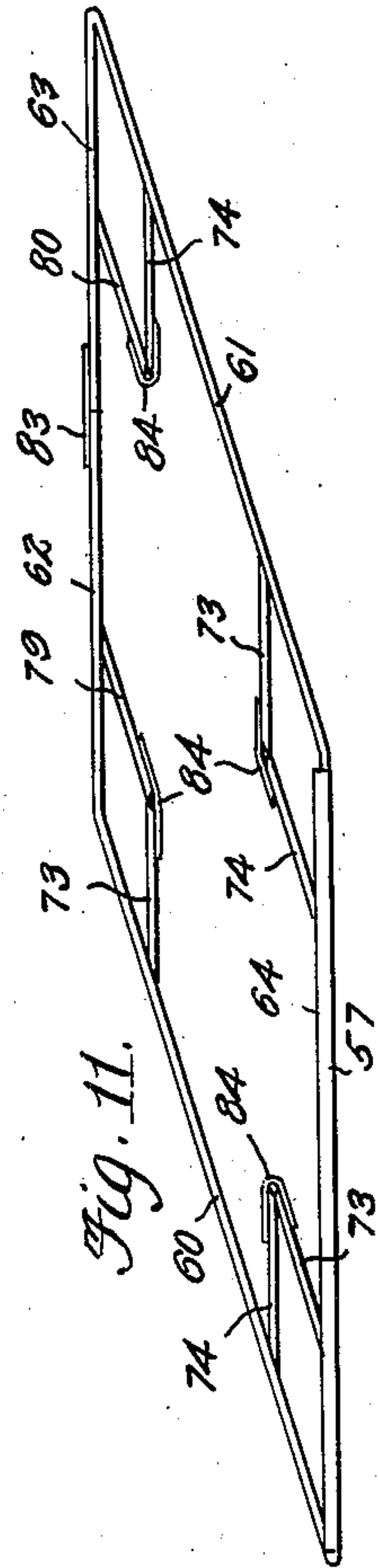
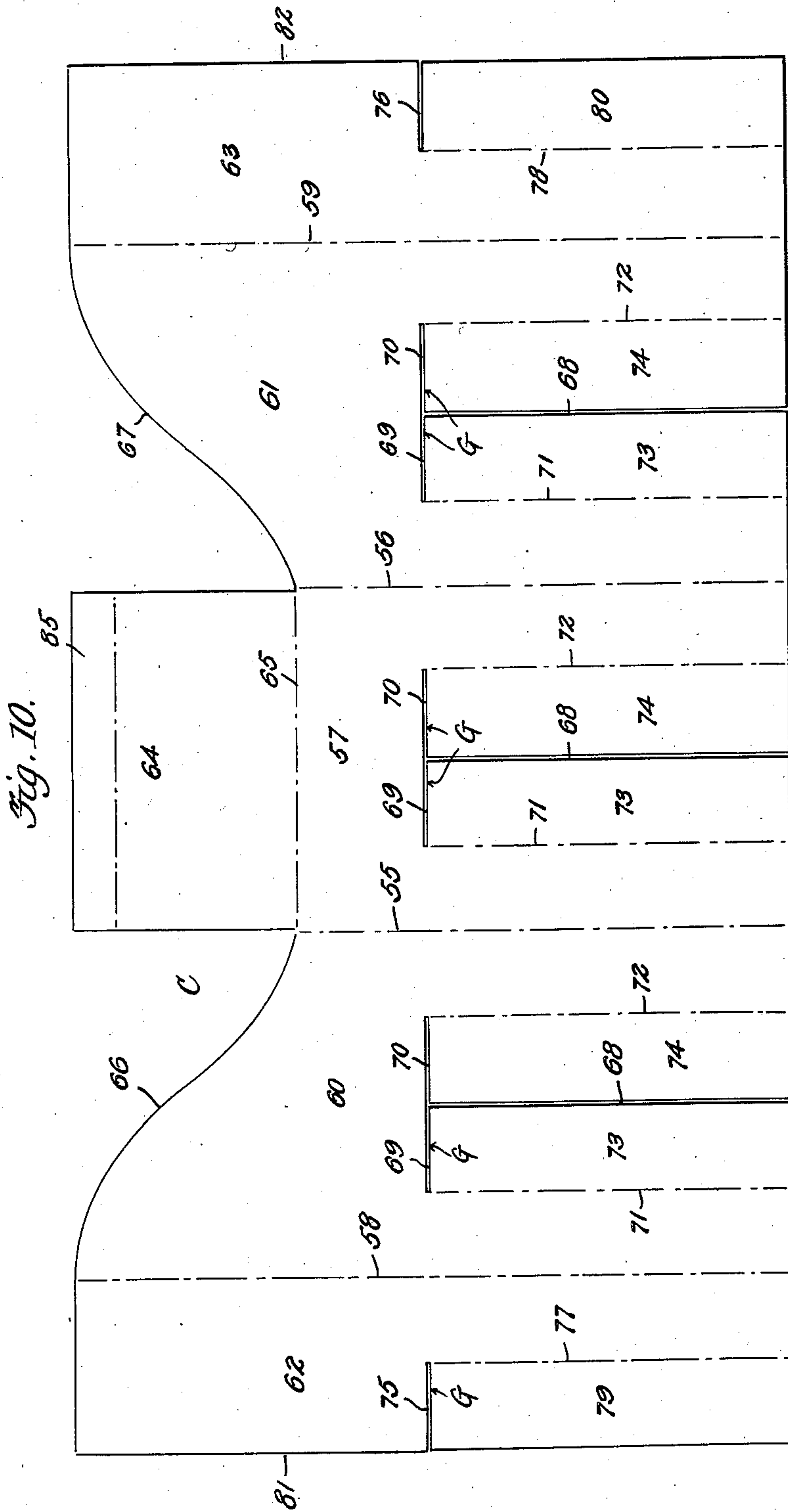
A. BARRON

