July 13, 1943. H. K. ULLMAN 2,324,247

PORTABLE TABLE

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Fig. 1.

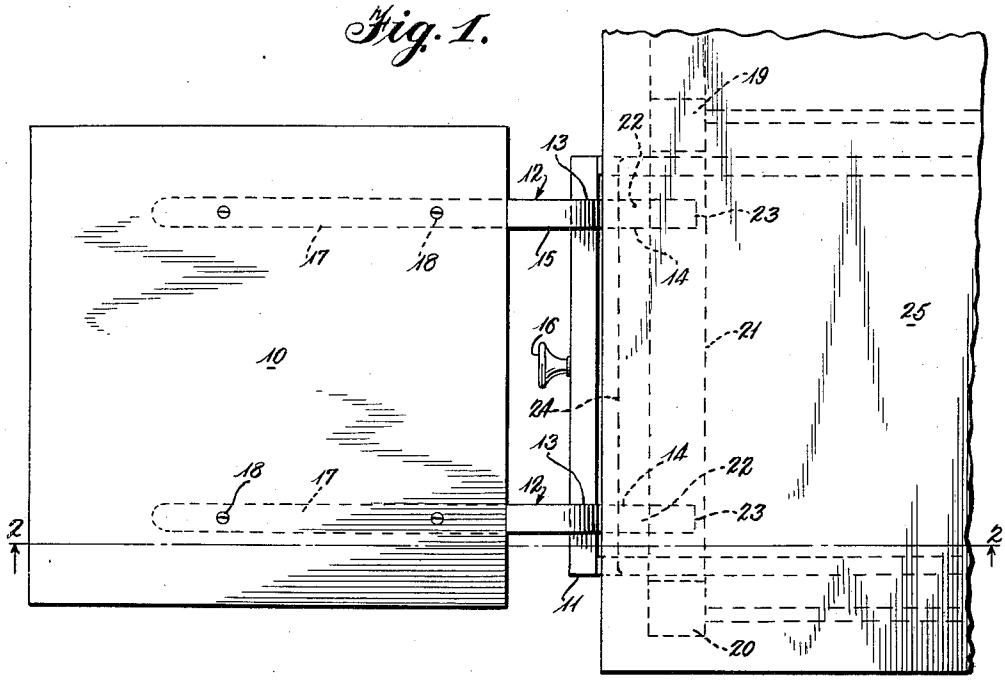


Fig. 2

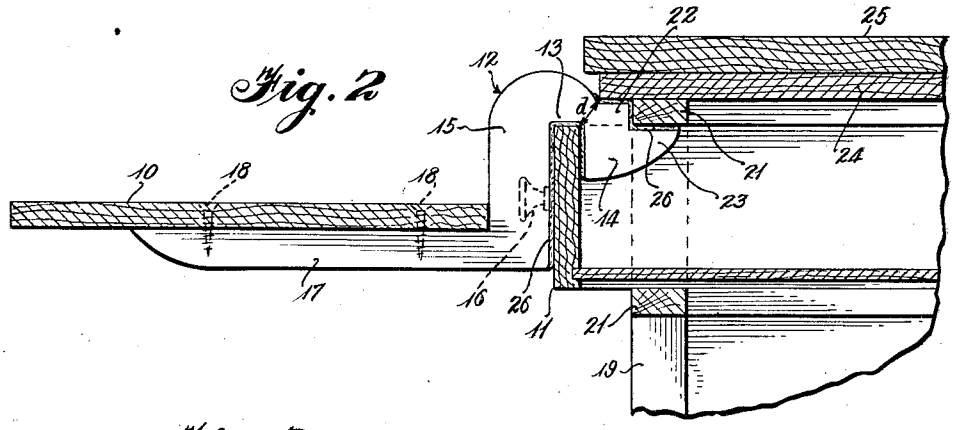
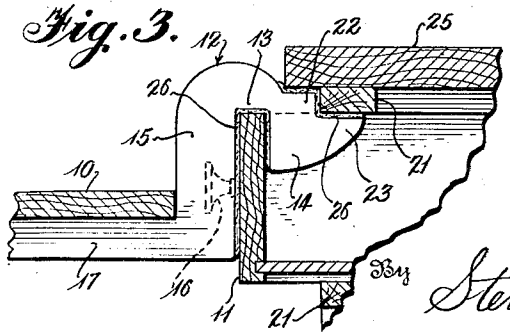


Fig. 3.



