

Oct. 13, 1959

H. G. TURNER

2,908,382

DISPLAY CARRYING UNIT FOR COLOR TELEPHONE SETS

Filed Dec. 5, 1957

3 Sheets-Sheet 1

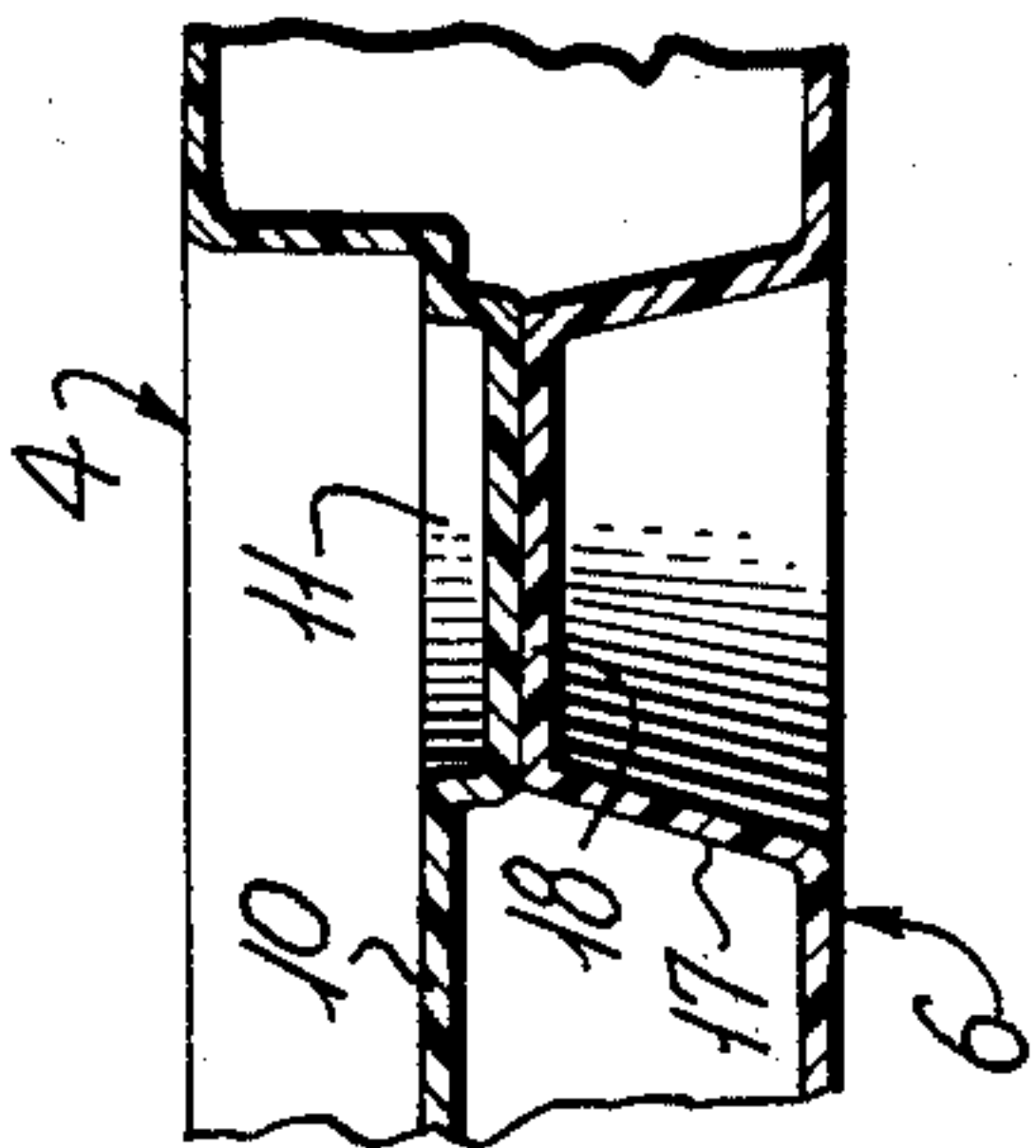


Fig. 8.

Fig. 1.

