Dec. 29, 1925. 1,567,513

W. L. E. KEUFFEL

DRAWING TABLE

Filed April 7, 1923

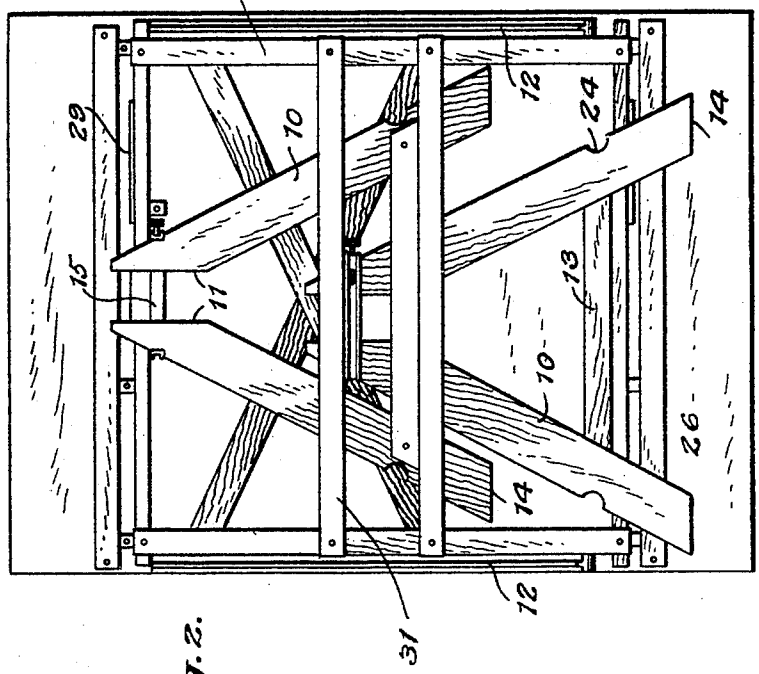


Fig. 2.

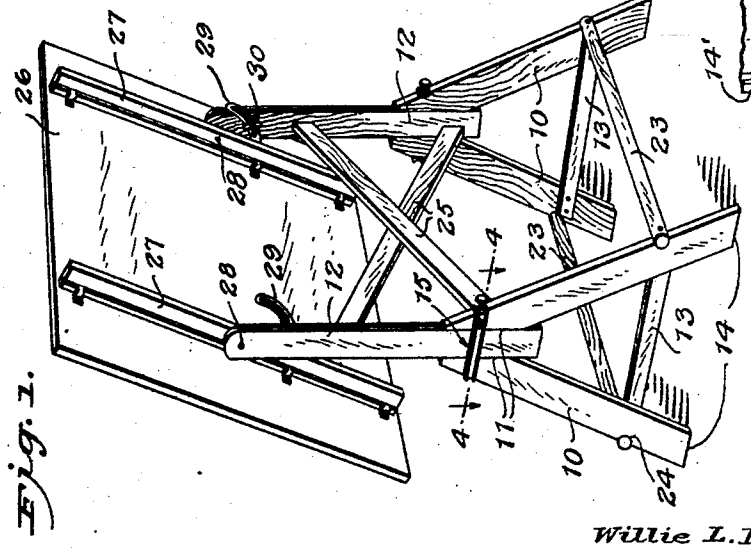


Fig. 1.

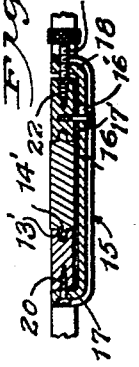


Fig. 4.

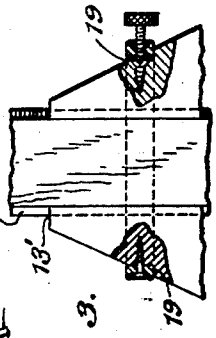


Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIE L. E. KEUFFEL, OF WEEHAWKEN, NEW JERSEY, ASSIGNOR TO KEUFFEL AND ESSER COMPANY, OF HOBOKEN, NEW JERSEY, A CORPORATION OF NEW JERSEY.

DRAWING TABLE.

Application filed April 7, 1923. Serial No. 630,489.

To all whom it may concern:

Be it known that I, WILLIE L. E. KEUFFEL, a citizen of the United States, and a resident of Weehawken, in the county of Hudson and State of New Jersey, have made and invented certain new and useful Improvements in Drawing Tables, of which the following is a specification.

My invention relates to a drawing table and particularly to that style wherein the top may be raised and lowered, as well as tilted or adjusted about a horizontal axis.

An object of my invention is to provide a drawing table of an exceedingly simple but efficient construction whereby the top may be rigidly locked at adjusted heights and with the parts so designed and arranged that the act of locking the table in adjusted positions will at the same time bind and rigidly secure the various parts of the frame together so as to provide a most rigid, strong and stable table.

A further object is to provide a drawing table composed of few parts so arranged that the top may be adjusted both vertically and about a horizontal axis and locked in adjusted positions and at the same time composed of few parts and of exceedingly simple design so that it may be sold at a very reasonable price and thus meet the demand for an adjustable but simple and comparatively inexpensive table such as used by manual training schools and other institutions, although the table is at the same time admirably suited for the professional draftsman or architect.

A further object is to accomplish the aforementioned ends and to provide a drawing table so arranged that it may be readily knocked down or taken apart and the various elements nested together so as to be easily and readily crated, and will, either by itself or when arranged back to back to a second table, form a compact unit for convenient handling and shipment.

With the foregoing and other objects in view, my invention consists in the improved drawing table illustrated in the accompanying drawings and hereinafter described and claimed, and in such variations and modifications thereof as will be obvious to those skilled in the art to which my invention relates, it being understood that changes may be made within the scope of what is claimed without departing from the spirit thereof.

