March 5, 1963 R. D. FRANZENE 3,080,202

FOLDABLE TABLE

Filed Dec. 23, 1959 2 Sheets-Sheet 1

FIG. 1

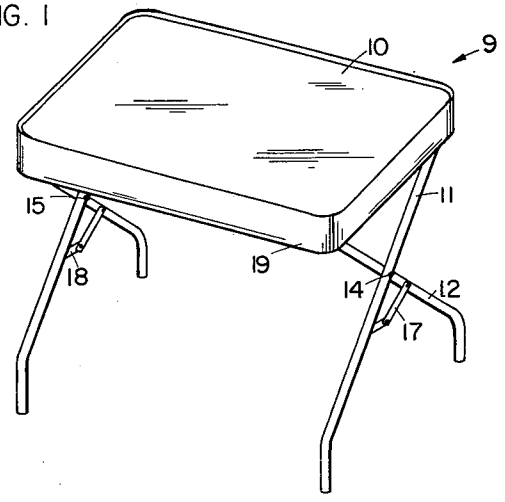


FIG. 2

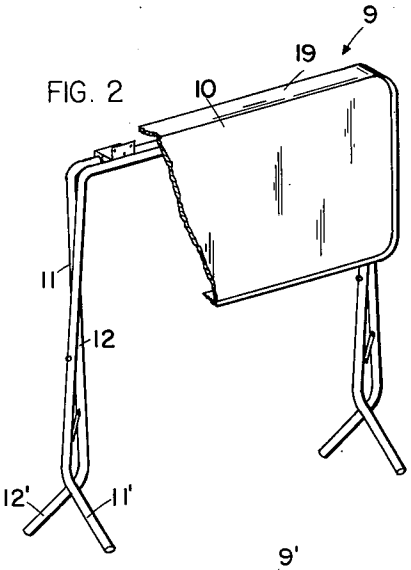


FIG. 3

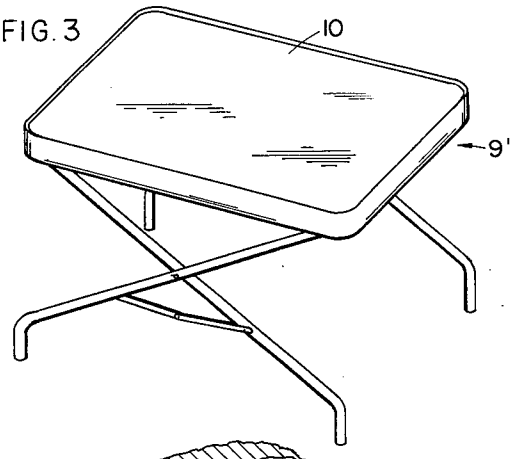


FIG. 4

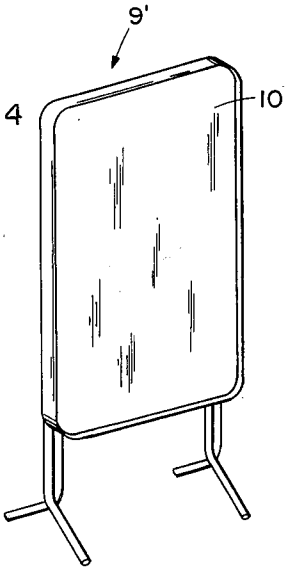
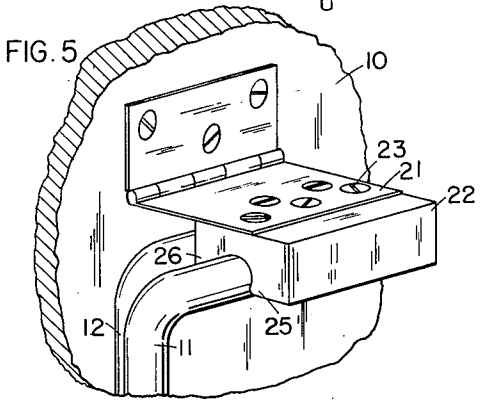


FIG. 5



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March 5, 1963 R. D. FRANZENE 3,080,202