2,012,117

FLOOR STAND OR SIMILAR ARTICLE

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4 Sheets-Sheet 4



INVENTOR.
ABRAHAM BARRON
BY *Clark & Ott*
ATTORNEYS.

UNITED STATES PATENT OFFICE

2,012,117

FLOOR STAND OR SIMILAR ARTICLE

Abraham Barron, Bronx, N. Y.

Application May 11, 1934, Serial No. 725,110

7 Claims. (Cl. 248—174)

This invention relates to knock-down articles made of sheet material such as paper board, cardboard, corrugated paper board or other bendable material, and, while not necessarily restricted thereto, the invention is particularly applicable to a floor stand or bin structure for receiving and displaying merchandise, the same being in the nature of an improvement upon my co-pending application, Serial No. 703,397, filed December 21, 1933.

The invention broadly contemplates a floor stand or equivalent structure formed of suitable sheet material and so constructed as to provide an upper portion defining a tray or bin and a lower portion fashioned to provide hollow supporting legs.

The present invention comprehends a floor stand or analogous article including a body member which may be fashioned from a single sheet of stock, the construction and arrangement being such as to provide the marginal walls of a tray or bin and tubular supporting legs, certain of the sides of which coincide with and constitute a continuation of the walls of the tray or bin and the upper edges of the remaining sides of which legs serve as supports for a member constituting a tray or bin bottom which is located within the body member to complete the tray or bin structure.

As a further object the invention provides a device of the character and for the purpose set forth in which the body member is so constructed that when the tray bottom defining member is removed, the said body may be collapsed to a flat compact arrangement so as to economize on the amount of space required for the storage and shipment of the device.

The invention further embodies in certain of its forms a brace element which, in addition to serving as a means for retaining the leg portions against buckling, functions in the capacity of an auxiliary or supplemental support for the tray bottom defining member, while generally strengthening and bracing the entire structure.

As a still further feature, the invention provides a collapsible body member which requires only the expanding of the same to a set up condition and the insertion of the tray bottom defining member in the upper portion of the body member, thereby avoiding complicated operations for setting up the structure and eliminating the necessity of explanations or instructions.

Other objects and advantages of the invention reside in the provision of an improved article of the indicated character which employs but few

and simple parts rendering it capable of economical production and assembly and providing an article possessing the requisite strength and durability, in addition to the fact that it is subject to a wide variety of attractive designs.

