

Nov. 14, 1933.

L. EBERT

1,934,846

DISPLAY STAND

Filed June 18, 1932

2 Sheets-Sheet 1

Fig. 1.

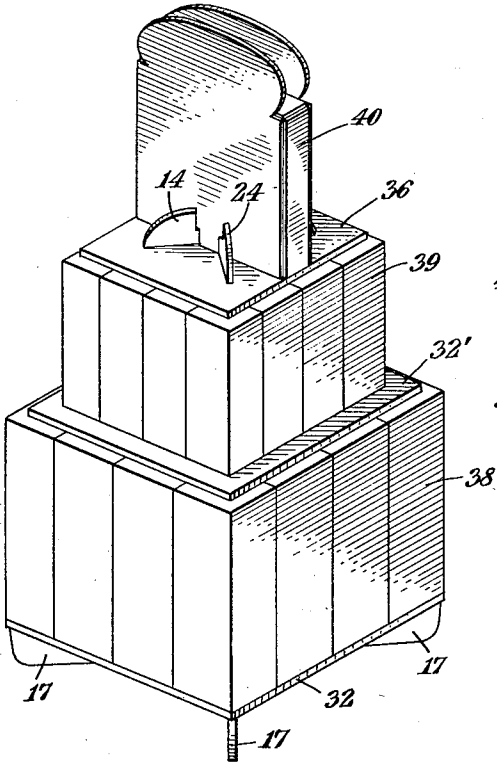


Fig. 2.

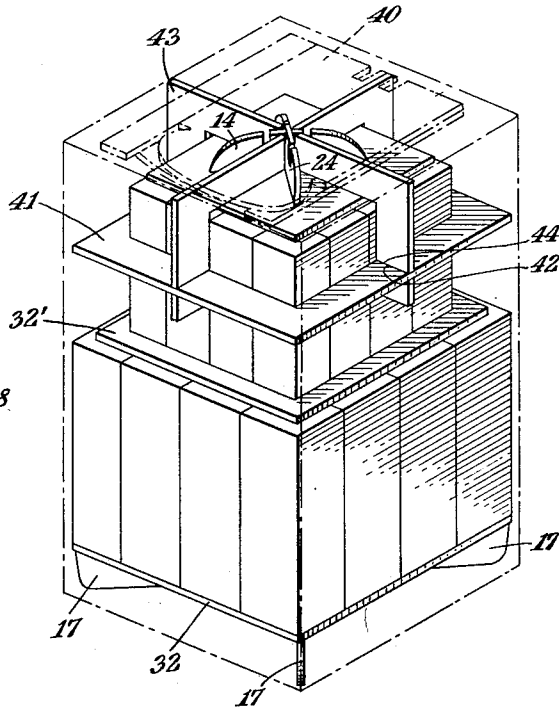


Fig. 3.

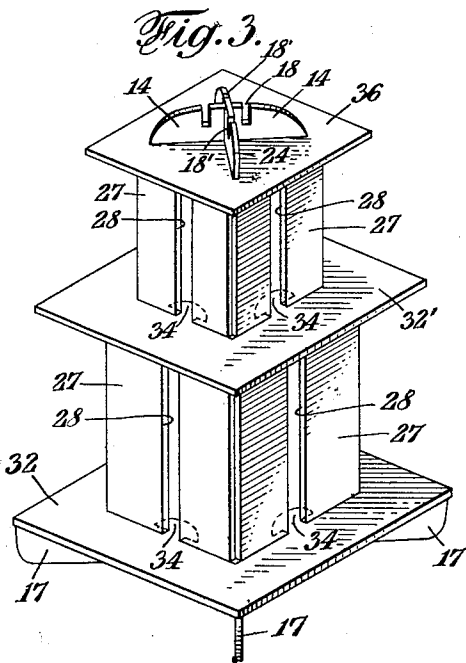


Fig. 4.

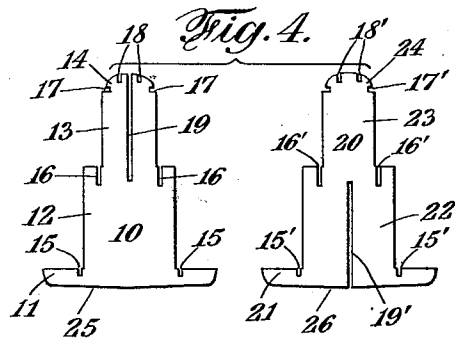
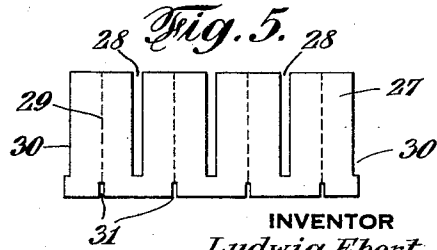


Fig. 5.