FOLDABLE TABLE

Filed Dec. 23, 1959 2 Sheets-Sheet 2

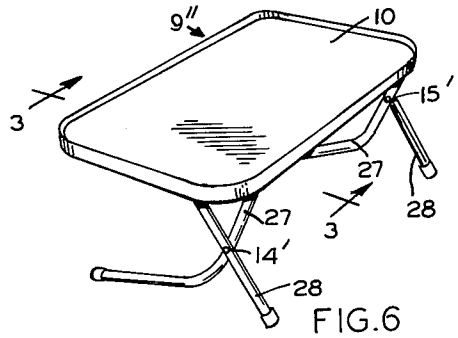


FIG.6

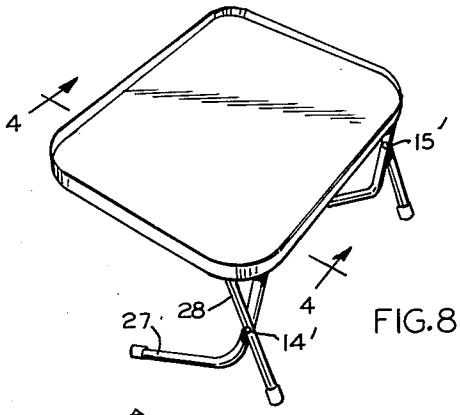


FIG.8

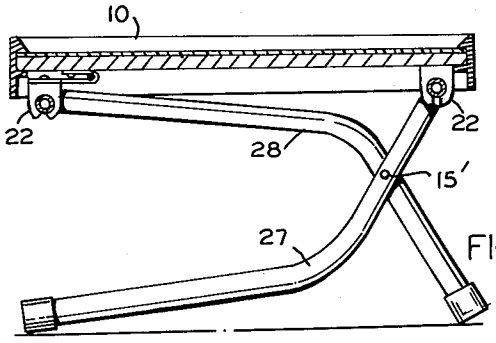


FIG.7

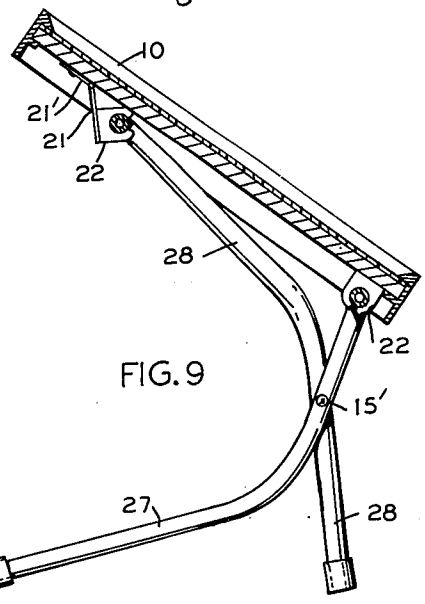


FIG.9

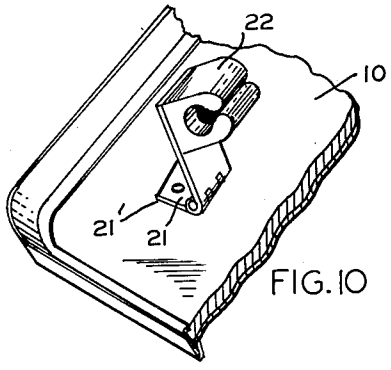


FIG.10

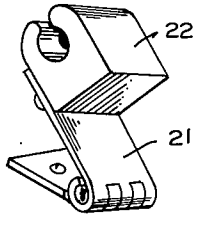


FIG.11

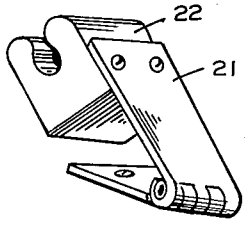


FIG.12

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3,080,202
FOLDABLE TABLE

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Filed Dec. 23, 1959, Ser. No. 861,479
6 Claims. (Cl. 108—1)

This invention relates to a table constructed with interchangeable legs to provide either a luncheon table or a bed tray.

This application is a continuation-in-part of my copending application Serial No. 801,077 filed March 23, 1959, now abandoned, having the same title.

Tables comprised of a detachable tray supported by two pairs of pivotally joined and crossed legs are widely used, particularly as luncheon tables for use by television viewers. In the usual construction of such tables the legs are retained in clamps which are fixedly attached to the bottom surface of the table top. The table hereinafter described comprises an improved foldable table construction, the improvement residing in the provision of hingedly affixed clamping means for retaining only one set of legs rather than for retaining both sets of legs as is conventional in table construction.

