April 7, 1970 R. J. WALKER 3,504,915

PUZZLE HOLDER

Filed Aug. 25, 1967 2 Sheets-Sheet 1

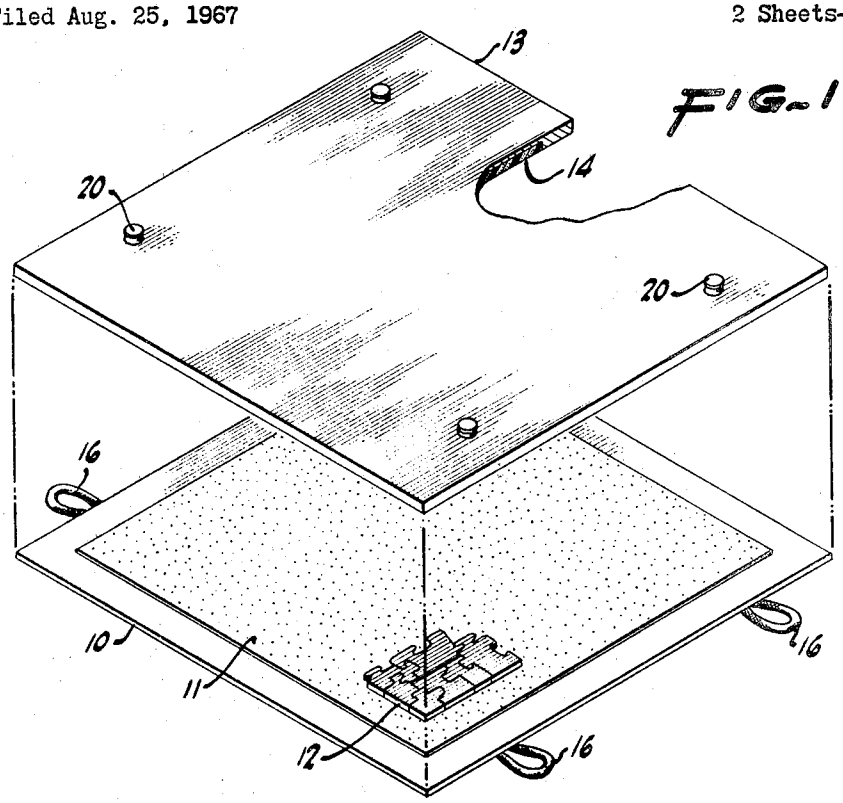


FIG. 1