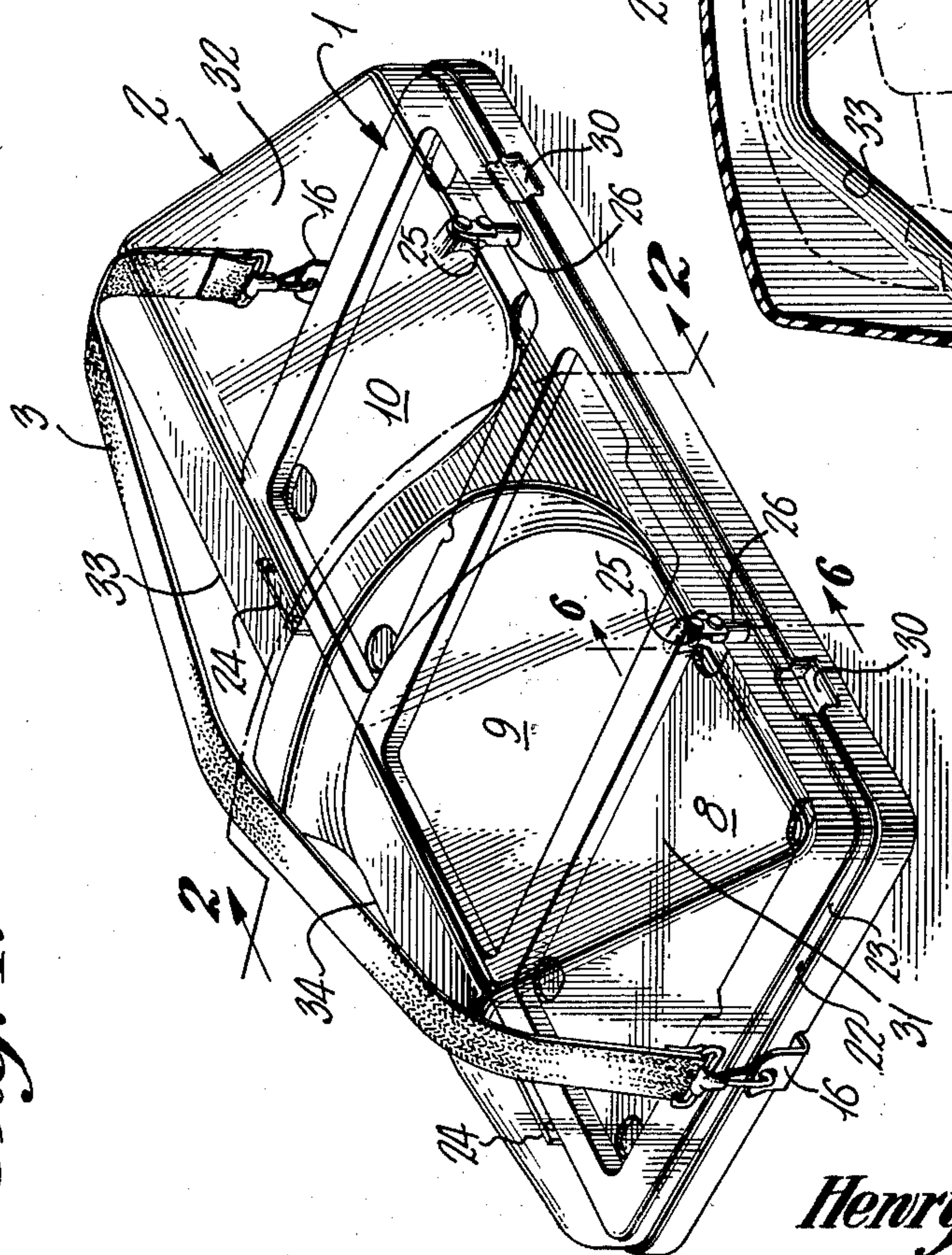
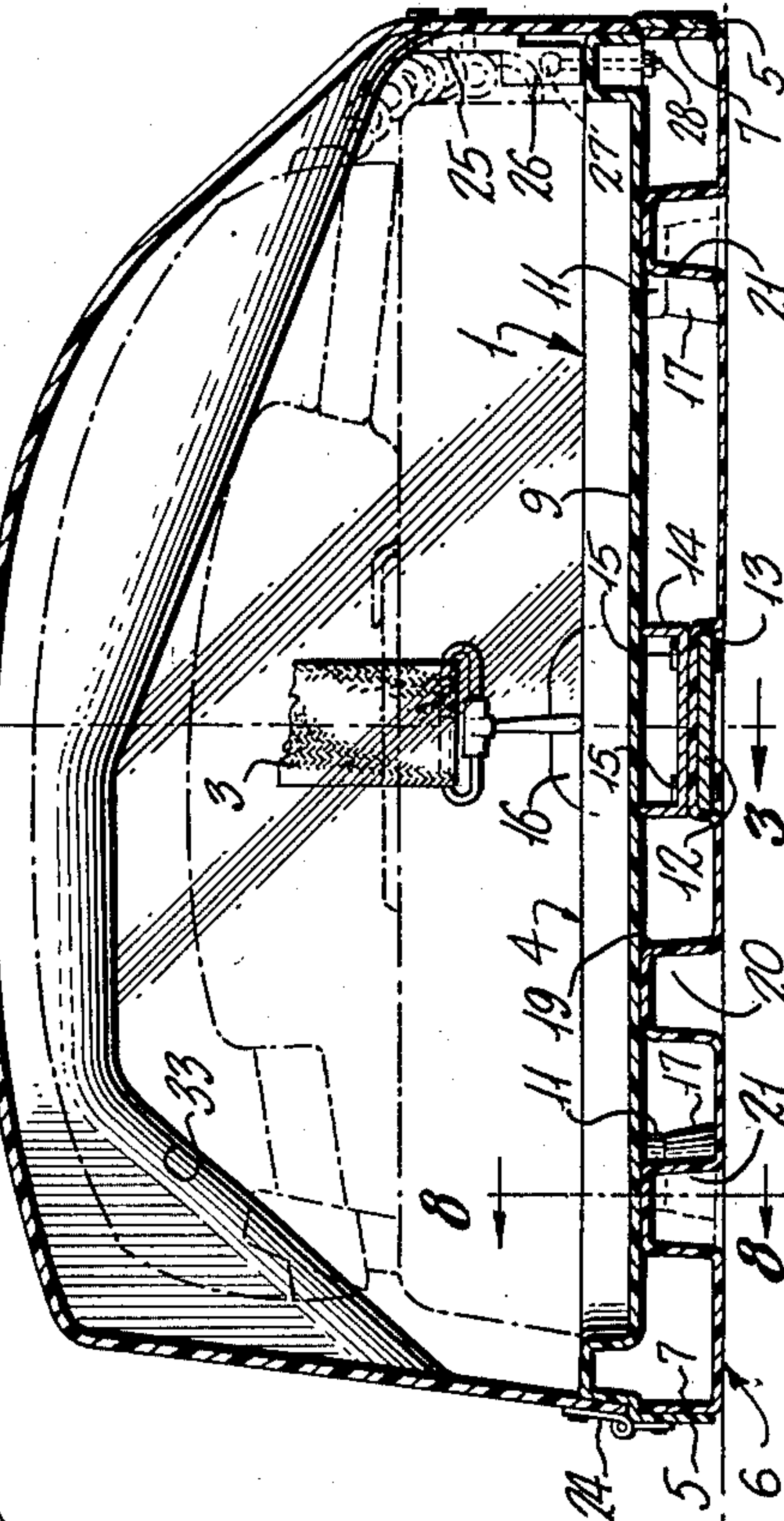


Fig. 2.