The provision of a hasp affixed to a tray bottom with a clamping fixture attached to the free swinging portion of the hasp provides a means of retaining a leg which enables the table of this invention to be folded and stored in a self-supporting and upstanding position, and in another embodiment of this invention enables the top of the table to be inclined to a position suitable for holding reading matter.

It is an object of this invention to provide a foldable table which is self-supporting when folded in an upright position.

It is a further object of this invention to provide a foldable table, the entire top of which can be folded down.

It is another object of this invention to provide a table having a top which can be operably tilted.

Other objects will become apparent from the drawings and from the following detailed description in which it is intended to illustrate the applicability of the invention without thereby limiting its scope to less than that of all equivalents which will be apparent to one skilled in the art. In the drawings like reference numerals refer to like parts and:

FIGURE 1 is a perspective view of one embodiment of the article of this invention;

FIGURE 2 is a perspective view of a cutaway of the table of FIGURE 1 in folded position;

FIGURE 3 is a perspective view of another embodiment of the article of this invention;

FIGURE 4 is a perspective view of the table of FIGURE 3 in folded position;

FIGURE 5 is a detailed view of a leg fastening means shown in FIGURE 2;

FIGURE 6 is a perspective view of another embodiment of the table of this invention;

FIGURE 7 is a sectioned elevation of the table shown in FIGURE 6;

FIGURE 8 is a perspective view of the table of FIGURE 6 in changed position;

FIGURE 9 is a sectioned elevation of the table shown in FIGURE 8;

FIGURE 10 is a perspective view of the preferred embodiment of a clamping means of this invention;

FIGURE 11 is another embodiment of a clamping means 22 of this invention.

FIGURE 12 is another embodiment of a clamping means of this invention.

In FIGURE 1 is shown tray 10 supported by legs 11 and 12 which are pivotally affixed by pivots 14 and 15. Leg spacer 17 and 18 limits the angle of expansion through which legs 11 and 12 may be positioned. Rim 19 encircles top 10 and provides an attractive finishing member which serves to conceal the edges of the plies of the laminated construction of tray 10. Rim 19 can be raised to provide a retaining edge to prevent articles from falling from tray 10 or may be constructed flush with the top of tray 10 to provide a smooth surface.

In FIGURE 2 is shown the table of FIGURE 1 in a folded position suitable for being stored as a decorative furnishing in a house. Legs 11 and 12 are folded together in a crossed relationship with the lower leg extremities 11' and 12' being configured to define two sides of a triangle with the floor surface as the third side. The leg configuration provides a stable and strong means for supporting table 9 in an upright position when tray 10 is folded down into close adjacency with legs 11 and 12. The construction of table 9 as shown in FIGURE 5 enables tray 10 to be hung vertically downward without projecting outwardly as would be the case if tray 10 were affixed to leg 12 in a conventional manner.

FIGURES 3 and 4 show another embodiment of the table in which the dimensions of top 10 are increased to enable two persons to use the table for dining purposes. Table 9' of FIGURES 3 and 4 is constructed in identical manner to table 9 of FIGURES 1 and 2.

FIGURE 5 is a detailed view of a leg fastening means of the tables illustrated in FIGURES 1 through 4. Hasp 21 is fixedly attached to clamping means 22. Clamping means 22 is comprised of jaws 25 and 26 which can be expanded to receive leg 11' (FIGURE 2) and which enable rotation of leg 11' to be made therein.

Hasp member 21' is fixedly attached to tray 10. The provision of clamp means 22 mounted at an end extremity of hasp member 21 top 10 to be folded into a vertical position without being brought into contact with leg 12' (FIGURE 2) as would be the case if clamping means 22 were affixed to the bottom of tray 10. It is essential to the operability of a table of this invention that hasp member 21 be provided as shown and that rotation of leg 11' be possible in clamp means 22. To expand or collapse table 9 depends only on the requirements that leg 11 be enabled to be rotated in clamping means 22 and that hasp member 21 be enabled to be rotated relative to hasp member 21'. If either of the provisions of a rotative hasp or clamping means is omitted from the article of this invention, operability of the invention will be impaired.

In FIGURES 6 and 7 are shown two views of table 9'' configured for use as a bed tray. Legs 27 and 28 support tray 10 and are of a configuration which enables table 9' to be placed on a bed. The construction of table 9'' is in all ways similar to that of table 9 except that the configuration of the legs is changed.

