Jan. 6, 1942. C. KRAMER 2,268,879

EXTENSIBLE TABLE

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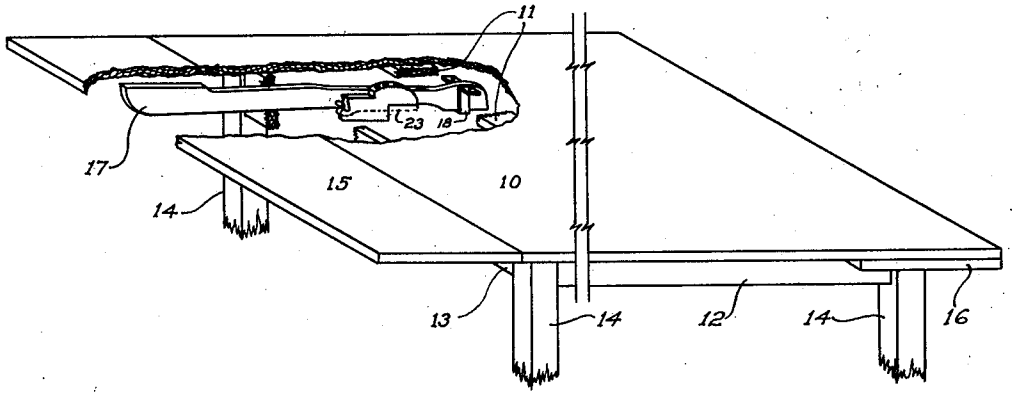


Fig. 1

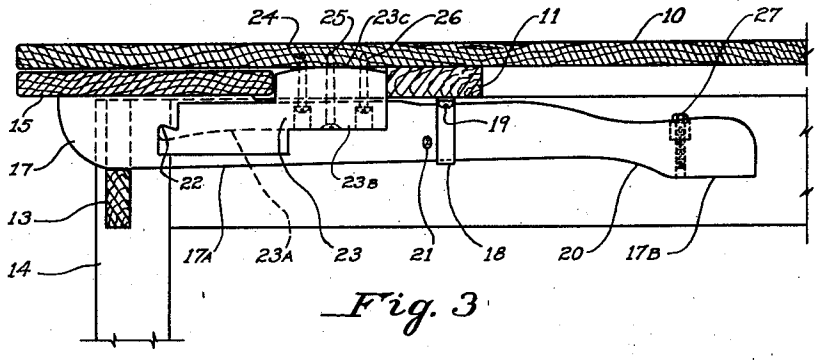


Fig. 3

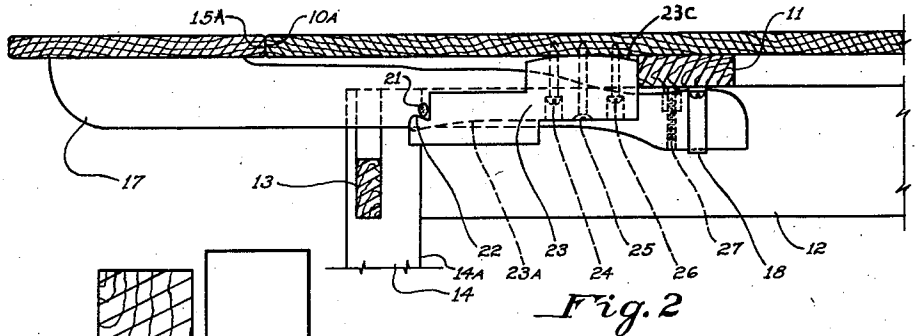


Fig. 2

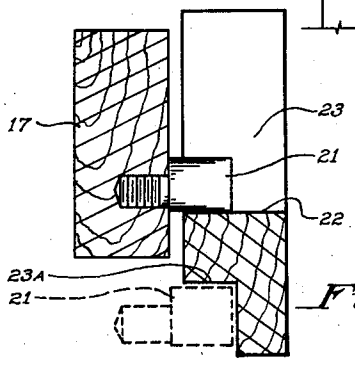


Fig. 4

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EXTENSIBLE TABLE

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3 Claims. (Cl. 311—56)

My invention relates to extension tables of that type in which the extra leaves are carried at the outer ends on runner bars horizontally slidably and vertically projected, with reference to the main top to extended position where the top surfaces of the extension member and the main top member are disposed in co-planar relation.