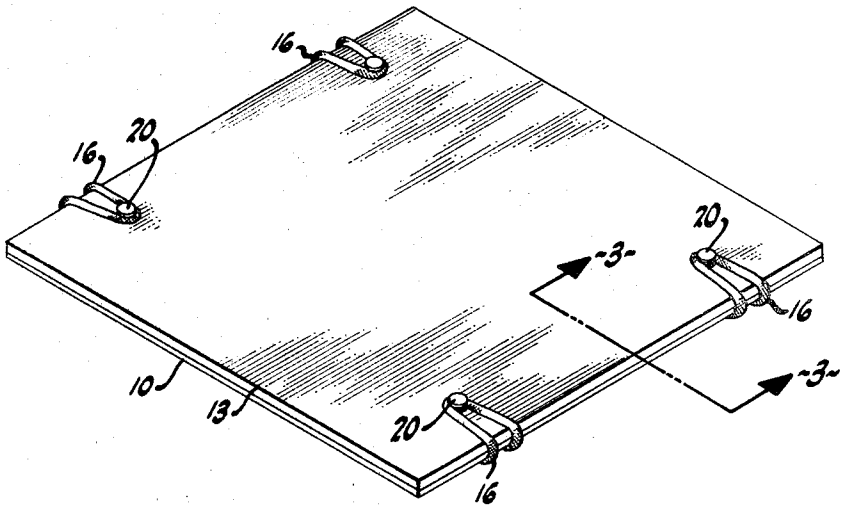


FIG. 2

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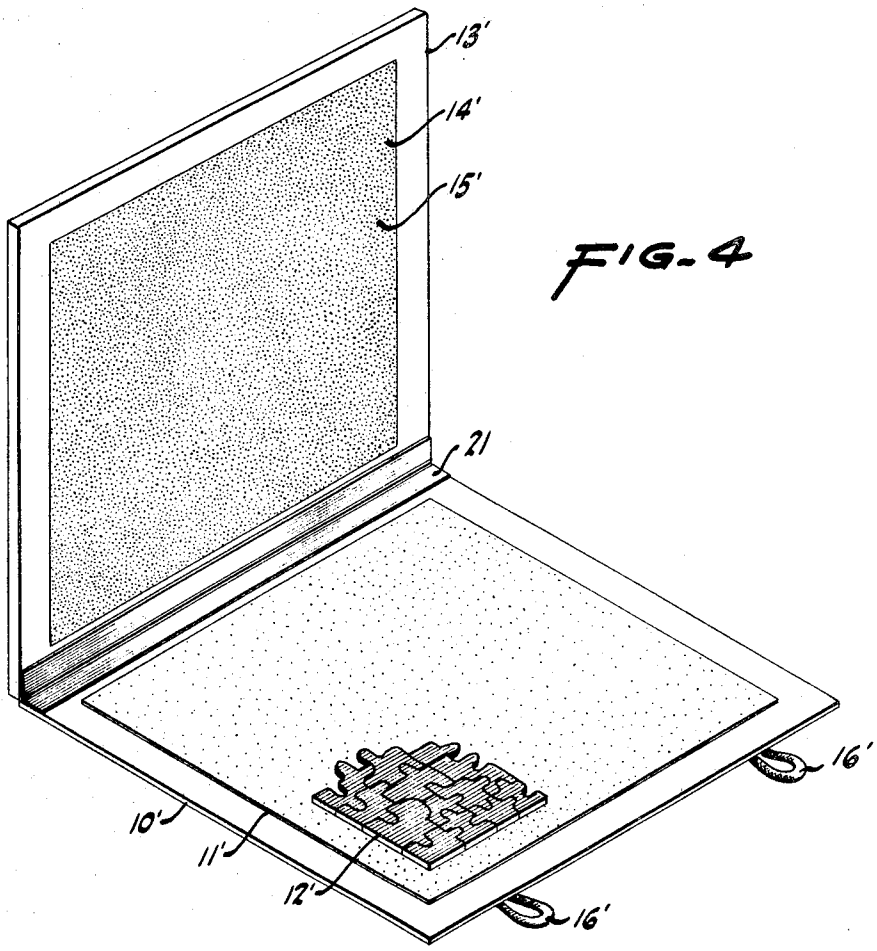