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PORTABLE TABLE

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Fig. 4.

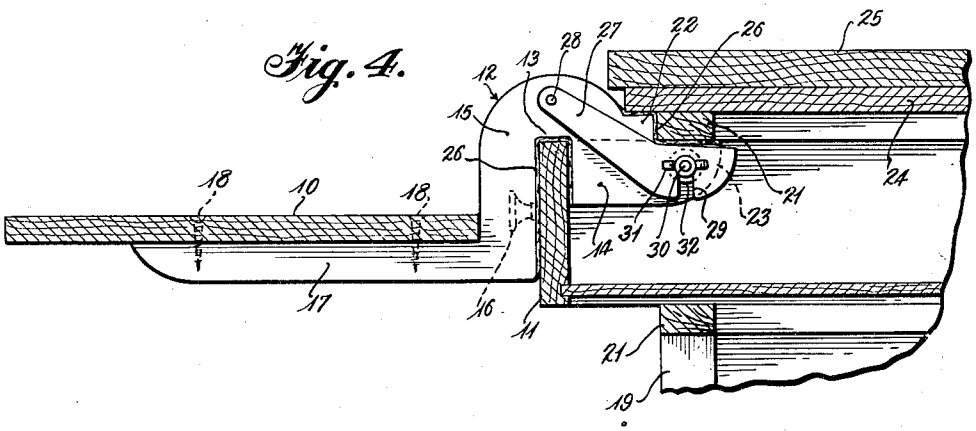


Fig. 5.

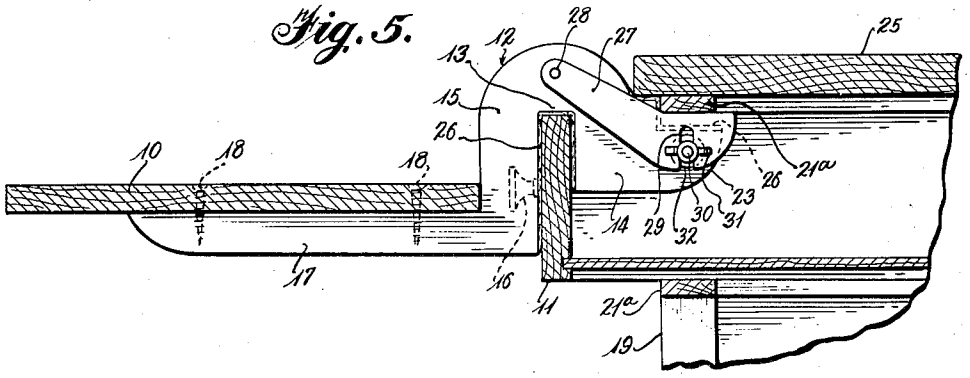
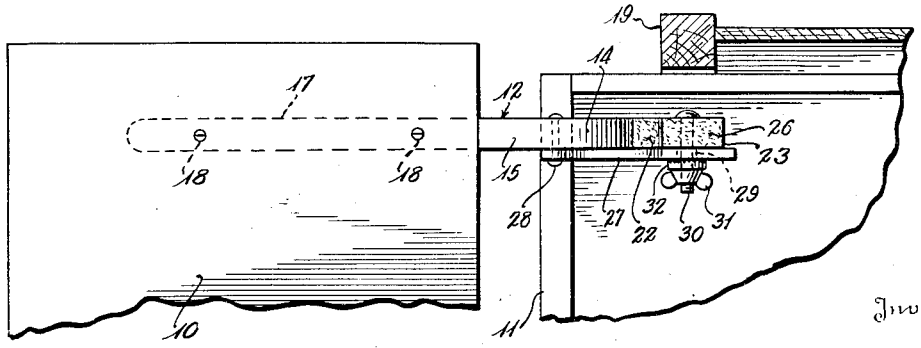


Fig. 6.



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PORTABLE TABLE

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Fig. 7.