The principal object of this invention is to provide the incident type of extension table with leaves which are rigidly attached to the extension members, runners or bars, which project inwardly and under the main top member, and which completely support the same independently of the table frame when the auxiliary leaf is extended and lodged in place for use.

A further object resides in organizing the leaves and runners and the supports therefor that provide the extension feature so that adjustments can be made by the user of the table in the event some abnormal misadjustment of the parts that make up the table develop, as may be occasioned from the extreme weather conditions or from mechanical damage.

A still further object is to organize the operating parts of the table in a substantial and simple manner so as to effect a permanent co-planar alignment of the top surfaces of the extension members and the main top member at the time of manufacture and then maintain said relation throughout the useful life of the table.

These objects are obtained by the structure illustrated in the accompanying drawing, in which—

Figure 1 is a perspective top portion of a table carrying my improvements with a portion of the top and supporting frame broken away to show one of the required four extension runners and the mechanism employed for guiding and locating same when the left hand extension leaf is in the extended position, the right hand extension leaf being shown as lodged in the storage space between the top and the frame at the right hand end of the table. It being understood that both leaves are subject to extension for use, and stored when not in use.

Fig. 2 is a vertical sectional view of the cut away portion of Fig. 1 on an enlarged scale to show parts 17, 23 and 18 in full lines.

Fig. 3 is a view similar to Fig. 2, except that the extension leaf is shown lodged or housed in the storage space incident to the table being reduced to minimum size.

Fig. 4 is an enlarged view in section of the runner, the engaging pin carried thereby, and a section of the supporting member 23, referred to hereinafter as a "keeper," engaged by pin 21 on a vertical plane coincident with the rear surface of 14A of leg 14.

Numeral 10 indicates the rigid top member fixed to sills 11, one of which is shown in Fig. 2, which in turn is secured to the frame of the table composed of longitudinal side members 12, end members 13, at the juncture of the ends of which are mounted the legs 14. 15 designates the left hand leaf shown in the extended position, while the right hand leaf 16 is shown in the housed or folded position, which is in a space bounded by the under surface of the fixed main top portion of the frame and the top of the adjacent leg, as shown in Fig. 1. 17 is one of the four runners (the other three are not shown) sometimes referred to in the industry as an arm. The outer end of said arm is permanently attached, by any suitable means, such as screws, pins and glue, or a combination thereof, to leaf 15. The forward end of this runner, when in the folded position, rests on end member 13, Fig. 3, which end has been provided with a suitable slot through which it extends, while the central portion rests on stirrup 18, preferably made of metal, and which stirrup is secured to sill 11 by screws 19. It should be noted that the lower surface 17A of runner 17 is fashioned on a straight line between its points of contact with end member 13 and stirrup 18 and for a distance extending beyond to the arcuate formation 20 which merges into a continuing straight surface 17B substantially parallel to 17A. This arrangement is provided so that as the leaf is withdrawn from the storage location, as shown in Fig. 3 to the position shown in Fig. 2, the runner travels first in a substantially straight line until the arcuate or cam surface 20 engages stirrup 18, which forces the inside end of 17 up and the withdrawn end down as 17A continues sliding on end member 13. When the leaf has traveled to the stage beyond the end of the main top, it can be manually lifted preparatory for a reverse or backward movement for engaging pin 21 with the hook of nosing 22, a projection, which is an integral part of keeper 23. Simultaneously with this engagement the leaf is lodged in the extended position for use as shown in Fig. 3.

The keeper 23 is formed with a body portion 23B, which has an arcuate top surface 23C, this keeper is attached to the underneath or bottom side of the main top by means of screws 24, 25 and 26, so that the keeper can be rocked for the purpose of effecting adjustments, which feature

is explained more in detail hereinafter. Obviously, the leaf and runner, after having traveled sufficiently far to the left to effect a clearance between the engaging faces 10A, 15A of the main top and leaf, respectively, the reverse or backward movement, just referred to, effects the engagement. In other words, the leaf is slid beyond its outward operating position before being finally lodged in the position shown in Fig. 2. As a means for preventing the top surface of the slidable leafs from being marred by rubbing the under or bottom surface of the main top section 10, keeper 23 is fashioned with an inverted track or guard rail 23A, which is engaged by pin 21 in the event the leaf 15 is prematurely elevated during the extending operation. Fig. 4 shows pin 21 in broken lines and its relation to track 23A to indicate the cooperation of these parts during the operation of extending the leaf. This figure also shows the pin and rail 17 when the leaf is disposed in the extended position for use.

