Oct. 11, 1938. F. W. HILL 2,132,785

DISPLAY STAND

Filed May 24, 1937

Fig. 1

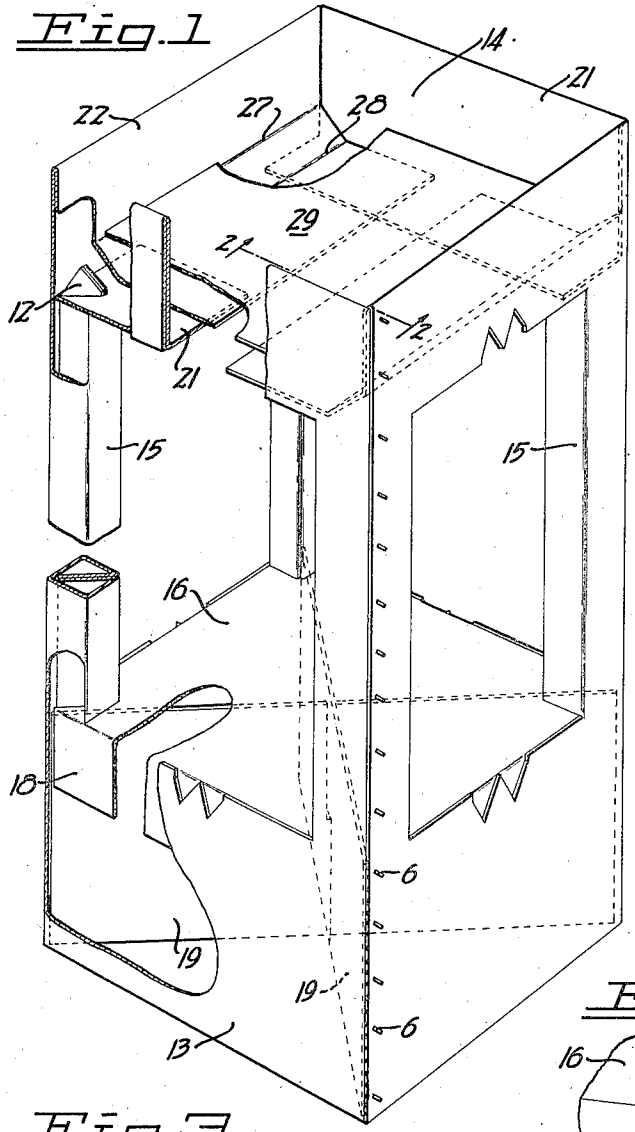


Fig. 2

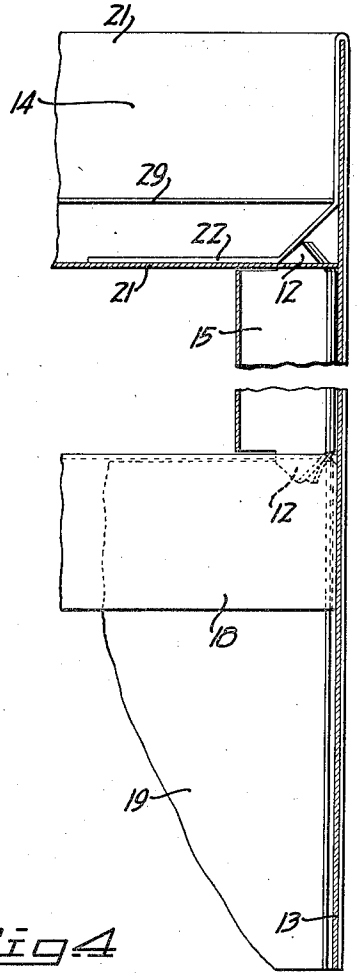


Fig. 4

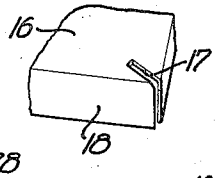


Fig. 3

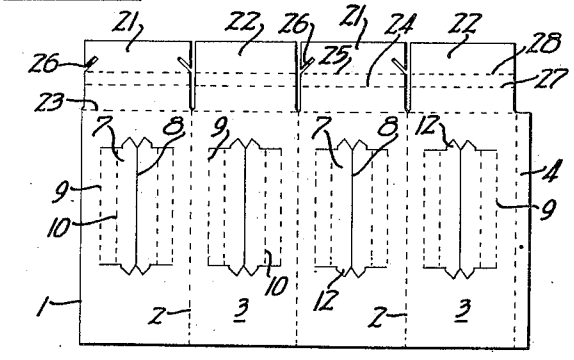
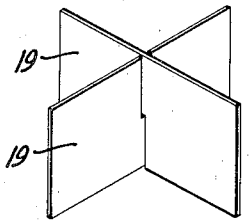


Fig. 5



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DISPLAY STAND

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Application May 24, 1937, Serial No. 144,323

11 Claims. (Cl. 211—135)

My invention relates to display stands, and particularly to an advertising display stand formed of fibrous sheet material.

