

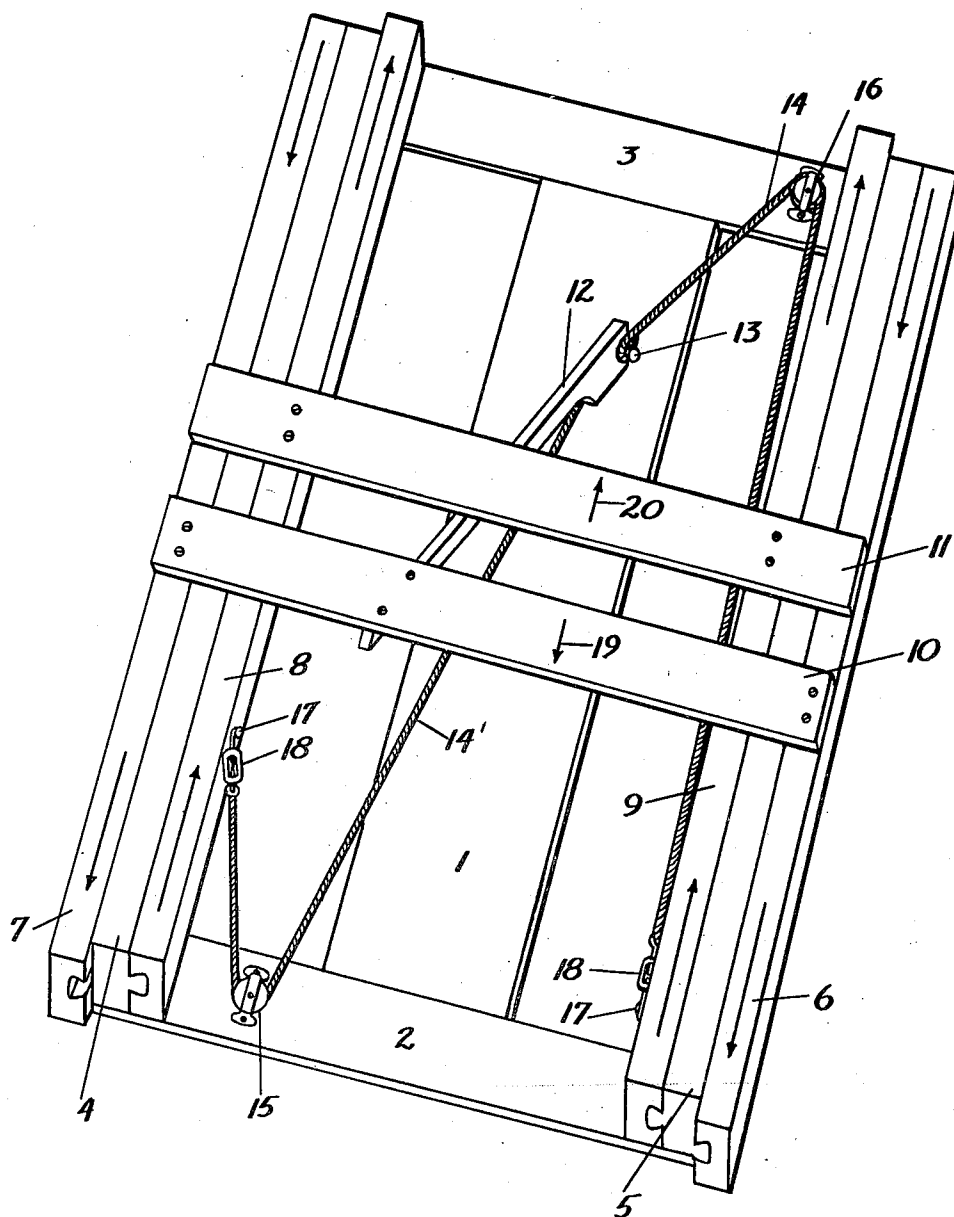
Feb. 23, 1937.

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2,071,729

EXTENSION TABLE

Filed Aug. 7, 1935



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2,071,729

EXTENSION TABLE

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Application August 7, 1935, Serial No. 35,073

3 Claims. (Cl. 311—75)

The present invention relates to an extension table, and is concerned more particularly with an improvement upon the table described in the patent application filed January 25, 1934, Serial No. 308,272, which has issued as Patent No. 1,969,875. In this patent there is described a table of the drop leaf type in which the drop leaves may be rotated with the center of the table as a pivot 90° from the drop leaf position and then extended in a manner similar to an extension table. In accomplishing this result the center leaves and the drop leaves which are hinged to the center leaves are rotated to a transverse position with respect to the sliding beams by which the leaves are separated to make room for the extra leaves filling in the table top.

In the construction described in Patent No. 1,969,875, the original leaves are separated into two groups, one group pivoted to a bridge member that is carried by one set of sliding beams and the other group pivoted to a bridge member that is carried by the second group of sliding beams. The bridge members carry a pivot to which the center leaves are permanently fastened.

In Figure 11 of the patent referred to, the mechanism for sliding the two groups of beams comprises as indicated a group of interacting gears and two racks, one mounted on each of the sliding beams. By this mechanism as one set of beams is pulled in one direction, the other set moves in the opposite direction, and the two cross beams carrying the leaves, separate. The applicant has experienced some difficulty in this construction owing to the fact that the gears are usually not sufficiently well made to insure smooth and easy operation of the sliding beams when the table is extended and closed. The gears used in this type of work, for the sake of economy are usually cast and therefore do not mesh or co-act well. In addition to this the gears must be mounted in the wooden stationary elements and in rather difficult positions for good operation. In order to obtain the proper motion there may be as many as five or more gears employed and this together with the difficulty of properly positioning the rack and such other changes as occur under various weather conditions makes it difficult, if not impossible to have a smooth operating mechanism at all times. In addition to this, because of the fact that the present type of table has such a large extension, the mechanism becomes even more difficult to operate smoothly. In the present type of table, therefore, the applicant has found it necessary

to devise another scheme for operating simultaneously the sliding bars or beams of the present type of table. This has been accomplished in the present invention not only in a manner more simple than that previously used in the art, but also in such a way as to produce a structure that operates with remarkable smoothness under all conditions and for practically any size table.