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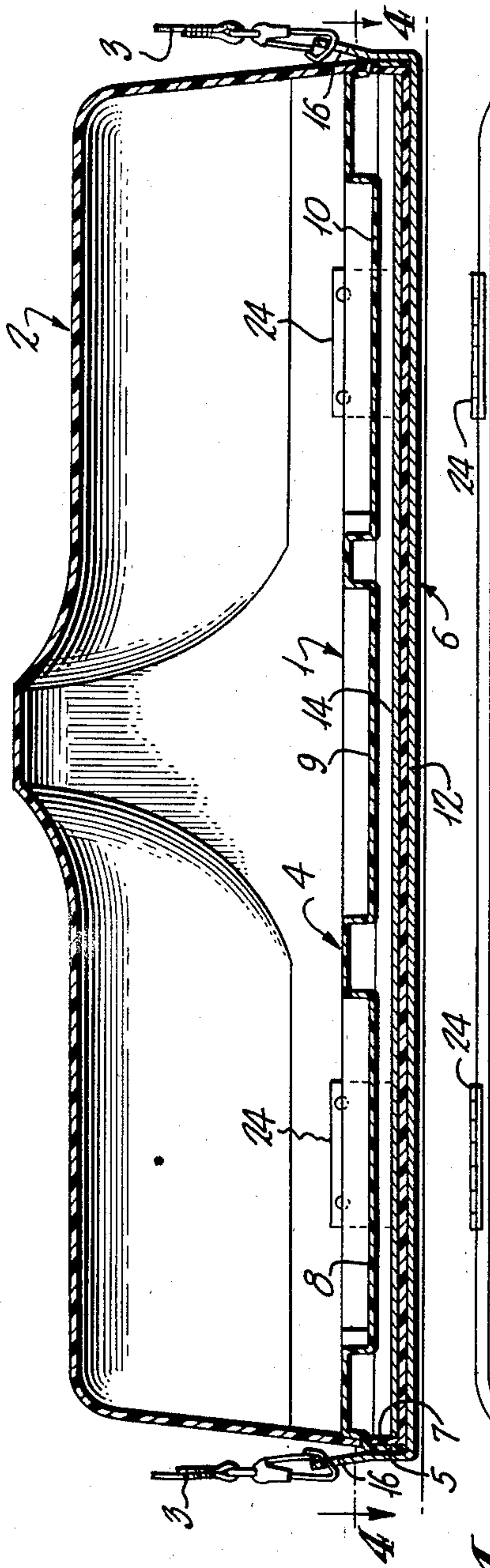


Fig. 3.

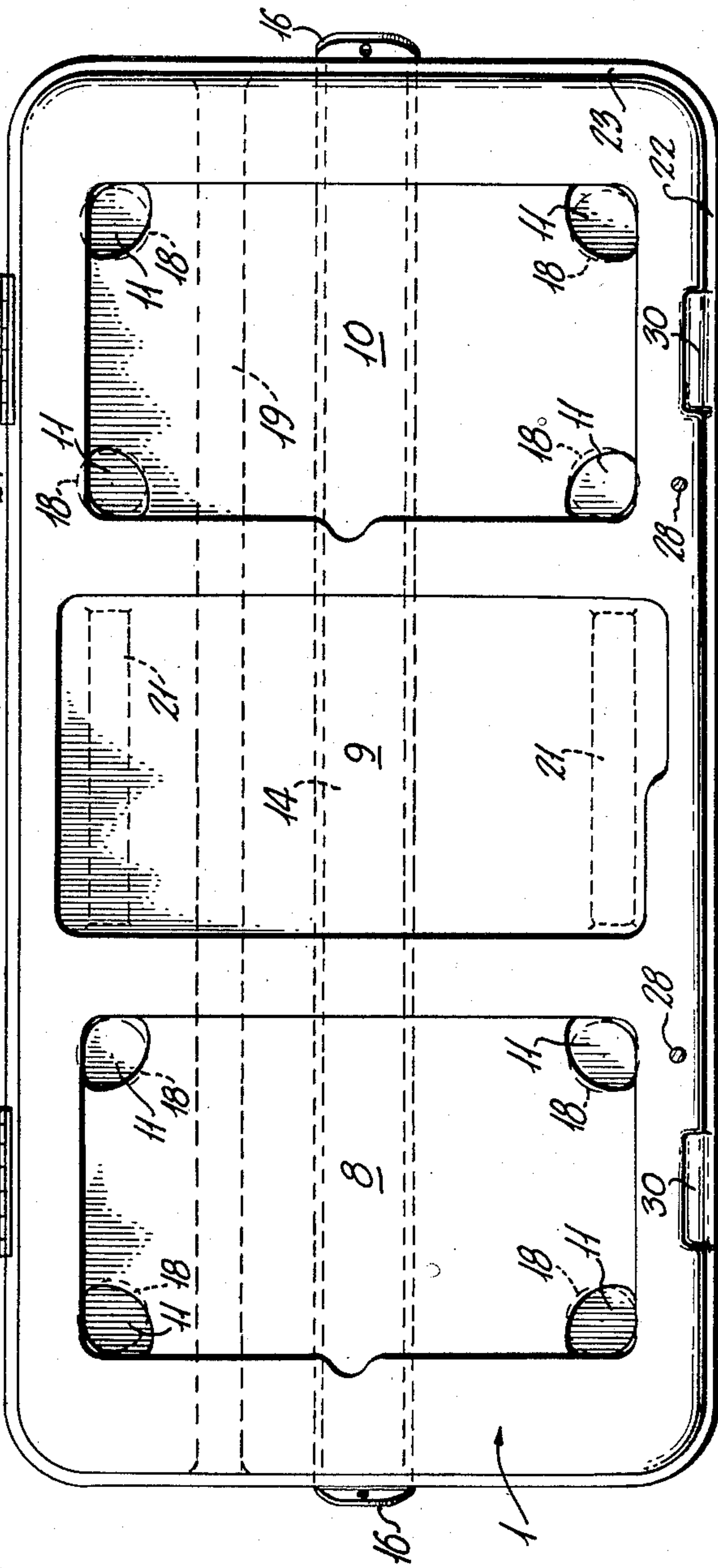


Fig. 4.