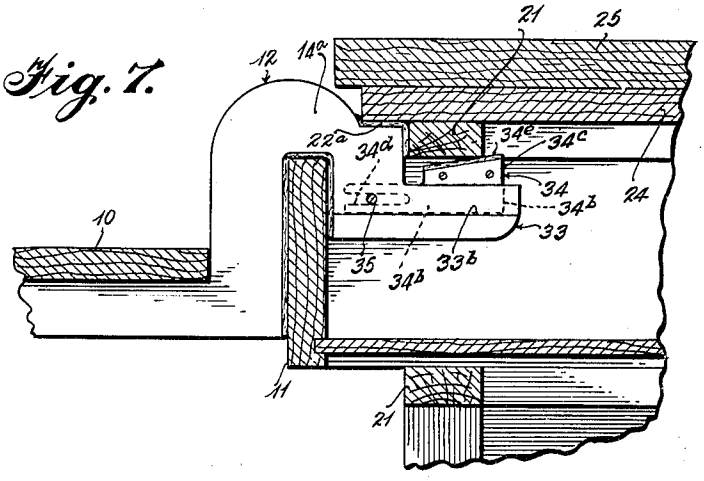


Fig. 8.

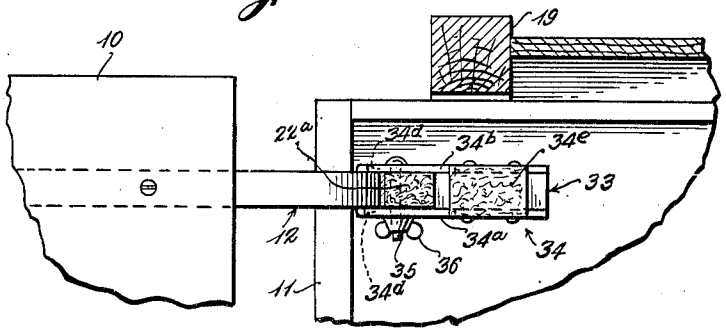
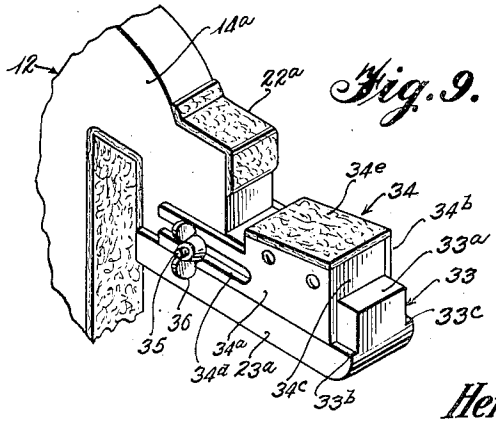


Fig. 9.



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Patented July 13, 1943 2,324,247

UNITED STATES PATENT OFFICE

2,324,247

PORTABLE TABLE

Henry K. Ullman, Washington, D. C.

Application April 27, 1942, Serial No. 440,693

4 Claims. (Cl. 45—90)

This invention relates to portable tables, and is more particularly concerned with a structure intended for temporary attachment to the drawer of a piece of furniture to function as a support for a typewriter.

Portable table structures of the general type to which this invention appertains are known at the present time and many of them are of utility for emergency use as auxiliary pieces of office furniture. For example, as writing tables, used in substitution for the sliding writing board normally disposed above the bank of drawers and below the top of a desk, they are satisfactory. However, as the art now stands, known portable table structures of a type adapted to be detachably connected to the drawer of a piece of furniture are lacking in many important requisites incident to their use as typewriter supports.

As a result of exhaustive tests by the research departments of typewriter manufacturers, it has been found that the ideal position for a typewriter support is a horizontal plane very slightly above the lap of a seated typist. In an ordinary desk, however, the top is considerably above this level, the lap level of a person seated thereat being normally about at the bottom of the first drawer. Thus, conventional portable tables which are normally supported from above the top drawer of a desk and which extend in a horizontal plane only very slightly below the top of the desk, are unsatisfactorily high from the point of view of the typist.

If the above were the only problem to be overcome, its solution would probably not be fraught with great difficulty. A typewriter support, however, must not only be disposed in the correct horizontal plane but must be held rigidly in position and in such a manner as to insure substantially vibrationless operation. Thus, although portable tables of the types heretofore known may be sufficiently sturdy, they are disposed in such a position that their protracted use as a typing table is impractical, while no feasible way has been heretofore devised for disposing them at a lower level while retaining the requisite rigidity requirements.

It is therefore an object of this invention to overcome all of the above difficulties and to provide a portable typewriter table which may be attached to the drawer of a desk and be rigidly and vibrationlessly supported in a horizontal plane at an optimum level.

It is contemplated that the table structure of this invention may be quickly and easily associated and disassociated with the supporting furniture therefor, regardless of the structural characteristics of the latter.

It is a further object of this invention to provide a portable typewriter table which may be quickly, inexpensively and efficiently fashioned from wood without impairment of strength requirements or loss of adaptability to different pieces of supporting furniture.