The preferred embodiment of my invention is disclosed in the accompanying drawing, wherein:

Figure 1 is a view in perspective of a drawing table embodying the characteristic features of my invention;

Figure 2 is a rear plan view of the table taken apart and crated for shipment;

Figure 3 is a detail view illustrating the clamping device for locking the top at adjusted heights; and

Figure 4 is a view in section taken on the line 4—4 of Figure 3.

Referring specifically to the several views, wherein similar reference numerals designate corresponding parts throughout, my improved drawing table comprises the four legs 10, each being preferably formed of wide, flat material, and arranged in pairs, with the upper ends of each pair provided with parallel confronting faces 11 adapted to slidably receive the upright columns 12 therebetween. The lower ends of the legs of each pair are held spaced apart by the side bars 13 so that a substantially triangular formation for each pair of legs is had.

The lower extremities of the legs are preferably cut along an oblique line as at 14 and at right angles to the parallel faces 11 so as to rest squarely upon the floor. The confronting faces 11 and the sides of the columns 12 are provided with interfitting tongues and grooves 13′, 14′, so that the columns are constrained to a vertical sliding movement. Adjacent the upper extremities of each pair of legs is arranged a clamp 15, the same being preferably composed of a U-shape frame or yoke 16 having the ends 17 and 18 thereof extending around the external edges of the legs and seating within suitable notches 19 provided therefor. A holding screw 20 extends through the rear end of the clamp and in combination with a second holding screw 17′ which extends through a longitudinal slot 16′ holds the clamp in place but does not in any way interfere with the binding action thereof. The front end of the clamp is threaded and provided with a thumb screw 21 so arranged that as the same is screwed up the extremities of the legs will be forced together and

into frictional contact with the upright columns 12.

In order to prevent undue wear of the surfaces with which the thumb screws engage, I provide a metal bearing preferably obtained by first inserting a wood screw 22 into the leg and allowing the head thereof to receive the end of the thumb screw, although a metal plate or other similar device may be used if so desired.

The pairs of legs are rigidly secured in their proper spaced relation by the front and rear cross bars 23, the same being preferably rounded as disclosed and seat within suitable notches 24, a single screw serving to hold each end of the cross bars in place. The cross bars are thus adapted to act as a convenient foot rest as well as serving to secure the leg pairs in their proper spaced relation. The upright columns 12 are permanently secured together by the crossed bars 25, so that a strong and rigid frame is provided and to the upper ends of which is pivotally secured the table top 26. The pivotal securement of the table top to the upper ends of the frame is effected by the provision of cross rails 27 extending below and secured to the table top and through which and through the upper extremities of the columns or frame extend the pivotal pins 28. Suitable slotted and curved segments 29 are secured to the cross rails and may be locked to the upright columns or frame by the thumb screw 30 and thus hold the table top in adjusted tilted position.

When it is desired to raise or lower the table top, the pressure exerted by the clamps is reduced by partially loosening the thumb screws 21, thereby partially reducing the friction between the legs and upright columns and allowing the relative movement of the two, but at the same time preventing the table top from dropping too rapidly. With the thumb screws thus partially loosened the table top and frame may be firmly grasped and raised or lowered as desired. The loosening of the clamps allows the legs 10 to move slightly one with respect to the other, thus insuring that the drawing table, although being provided with four legs, will always rest squarely upon the floor regardless of any unevenness or irregularities of the latter. The clamps are then again tightened and the table top rigidly locked in adjusted position. The pressure exerted by the thumb screws not only locks the table top in position but also rigidly binds all parts of the table together and thereby provides a most rigid and stable table.

The drawing table as thus constructed may be readily taken apart and the various elements nested together for crating and shipment. In Figure 2 I have illustrated my improved drawing table knocked down and with the legs and top supporting frame secured directly to the table top and the various parts so held by the crating 31. In this manner a table may be conveniently shipped and when two tables are arranged back to back and secured together full and complete protection is provided. The simplicity of the entire construction and the effective manner in which the top may be locked at adjusted positions and the various parts at the same time rigidly bound together, makes it an inexpensive and most desirable table, suitable for use by manual training schools and other institutions, and at the same time admirably adapted to the needs of the professional draftsmen.

Having thus described and explained my invention, I claim and desire to secure by Letters Patent:

1. In a support for a drawing board the combination of a base comprising two spaced A frame members, means holding the legs of the frame members in spaced relation at their lower extremities but without substantial bracing, and a super-structure for bracing the frames and supporting the board comprising vertical members inserted between the converging ends of the legs of the A frames, bracing means between the two vertical members, and means for rigidly clamping the vertical members between the legs of the frames comprising a clamp extending between opposite legs of each frame, the clamps being located on opposite sides of the vertical members from the bracing means whereby the super-structure may be removed from the base without removing any part of the clamping or bracing structure.

2. In a demountable drawing table the combination of two A frames each comprising two legs held in spaced relation by a single member near their lower ends, detachable members extending between the lower ends of adjacent legs of the two frames for maintaining said frames in spaced relation but without substantial bracing, a rigid frame inserted within the space between the upper ends of the legs of both frames and having a sliding engagement with said legs, interlocking means on said frame and legs to constrain the frame to vertical movement, a table top pivoted to the upper end of the rigid frame, and clamps extending around the ends of said rigid frame and embracing the upper ends of opposite legs of each A frame for clamping the rigid frame between the legs, whereby the table may be locked in any adjusted height and the A frames are substantially braced by the rigid frame.

Signed at Hoboken in the county of Hudson and State of New Jersey this 5th day of April A. D. 1923.

WILLIE L. E. KEUFFEL.