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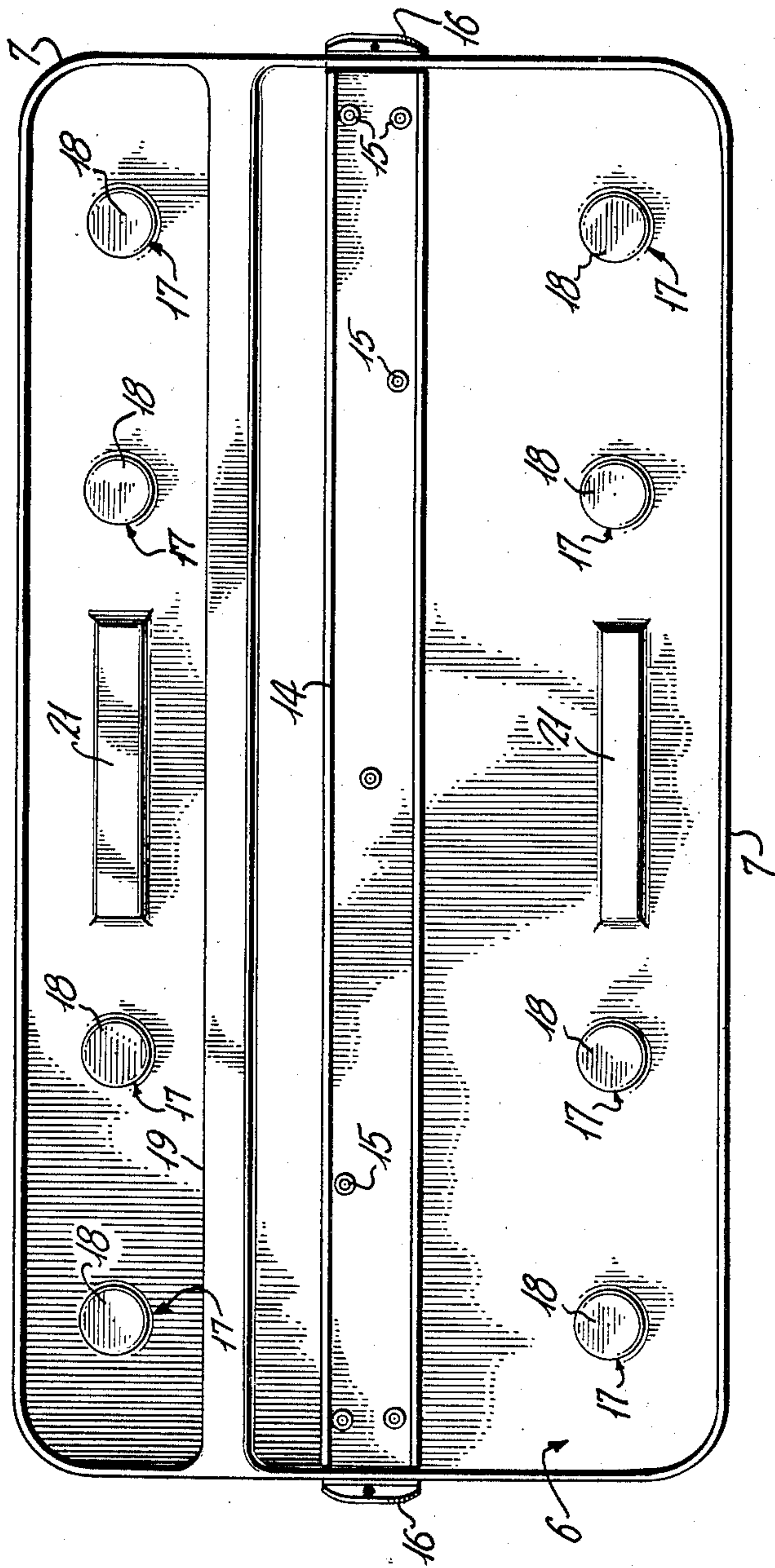


Fig. 5.