The present invention will be more fully understood in connection with the drawing in which the figure shows part in perspective the mechanism of the table to which the present invention is applied.

In the present invention the table comprises a stationary center piece 1 to which there is permanently attached end cross pieces 2 and 3 forming the stationary frame to which the table legs are attached. There is also provided with this stationary frame stationary beams 4 and 5 which run the length of the table and which may be tongued as indicated to serve as guides for the sliding beams 6, 7, 8 and 9. The sliding beams 6 and 7 as indicated in the drawing are the outside beams and are connected together by means of the cross piece 10 nailed into the sliding beams as indicated. The inside beams 8 and 9 are joined by means of the cross piece or bridge 11. The bridge elements 10 and 11 as will be noted from the Patent No. 1,969,875 carry the table top, the center leaf being pivoted to the bridge by means of the butter-fly pivots described in the Patent No. 1,969,875. There is attached as indicated in the figure to the bridge element 10 a cross bar or support 12 which is held to the bridge element 10 in a position diagonally across the table and which extends under the bridge element 11 in a direction to the top end of the table as viewed in the figure. The bar 12 carries near its end a pin 13 to which a cable 14 is attached. The cable 14 extends in both directions from the pin 13 as indicated by 14 and 14' towards the fixed cross boards 2 and 3 upon diagonally opposite corners of which are mounted pulleys 15 and 16 respectively about which the cable 14 passes. The operation of the cable 14' extends backward to the sliding beam 8 and is fastened thereto in any suitable manner as for instance with an eyebolt 17 and an adjustable link 18 whereby the tension of the cable in the system may be adjusted. The other end of the cable extends backwards to the end of the sliding beam 9 and is fastened to the beam 9 at a point nearly opposite the point where the other end of the cable is fastened to the beam 8. The cable fastened to the beam 9 may also be fastened by means

of an eye-bolt 17 and a link 18. In the operation of the mechanism, either the bridge element 10 or 11 may be pulled in the directions indicated respectively by the arrows 19 and 20. If the beam 5 10 is pulled in the direction of the arrow 19, the sliding beams 6 and 7 on the outside will go in the direction indicated by the arrows on these beams, the sliding beams 8 and 9 will go in the direction indicated by the arrow on these beams 10 since the cable 14 will be pulled and the cable 14' slacked so that the cross bridge 11 will carry the beam 8 in the same direction as the beam 9. Either cross beam may also be pushed to shut the table. If the cross beam 11 is pushed then 15 tension will be exerted on the cable 14 and the cross beam 10 will be pulled in the direction opposite the arrow 19.

It will be noted from a consideration of the arrangement that the supporting beam 12 for 20 the cable allows the table to be opened its full width without any interference on the part of the cable or because of any contact with the bridge element and the pulleys 15 and 16. The beam 10 it will be noted may be pulled considerably beyond the position of the pulley 15, in fact 25 it may be pulled to such a position that will bring the pin 13 in line with the permanent cross support 2. Similarly the table may be completely shut as the supporting beam slides or passes beneath the cross bridge 11. The cable may be ad- 30 justed for the desired tension and when once so adjusted will always work properly although at times if desired further adjustment may be made.

The present invention may be applicable to 35 extension tables but is particularly applicable to the type of table in which the top mechanism is supported on the sliding beams by means of a single supporting element as described in the Patent No. 1,969,875.

40 Having now described my invention, I claim:—
1. In an extension table of the type described a stationary frame including a pair of cross beams positioned across the shorter side of the table,

two pairs of parallel beams positioned substantially transverse to said cross beams, means for slidably mounting said parallel beams to slide in a direction longitudinal with said beams, each 5 of said pairs of beams having a transverse support, a bar mounted on one of said supports and extending in the direction of the motion of said beams but angularly therewith, a cable fastened to said bar and extending longitudinally of said 10 table, said cable being fastened at opposite ends to the pair of parallel beams not associated with said bar and pulleys located at diagonally opposite corners of said cross beams over which said cable passes.

2. In an extension table of the type described, 15 a stationary frame, two pairs of parallel beams, means mounting said parallel beams to move longitudinally of themselves, a bridge element joining each pair of parallel beams, one of said bridge 20 elements having a bar mounted thereon and extending diagonally in the direction of said other bridge element, a cable fixed at the end of said bar and extending diagonally in both directions across the table, means fastening the ends of 25 said cable to the pair of beams joined by the other bridge element, a pair of pulleys fixed at opposite corners of the stationary frame over which said cable passes.

3. In an extension table of the type described, 30 a stationary frame, two pairs of parallel beams, means mounting said beams to slide longitudinally of themselves on said table, a bridge element joining each pair of beams, a bar extending from one of the bridge elements beneath the 35 other of said bridge elements in a diagonal direction of said table, a cable fixed at one point to the end of said bar and means fixing the cable at its ends to the pair of beams joined by the other bridge element, pulleys positioned at diagonally opposite ends of the stationary frame, said 40 cable passing around said pulleys before being fastened to said beams.

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