FIG. 4

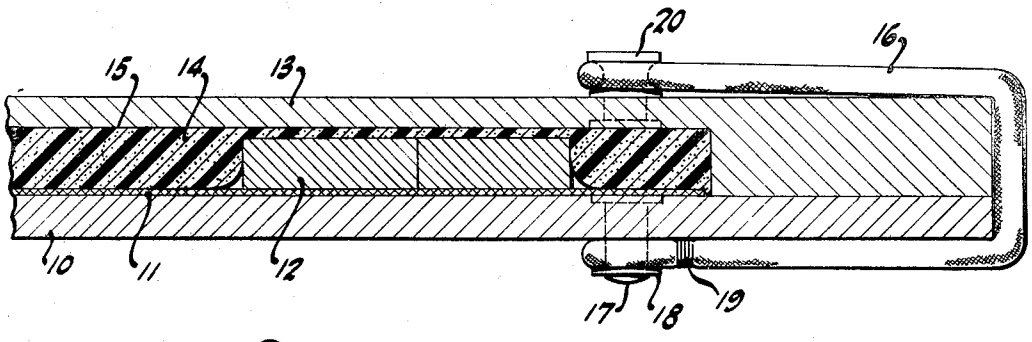


FIG. 3

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PUZZLE HOLDER

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U.S. Cl. 273—157 1 Claim

ABSTRACT OF THE DISCLOSURE

A holder or caddy for relatively small articles such as the pieces of a jigsaw puzzle, and which holder provides a work platform having a surface upon which such pieces can be assembled, a cover adapted to removably overlie such work platform and any pieces supported thereon, a resilient compressible blanket or pad for interposition between such work platform and cover in overlying relation with any pieces on the latter, and fastener structure for releasably securing the platform and cover to each other with sufficient force to clamp and maintain the pieces in position for storage thereof. The work platform and cover are formed of paperboard or other similar relatively stiff material, and the blanket is a relatively thin layer of sheet polyurethane or comparable material compressed between the platform and cover when secured to each other to the extent necessary to prevent shifting of the pieces relative to the work platform.

This invention relates to a holder or caddy for use with relatively small articles such as the pieces of a jigsaw puzzle or the like during assembly and storage thereof; and in this respect it provides a work platform upon which the relatively thin pieces of such puzzle can be assembled, and it further provides a means for constraining such pieces in predetermined positions for storage thereof especially before completion of the puzzle.

Jigsaw or assembly puzzles have reached a state of complexity in which a single puzzle may comprise hundreds of individual pieces detailing, when assembled, an intricate pictorial representation of rather large dimensions. As a consequence, it is unusual for a puzzle of this type to be completely assembled without interruption in the work thereon and, in fact, work on a single puzzle may extend over periods of several days and often over several weeks. Since the pieces of a partially assembled puzzle cannot be disturbed throughout such periods, it is generally the practice to permit the puzzle to continue to occupy the table or other work surface supporting the same until it is completed, and its presence can create considerable inconvenience unless the home is sufficiently large to accommodate the loss of space caused thereby.

In view of the general clutter and frequent inconvenience thusly caused by a relatively large jigsaw puzzle during those periods of its assembly when there is no active work thereon, an object, among others, of the present invention is to provide a holder or caddy having a work platform upon which a jigsaw puzzle or the like may be assembled, and which further provides a cover, blanket and fastener structure assemblage for use with such work platform to constrain or clamp the puzzle pieces in position thereon, thereby enabling such assembled pieces together with the holder to be removed to a convenient location for storage in either horizontal or vertical positions until a time when further work on the puzzle can be resumed.

The work platform is relatively flat and stiff as is the cover which removably overlies the same, and in order to make the holder sufficiently lightweight and inexpensive, it may be formed of materials such as paperboard, chipboard and corrugated paperboard for example, which although relatively planar in the large sizes required are not sufficiently flat and dimensionally stable to conveniently clamp relatively thin jigsaw puzzle pieces therebetween. The blanket or pad interposed between the work platform and cover therefor is resilient and compressible and effective to accommodate any out-of-plane distortions of the work platform and cover so as to positively clamp puzzle pieces in position upon the work platform when the fastener structure unites the work platform and cover in a sandwich-like configuration with the blanket and puzzle pieces therebetween. The work platform is provided with a friction liner or friction-augmented surface which tends to resist slippage of the puzzle pieces both during assembly and storage thereof.

Additional objects and advantages of the invention, especially as concerns specific features and characteristics thereof, will become apparent as the specification develops.

Embodiments of the invention are illustrated in the accompanying drawings in which:

FIGURE 1 is an exploded perspective view of a puzzle holder embodying the invention and in which a plurality of puzzle pieces are shown in position upon the work platform;

FIGURE 2 is a perspective view showing the puzzle holder in its assembled puzzle-constraining state;

FIGURE 3 is an enlarged, broken transverse sectional view taken along the line 3—3 of FIGURE 2; and

FIGURE 4 is a perspective view illustrating a modified form of the invention.