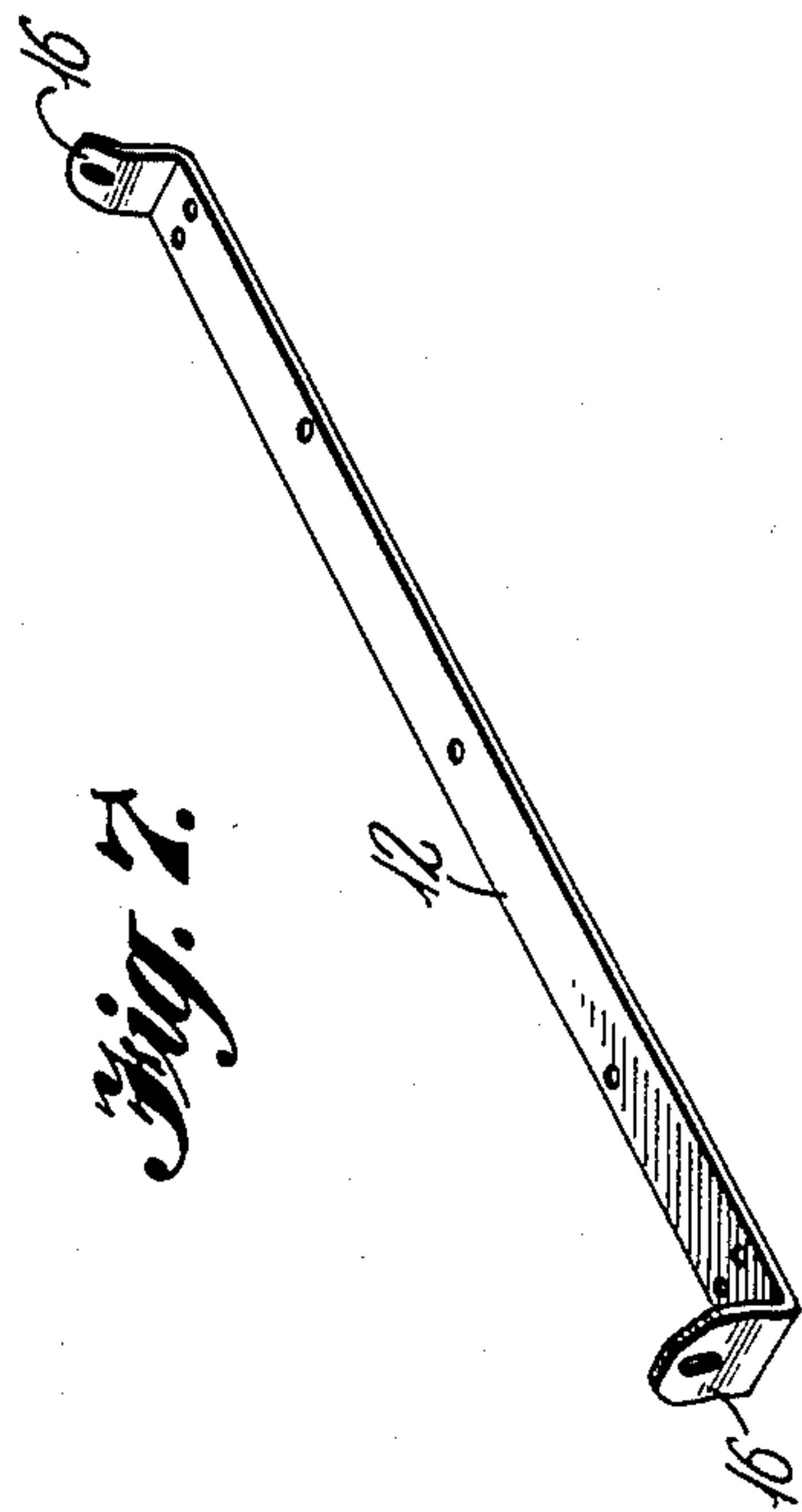


Fig. 7.

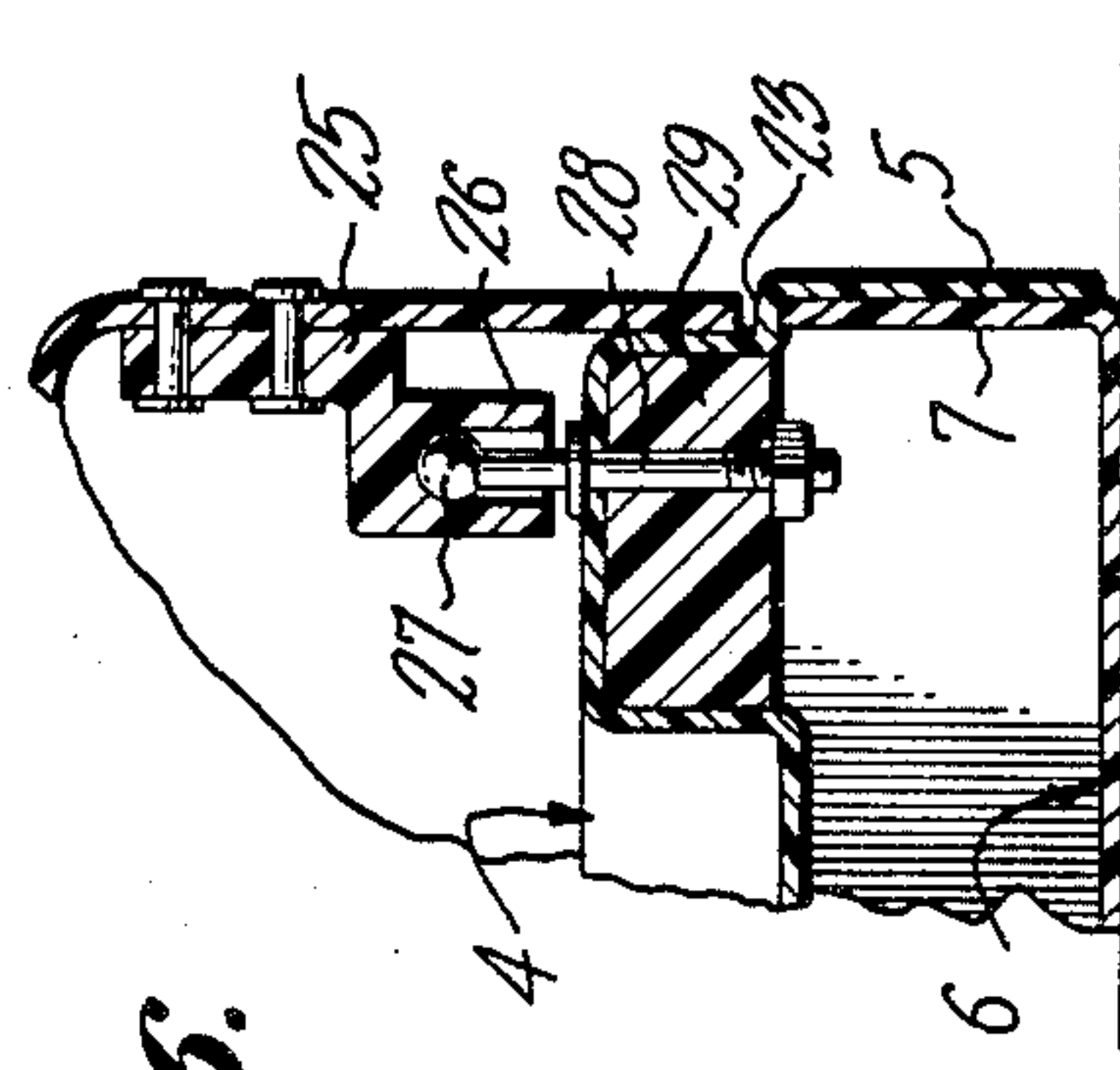


Fig. 6.