Other objects and advantages of this invention will be apparent upon consideration of the following detailed description of several embodiments thereof in conjunction with the annexed drawings wherein:

Figure 1 is a top plan view of a preferred embodiment of this invention showing the typewriter table in association with a desk of conventional construction;

Figure 2 is a vertical sectional view taken along the line 2—2 of Figure 1;

Figure 3 is a fragmentary view in section similar to Figure 2 but illustrating the association of a table constructed according to this invention with a different type of desk;

Figure 4 is a sectional view similar to Figure 2 illustrating a modified form of this invention including adjustable elements;

Figure 5 is a fragmentary view showing the adjusting element of Figure 4 in a different position;

Figure 6 is a top plan view of the construction of Figures 4 and 5.

Figure 7 is a sectional view similar to Figure 4 illustrating another modified form of this invention including a slidable adjusting element, one side plate of which is removed for convenience of illustration;

Figure 8 is a fragmentary top plan view of the form illustrated in Figure 7; and

Figure 9 is a fragmentary perspective view of the construction illustrated in Figures 7 and 8.

With reference to Figures 1 and 2, the portable table assembly shown consists of a flat typewriter supporting table 10 supported from a drawer 11 of conventional construction by spaced hooks 12. It should be noted that each hook 12 is comprised of a transverse portion 13 adapted to bridge the upper edge of the front panel of drawer 11, an inner downwardly depending shank 14 and an outer downwardly depending shank 15. Shanks 14 and 15 engage respectively the inner and outer surfaces of the front panel of drawer 11, the panel being received therebetween. Each outer shank 15 extends downwardly from the top of the front panel of drawer 11 to a point somewhat below pull-knob 16 of

the drawer. Thereafter, an integral portion 17 of shank 15 extends at right angles to the front panel of drawer 11 to supporting position underlying table 10. Screws 18 may serve to attach table 10 to portions 17.

It is contemplated that hook 12 and table 10 be made of wood. This is advantageous for several reasons. In the first place, from the standpoint of appearance, the wood of the table and hook can be finished to match the wood of the desk. Additionally, wooden hooks 12 must be of substantial width and thickness. Thus, outer shanks 15 will extend far enough away from the front surface of the front panel of drawer 11 so that pull-knob 16 will not interfere with the table surface 18. This is a matter of no small moment since the lap level of a typist seated at the desk will be about coplanar with the bottom of drawer 11. This being the case, the optimum level for the typewriter support is usually just about on a plane with the pull-knob of the uppermost drawer. By the use of wooden hooks of substantial width, the table 10 is disposed in the correct horizontal plane but spaced from the front panel of the drawer. The thickness of the material is also of advantage because there will be a substantial surface contact between all portions of hook 12 and the front panel of drawer 11. This will tend to prevent rocking movement of table 10 in a horizontal plane. Notwithstanding the advantages which result from the use of wooden hooks, these hooks may be constructed of metal or other suitable material, but when the hooks are constructed of other than wood, they may be of the same size and shape as the wooden hooks.

Although the thickness of hooks 12 is important in preventing rocking movement of table 10 in a horizontal plane, the chief difficulty encountered in the prior art is rocking movement in a vertical plane or a tendency of the edge of table 10 most remote from the drawer to vibrate up and down in response to oscillation of the drawer about an axis in a plane normal to its length. The prevention of this type of rocking movement on the part of table 10 forms an important part of this invention. In connection with the discussion of this part of the invention, it is necessary to review the structural characteristics of the ordinary wooden desk. Normally two uprights 19 and 20 depend from the top of the desk and terminate at the floor. These uprights are connected by a series of vertically spaced transverse bars 21 and it is between the bars 21 and uprights 19 and 20 that the drawers are located. Since the drawers are intended for sliding movement, the fit cannot be too tight or sticking would result. The consequence of this is that the front of a drawer when pulled out tends to fall somewhat below its position when fully retracted. This tendency is not objectionable when nothing is supported from the drawer; but, if a table is to be supported therefrom, and in particular if the table is to support a heavy object such as a typewriter, it is evident that the slope of the drawer will result in a substantial slope of the table supported therefrom rendering the use of such a table for typing purposes undesirable. To overcome these inherent disadvantages, inner shank 14 of each hook 12 is provided with two projecting portions 22 and 23. Projecting portion 22 has an upper surface intended to make a wedge fit under a sliding writing board 24 or directly under the top 25 of a desk. In the latter case, see Figure 3. In the former see Figure 2. Thus, the upper edge of projection 22 is either in direct engagement with or in compressive engagement with, that is through a board such as 24, the most solid portion of the piece of furniture, and that portion which is least likely to be bent or displaced by the application of a weight on table 10 which will make hook 12 function as a lever.