The puzzle holder or caddy includes a work platform or bottom component **10** which, in the form shown, has its upper surface equipped with a friction liner **11**. The liner **11** may be substantially coextensive with the platform **10** or may be slightly smaller, as shown in FIGURE 1; and it may be formed from a variety of materials characterized by having a friction-augmented surface. Typically a velour material is used as, for example, one of the commercially available paper velours, and in this event the liner is adhesively secured to the platform **10** along the upper surface thereof. A plurality of pieces **12** of a partially assembled jigsaw puzzle are shown in position upon the platform **10**.

Removably overlying the work platform **10** is a cover **13** which is essentially the dimensional equivalent of the work platform both in terms of length and width thereof. Interposed between the platform **10** and cover **13** is a blanket or pad **14** which is resilient and compressible, and although a number of materials may be used to form the blanket **14**, a typical instance thereof is a thin layer of polyurethane foam. The blanket **14** is essentially coextensive in area with the liner **11** so as to completely extend over the pieces **12** of any jigsaw puzzle being assembled upon the work surface defined by the liner. In the structure illustrated, as shown best in FIGURE 3, the blanket **14** seats within a large channel or recess **15** provided along the underlying surface of the cover **13** but such configuration is in no sense essential. In this reference, it is contemplated that manufacturing convenience and cost considerations indicate that the cover **13** will be planar along its underlying surface and that the blanket **14** will be an independent component completely unattached to either the cover or work platform. In the form shown, however, the blanket is advantageously secured to the cover **13** to assure alignment of the blanket with the recess **15** therefor.

Fastener structure is included in the holder to removably clamp the work platform **10** and cover **13** together for the purpose of pressing the puzzle pieces **12**, through the blanket **14**, against the liner **11** of the work platform **10** with sufficient force to constrain the puzzle pieces in

a predetermined position upon the work platform. The fastener structure used with the puzzle holder illustrated in FIGURES 1 through 3 comprises a plurality of resilient straps or bands **16** which may be secured either to the work platform **10** or cover **13** and, in the present case, are respectively secured to the work platform **10** along the underside thereof by a plurality of posts **17**. Each of the posts **17** extends through the work platform **10** and cooperates with an enlarged washer **18** to confine the associated strap **16** along the underlying surface of the work platform **10**. In this respect, the strap **16** extends about the post **17** and is drawn snugly thereagainst by a binding **19**. Thus, each strap **16** is essentially an endless loop that is adapted to be stretched or drawn over the edges of the work platform **10** and cover **13** and about a post or spool **20** that extends through and is secured to the cover **13**. As shown in FIGURE 2, the fastener structure comprises four individual straps **16** each with its associated posts **17** and **20**. However, a greater or lesser number of individual fasteners can be used as may be best suited for any particular puzzle holder; and other suitable fastener structure may be employed as long as it releasably secures the cover **13** in overlying juxtaposition with the work platform **10** so as to tightly hold the puzzle pieces **12** in position. Examples of fastener structure include conventional binder clips (i.e., generally U-shaped spring clips having pivotal handles to provide leverage for opening the mouth of the clip to insert components between the resilient legs thereof), non-stretchable straps instead of the resilient straps **16**, button and tie straps, and cording drawn about the corners of the platform and cover.

The modified puzzle holder illustrated in FIGURE 4 is substantially identical in all respects with the holder heretofore described except that the work platform and cover are hingedly secured to each other along an edge of each. For convenience, the primed form of the same numerals used in FIGURES 1 through 3 are employed in FIGURE 4 to identify the respectively corresponding components, and the hinge securing the cover to the platform is designated **21**. The hinge may take a variety of conventional forms, but in the present case it is simply a length of kraft paper or other strong paper or other suitable material adhesively secured to the platform **10'** and cover **13'** along adjacent edges thereof. The hinge **21** is adequate to hold the work platform **10'** and cover **13'** closely together adjacent their hinged edges so that two resilient straps **16'** are sufficient, in association with the hinge **21**, to clamp the work platform and cover together with a force adequate to maintain the puzzle pieces **12'** in proper position along the work surface of the platform. Should it be necessary in any particular case, additional fastener devices may be employed.

