April 6, 1954 G. K. TULL 2,674,062

ROTARY DRAFTING TABLE

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FIG. 1.

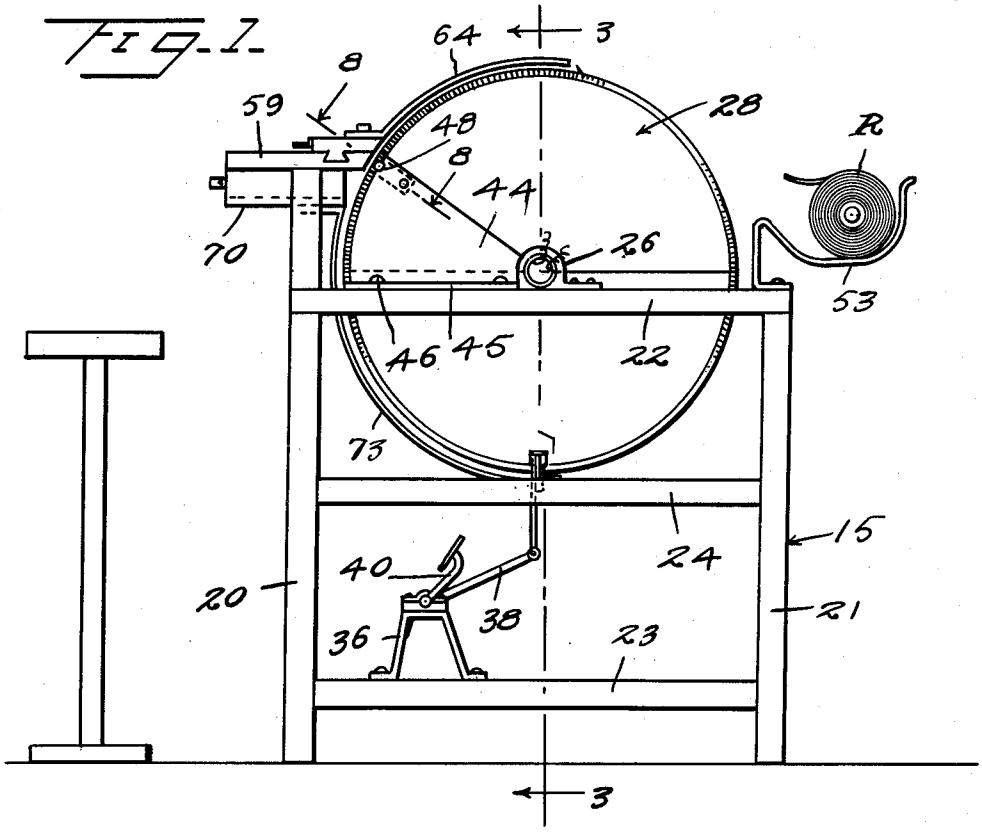


FIG. 6.

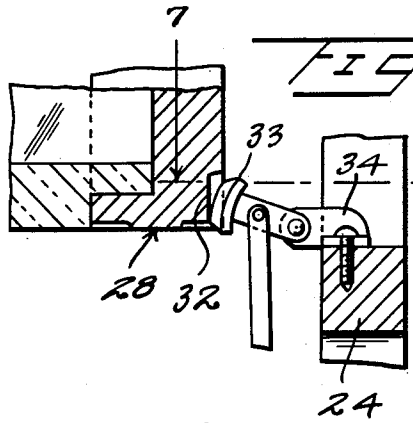


FIG. 8.

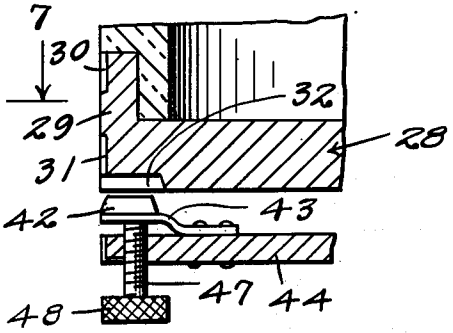
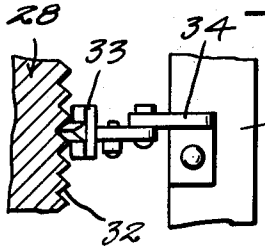


FIG. 7.