In FIGURES 8 and 9 are shown two views of table 9'' in a changed position from that shown in FIGURES 6 and 7. Hasp member 21 is rotated from one extreme of movement, that shown in FIGURE 8, to the other extreme of movement, that shown in FIGURE 9, to provide an inclined table top which is suitable for holding reading matter. The position of hasp member 21 in FIGURE 9 is such that table 9'' is stable and cannot be collapsed by pressure being applied in any direction to the upper surface of tray 10. The particular angle at which hasp member 21 will become stable against movement by pressure applied to the upper surface of tray 10 will depend upon the particular configuration of legs that may be used. It is essential for the operable movement and stability of table 9'' shown in FIGURES 6–9 that

legs 27 and 28 are rotatable in clamping means 22 and that a moment arm upwardly extends from the hinge pin between hasp members 21 and 21' to the plane which is defined by leg pivots 14' and 15' (FIGURES 8 and 9 and the horizontal portion of leg 28).

FIGURE 10 illustrates the preferred embodiments for attaching clamp 22 to hasp member 21 while FIGURES 11 and 12 illustrate non-preferred embodiments.

Tables 9 and 9' provide desirable and decorative household accessories. When table 9 is in a collapsed position tray 10 does not have to be removed from leg members 11 and 12 to be lowered into vertical hanging position as is necessary on conventional foldable tables of similar design, and the configuration of table 9' of FIGURES 6–10 enables a bed tray to be made into a reading table without necessitating that the table top be detached from the legs as is necessary in conventional constructions of bed trays which can be adjusted for use as a reading table.

While certain modifications and embodiments of the invention have been described, it is, of course, to be understood that there are a great number of variations which will suggest themselves to anyone familiar with the subject matter thereof and it is to be distinctly understood that this invention should not be limited except by such limitations as are clearly enclosed in the appended claims.

I claim:

1. As an article of manufacture, a table comprising a top having fixedly attached to the undersurface thereof at least one hinge strap, an unfixed hinged strap pivotally attached to the fixed strap by a hinge pin, said unfixed strap having fixedly attached thereto in remotely spaced relationship from the hinge pin a clamping means, two table top supporting members pivotally interconnected, each of said supporting members configured with two substantially parallel leg portions and a transverse bar portion connected to said two leg portions, each of said leg portions being pivotally and operably connected to a leg portion of said other table top supporting member, one of said transverse bar portions being rotatively retained in said clamping means, the other of said transverse bar portions being removably retained in second clamping means affixed to the undersurface of said table top.

2. As an article of manufacture, a table comprising a top having fixedly attached to the undersurface thereof at least one clamping means and at least one hinge strap, an unfixed hinged strap pivotally attached to the fixed strap by a hinge pin, said unfixed strap having fixedly attached thereto in remotely spaced relationship from the hinge pin a clamping means, two table top supporting members pivotally interconnected, each of said supporting members configured with two substantially parallel leg portions and a transverse bar portion connected to said two leg portions, each of said leg portions being pivotally and operably connected to a leg portion of said other table top supporting member, all of said leg portions of said supporting members being equal in length, said transverse bar portions being movable into clampable relation with said clamping means, said bar portions being rotatively movable when retained in said clamping means, at least one of said transverse bar members being movable when unclamped into mutually close adjacency with said table top and said other clamped transverse bar means and intermediate therebetween when said clamped table top supporting member and said table top are in substantially coplanar relation.

3. The article of claim 2 wherein said leg portion end extremities remote from said transverse bar are configured at an angle to the remainder of said leg portions.

4. The article of claim 1 wherein said clamping means is a detachable gripping member fixedly disposed on said hinge strap member a distance sufficient to provide a plane which passes through said clamping means and pivotal interconnections between said table top supporting members inwardly of said hinge pin when said strap member is inwardly swung toward the center of said table top with said clamping means disposed in near adjacency to said table top.

5. The article of claim 4 wherein said table top supporting members are configured with curvilinear leg portions disposed to extend substantially co-extensively with projected areas of said table top in a plurality of positions on a surface supporting said article.

6. The article of claim 4 wherein said table top is disposed substantially parallel to a flat surface on which said article is supported when said strap member is swung outwardly from the center of said table top, and wherein said table top is disposed at an angle to said surface when said strap member is swung inwardly.

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