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G. W. LUHRS

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EQUALIZER SLIDE MEANS

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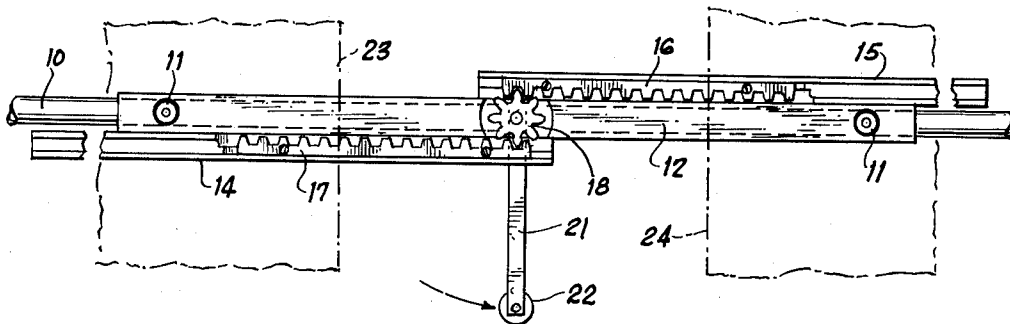


FIG. 1

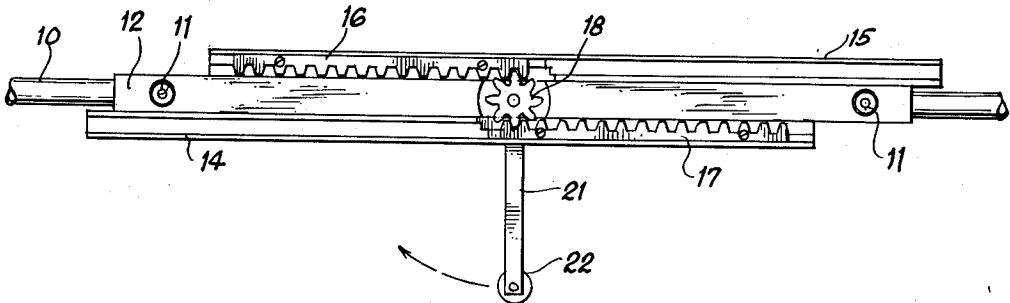


FIG. 2

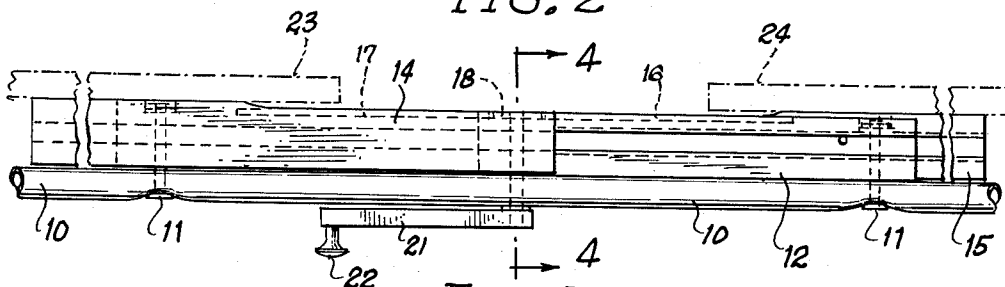


FIG. 3

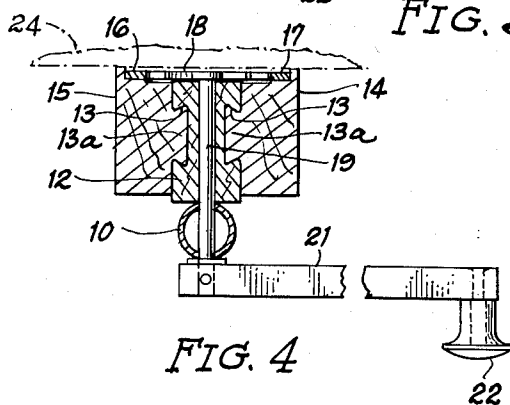


FIG. 4

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EQUALIZER SLIDE MEANS

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1 Claim. (Cl. 74-91)

My invention relates to improvements in equalizer slide means employed in tables of the type in which the table top sections are separable to permit insertion of extra leaves in order to extend the size of the table top.