As indicated hereinbefore, the platform **10** and cover **13** may be relatively large since the jigsaw puzzles likely to be assembled upon the plaform **10** are themselves quite extensive dimensionally when completed. For example, in one specific embodiment of the invention the platform **10** is approximately 25½ inches wide and 32½ inches long, as is the cover **13**. Since components of such size are inconvenient to handle, both the platform and cover are formed in two sections each of approximately 16¼ inches in length by 25½ inches in width. The two sections defining the work platform **10** are hingedly secured to each other (much in the manner of the work platform **10'** and cover **13'** being hingedly secured to each other by the paper hinge **21**) to define a folder that can be selectively closed for storage and opened for use. The two sections defining the cover are similarly hinged to form a folder that can be selectively opened and closed. It may be noted that in such specific embodiment, the resilient blanket is similarly subdivided into two sections, and in the event that a relatively small puzzle is being assembled, one section of the work platform may be used as the surface upon which the puzzle is assembled and the other section of the work platform may be folded thereover and used as a cover to clamp, in association with one of the blanket sections, the puzzle pieces in position against the work surface.

Whenever the work platform and cover are relatively large, as in the example set forth, or where one or the other or both of such components are sectioned, it is difficult to provide a work platform and cover having sufficient dimensional stability and accuracy to clamp the pieces of a jigsaw puzzle therebetween in the absence of the compressible blanket unless the work platform and cover are formed of an expensive dimensionally stable material, and this is practicably uneconomical. More particularly in this respect, in a typical case the work platform and cover will be formed of paperboard, chipboard, for example, as shown in FIGURE 3, or corrugated paperboard as in the particular dimensional embodiment set forth hereinbefore. In either case, such materials are not perfectly planar or dimensionally stable and tend to warp so that of themselves they are not adequate to clamp and hold in position therebetween the relatively thin pieces of a typical jigsaw puzzle. Thus, the resilient blanket or pad accommodates any warpage or other dimensional inaccuracies contributing to a non-planar work platform and cover.

As shown in FIGURE 3, the blanket **14** tends to deform locally wherever compressed against the pieces **12** of a jigsaw puzzle so as to prevent shifting of such pieces, and such sharp or localized deformation is in contrast to the case of non-localized deformation in which the blanket would tend to slope gradually from each line of interception by the puzzle pieces. This sharp deformation of the blanket causes each pocket therein defined by the outer free edges of a puzzle piece to conform effectively to the contours of such free edges and thereby confine the puzzle piece against shifting. The dimensionally identified embodiment of the puzzle noted hereinbefore provides a blanket formed of sheet polyurethane having a thickness of about $\frac{3}{32}$ of an inch. Such material is able to compress almost to the extent of its complete thickness wherever necessary and on a localized basis, as indicated in FIGURE 3. The friction liner **11** provided along the upper surface of the work platform tends to minimize the amount of compressible force necessary to clamp the puzzle pieces in position upon the platform, and it also permits the work platform to be supported at an angle during assembly of a puzzle thereon without the puzzle pieces slipping downwardly under gravitational influence.