As a means of perfecting the desired planar alignment of the upper faces of the leaf and the main top, adjustments have been provided since all wooden material is subject to change in response to temperature, humidity and variations in manufacture, and further by reason of the ubiquitous errors occurring in fabricated wood parts. Hence the following provisions have been incorporated into this structure:

The extending oval head of the engaging pin 21 is eccentric to the axis of the shank which is shown threaded into rail 17, however, the threads can be eliminated and a friction engagement substituted, obviously, the leaf 15 can be adjusted in terms of the main top by turning the pin. The top surface of keeper 23, which is secured to the bottom of the main top with screws 24, 25 and 26, is formed on an arc to provide another means for adjusting the leaf. When screw 24 is unscrewed and screw 26 is screwed inwardly, as viewed in Fig. 2, the nosing of the keeper and leaf are lowered in terms of the main top, likewise by manipulating the screws in the opposite order the leaf will be raised. Adjacent the extreme right hand end of bar 17, at its point of contact with the under surface of the main top, screw 27 is provided not only to provide a further adjustment as when wear takes place but to provide a metal face since this point of contact is in engagement with the main top while the leaf travels from the stored to the active location, also when it is at rest in the extended position.

It will now be noted that the leaf and its runner are permanently attached to the main top by stirrup 18 and keeper 23 and that alignment therewith is effected by instrumentalities carried entirely by these members. Thus the main top extension leaves and the supporting means therefor can be completely assembled and aligned independently of the table frame and the legs therefor.

Although I have herein shown and described only one embodiment of my invention, it is to be understood that various changes and modifications can be made therein without departing from the spirit of my invention and the spirit and scope of the appended claims.

I claim:

1. An extension table, comprising; a main top; an under supporting frame to which said top and legs are rigidly attached; a space at the end of the table between the main top and the supporting frame; an extension leaf adapted to be stored within said open space when not in use; an extension runner having the outer end portion thereof attached to said leaf and slidably mounted for outward movement of the leaf beyond the main top and an inter-engaging device for holding the extension leaf in a fixed location with the top surfaces of the leaf and main top in planar alignment when the leaf with the attached runner are withdrawn and moved backward to bring the inner edge of said leaf into abutting engagement with the adjacent end of the main top; said device consisting of a keeper attached to the under surface of said main top and a pin projecting laterally from said runner, the projecting end of said pin being eccentric to the axis thereof and rotatable for effecting alignment of the top surfaces of the leaf and main top; said keeper having a nosing fashioned with a downwardly inclined surface for receiving said pin.

2. The combination in an extension table having a main top and an extension leaf equipped with a runner projecting under said top and inter-engaging and aligning apparatus cooperating with said top and runner for retaining said leaf in the extended position; said apparatus comprising a pin laterally projecting from said runner and engaging an adjustable arm carried on the under surface of said top; said arm having an arched face disposed longitudinally thereof and juxtaposed to the under surface of the said top and in engagement therewith; a plurality of screws for securing said arm to said top, said screws extending through said arm and intersecting said face and providing means for arcuately adjusting said arm.

3. An extension table, comprising; a main top; an under supporting frame to which said top and legs are rigidly attached; a space at the end of the table between the main top and the supporting frame; an extension leaf adapted to be stored within said open space when not in use; an extension runner having the outer end portion thereof attached to said leaf and slidably mounted for outward movement of the leaf beyond the main top, and an inter-engaging device for holding the extension leaf in a fixed extended location with the top surfaces of the leaf and main top in planar alignment when the leaf with the attached runner are withdrawn, elevated and moved backward to bring the inner edge of said leaf into abutting engagement with the adjacent end of the main top; said device consisting of a keeper attached to the under surface of said main top and a pin projecting laterally from said runner, the projecting end of said pin engaging an open notch in the top edge of said keeper when the leaf is lodged in the extended position; said keeper having a guard rail on the bottom edge thereof for transitory engagement with said pin during the sliding movement of the leaf in the event said leaf is prematurely elevated.

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