INVENTOR
George K. Tull

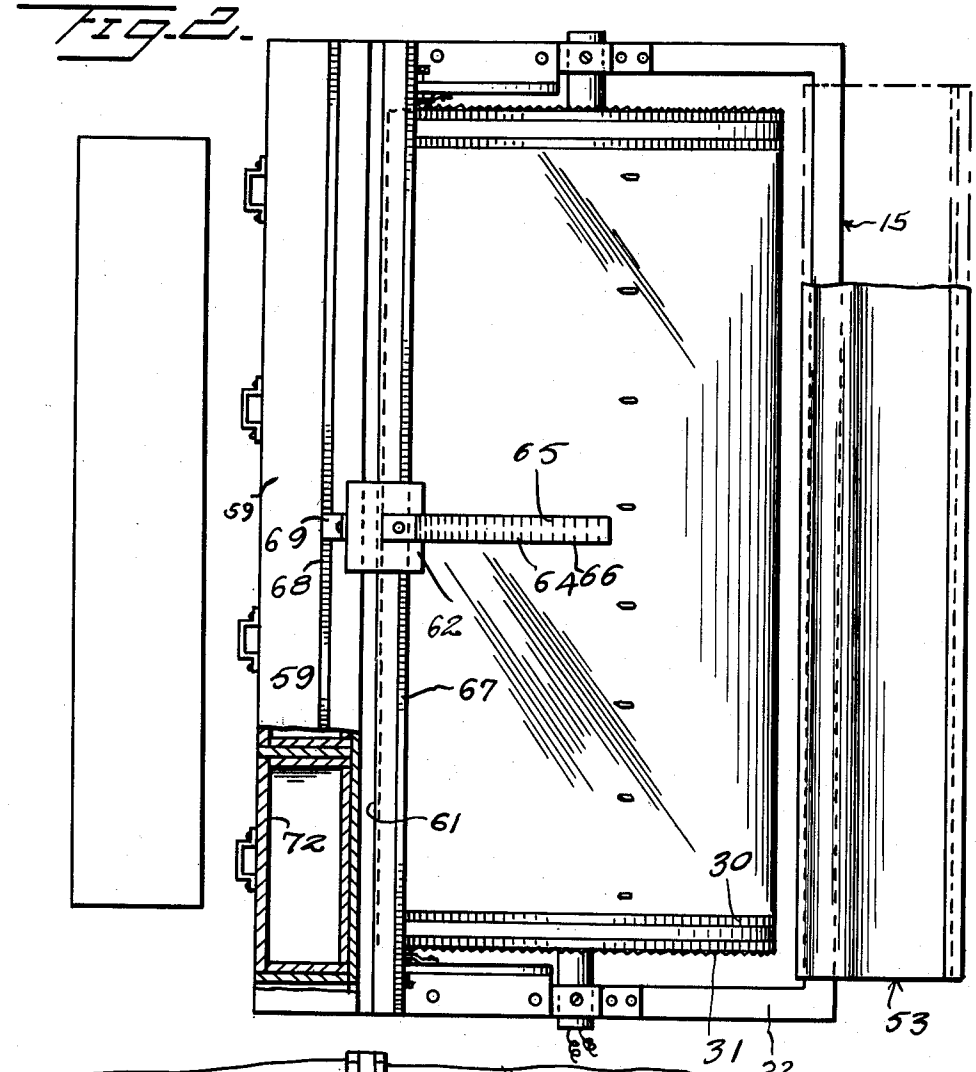
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ATTORNEYS

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ROTARY DRAFTING TABLE

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Fig. 2.



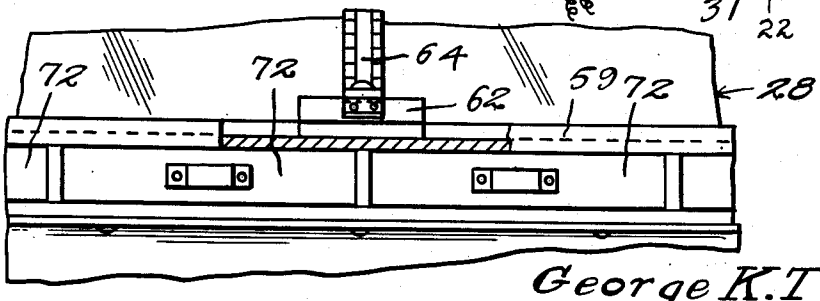


Fig. 3.

