MULTIPLE USE TABLE

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The present invention relates to stepped tables of the type shown in my prior Patent No. 3,034,841, and namely, having an upper work surface formed with a cutout at one corner which overlies a lower support surface so that a portable sewing machine, supported on the lower surface will project upwardly through the cutout and have its working surface coplanar with the upper surface of the table. Such a table also has utility as a typewriter desk with the typewriter seated on the support surface and the upper work surface being at normal desk height.

A principal object of the invention is to provide a portable supplemental unit for conveniently filling the cutout in the upper work surface of such a stepped table or desk to give an uninterrupted flat top when the lower support surface is not in use, and the invention further aims to give such a supplemental unit further utility when it is not being used to fill the cutout.

More particularly, the invention aims to provide a portable bench of simple and economical construction which, when not in use as a bench, is adapted to be easily collapsed and installed as a filler for the cutout in a stepped table or desk of the type above described.

Other more particular objects and advantages of the invention will, with the foregoing, appear and be understood in the course of the following description and claims, the invention consisting in the novel construction and in the adaptation and combination of parts herein after described and claimed.

In the accompanying drawings:

FIG. 1 is an exploded perspective view of a table and bench assembly embodying the present invention, and with the bench also shown in phantom with its legs extended;
FIG. 2 is a bottom view of the bench with its legs collapsed;
FIG. 3 is a bottom view of the table with its legs collapsed;
FIG. 4 is a fragmentary longitudinal vertical sectional view to an enlarged scale taken as indicated by the line 4—4 in FIG. 1 and with the collapsed bench seated in the table cutout;
FIG. 5 is a transverse vertical sectional view taken along the line 5—5 of FIG. 4; and
FIG. 6 is a detail vertical sectional view taken as indicated by the line 6—6 in FIG. 6.

Referring to the drawings it is seen that a table 10 is provided having a generally rectangular upper work surface 11 with a front corner cutout defined by edges 12—13. This upper surface 11 is spaced a predetermined distance above a lower support surface 14 which is arranged to occupy at least part of the space directly beneath the cutout in the upper surface. In the illustrated embodiment the lower surface 14 is shown as being shorter and narrower than the upper surface, but this size relationship is by way of example only. Similarly, the illustrated rectangular shape of these surfaces may be departed from for variances in ornamental appearance. In any regard, the primary function of the lower support surface 14 is to support a portable sewing machine, typewriter or other equipment at a preferred level spaced beneath the level of the upper surface and with the equipment extending up into the cutout in the upper surface 11.

As shown in the drawing the upper and lower surfaces 11, 14 may be held in their spaced parallel relationship by spacers 15, which when a drawer 16 is desired, may be supplemented by a pair of drawer guides 17—17. The spacers 15 are mounted between the surfaces 11, 14 by any suitable means such as screws (not shown) and the guides 17, when used, may be bonded in position by a suitable adhesive.

For compact storage the table may have folding legs mounted on the underside of the lower surface 14. For purposes of example, a tripod arrangement of three folding legs 18—18’ and 19 is shown. Legs 18—18’ diverge from one another from front-to-back and both slope to the left from beneath the drawer to collectively diverge relative to the leg 19 which slopes downwardly to the right from beneath the cutout. Leg 19 comprises a length of tubular stock bent to have a central isosceles triangular loop portion arranged with the base of the triangle as the foot 19a of the leg, and to form a pair of stubs 19b extending upwardly side-by-side from the vertex of the triangle opposite from the foot 19a.

The legs 18—18’ are pivotally mounted to swing up to the right while the leg 19 is hinged to swing up to the left between the legs 18—18’. For this purpose the legs 18—18’ may be equipped with like pivot units 20. Each of these units comprises a pair of generally triangular parallel spaced check plates 20a joined at the larger end by an arched integral bridge 20b which is spaced beneath the level of a pair of mounting flanges 20c extending oppositely from the top of the check plates. A pivot pin 21 passes between the check plates through aligned openings in the respective leg, and the leg is provided with a spring-loaded latch pin 22 arranged to engage the upper edge of the bridge 20b when the leg is extended.

The check plates 20a are given a common slope from the vertical corresponding to the desired front-to-back divergence of the legs 18—18’, and the bridges 20b slope to the left to give said legs the desired slope in that direction. The latch pins 22 are pressed inwardly to release the legs for folding, and when the legs are swung out from folded position their latch pins strike the inner faces of the bridges 20b and depress until they clear the upper edges of the bridges and are free to snap out into leg locking position.

A pivot unit 20’ for the leg 19 is provided which may be identical to the units 20 except that its check plates are in vertical planes and are spaced apart far enough to accommodate both leg stubs 19b. The pivot pin passes through both of these stubs and only one of them is provided with a latch pin.

When the table is intended for use with a portable sewing machine, the upper surface 11 is spaced above the lower surface 14 a distance corresponding to the distance that the working surface of the sewing machine is spaced above the base thereof, this distance being quite standard (about 3”). This spacing is so close to that normally provided between the desk surface and typewriter support surface of a typewriter desk that a single model of the table can serve both pieces of equipment. The base portion of a portable sewing machine commonly has an upwardly projecting latch at its left end to secure the cover for the machine, and so to accommodate such a latch, the edge 13 of the cutout is provided with a notch 13a.