In the drawings:

Fig. 1 is a perspective view of a floor stand constructed in accordance with the invention illustrating the same in set up condition.

Fig. 2 is a vertical sectional view therethrough taken approximately on a plane indicated by the line 2—2 in Fig. 1.

Fig. 3 is a top plan view of the device in set up condition with the tray bottom-forming member removed.

Fig. 4 is a view of the blank from which the body member is formed.

Fig. 5 is a plan view of the body member in partially collapsed condition.

Fig. 6 is a perspective view of the brace element detached from the body member.

Fig. 7 is a perspective view of a floor stand illustrating a modified adaptation of the invention.

Fig. 8 is a vertical sectional view therethrough taken approximately on a plane indicated by the line 8—8 in Fig. 7.

Fig. 9 is a top plan view of the body member of the floor stand in set up condition with the tray bottom-forming member removed.

Fig. 10 is a plan view of the blank from which the body member is formed.

Fig. 11 is a top plan view of the body member in partially collapsed condition.

Referring to the drawings by characters of reference, and particularly to the form of the invention illustrated in Figs. 1 to 6, inclusive, A designates generally the body member of a floor stand and B designates generally the tray or bin bottom-forming member.

The body A may be and preferably is fashioned from a single sheet of stock such as paper board, cardboard, corrugated paper board or the like and the blank from which it is formed is illustrated in Fig. 4. As shown, the blank is cut and scored to provide a front panel 15, side panels 16 and 17, foldable to an angular position along vertical score lines 18 and 19, and rear panel areas 20 and 21 attached to the side panels 16 and 17 respectively, and foldable along the vertical score lines 22 and 23. In this form of the invention which illustrates the forward edge of the tray or bin-forming portion in a lower plane than the rear edge, a flap 24 is provided as a part of the front panel 15 which is folded in-

wardly along a horizontal score line 25. The side panel areas 16 and 17 have the upper edges 26 and 27 suitably shaped to produce any desired ornamental configuration. The front panel area 15 is provided with a vertical slit 28 opening through the lower edge of the blank and extending upwardly therefrom. Horizontal slits 29 and 30 communicate at their inner ends with the upper end of the vertical slit and extend laterally therefrom to vertical score lines 31 and 32 thereby defining leg-forming portions 33 and 34 which are designed to be bent rearwardly into a plane perpendicular to the front panel 15 and parallel to the side panels 16 and 17. The rear panel areas 20 and 21 are respectively provided with horizontal slits 35 and 36 which open through the side edges of the blank and extend inwardly therefrom to vertical fold lines 37 and 38 which extend downwardly from the slits 35 and 36 to the lower edge of the blank thereby defining leg-forming portions 39 and 40 which are designed to be bent forwardly on the fold lines 37 and 38 to lie respectively in planes coinciding with the planes of the leg-forming portions 33 and 34 and with the edges of the leg-forming portions 33 and 39 and 34 and 40 in contiguous relation.

An adhesive tape 41 or equivalent means is secured over the mating leg-forming portions 33 and 39 and 34 and 40 respectively. The side edge portions of the rear panels 20 and 21 of the blank between the slits 35 and 36 and the upper edge of the blank are disposed in contiguous relation and secured together by an adhesive tape 42 or equivalent securing means. Under this construction and arrangement, the body member A provides an upper portion defining a continuous upright marginal tray wall 43, while the lower portion thereof defines a plurality of tubular supporting legs 44. It will also be observed that the leg-forming portions 33 and 34 and 39 and 40 present upper free edges E and F respectively which edges lie within the confines of the area encompassed by the upright marginal tray-forming wall 43. Obviously, the stand or bin may be made in varying designs, but in the form selected and shown in Figs. 1 to 6 inclusive, the tray or bin-forming portion is of the stepped bottom type, and the tray or bin bottom defining member B is formed from a strip of material similar to the body member A and is scored and bent to define upper and lower shelf portions 45 and 46 joined by a vertical link 47. The member B is fitted into the upper end of the body member A so that the stepped portions 45 and 46 respectively rest upon the edges F and E, while the link engages against the forward edges of the leg-forming portions 39 and 40.