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DISPLAY CARRYING UNIT FOR COLOR TELEPHONE SETS

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13 Claims. (Cl. 206—45.19)

This invention relates to a display carrying unit particularly designed for carrying and displaying color telephone sets, but having structural features, both sole and correlated that adapt the invention to versatile use.

The main object of the invention is to provide a display carrying unit comprising a shallow tray of light material such as sheet plastic having a medial longitudinal reinforcement throughout its length, having recesses in the bottom of the tray for receiving and allocating the articles displayed, telephone sets in the illustrated embodiment, and having a cover transparent throughout, through which the telephone sets may be fully viewed from any and all angles.

Another object of the invention is the provision of a display carrying unit, as described, provided with a carrying strap anchored at its ends solely to the medial reinforcement so that the plastic material of the tray is relieved from localized concentration of the weight of the suspended unit.

Still another object of the invention is the provision of a display carrying unit as described, in which the tray is formed of relatively inverted pressed plastic pans with their surrounding flanged sides lapping and secured, and wells in the floor of the set allocating recesses for receiving feet projecting from the bottom of the sets, the under pan having inwardly embossed projections registering contiguously with the bottoms of the wells for reinforcing the load bearing regions of the tray.

Still another object of the invention is the provision of a composite tray as described, the lower pan having an inwardly embossed rib extending throughout the length of the tray, including the flanged sides, the inner or male side of the rib being in reinforcing contact with the floors of the set receiving depressions and the under or female side of said rib being adapted to overlies a complementary elongated member extending along a supporting shelf in a truck to prevent displacement of the display carrying unit while the latter is being transported.

Other objects of the invention will appear as the following description of a preferred and practical embodiment thereof proceeds.

In the drawings which accompany and form a part of the following specification, and throughout the figures of which the same characters of reference have been employed to denote identical parts:

Figure 1 is a perspective view of a display carrying unit embodying the principles of the invention;

Figure 2 is a cross-section taken along the line 2—2 of Figure 1;

Figure 3 is a longitudinal vertical section taken along the line 3—3 of Figure 2;

Figure 4 is a plan view of the complete display carrying unit;

Figure 5 is a plan view of the lower component of the tray of the carrying unit;

Figure 6 is a fragmentary cross-section taken along the line 6—6 of Figure 1, showing latching means for the cover;

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Figure 7 is a perspective view of the under member of the reinforcing bar;

Figure 8 is a fragmentary view in section, taken along the line 8—8 of Figure 2.

Referring now in detail to the several figures, and particularly to Figure 1, the display carrying unit comprises three principal parts, the tray 1, upon which the telephone sets are carried and retained, the transparent cover 2, and the carrying strap 3, which is attached at opposite ends to the tray. In the illustrative embodiment of the invention, the display carrying unit is designed for the display of color telephone sets, carried by the tray and visible through the cover. The display carrying unit is designed to be transported in the conventional repair truck of the telephone company, to be carried into the residence where a repair is to be made and left by the repairman while he is making the repair, in a position where its contents will be noticed by the members of the household, particularly those of the distaff side, who it is presumed will be attracted by the display and become desirous of purchasing a color phone set. The repairman upon leaving, may be expected to clinch the sale by simply inquiring which of the telephone sets the member of the household addressed has selected.

It is essential in the design of such a display carrying unit that it be so constructed as to cooperate with means on the truck to prevent its shifting and falling while in transporting; it must maintain the telephone sets properly positioned in the tray, regardless of vibration and jolting of the truck; it must be light in weight so as to add but little to the weight of the telephone sets, for the convenience of the repairman. Notwithstanding its lightness, it must be sufficiently rigid and strong to support the weight of the telephone sets without sagging or material deterioration through long usage, and it must be so constructed as to display the telephone sets substantially in their entirety, and from all angles and without the interference of spurious reflections from the surface of the cover. All of these desirable qualifications find expression in the structural features of the invention.

In the interest of lightness, the tray portion of the display carrying unit is formed of thin plastic in sheet form, either molded or pressed to the desired configuration. Said tray portion is of composite structure, comprising upper and under components, the upper component 4, which may be considered the floor of the tray, being of pan-like form in that it has a surrounding flange 5. The under part 6 is also of pan-like form, having the surrounding flange 7 which makes a telescopic fit within the flange 5. The two flanges in telescoped relation are adhered to one another by any suitable adhesive which may be a solvent for the plastic of which the respective components are made. Thus, the components are permanently united to form a tray. This uniting is, of course, the final step in the fabrication of the tray. The upper component 4 is provided with generally rectangular recesses 8, 9 and 10, into which the generally rectangular bases of the telephone sets freely fit. Since table sets have downwardly projecting feet at their corners, the recesses 8 and 10 which are for sets of this type have complementary foot receiving depressions 11 in each corner. The central recess 9 is for a sole phone set which has no supporting feet, and therefore, the central recess is without such corner depressions.

Inherently, due to its thinness, the upper component 4 is by itself quite readily distorted under small stress, and requires to be reinforced in order to gain rigidity.