Equalizer slide means have been employed heretofore in connection with separable table top sections, but in order to separate such sections it required two persons to grasp opposite sections and draw the same apart. Frequently, in the course of such an operation because of high humidity conditions, the relatively sliding rails and guide members supporting the table top sections would swell and stick with the result that the entire table would be shifted or moved from its position.

Accordingly, it is an object of my invention to provide crank means associated with the equalizer slide means whereby the table top sections may be separated easily by a single individual merely operating the crank means.

Other and further objects and advantages of my invention will become apparent from the following description when the same is considered in connection with the accompanying drawings in which,

FIG. 1 is a top plan view of an equalizer slide assembly in accordance with my invention, the same being shown in extended position.

FIG. 2 is a similar view but showing the equalizer slide assembly in normal closed or contracted position.

FIG. 3 is a side elevational view of the equalizer slide assembly illustrated in FIG. 1 in extended position.

FIG. 4 is a vertical cross-sectional view on an enlarged scale taken substantially on line 4-4 of FIG. 3 but showing the operating crank handle at a position 90° from that illustrated in FIG. 3.

Referring to the drawings, the numeral 10 indicates a fragmentary portion of a frame member which extends longitudinally of the table frame and substantially medially thereof. The member 10 is shown as being of tubular form but it is to be understood that it may be of any suitable conventional form. Supported on the member 10 and secured thereto as by bolts or screws 11 is an intermediate member 12. The opposite vertical faces of the member 12 are rabbetted to afford longitudinally extending grooves 13 as illustrated. Sliding rails 14 and 15 are arranged in confronting relation to the respective vertical sides of the member 12 and each of the rails is provided with a longitudinally extending complementary projection 13a arranged to be received within a respective groove 13. The rails 14 and 15 are adapted for longitudinal sliding movement relative to the member 12.

A portion of the upper surface of each of the rails 14 and 15 is recessed to accommodate a section of a gear rack, the racks being identified by the numerals 16 and 17, respectively. The racks are secured to the respective rails as by screws or other suitable fastening means. As will be apparent by reference to FIGS. 1 and 2, the teeth of the racks are directed inwardly towards each other and are arranged to engage with a pinion 18 fixed on a shaft 19 passing through the members 10 and 12. The shaft 19 projects below the member 10 and a crank arm 21 provided with a knob 22 is rigidly secured to the extension of shaft 19. It will be apparent that rotation of the shaft

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19 by means of the crank arm 21 will effect rotation of the pinion 18 with a consequent relative longitudinal movement of the rails 14 and 15.

It will be understood that the assembly hereinabove described is mounted on the frame member 10 so that the axis of pinion 18 coincides substantially with the mid-point of said frame member which corresponds to the median line at which the table top sections 23 and 24 illustrated by the broken lines will meet when the sections are in normal closed position as illustrated in FIG. 2. The table top sections are of the floating type in that section 23 is suitably secured to rail 14 while the other section 24 is correspondingly secured to rail 15. As will be apparent the table top sections move simultaneously with corresponding rails. Thus, merely by a single individual operating the crank arm 21 and rotating the same in one direction or another, the pinion 18 is correspondingly rotated and cooperates with the gear racks 16 and 17 to move the table top sections 23 and 24 to the open position illustrated by the broken lines in FIG. 1, or to the closed position illustrated in FIG. 2. The crank arm 21 being mounted on the shaft 11 which is disposed substantially centrally of the table frame does not interfere with the seating of any individual at the table, since even in the position illustrated in the FIGS. 1 and 2 the arm 21 is sufficiently short to avoid being touched by the knees of any individual sitting in close proximity to the arm.

Various changes coming within the spirit of my invention may suggest themselves to those skilled in the art; hence, I do not wish to be limited to the specific embodiments shown and described or uses mentioned, but intend the same to be merely exemplary, the scope of my invention being limited only by the appended claim.

I claim:

In combination,

- (a) an elongated stationary member, the opposite vertical sides each having a rabbet extending longitudinally thereof,
- (b) a pair of rail members arranged in slideable abutment to said stationary member one on each side thereof,
- (c) each rail member having a longitudinally extending projection received in a respective rabbet,
- (d) a gear rack secured to the upper surface of each rail member with the teeth of said racks disposed horizontally and in confronting relation to each other,
- (e) a vertical shaft rotatably supported in said stationary member,
- (f) a pinion fixed on said shaft and engaging at opposite sides with the gear racks on the respective rail members,
- (g) and a crank arm connected to said shaft for rotating said pinion to cause the rail members to move simultaneously in opposite directions.

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