In use of the puzzle holder or caddy, the work platform **10** is supported horizontally or at a comfortable angle, and the pieces **12** of a puzzle are assembled upon the friction liner provided along the upper surface of the work platform. Assembly of the puzzle may progress from non-connected areas as, for example, each of the corners of the puzzle; and whenever work on the puzzle is to be discontinued for any length of time, the compressible blanket is placed over the puzzle pieces then supported in a single layer upon the work platform, and the cover is placed over the blanket and work platform in overlying juxtaposition therewith. In the instance in which the blanket may be secured to the cover, the cover is simply placed in overlying juxtaposition with the work platform, and the compressible blanket or pad will automatically be positioned properly in overlying relation with the puzzle pieces. Next, the fastener structure is used to clamp the cover to the work platform so as to maintain the puzzle pieces in their proper position; and in the structure shown in the drawings, the fastener structure is used simply by drawing the resilient straps or bands **16** about the respectively associated posts **20**. The holder may then be moved to a suitable storage location, and may be stored in either a horizontal or vertical position with no danger of the puzzle pieces being disturbed. In this respect, in tests that have been conducted, a holder oriented in vertical position has been dropped intentionally on an edge through a distance of

several feet without disturbing the puzzle pieces confined against the work platform. Whenever it is desired to do further work on the puzzle, the holder is again placed upon a suitable support therefor with the cover facing upwardly, the fastener structure is released and the cover and compressible blanket removed to expose the puzzle pieces.

The puzzle holder can be used to mount an assembled puzzle as is done in framing the same, and for this purpose the cover is clamped to the work platform after the puzzle has been completely assembled on the latter. The sandwich is then inverted to place the cover **13** on the bottom, the fastener structure is then released, and the work platform is removed. The puzzle will now be supported in its assembled state upside down upon the cover **13** and "puzzle-saver" paper or other adhesively-equipped backing paper is placed along the assembled puzzle in the usual manner to adhesively secure the pieces to the backing paper after which the puzzle can be removed from the holder since the pieces of the puzzle are maintained in their assembled condition by the backing paper. In this function of the holder it may be advantageous to omit use of the resilient blanket to prevent the adhesive of the backing paper from attaching thereto. In this reference, the underlying surface of the cover may be relatively smooth or polished paper so as to minimize any tendency of the adhesive backing paper to attach thereto. Further concerning use of the holder, it is clear that it can be used with relatively small pieces or articles other than the pieces of a puzzle to provide a work surface upon which such pieces can be segregated, assembled and otherwise manipulated, and to provide a means for constraining such pieces in predetermined positions for storage; and by way of example, the holder can be used to separate beads by color or size and then for stringing the same, and also to separate and hold the pieces of a model airplane.

While in the foregoing specification, embodiments of the invention have been set forth in considerable detail for purposes of making a complete disclosure thereof, it will be apparent to those skilled in the art that numerous changes may be made in such details without departing from the spirit and principles of the invention.

What is claimed is:

1. A jigsaw puzzle holder for large puzzles having a multiplicity of pieces comprising, a work platform of flat, substantially rigid material, a friction liner comprising a thin layer of velour paper on the upper surface of the work platform for supporting individual jigsaw puzzle pieces as they are assembled thereon, a cover of flat, substantially rigid material adapted to removably overlie said work platform, the work platform and cover being substantially coextensive in area, a planar pad of a relatively thin layer of polyurethane interposable between said cover and said work platform for covering and engaging pieces of a partially assembled puzzle, said pad being locally deformable under application of pressure thereto substantially to the extent of its complete thickness to form substantially complete pockets about any free edges of partially assembled pieces and thus hold them against shifting when the pad is compressed between said pieces and said cover, and fastener structure for releasably securing said platform and cover to each other with said pad therebetween to compress said pad over said partially assembled pieces with sufficient force to form said locally deformed pockets and thus hold such pieces in position irrespective of warpage or other deformations present in said platform or cover, said fastener structure comprising a plurality of individual fasteners to secure said work platform and cover to each other at spaced-apart locations thereabout so as to provide a relatively uniform distribution of the clamping force throughout the extent of the work platform and cover, the fasteners each including a resilient band fixedly secured to one of said work platform and cover and removably securable to the other of said work platform and cover.

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U.S. Cl. X.R.

46—11; 206—62