In order to provide means for retaining the leg-forming portions 33, 34, 39 and 40 against buckling, and to serve in the capacity of an auxiliary or supplemental support for the tray or bin bottom defining member, while further acting to generally strengthen and brace the entire structure, brace elements 48 may be employed which consist of a rectangular elongated strip of material of a length corresponding to the inside transverse measurement of the formed body member A. Said brace element 48 is provided with vertical slits 49 and 50 opening through the lower edge and extending upwardly approximately one-half of the height of the element, the slits being spaced from the opposite ends of the element a distance equal to the width of the legs 44. In this instance, the leg-forming portions 33 and 34 are formed with corresponding vertical slits

51 and 52 which open through the upper edges E and extend downwardly therefrom a distance equal to approximately one-half of the depth of the element 48. The brace element 48 is fitted into the slits 51 and 52 and the slits 49 and 50 straddle the leg-forming portions 33 and 34 immediately below the slits 51 and 52. Under this arrangement it will be seen that the upper edge 53 of the brace element 48 is disposed in a plane coinciding with the plane of the upper edges E of the leg-forming members 33 and 34 and constitutes an auxiliary or supplemental support for the tray or bin bottom defining member B.

Obviously, the construction of the body A is such that when the member B is removed the body may be then collapsed to a flat compact condition so as to economize on the amount of space required for storage and shipment of the device, the body being shown in Fig. 5 in partially collapsed condition. It will also be observed that it is unnecessary to remove the brace element 48 which readily moves with the body member A to the collapsed condition.

From the foregoing it will be apparent that the collapsible body member requires only its expansion to a set up condition and the insertion of the tray or bin bottom defining member in the upper portion thereof thereby rendering the device simple and easy to set up, which eliminates the use of explanatory diagram and instructions.

In the form of the invention illustrated in Figs. 7 to 11 inclusive, the floor stand follows the same general construction as that disclosed in the other form shown, and the device includes a body member C and a tray or bin bottom-forming member D. In this form of the invention, as in the previous form, the body C is preferably made from a single sheet of stock which is provided with vertical score lines 55 and 56 defining a front panel 57, and vertical score lines 58 and 59 defining side panels 60 and 61 and rear panels 62 and 63. Where the forward edge of the tray or bin-forming portion is to be disposed in a lower plane than the rear edge thereof, a flap 64 is provided as a part of the front panel 57, said flap being adapted to be folded inwardly along a horizontal score line 65. The side panel areas 60 and 61 will have the upper edges 66 and 67 suitably shaped to produce the desired ornamental contour. In this instance, in order to provide the body structure with a hollow leg at each corner, the front and side panels 57, 60 and 61 are each provided with a centrally disposed vertical slit 68 opening through the lower edge of the blank and extending upwardly therefrom. Horizontal slits 69 and 70 communicate at their inner ends with the upper end of each vertical slit and extend laterally therefrom to vertical score lines 71 and 72, thereby defining the leg-forming portions 73 and 74 from the lower portion of each of said panels. The rear panel areas 62 and 63 are respectively provided with horizontal slits 75 and 76 which open through the side edges of the blank and extend inwardly therefrom to vertical score lines 77 and 78, which score lines extend downwardly from the slits to the lower edge of the blank, thereby defining leg-forming portions 79 and 80. The upper portions of the side edges 81 and 82, lying between the slits 75 and 76, and the upper edge of the blank, are brought into abutting relation and secured together by an adhesive tape or equivalent securing means 83.

The free vertical edges of the leg-forming portions 73 and 74 of the front panel 57 are joined to adjacent leg-forming portions of the side panels 60 and 61 respectively by adhesive tape or equivalent securing means 84. The free edges of the remaining leg-forming portions of the side panels 60 and 61 are joined to the free edges of the adjacent leg-forming portions 79 and 80 of the rear panel areas 62 and 63 respectively by adhesive tape or equivalent securing means 84. This provides a body member, the upper portion of which, above the leg-forming areas, defines the marginal or side walls of a bin or tray structure and the lower portion of which defines a plurality of hollow legs located respectively at the corners of the body member, the upper free edges G of which legs defined by the areas 73, 74, 79 and 80 serve as a support for the tray or bin bottom-forming member D. The member D is preferably fashioned from a stock similar to that of the body member C and is shaped to snugly fit within the upper end so as to hold the body member in expanded condition. Due to the construction of the body member D, it will be apparent that when the bottom-forming member D is removed therefrom, said body member may be collapsed to a flat compact arrangement, the same being shown in partially collapsed condition in Fig. 11 of the drawings.