It is among the objects of my invention to provide a display stand wherein a base and an upper display compartment and supporting legs for the upper compartment are integrally formed from a single blank cut from fibrous sheet material.

Another object of my invention is to provide a display stand of fibrous sheet material which is light, and which, at the same time, has strength and rigidity adequate for the service for which it is intended.

Another object is to provide a display stand which may be shipped in collapsed condition, and which may be readily set up for display purposes.

A further object is to provide an improved leg structure for display stands wherein flaps partially severed from a blank of sheet material may be readily shaped to form supporting legs or columns which are rigidly braced and reinforced.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of my invention. It is to be understood that I do not limit myself to this disclosure of species of my invention, as I may adopt variant embodiments thereof within the scope of the claims.

In the drawing:

Figure 1 is a perspective view of the display stand of my invention, parts being broken away to illustrate the structure.

Figure 2 is a fragmental vertical sectional detail, drawn upon a larger scale; the section being taken upon a plane indicated by the line 2—2 of Figure 1, viewed in the direction indicated.

Figure 3 is a small scale view of the blank from which the body of the stand is formed.

Figure 4 is a fragmental view of a corner of the lower spreader plate.

Figure 5 is a perspective view of a brace for the base.

In terms of broad inclusion, the display stand of my invention comprises a body, formed from a blank of sheet material, cut, scored and folded to form a base, a top display compartment, and legs, or columns, connecting the base and top compartment. The legs are formed by flaps partially severed from the wall panels of the body, and scored for bending to form legs extending from the base to the top compartment at the corners of the stand. End flaps, formed upon the upper edges of the body panels, are folded inwardly for engaging the upper ends of the leg forming flaps, and for providing a seat for a spreader plate overlying the end flaps, and forming a bottom for the display compartment. A second spreader plate is inserted in the base, for engaging the lower ends of the leg forming tabs; and for providing a platform, at the top of the base, for supporting articles to be displayed through the openings left by the leg flaps, when they are moved to leg forming position. The body blank preferably has one edge secured to the opposite edge to form a tubular body which is collapsible upon diagonally opposite score lines defining the wall panels, whereby the body may be packed and shipped flat, and set up in its extended form at the place of intended use.

In terms of greater detail, my display stand comprises a body formed from a blank 1 of suitable sheet material, preferably of a fibrous nature such as corrugated board or fiber board. The blank 1 is substantially rectangular in form and is provided with score lines 2 defining panels 3 arranged to form the walls of a hollow body. A short extension 4 is provided at one end of the blank, and is secured to the opposite end of the blank by suitable securing means, such as staples 6, to produce a body of tubular form collapsible upon score lines 2 defining diagonally opposite corners of the formed body.

Flaps 7 are partially severed from the central areas of the panels 3 by means of cuts 8. The flaps are joined to the panels 3 along score lines 9, formed in spaced parallel relation to the score lines 2. A second score line 10 divides each flap 7 into two sections. Extensions 12 are preferably formed upon the ends of the flap sections most remote from the score line 9. Two flaps 7 are formed in each panel 3, said flaps meeting at the center of the panel as the blank is initially cut and scored.

The flaps 7 are arranged to be bent along the score lines 9 and 10 to form legs or columns, connecting a base portion 13, formed by the lower portions of the wall panels 3, and an upper display compartment 14, formed by the upper portions of the panels 3. The width between the score lines 9 and 10 is preferably substantially equal to the width between the score lines 2 and 9. The section of the flap between the score lines 10 and the cuts 8 is substantially equal to the length of the hypotenuse of a right triangle, having legs of a length equal to the distances between the score line 9 and the score lines 2 and 10.