The plastic part of the under component 6 is also by itself inherently somewhat flexible. It is strengthened by a rigid medially located longitudinal reinforcement member consisting of a strap 12, seated in a comple-

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mentary trough 13, inwardly embossed on the outside of the component 6 and a channel member 14 on the inside congruently arranged with respect to said strap, between which the plastic portion of said under component is clamped by rivets 15 extending through the bottom of said trough. The strap and channel member are preferably of aluminum, in the interest of lightness, and the strap member extends beyond the ends of the channel member on the outside of the under component, forming ears 16 which are perforated for the reception of the snaps at the ends of the carrying strap 3.

The under component 6 of the tray is embossed with inwardly extending projections 17, the pattern of arrangement of which is such that the flat upper ends 18 register contiguously with the bottoms of the depressions 11. The depth dimension of the projections 18 give them great rigidity, so that they reinforce the bottoms of the depressions 18 which directly bear the weight of the telephone sets.

The under component 6 is further reinforced by the inwardly embossed rib 19, which extends the entire length of said under component, including the flanged sides thereof, and forms on the under side of said component an open ended channel 20. The shelf of the truck which transports the display carrying unit, and none of which is shown, is provided with fixed means such as a rod, the display carrying unit being placed on the shelf with the channel 20 embracing the rod so as to retain the carrying unit in place on the shelf, the weight of the telephone sets therein contained holding it down so that it is not displaced by vibrations of the vehicle.

Shorter embossed ribs 21 at opposite sides of the carrying unit extend inwardly and make contact with the bottom of the middle recess 9, reinforcing it with respect to the weight of the telephone set which is positioned in said recess. It is unessential that the contacting surfaces of the bosses 18, ribs 19 and 21, be adhered to the surfaces with which they are contiguous, since the extent of lap of the flanges 5 and 7 of the respective tray components is such as to hold said surfaces in contact.

The tray is provided with a surrounding rabbet 22, Figure 1, defining an upwardly facing shoulder 23. The transparent cover 2 fits in this rabbet so as to rest upon said shoulder. The cover is secured by hinges 24 at one side of the tray, riveted to the plastic, while at the opposite side a spaced pair of fasteners is employed, each fastener comprising a socket member 25 riveted to the plastic, having a downwardly facing socket 26. The upper component 4 of the tray is provided with complementary fastening means consisting of a ball 27 for each socket, adapted to enter frictionally therein, said balls being at the head of stems 28 which are bolted or otherwise anchored to small blocks 29 of suitable material such as wood, cemented or otherwise secured to the plastic within said upper component. On its forward side, that is to say, on the side which carries the fastening means, the tray is provided in both components with recesses 30 formed in both components thereof, and underlying the edge of the lid 3. The lower walls of said recesses provide a fulcrum for the fingers, or one of them, while the thumb is pressed upward against the edge of the cover for releasing the balls from the sockets. The latter, it will be noted, are slightly flared in a direction toward the mouth, to allow for the arcuate movement of the cover. It is obvious that other fastening means for the cover may be substituted as equivalents for those shown.

The cover 3 may be of any suitable transparent plastic, and is molded to the shape shown, which shape has reference to the contained telephone sets. With respect to the table type sets, the side containing the dial slopes more gradually than the side formed with the cradle, so with respect to the part of the cover which overlies the recesses 8 and 10, the front areas 31 and 32 have

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a more gradual slope than the surfaces 33 and 34 to the rear of them. With respect to the wall phone, the upper end which carries the hook is higher than the opposite end, and the entire height of the set is greater than that of the adjacent sets, so that the middle part of the cover is accordingly more elevated. Great care has been taken in the design of the cover to avoid sharp edges for corners and intersecting planiform faces which would give total reflection of light in certain aspects and interfere with clear viewing of the telephone sets enclosed beneath it. Consequently, the sets may be clearly viewed through the cover practically in their entirety, and from every angle. The carrying strap is of such length that when the display carrying unit has been set down, the strap may be readily tilted sidewise to a position in which it is entirely clear of the cover and does not obstruct complete viewing.

While I have in the above invention disclosed a practical embodiment thereof, it will be understood that the inventive principles as herein set forth are equally applicable to an embodiment which holds three or more telephone sets in which the wall set may be at the end instead of in an intermediate position as shown. In this case, the bulge in the cover would not be in an intermediate position.

It will be understood by those skilled in the art that various changes may be made in the arrangement and construction of the parts and still be within the scope of the invention as claimed.

What I claim is:

1. Display carrying unit comprising a composite tray including upper and under substantially coextensive components, each formed with a surrounding flange, said flanges contiguously lapped and being secured together, said upper component being inwardly embossed with recesses formed to fit the base of articles which said unit is designed to display, said under component being embossed inwardly with projections reinforcingly contacting the bottoms of said recesses, and being embossed inwardly to form an exterior flat bottomed trough throughout its length, a rigid strap within said trough against the bottom thereof extending therebeyond at both ends forming ears for attachment of a carrying bail, a rigid bar of channel cross-section engaging the opposite face of the bottom of said trough and means for securing together said strap and bar.

2. Display carrying unit as claimed in claim 1, said tray being formed with a peripheral rabbet about its upper edge, a transparent domed cover for said tray having its edges seated in said rabbet, being hinged to one side of said tray and means for latching it at the opposite side of said tray.

3. Display carrying unit comprising a composite tray including upper and under substantially coextensive components, each formed with a surrounding flange, said flanges contiguously lapped and being secured together, said upper component being inwardly embossed with recesses formed to freely fit the base of articles which said unit is designed to display, the bases of which articles have supporting feet, and the bottoms of said recesses formed with depressions to receive said feet, said under component being embossed inwardly with projections reinforcingly contacting the bottoms of said depressions, said under component being embossed inwardly to form an exterior trough throughout its length, a rigid strap positioned within said trough against the bottom thereof and extending therebeyond at both ends, a rigid bar of channel cross-section engaging the opposite face of the bottom of said trough and means for securing together said strap and bar.