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UNITED STATES PATENT OFFICE

1,934,846

DISPLAY STAND

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Application June 18, 1932. Serial No. 617,986

5 Claims. (Cl. 211—72)

This invention relates to display devices in general, and particularly to the kind upon which actual articles of merchandise may be exhibited.

The principal objects of the present invention are to provide an attractive, extremely simple, inexpensive, readily assemblable or disassemblable display device for actual articles of merchandise, which may be shipped assembled and filled with merchandise, in commonly employed carriers, such as cardboard boxes, and which may be thus delivered to the dealer ready for display on his counter; the device having provisions for so accommodating the individual articles of merchandise, as to allow the removal, and to facilitate the replacement at any time of one or more of such articles in the device, without disturbing the arrangement of the other articles still remaining therein.

Another important object of this invention is to provide in a device of this kind, specially designed spacing and article holding means, adapted to prevent the merchandise from leaving its allotted position relative to the device during shipment, thereby assuring delivery in its original assembly, as arranged at the place of the shipper.

A further object of this invention is to provide an article display stand, wherein all parts, constituting the device, are so interlocked with one another, that although each part itself is constructed of relatively frail material, the assembled stand presents a sturdy support of remarkable carrying capacity.

A still further object of my invention is to so construct certain parts of the device, as to enable it to be swung or revolved about its centre axis, so that all of the merchandise held by the stand may be inspected from any of its sides, removed or replaced at will, without the necessity of changing one's position in doing so.

Still another object of my invention is to provide in my device certain essential parts, originally cut out from flat sheets, and constituting, when ready for assembly, relatively tubular members provided with means for receiving interlocking extensions of a correspondingly shaped retaining member, said extensions serving not only as locks, but also as spacers for the abutting ends of said tubular members.

The foregoing and still further objects will become more fully apparent from the following description of preferred forms of my device, forming part of my disclosure, but not intended to restrict me to the actual showing, and in which

Figure 1 is a perspective view of my finished

device as it appears upon the counter, completely stocked with a plurality of individual, actual articles of merchandise.

Figure 2 is a perspective view of my device in its shipping condition.

Figure 3 is a perspective view of my device with the merchandise left off.

Figure 4 is a plan view of the stands or uprights employed in my device.

Figure 5 is a development, in plan view, of one of the hollow members of my device.

Figure 6 is a perspective view of my device parts, arranged in the manner of their respective assembly.

Figure 7 is a similar perspective view of parts in which those parts, illustrated in Figure 6, are shown already assembled, while the rest of the parts are in a position ready to be assembled, and

Figure 8 is a plan view of a development of spacing and article retaining means, employed with my device when being shipped in a common carrier, such as a carton.

Referring now to the figures, and starting with Figure 4, numeral 10 denotes one of the many possible forms of an upright or standard employed in my device and consisting of a sheet of material cut in step-like manner, so as to provide a base portion 11, an intermediate portion 12, an upper portion 13, and a top or upper end 14. It will be observed from this figure that in the base portion are provided two vertical recesses 15, while in the intermediate portion 12, are seen vertical recesses 16. At the top of portion 13, and separating that portion from upper end 14, there are provided horizontal recesses 17. The upper edges of these recesses form projections or extensions, the purpose of which will be explained in due order. In the arcuated top edges of the upright there are provided vertical recesses 18 for accommodating another part of my device, which will be described presently. Portion 13 of the upright is provided with a long, central, vertical slot 19, extending into intermediate portion 12.

At the right hand illustration of Figure 4, there will be seen an upright member 20, also shaped in step-like form, and consisting of a base portion 21, an intermediate portion 22, an upper portion 23, and a top end 24. The same arrangement of recesses 15', 16', 17' and 18' is provided in the respective portions of the standard, corresponding to the recesses of standard member 10, however, the longitudinal, vertical center slot 19' in this part starts from the bottom and terminates at the same height at which slot 19 of

member 10 ends. By slipping standard member 20 over standard member 10, so that slot 19' engages the lower portion of standard 10, and slot 19 engages the upper portion of standard 20, a cross-arrangement, clearly seen at the bottom of Figure 6, is provided. While in the drawings only two standards are illustrated, arranged at right angles to one another, it is obvious, that more than a pair of uprights may be employed, and that their construction and shapes may be altered for the production of different display devices intended for variously sized and shaped merchandise.