As part of the present invention I provide a removable insert taking the form of a bench 30 provided with folding legs 31, a pair at each end. These legs may be mounted on the underside of the top or seat 32 of the bench by the same pivot units 20 as used for the table legs 18—18’ and are arranged with the pivot units at one end staggered relative to those at the other end so that the front legs of the bench will fold inwardly side-by-side and the rear legs will occupy a respectively collapsed position as shown in FIG. 2.
The bench top 32 is shaped to match the cutout in the upper surface 11 of the table and is provided with spacers to engage the lower table surface 14 and locate the top 32 coplanar with the upper surface 11 when the bench legs are folded. Such spacers may take the form of a rear dowel 33 and front and side valance strips 34-35, respectively. These valance strips preferably project endwise at 34a and 35a beyond the bench top as locking tongues to extend beneath the underside of the upper table surface 11 when the bench fills the cutout. These tongues are assisted by a lock comprising a grooved catch post 36 mounted at the rear and underside of the bench and a complementing over-center toggle-operated latch-loop mechanism 36' mounted on the underside of the table top 11 adjacent the edge 12. Access to the toggle is had from the rear of the table. Positive positioning of the bench top relative to the table top is also aided by a tongue 32a mating with the notch 13a.

It will be apparent from the foregoing description that the table 10 and bench 30 can be compactly stored, or shipped in a container, as a unit with all of the legs folded up and the bench positioned in the table cutout. Then, with the table legs extended and the bench still in the cutout, a table with an uninterrupted surface is readily provided. Finally, when the table is to be used for sewing, typing, etc., the bench is separated from the table and its legs extended to provide a seat for the operator while the lower table surface 14 serves as a support for the sewing machine, typewriter or other selected equipment.

The table components 11, 14, 16 and 17, and bench components 32, 34 and 35, may be formed of plywood, and the plywood for the components 11, 14 and 32 may be faced on its upper side with a high-density plastic overlay to provide particularly durable work surface.

Although it is preferred that the unit 30 for filling the cutout in the upper surface 11 of the table 10 comprises a bench, it is to be understood that such unit could comprise a sewing kit, storage container, or other suitable article.

It is thought that the invention will have been clearly understood from the foregoing detailed description. Changes in the details of construction will suggest themselves and may be resorted to without departing from the spirit of the invention, wherefore it is my intention that no limitations be implied and that the hereto annexed claims be given a scope fully commensurate with the broadest interpretation to which the employed language admits.

1. In combination, an upper work surface interrupted by a cutout, equipment support means spaced below the level of said work surface a predetermined distance and located directly beneath said cutout, connecting means between said work surface and equipment support means to maintain said distance, bottom support means for said work surface depending below the level of said equipment support means and providing leg room beneath said cutout below the level of said equipment support means, and removable insert means presenting an insert surface shaped to fill said cutout, said insert means being adapted to seat on said equipment support means and having its said insert surface fill said cutout to provide an uninterrupted working surface when use of the equipment support means is not required and being adapted to be bodily removed whereby equipment may be seated on said equipment support means and extend upwardly through said cutout.

2. The combination according to claim 1 in which said insert means comprises a bench having said insert surface as its seat and having folding legs arranged when collapsed to occupy the space between said seat and said equipment support means when the bench is seated on the equipment support means.

3. The combination according to claim 2 in which said bench has a valance depending from said seat and arranged to rest on said equipment support means when the seat occupies said cutout.

4. The combination of claim 1 in which said bottom support means comprises three folding legs hingedly connected to the underside of said equipment support means with two legs at one end and the third leg at the other end, said two legs being hinged to fold up toward said other end at opposite sides of said third leg, and said third leg being hinged to fold upward toward said other end at opposite sides of said third leg, and said third leg being hinged to fold upward toward said one end between said two legs.

5. The combination of claim 1 in which said connecting means includes a pair of parallel spaced upright drawer guides extending between said equipment support means and work surface, and a drawer slidably mounted between said guides.

6. The combination of claim 1 in which portions of said insert means below the level of said insert surface project beneath said work surface when the insert means occupies said cutout to resist upward movement of said insert means relative to said work surface, and said insert means is slidable on said equipment support means for sliding movement toward and away from at least one edge of said work surface defined by said cutout.

7. The combination of claim 6 in which lock means is mounted beneath said work surface and insert surface to selectively resist said sliding movement.

8. The combination of claim 1 in which said cutout is located at a corner of said work surface and has two inner edges at right angles to one another, one of said inner edges having a notch, and a tongue on said insert surface matching said notch and resisting horizontal movement of said insert means relative to said work surface in a direction parallel to said notched edge.

9. The combination of claim 8 in which lock means operatively associated with said insert means and work surface selectively resists horizontal movement of said insert means relative to said work surface in a direction parallel to the other of said two inner edges.

10. The combination of claim 1 in which said work surface, equipment support means, spacer means and support means comprise a stepped table, and said insert means comprises a bench for use with the table, said bench having said insert surface as its seat and having folding legs movable from an extended position supporting the seat above the floor level to a storage position between the seat and said equipment support means when the seat occupies said cutout.

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