4. Display carrying unit comprising a composite tray including upper and under substantially coextensive components, each formed with a surrounding flange, said flanges contiguously lapped and being secured together, said upper component being inwardly embossed with re-

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cesses formed to freely fit the base of articles which said unit is designed to display, the bases of which articles have supporting feet, the bottoms of said recesses including flat bottomed depressions to receive said feet, said under component being embossed inwardly with flat topped projections reinforcingly contacting the bottoms of said depressions, said under component being embossed inwardly to form an exterior flat bottomed trough throughout its length, a rigid strap within said trough against the bottom thereof extending therebeyond at both ends forming ears for attachment of a carrying bail, a rigid bar of channel cross-section engaging the opposite face of the bottom of said trough and means for securing together said strap and bar.

5. Display carrying unit as claimed in claim 4, said tray being formed with a peripheral rabbet about its upper edge, and a transparent domed cover for said tray having its edges seated in said rabbet, being hinged at one side of said tray and latching means for said cover at the opposite side of said tray.

6. Display carrying unit comprising a composite tray including upper and under substantially coextensive components, each formed with a surrounding flange, said flanges contiguously lapped and being secured together, said upper component being inwardly embossed with a series of recesses formed to fit the base of telephone sets at least some of which have supporting feet on their bases, the bottoms of certain of said recesses being formed with depressions to receive said feet, said under component being embossed inwardly with projections reinforcingly contacting the bottoms of said depressions, said under component being embossed inwardly to form an exterior flat bottomed trough throughout its length, a rigid strap within said trough against the bottom thereof, a rigid bar of channel cross-section engaging the opposite face of the bottom of said trough and means for securing together said strap and bar.

7. Display carrying unit comprising a composite tray including upper and under substantially coextensive components, each formed with a surrounding flange, said components being formed of relatively thin plastic inherently shape-yielding under normal load, said flanges being contiguously lapped and secured together, said upper component being inwardly embossed with recesses formed to freely fit the base of articles which said unit is designed to display, and said under component being embossed inwardly with projections reinforcingly engaging the bottoms of said recesses, a rigid reinforcing bar carried medially and longitudinally by said under component between said components, extending substantially the full length of said tray and contacting the bottoms of said recesses.

8. Display carrying unit comprising a composite tray including upper and lower substantially coextensive components, each formed with a surrounding flange, said flanges being contiguously lapped and secured together, said upper component being inwardly embossed with a series of recesses shaped to freely fit the bases of telephone sets, certain of said recesses, less than the entire number of recesses, being provided with foot receiving depressions, said under component being inwardly embossed with projections positioned to reinforcingly engage the bottoms of said depressions, a rigid bar carried medially and longitudinally by said under component between said components, extending substantially the full length of said tray and engaging the bottoms of all said recesses, said tray being formed with a peripheral rabbet about its upper edge, a transparent domed cover for said tray having its edges seated in said rabbet, said cover having a bulged portion above one of said recesses.

9. Display carrying unit as claimed in claim 8, said under component being inwardly embossed to form a rib in supporting engagement with the bottoms of said recesses, defining an exterior channel extending length-

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wise of said tray adapted to interengage a supporting rod extraneous to said display unit.

10. Display carrying unit comprising a composite tray including upper and lower substantially coextensive components, each formed with a surrounding flange, said flanges being contiguously lapped and secured together, said upper component being inwardly embossed with a series of recesses shaped to freely fit the bases of telephone sets, a plurality of said recesses being for table type sets the bases of which have feet, and having foot receiving depressions, one of said recesses being for a footless, wall type set, and having no foot depressions, said under component being inwardly embossed with projections which reinforce and engage the bottoms of said depressions, a medial reinforcing strap carried exteriorly by said under component, extending throughout the length of said tray and beyond at both ends, terminating in ears for attachment of a suspending bail, a rigid bar carried interiorly by said under component, means for securing together said strap and bar, the latter being in reinforcing engagement with said recesses, and a transparent domed cover for said tray formed with a bulge overlying the depressionless recess.

11. Display carrying unit as claimed in claim 10, said tray being provided with a peripheral rabbet about its upper edge in which the lower edge of said cover seats, said cover being characterized by the absence of angular ridges in its contour and by having the base of the bulge merging curvilinearly with the adjacent surface of the cover.

12. Display carrying unit comprising a composite tray including upper and under substantially coextensive components, each formed with a surrounding flange, said flanges being contiguously lapped and being secured together, said upper component being molded so as to be inwardly embossed with recesses formed to fit the base of articles which said unit is designed to display, said under component being embossed inwardly with projections reinforcingly contacting the bottoms of said recesses and being inwardly embossed to form an exterior flat bottomed trough throughout its length, said tray being formed with a peripheral rabbet about its upper edge, a transparent domed cover for said tray having its edges seated in said rabbet, said cover being hinged to one side of said tray, and means for latching said cover at the opposite side of said tray.

13. Display carrying unit comprising a composite tray including upper and under substantially coextensive components, each formed with a surrounding flange, said flanges being contiguously lapped and being secured together, said upper component being molded so as to be inwardly embossed with recesses formed to freely fit the base of articles which said unit is designed to display, the bases of which articles have supporting feet, the bottoms of said recesses being formed with depressions to receive said feet, said under component being embossed inwardly with projections reinforcingly contacting the bottoms of said depressions and being inwardly embossed to form an exterior flat bottomed trough throughout its length, said tray being formed with a peripheral rabbet about its upper edge, a transparent domed cover for said tray having its edges seated in said rabbet, said cover being hinged to one side of said tray, and means for latching said cover at the opposite side of said tray.

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