Subsidiary to projection 22, projection 23 functions in a similar manner with respect to cross-bar 21. Cross-bar 21, however, is not ordinarily of substantial width and might, if used alone, tend to bow under stress permitting undesirable tilting on the part of table 10. Attention is directed to the width of hook 12 between the inner edge of projection 22 and the inside of the hook defining notch. This distance is marked *d* in Figure 2 and is of small amplitude. The result of this is that drawer 21 can serve as a typewriter support when almost fully retracted which is a further contributing factor to rigidity. In the interest of silence of operation and to prevent marring of the furniture, hook 12 may be felted at the areas designated by the numeral 26.

The embodiment of the invention described above in connection with Figures 1 to 3, inclusive, is the form most readily adaptable to mass production methods where a large number of typewriter tables are prepared for use with desks of a uniform standard size. Where there is a likelihood that the construction of the desk may be somewhat varied, the modification of the invention disclosed in Figures 4 to 6, inclusive, may be used to advantage.

In Figures 4 to 6, inclusive, like reference characters indicate like parts. It can be seen that table 10 and hook 12 are of the same configuration as in the previously described embodiments. However, a lever 27 is attached to that portion of each hook 12 which extends across the top of the front panel of drawer 11. Lever 27 is pivotally attached by a bolt 28 passing entirely through hook 12 as may be seen in Figure 6. Lever 27 is provided with a slot at 29 adjacent its free end, such slot serving to accommodate the shank of a bolt 30 which is passed through projection 23. A wing-nut 31 acting against a washer 32 serves to immobilize lever 27 at any one of a number of adjusted positions.

In Figure 4, lever 27 is shown in an inoperative position where the desk construction is similar to that shown in Figure 1. In the event however that the distance from the underside of either desk top 25 or sliding board 24, as the case may be, to the underside of transverse bar 21 is less than standard, wing-nut 31 may be loosened and lever 27 biased upwardly to the position of Figure 5 to make a snug fit under a narrow transverse bar such as 21*a*. It will be realized that, regardless of the thickness of the top of the desk or the cumulative thickness of the desk top and the sliding board 24, projection 22 can be fitted in position. However, projection 23 will fit or not depending upon the thickness of transverse member 21. As a consequence, it is desirable to space the engaging surface of projection 23 below the engaging surface of projection 22 a distance equal to the maximum thickness of transverse member 21 likely to be encountered. Thus, when the transverse member is narrow, as in the case of 21*a*, see Figure 5, pivoted lever 27 may be brought into operation to effect the necessary compensation. It is, of course, evident that in the event it is deemed de-

sirable, a lever 27 may be disposed on each side of each hook 12.

In the modification illustrated in Figures 7 to 9, inclusive, where like reference characters indicate like parts, it will be observed that table 10 and hook 12 are of the same general configuration as in the previously described embodiments. However, inner shank 14a in Figures 7–9 is made slightly longer than the corresponding part in Figures 1–6, inclusive, to provide in addition to projecting portion 22a, a projecting portion 23a which is slightly longer than the corresponding portion in Figures 1–6, inclusive, to provide a guide-way or track 33 for a slidable adjusting member 34.

In the form illustrated, track 33 is inverted T-shape in cross-section to provide a top portion 33a of reduced cross-section and shoulders 33b and 33c. The adjusting member 34 is formed of two side plates 34a and 34b which are secured to a slide block 34c in such a way that the slide block rests upon the top portion of the track 33 and the depending side plates embrace opposed side portions of said track and engage or ride along the shoulders 33b and 33c, respectively. The plates 34a, 34b are provided with slotted portions 34d to receive a bolt 35 provided with a wing-nut 36 by which the adjusting member is held in adjusted position on the track 33. The top or upper surface 34e of adjusting member 34 is inclined whereby a wedge-shaped adjusting member is provided to compensate for differences in the thickness of transverse member 21. By loosening nut 36, the adjusting member can be adjusted to engage or compensate for a transverse member 21 of variable thickness, the inclined top portion engaging the under side of the transverse member as shown in Figure 7, whereupon the adjusting member is clamped in place by tightening the nut 36.