In forming the legs, each flap 7 is bent so that

the section between the score lines 9 and 10 will extend inwardly at right angles to the panel from which it is cut; and so that the section between the score line 10 and the cut 8 will extend diagonally into the corner defined by the adjacent score line 2. In this manner, each flap forms a leg portion of triangular cross section, having its hypotenusal face in juxtaposition with the corresponding face of the leg portion formed by the adjacent flap 7 of the adjacent panel 3. Together, the two legs portions form a leg or column 15 of approximately square cross section, having a diagonal brace formed by the juxtaposed end portions of the flaps.

The spaces left by the flaps 7, as they are bent to leg-forming position, provide windows in the wall panels 3 of the stand, between the base and the display compartment.

A spreader plate 16, formed of corrugated board, fiber board, or other suitable sheet material, is arranged for mounting in the base 13. The plate 16 is preferably provided with notches 17 at the corners for engaging the lower extensions 12 of the flaps 7, thereby holding the lower ends of the leg portions together. The pointed ends of the extensions 12 may be spread apart, after the plate 16 is in position, to assist in holding the parts in set-up relation. The plate 16 is also preferably provided with downwardly disposed flanges 18 engaging the side walls of the base 13. The plate 16 is preferably positioned with its upper face substantially flush with the upper edge of the base, thereby providing a shelf or platform upon which articles may be placed for display through the windows in the sides of the stand.

The plate 16 may be supported in any convenient way. For example, crossed partitions 19 may be mounted within the base. Such partitions are of a height corresponding to the distance between the lower edge of the base and the under face of the plate. Preferably the partitions 19 are arranged to extend between diagonally opposite corners of the base, thereby serving to brace the base, and to provide a firm support for the center portion of the plate 16.

End flaps 21 and 22 are preferably provided at the tops of the panels 3. The end flaps are joined to the panels 3 along score lines 23, whereby the flaps may be folded inwardly of the top of the display compartment. The flaps 21 are provided with score lines 24 spaced from the lines 23 a distance corresponding to the distance from the tops of the side panels 3 to the tops of the legs 15. Notches 26 are provided in the edges of the flaps 21, for engaging the upper extensions 12 of the tabs 7. The end portions of the flaps 21 seat upon, and are supported by, the upper ends of the legs 15. Score lines 25 are provided to permit the flaps to be bent to facilitate the movement of the flaps onto the extensions 12.

The flaps 22 are provided with score lines 27 and 28. The flaps 22 are folded inwardly to overlie the flaps 21, the portions of the flaps between the lines 27 and 28 being inclined to clear the upper ends of the extensions 12 as they project upwardly through the notches 26 of the flaps 21.

A top spreader plate 29 of corrugated board, fiber board, or other suitable sheet material is mounted to overlie the flaps 21 and 22. In the preferred embodiment, the plate 29 seats upon the inclined portions of the flaps 22, at a level somewhat below the top of the stand, and provides the bottom for the display compartment 14. The position of the plate 29 relative to the top of the stand may, of course, be varied as desired to provide a flush top surface, or a recessed top of desired depth.

The spreader plates 16 and 29, and the crossed partitions 19, are cut from sheet material; and may be packed and shipped flat, with the tubular body formed from the blank 1.

In setting up the stand, the tubular body is opened up, and the flaps 7 are bent to leg forming positions. The spreader plate 16 is inserted from the bottom to hold the body in its extended position; and to engage the lower ends of the flaps 7, for holding the same in cooperating relation. The flaps 21 are bent inwardly, and are caused to engage the upper ends of the tabs 7; and the flaps 22, top spreader plate 29, and crossed partitions 19, are moved into their respective operative positions to complete the assembly.

The panels 3 may be provided with advertising material of any desired nature, or with such other ornamentation as may be desired. The set-up stand is particularly useful for displaying specimens of products advertised on the panels, articles being stacked upon the platform provided by the plate 16, and in and upon the top compartment 14, in any convenient manner. The stand is of course useful in numerous other ways, where a light, yet relatively strong and stable, support is desired for supporting objects to be used or displayed.

While, for convenience in setting up the stand without the use of tools, it is preferred to secure the cooperating leg portions by inserting extensions thereof through notches formed in associated members, such as the notches 17 and 26 of the plate 16 and flaps 21 respectively, the leg sections may be otherwise secured if desired. For example, portions of the cooperative pairs of leg sections, such as the diagonally extending end portions of the flaps 7, may be adhesively secured to one another; or the juxtapositioned portions may be stapled or otherwise secured together.

