Dec. 23, 1952 L. SAUTEREAU 2,622,951

ADJUSTABLE DRAWING TABLE

Filed April 14, 1949

Fig. 1

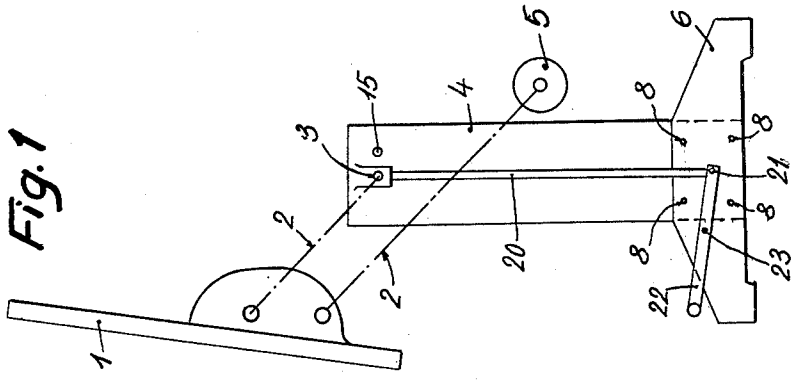


Fig. 2

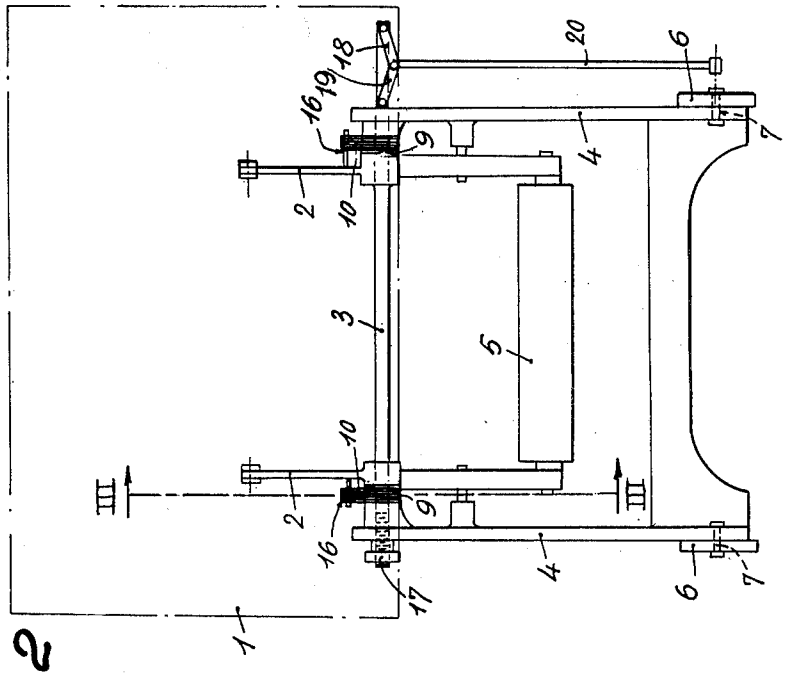
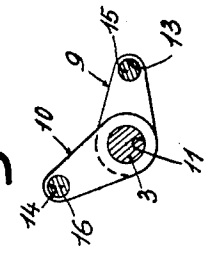


Fig. 3



Inventor:
Lucien Sautereau
by Michael S. Striker
his agent

Patented Dec. 23, 1952

2,622,951

UNITED STATES PATENT OFFICE

2,622,951

ADJUSTABLE DRAWING TABLE

Lucien Sautereau, Paris, France

Application April 14, 1949, Serial No. 87,479
In France April 30, 1948

1 Claim. (Cl. 311—38)

1

The present invention relates to drawing tables.

More particularly, the present invention relates to adjustable drawing tables where the table is tiltable about a horizontal axis.

One of the objects of the present invention is to provide an apparatus for releasably locking a drawing table in an adjusted position.

A further object of the present invention is to provide an effective and convenient means for actuating a device for releasably locking a drawing table in an adjusted position.

Another object of the present invention is to construct a locking mechanism of the above type from relatively few, simple, rugged parts.

With the above objects in view, the present invention mainly consists of a drawing table having a supporting frame which includes a pair of mutually spaced uprights. A bar extends through these uprights adjacent to the top ends thereof and is axially movable with respect to these uprights. A pair of link members are turnably mounted on the bar for rotation about the axis thereof, and the drawing table top is fixed to these link members. A plurality of friction plates are located between the link members and uprights with a first set of friction plates fixed to the uprights and a second set of friction plates, respectively located between each pair of adjacent plates of the first set, being turnably mounted on the bar and fixed to the link members for turning movement therewith about the bar. A clamping means is operatively connected to the uprights and bar for moving the same with respect to each other so as to move the uprights toward the link members to clamp the friction plates to each other and thereby lock the table top, in a desired angular position, on the uprights.

The novel features which are considered as characteristic for the invention are set forth in particular in the appended claim. The invention itself, however, both as to its construction and its method of operation, together with additional objects and advantage thereof, will be best understood from the following description of specific embodiments when read in connection with the accompanying drawings, in which

Figure 1 is a partly diagrammatic side view of a drawing table constructed in accordance with the present invention;

Figure 2 is a partly diagrammatic front view of the drawing table of Fig. 1, showing the table top in dot-dash lines so as to clearly indicate the structure behind the table top; and

Figure 3 is a sectional view of a detail of the table of Fig. 2, taken along line III—III of Fig. 2.