Although in this specification and the accompanying drawings, there is shown and described a preferred embodiment of the invention, various modifications thereof and various suggested alternatives, they are not intended to be exhaustive nor limiting of the invention, but, on the contrary, are given for the purpose of illustrating the invention and instructing others in the principles thereof and the best manner of utilizing the invention in a practical manner, in order that others may be enabled to modify and apply it in numerous forms each as may be best suited to the conditions and requirements of any particular use.

The term "engage compressively" as used in the claims hereunto appended is intended to include direct-engagement with the underside of the top of a piece of furniture or engagement with the underside of a member such as board 24 which is in surface contact with the underside of such top and held against displacement thereby. The term retracted is used herein with respect to drawer 11 to designate the closed position of the latter as distinguished from the open or extended position thereof.

What is claimed is:

1. A typewriter support for attachment to a desk or like article of furniture having a top and a drawer slidable thereunder comprising, means defining a table surface of a size to accommodate a typewriter or the like, a plurality of hooks, each hook including a portion adapted to bridge the top edge of the front panel of a drawer and integral inner and outer depending shanks for snugly receiving the front panel of a drawer therebetween, each outer shank having an integral portion extending outwardly therefrom attached to, underlying, and supporting the means defining a table surface, each inner shank having a portion adapted to engage compressively the underside of the top and a portion adapted to engage at least one other structural element of the furniture, whereby the outer shank of each hook is held rigid with the drawer by the engagement of the integral depending shanks with its front panel and the drawer is held rigid with the piece of furniture as a whole by the compressive engagement of a portion of the inner shank with the underside of the top thereof.

2. A typewriter support for attachment to a desk or like article of furniture having a top and a drawer slidable thereunder comprising, means defining a table surface of a size to accommodate a typewriter or the like, a plurality of hooks, each hook including a portion adapted to bridge the top edge of the front panel of a drawer and integral inner and outer depending shanks for receiving the front panel of a drawer therebetween, each outer shank having an integral portion extending outwardly therefrom attached to, underlying, and supporting the means defining a table surface, said outwardly extending portion lying in a plane spaced below the portion of the hook which bridges the top edge of the front panel of a drawer a distance at least equal to that between the top edge of the front panel of a drawer and its normal pull-knob, the outer shanks being of a width greater than the normal length of a pull-knob, each inner shank having a portion adapted to engage compressively the underside of the top and at least one other structural element of the furniture, whereby the outer shank of each hook is held rigid with the drawer in a plane at a level desirable for the disposition of a tyyewriter while the drawer is held rigid with the piece of furniture as a whole by the compressive engagement of a portion of the inner shank of each hook with the underside of the top of said piece of furniture.

3. A typewriter support for attachment to a desk or like article of furniture having a top and a drawer slidable thereunder comprising, means defining a table surface of a size to accommodate a typewriter or the like, a plurality of hooks, each hook including a portion adapted to bridge the top edge of the front panel of a drawer and integral inner and outer depending shanks for snugly receiving the front panel of a drawer therebetween, each outer shank having an integral portion extending outwardly therefrom attached to, underlying, and supporting the means defining a table surface, each inner shank having a portion adapted to engage compressively the underside of the top and a portion adapted to engage at least one other structural element of the furniture, and means for adjustably mounting said last-named portion, whereby the outer shank of each hook is held rigid with the drawer by the engagement of the integral depending shanks with its front panel and the drawer is held rigid with the piece of furniture as a whole by the compressive engagement of portions of the inner shank with portions of said piece of furniture.

4. A typewriter support for attachment to a desk or like article of furniture having a top and a drawer slidable thereunder comprising, means defining a table surface of a size to

accommodate a typewriter or the like, a plurality of hooks, each hook including a portion adapted to bridge the top edge of the front panel of a drawer and integral inner and outer depending shanks for snugly receiving the front panel of a drawer therebetween, each outer shank having an integral portion extending outwardly therefrom attached to, underlying, and supporting the means defining a table surface, each inner shank having a portion adapted to engage compressively the underside of the top, and a slidably mounted adjustable portion having an inclined surface adapted to engage at least one other structural element of the furnitude, whereby the outer shank of each hook is held rigid with the drawer by the engagement of the integral depending shanks with its front panel and the drawer is held rigid with the piece of furniture as a whole by the compressive engagement of portions of the inner shank with portions of said piece of furniture.

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