By carefully observing Figure 4, it will become clearly evident that the resting faces or bases of standard members 10 and 20 are converging, that is to say, they are inclined towards their lowermost tip of their construction. By thus tapering these resting faces 25 and 26 of the standards, a pivotal point for the device is provided, which point lies in the vertical center axis of the device. This arrangement makes possible to revolve the device about its center axis, while on display, thereby enabling the customers to select any of the articles carried by the device, and to permit the dealer to turn the device so as to expose the filled part of the device in the event some of the merchandise has been removed from other parts thereof.

Referring now to Figure 5, there is shown a development in plan view of a hollow member, forming one of the important parts of the device structure. This member is made of sheet material and consists of a plurality of columns 27, separated by vertical slots 28 into sections which are folded along the indicated bending lines 29, so as to produce hollow shapes as shown in Figures 6 and 7. The abutting ends of the members have recesses 30, which are of half the width of slots 28, so that when the ends of these members abut with one another, recesses 30 will form slots of the same length and width as slots 28. At the continuation of bending lines 29, there are provided recesses 31 adapted to engage the recesses 15, 16 and 15' and 16' of standards 10 and 20.

Referring now to Figures 6 and 7, there are shown combination shelf-frame members 33 and 33' corresponding to the shapes and sizes of their respective hollow members, illustrated below. From their inner faces extend locking arrangements 34, adapted to interlock with slots 28 of the hollow members. These combination shelf and frame parts are slipped over the respective hollow members from the top towards the bottom until the necks 35 of the lock arrangement rest against the closed ends of the slots. These neck portions constitute spacers for the slots, particularly for those slots formed by recesses 30 at the abutting edges of the hollow members. The inner faces of the frame members hold the walls of the hollow members together, thereby keeping them in their desired shapes. The inner corners of the hollow members rest against and inter-engage with the vertical edges of standards 10 and 20, in the manner shown at the bottom of Figure 7.

In assembling my device, first the standard or upright members are joined in the manner shown at the bottom of Figure 6. The next step is to form the larger or lower hollow member, and to slip it over the broader or lower edges of the standards, so that recesses 31 engage recesses 15 and 15' of base portions 17 and 17'. Now the larger combination shelf and frame member 32 is slipped over the lower hollow member until its

bottom face rests against the upper edge of base portions 17 and 17'. This first assembly is clearly illustrated at the bottom of Figure 7.

The next operation consists of slipping the smaller, folded-up hollow member over the upper portion of the standards, so that its recesses 31 engage recesses 16 and 16' of that portion. Now the smaller shelf-frame member 32' is passed over the smaller hollow member and is carried down until its bottom face rests against the upper edges of the larger hollow member. After completion of this operation, the upper ends of the standards are secured together by top shelf or plate 36, which is provided with a cross-arrangement of slots 37 adapted to interlock with the arcuated end portions 14 and 24, of the two standard members. These slots 37 are somewhat shorter than the upper end portions, so that when the slots are forced over the latter, the aforementioned projections or extension, formed above recesses 17 and 17', are temporarily compressed and instantly released, after having passed through the slots, and engage the upper surface of plate 36, whereby an interlocking connection between the standards and the plate is accomplished. Obviously, plate 36 rests against the upper edge of the smaller hollow member.

The completed device, without merchandise, is shown in Figure 3. It will be evident from the construction and interlocking arrangements, described above, that although all the parts employed are produced from relatively thin and frail material, the finished device presents a sturdy stand, capable of securely supporting even weighty articles of merchandise.

A filled or stocked stand is illustrated in Figure 1, in which are shown relatively large merchandise containers 38, sized and shaped so as to completely fill the space between the lower and the intermediate shelf member. Resting upon the latter, and abutting with the lower surface of top plate 36, there are somewhat smaller containers 39, arranged also to completely encircle and fill the upper structure of the device.

In order to provide space for advertising or descriptive matter in connection with my device, I have arranged a display member 40, provided with suitable recesses, adapted to engage the aforementioned recesses 18 and 18' of the arcuated upper ends of the standards, whereby member 40 may be securely held in place. When not in use this advertising member is folded in the manner indicated in Figure 2 in dotted lines, and is adapted to serve in its folded position for another purpose which will be explained presently.

Referring now to Figures 2 and 8. The latter figure represents a sheet of material, from which is cut a rim 41 provided with recesses 42. From the interior of the sheet, there are cut four angular members 43, also provided with recesses, indicated at 44, which latter are adapted to interlock with recesses 42 of the outer rim member in the manner illustrated in Figure 2. The aforementioned parts of my device, illustrated in Figures 2 and 8, are primarily intended for facilitating boxing, shipping and undisturbed delivery of the display stand, together with the merchandise stocked thereupon in desired combination, so that, when the device arrives at its destination, it is immediately ready for display after its removal from its carrier.