If desired, the lower edge of the intumed flap 64 may be provided with an extension 85, as shown, which extension is directed rearwardly and is disposed in a horizontal plane. The extension 85 is designed when the body member is set up, to rest upon the upper edges G of the front legs so as to brace the structure laterally and to underlie and assist in the support of the front portion of the bottom forming member D.

What is claimed is:

1. In a knock-down article of the character set forth, a body member fashioned from a single sheet of stock and so constructed and arranged as to provide an upper portion defining a continuous upright tray wall, and a lower portion defining a plurality of tubular supporting legs having free upper edges lying within the confines of the area encompassed by the upright wall, and a member defining a tray bottom fitted within the upright wall and resting upon and supported by the free upper edges of the legs, said body member being held in its expanded set up condition by the tray bottom defining member and being collapsible to a flat compact arrangement when the tray bottom defining member is removed therefrom.

2. In a knock-down article of the character set forth, a body member fashioned from a flat sheet of stock having the side edges of the upper portion thereof joined together to provide a continuous upright tray wall, the lower portion of the stock having vertical slits opening through and extending upwardly from its lower edge and horizontal slits extending in opposite directions from the upper ends of the vertical slits to define areas bent inwardly and joined together at their vertical free edges for providing a plurality of hollow legs having free edges at their upper ends located within the area encompassed by and at the lower end of the tray wall and a tray bottom defining member fitted within the tray bottom wall supported on the

free edges of the upper ends of the hollow legs.

3. A floor stand including a bin comprising marginal side walls and a bottom wall fitted within the marginal side walls, and a plurality of independent hollow legs formed integral with the side walls of the bin, each leg having inwardly bent portions connected together and providing free upper edges located in a plane coinciding with the plane of the lower edges of the side walls and defining supports upon which the bottom wall rests.

4. A floor stand including a bin comprising a bottom and angularly related side walls, and legs located at corners of the bin each having a portion extending throughout its height and formed integral with and as a continuation of a side wall of the bin and inwardly directed portions extending throughout the height of each leg having free upper edges defining underlying supports for the bottom of the bin and a transverse vertically disposed brace element engaging respectively with the inwardly directed leg portions to retain the same in spaced relation.

5. A floor stand including a bin comprising a bottom and angularly related side walls, and legs located at corners of the bin each having a portion extending throughout its height and formed integral with and as a continuation of a side wall of the bin and an inwardly directed portion extending throughout the height of each leg having free upper edges defining underlying supports for the bottom of the bin and a transverse vertically disposed brace element engaging respectively with the inwardly directed leg portions to retain the same in spaced relation, the upper edges of the inwardly directed portions and the lower edge of said element having notches respectively straddling the element and the inwardly directed portions.

6. In a knock-down article, a collapsible body member having an upper portion including swingably connected angularly related walls and a lower portion having areas cut and bent inwardly and joined together to provide tubular legs depending from the upper portion of the body member, said legs having upper free edges lying within the confines of the area encompassed by the walls of said upper portion and said upper and lower portions of the body member being collapsible together to a flat compact arrangement, and means having an upper supporting surface fitted within the walls of the upper portion supported by the upper free edges of the legs and adapted to maintain the body member in set-up condition.

7. In a knock-down article, a collapsible body member having an upper portion including swingably connected angularly related walls and a lower portion having areas cut and bent inwardly and joined together to provide tubular legs depending from the upper portion of the body, said legs having upper free edges lying within the confines of the area encompassed by the walls of said upper portion and said upper and lower portions of the body member being collapsible together to a flat compact arrangement, and means fitted within the walls of the upper portion and supported by the upper edges of the legs for holding the body member in set-up condition.

ABRAHAM BARRON.