2

Referring now to the drawings, there is shown therein a table top 1 which is carried by a parallel linkage 2 turnably mounted on a transverse bar 3 carried by uprights 4. The linkages 2 are located on the bar 3 between and respectively adjacent to the uprights 4, as is clearly illustrated in Fig. 2. The bar 3 extends through openings in the uprights 4 and is axially movable with respect to the same. A counterweight 5 is carried on extensions of each of the linkages 2 and balances the weight of the table top 1 so that the latter is easy to tilt.

In accordance with the present invention, each of the uprights 4 is carried at its lower end by a base member 6 which is pivotally connected to its respective upright by a pivot pin 7. As is shown most clearly in Fig. 1, four openings 8 are located in the base members 6 and aligned with four similar openings in the uprights 4, the pivot 7 being located at the center of a square whose corners coincide with the four openings 8. Thus, the base members 6, by removing and replacing suitable bolts and nuts in the openings 8, may each be located either in the operative position shown in Fig. 1 or in a folded position at 90° from the position shown in Fig. 1 where the base members 6 extend parallel to the uprights 4.

In order to releasably lock the table top 1 in a desired adjusted position, there are located between each linkage 2 and the adjacent upright 4 two groups of friction plates 9 and 10. As is most clearly shown in Fig. 3, the friction plates 9 and 10 are formed with openings 11 through which the bar 3 passes, the plates 10 extending in one angular direction, and the plates 9 extending in a different angular direction. These plates 9 and 10 are alternately arranged so that each plate 9 is located between a pair of plates 10 and each plate 10 is located between a pair of plates 9, except, of course, the plates at the ends of the series.

At their outer free ends the plates 9 are each formed with an opening 13, and a pin 15 fixed to an upright 4 passes through the aligned openings 13 so that the plates 9 remain stationary with respect to the uprights 4. The plates 10 are each formed with an opening 14, and a pin 16 fixed to a linkage 2 extends through the aligned openings 14 of the plates 10 so that these plates turn with the linkages 2 about the bar 3.

As was mentioned above, the bar 3 is axially movable on the uprights 4. At its left end, as viewed in Fig. 2, the bar 3 is threaded and carries a nut 17 which abuts against the left upright 4 of Fig. 2. At its right end, as viewed in Fig. 2, the bar 3 is pivotally connected to the link 18 of

a toggle joint whose other link 19 is pivotally connected to the right upright 4 of Fig. 2. The ends of the links 18 and 19 which are connected together are also connected to the upper end of a vertically extending rod 20 which at its lower end is connected by pivot pin 21 (Fig. 1) to the right end, as viewed in Fig. 1, of a control lever 22 which is pivotally mounted on a base member 6 by a pivot pin 23, as shown in Fig. 1. It is apparent that when the lever 22 is turned about its pivot 23 in a counterclockwise direction, as viewed in Fig. 1, the rod 20 will move up and move both of the links 18 and 19 to a substantially horizontal position so as to cause the uprights 4 to be pushed toward each other. This action presses the friction plates together so as to lock the table top in a desired adjusted position. By turning the control lever 22 in a clockwise direction, as viewed in Fig. 1, the pressure between the friction plates 9 and 10 is released, and the table top may then be tilted to another position. By reason of their number, the friction between each pair of abutting plates 9 and 10 is considerably multiplied, so that even if a relatively small force is applied to lock the table in an adjusted position, it will still remain firmly locked. It should be noted that the parts are so chosen and arranged that when the table top is locked the pivot 21 is in alignment with the pivot pins 7.

When the drawing table is not in use, it may be folded up by locating the table top 1 as close as possible to the uprights 4 and locking it in this position in the manner described above. The base member 6 may then be turned to a position 90° from that shown in Fig. 1, in the manner described above, and since the pivot pin 21 is aligned with the pins 7, this pivot pin 21 does not prevent such turning of the base member 6 on which the control lever 22 is turnably mounted. The bolts may then be replaced in the openings 8. It is thus seen that the table of the present invention requires but little space in its folded position.

It will be understood that each of the elements described above, or two or more together, may also find a useful application in other types of drawing tables differing from the types described above.

While the invention has been illustrated and described as embodied in adjustable drawing tables, it is not intended to be limited to the details shown, since various modifications and structural changes may be made without departing in any way from the spirit of the present invention.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can by applying current knowledge readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention and, therefore, such adaptations should and are intended to be comprehended within the meaning and range of equivalence of the following claim.

What is claimed as new and desired to be secured by Letters Patent is:

A drawing table, comprising, in combination, a supporting frame having a pair of mutually spaced uprights; a bar extending through said uprights adjacent the upper ends thereof and being axially movable with respect to said uprights; a pair of link members mounted on said bar for turning movement about the axis thereof; a table top fixedly connected to said link members; a plurality of first friction plates fixed to said uprights and mounted on said bar between said uprights and link members; a plurality of second friction plates respectively located between pairs of adjacent first friction plates, being mounted on said bar for turning movement thereabout, and being connected to said link members for turning movement therewith; and clamping means operatively connected to said uprights and bar for moving the same with respect to each other so as to move said uprights toward said link members to clamp said friction plates to each other and thereby lock said table top in a desired angular position on said uprights.

LUCIEN SAUTEREAU.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
522,593	Jones	July 10, 1894
971,081	Schnorr	Sept. 27, 1910
1,184,594	Van Nagy	May 23, 1916
1,373,473	Weydell	Apr. 5, 1921
1,925,087	Andren	Sept. 5, 1933
2,452,216	Yarber	Oct. 26, 1948
2,539,700	Pieper	Jan. 30, 1951

FOREIGN PATENTS

Number	Country	Date
465,576	Great Britain	May 10, 1937
237,199	France	Feb. 6, 1943
247,735	France	Mar. 31, 1947