Rim or frame 41 and angular members 43 serve as spacers, between the device with its merchandise and the carrier, such as a carton, box or the like. Angular members 43 are preferably placed

between the cross-formed arcuated upper ends of the standards, as may be clearly seen from Figure 2. During shipment, the display extension 40, shown set up in Figure 1, is collapsed in the manner indicated in Figure 2 in dotted lines, and is placed folded on top of the cross, formed by angular members 43, and serves thereby as a guard against damage to the spacer structure of my device.

10 In recapitulation of the principal features of my invention, it becomes clear that I not only provide a unique display device structure for supporting a considerable load of actual articles of merchandise, but that I enable thereby the shipment of such merchandise as a unit with the stand, ready to be displayed when delivered, and without any bother to the dealer. My device further facilitates the ready removal and replacement of the merchandise, while its construction permits revolving of the stand about its centre axis without the employment of expensive arrangements for just such purpose. The bulkless manner of packing and shipping reduces the cost to the ultimate consumer, and saves annoyance for both the shipper and receiver.

20 The foregoing description deals with a specific construction of my device, in which a substantially rectangular configuration of parts is maintained. It is obvious, however, that the same principle of construction may be employed for producing article display devices for holding different shapes of merchandise, and that their sizes, heights and forms may be varied, as well as the step-like formation indicated, and that only one, or more than two hollow members may be readily utilized for supporting a different arrangement of merchandise. The drawings illustrated and described are intended to merely serve for explanatory purposes, and in view of the necessity of providing different designs for the accommodation of numerous merchandise of specific shapes, it is self-evident that it will be required to modify the designs and shapes of the standards and the different parts of my device accordingly. Thus, it may be advantageous that instead of using substantially rectangular forms, the device parts may receive the general outlines of circular, elliptical, hexagonal, octagonal, oblong, oval or any other suitable configuration, which modifications are too numerous to be illustrated in the drawings.

Be it understood, therefore, that I shall have the right to modify or alter the construction of my device within the broad scope of my idea, as defined by the annexed claims.

I claim:

1. A device of the class described, comprising in combination, a plurality of interengaging uprights having bases, converging towards the vertical centre axis of, and adapted to form a pivotal point for the device, a hollow member in engagement with said uprights, a frame for said hollow member, and means provided with the latter and said frame for interlocking the frame with said hollow member relative to one another.

2. A device of the class described, comprising in combination, a plurality of uprights centrally interconnected with one another and having bases converging towards the lowermost terminus of their vertical centre axis, so as to form a pivotal

central point for the device, a plurality of hollow members arranged in pyramid form about and in engagement with said uprights, a plurality of frame or shelf members, arranged in step formation and corresponding in numbers and sizes to that of the hollow members, and in peripheral engagement with said hollow members, said latter members and said frame or shelf members provided with interlocking and spacing means, and a top member in interlocking engagement with the upper ends of said uprights.

3. A device of the class described, comprising in combination, a pair of centrally interconnected uprights having step-like outer contours arranged symmetrically about the center axis of the device, the base edges of said uprights converging from their outer ends towards the lowermost terminus of their common, vertical centre axis, so as to form a central, raised, pivotal point for the device, a plurality of hollow members surrounding the step-like formations of said uprights and in interlocking engagement with the latter, said hollow members serving, in part, as spacers between portions of said uprights and conforming in sizes to the respective step-like formations of the uprights, combination frame and shelf members surrounding each of said hollow members and corresponding in sizes to the latter, said hollow members provided with recesses, said combination frame and shelf members having recess-engaging means interlocking with said recesses, a top shelf member in locking engagement with the upper ends of said uprights, and serving as final locking arrangement for preventing the disengagement of the uppermost hollow member from said uprights.

4. In a device of the class described, the formation of uprights, interlocking frame work having bases converging towards the lowermost terminus of their common, centre axis so as to form a central, pivotal point for the device, a plurality of symmetrically arranged steps formed in the uprights, hollow members, provided with vertical slots, surrounding the steps of the frame work and interlockingly engaging the latter, shelf frames embracing each of the hollow members and having locking and spacer provisions in engagement with the slots of the hollow members, a top shelf member engaging and interlocked with the frame work and holding the uppermost hollow member against disengagement from the frame work.

5. In a device of the class described, a device part shaped from one piece of sheet material, the ends of which are brought together so as to abut and to form a hollow member, a plurality of equally spaced, equally wide, longitudinal, parallelly arranged, slots provided in said member, the abutting ends of said hollow member having recesses adapted to form, when the ends of the hollow member are brought together, a slot of a width equal to that of other slots, a shelf frame surrounding and in engagement with the hollow member and provided with interlocking means adapted to slip into, and hold together the edges of said slots, while at the same time serving as spacers between the edges of the slots, particularly for the slot formed at the abutting ends of said hollow member.

LUDWIG EBERT.