I claim:

1. A display stand comprising a sheet of fibrous material having score lines defining a plurality of panels, one edge of the sheet being secured to the opposite edge for producing a tubular body collapsible along selected score lines, flaps cut in the panels at points intermediate their ends and folded to form legs connecting the end portions of the panels, and means for holding the body in extended position.

2. A display stand comprising a sheet of fibrous material having score lines defining a plurality of panels, one edge of the sheet being secured to the opposite edge for producing a tubular body collapsible along selected score lines, flaps cut in the panels at points intermediate their ends and folded to form legs connecting the end portions of the panels, and spreader plates mounted within the end portions of the body.

3. A display stand comprising a sheet of fibrous material having score lines defining a plurality of panels, one edge of the sheet being secured to the opposite edge for producing a tubular body collapsible along selected score lines, flaps cut in the panels at points intermediate their ends and folded to form legs connecting the end portions of the panels, a spreader plate mounted within the lower portion of the body adjacent the lower ends of the legs, and a top spreader plate seated within the upper portion of the body above the legs.

4. A display stand comprising a sheet of fibrous material having score lines defining a plurality of panels forming the walls of a hollow body, flaps partially severed from the panels, the flaps of each panel being foldable to cooperate with the flaps of adjacent panels for forming legs at the corners of the body, extensions upon the ends of the flaps, and slotted members engaging the extensions of cooperating pairs of flaps for securing the same in leg forming relation.

5. A display stand comprising a sheet of fibrous material having score lines defining a plurality of panels forming the walls of a hollow body, flaps partially severed from the panels, the flaps of each panel being foldable to cooperate with the flaps of adjacent panels for forming legs at the corners of the body, extensions upon the ends of the flaps, end flaps upon the upper ends of the panels foldable inwardly at the top of the body and slotted to engage the extensions of cooperating pairs of leg forming flaps for holding the same in leg forming relation, and a spreader plate mounted within the lower portion of the body adjacent the lower ends of the legs and engaging the lower extensions of the leg forming flap for securing the same in cooperative relation.

6. A display stand comprising a sheet of fibrous material having score lines defining a plurality of panels forming the walls of a hollow body, flaps partially severed from the panels, the flaps of each panel being foldable to cooperate with the flaps of adjacent panels for forming legs at the corners of the body, extensions upon the ends of the flaps, end flaps upon the upper ends of the panels foldable inwardly at the top of the body and slotted to engage the extensions of cooperating pairs of leg forming flaps for holding the same in leg forming relation, a spreader plate mounted within the lower portion of the body adjacent the lower ends of the legs and engaging the lower extensions of the leg forming flaps for securing the same in cooperative relation, and a top spreader plate mounted in connection with the upper portion of the body.

7. A display stand formed of sheet material and comprising a base, an upper display compartment, legs integral with the base and compartment for supporting the compartment above the base, flaps upon the upper edge of the compartment foldable into the compartment and having means engaging the upper ends of the leg portions, a spreader plate seating upon the flaps, and a second spreader plate mounted within the base and providing a platform at the top thereof.

8. A display stand formed of sheet material and comprising a base, an upper display compartment, legs integral with the base and compartment for supporting the compartment above the base, flaps upon the upper edge of the compartment foldable into the compartment and having means engaging the upper ends of the leg portions, a spreader plate seating upon the flaps, and a spreader plate mounted in connection with the base and having means engaging the lower ends of the leg sections, said second plate forming a platform for supporting objects on the base.

9. In a display stand, a hollow body having wall panels formed of sheet material, and flaps partially severed from the panels and folded to form supporting legs, each leg comprising a pair of triangular leg sections formed from adjacent flaps and arranged with their hypotenusal faces in juxtaposition.

10. In a display stand, a hollow body having wall panels formed of sheet material, flaps partially severed from the panels and folded to form supporting legs, each leg comprising a pair of triangular leg sections formed from adjacent flaps and arranged with their hypotenusal faces in juxtaposition, and means for securing the flaps in leg forming relation.

11. In a display stand, a hollow body having wall panels formed of sheet material, flaps partially severed from the panels and folded to form supporting legs, each leg comprising a pair of triangular leg sections formed from adjacent flaps and arranged with their hypotenusal faces in juxtaposition, extensions upon the ends of the flaps, and means engaging the extensions for holding the flaps and leg sections in leg forming relation.

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