INVENTOR

George K. Tull

BY Kimmel & Crowell

ATTORNEYS

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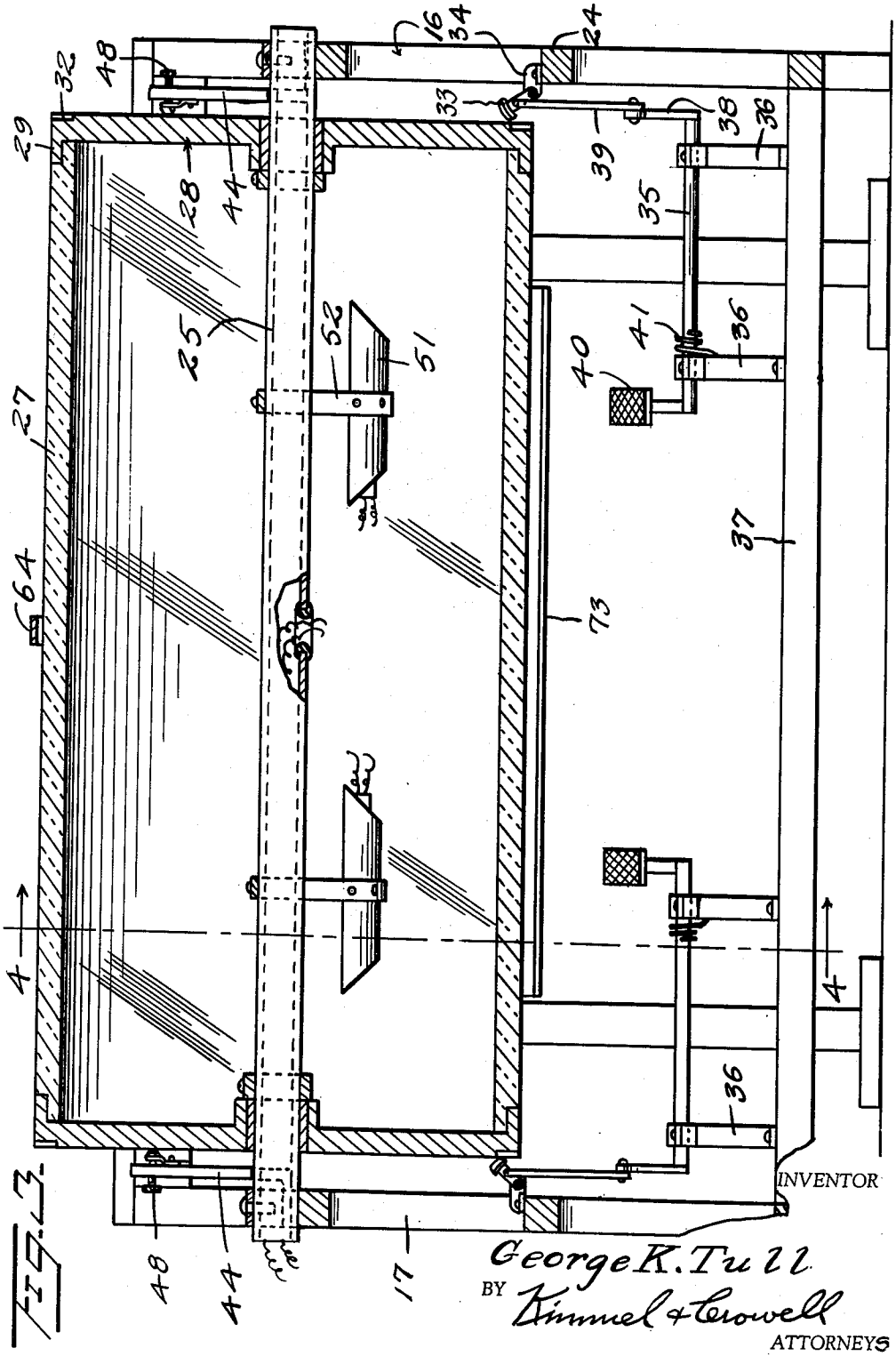


FIG. 3.

INVENTOR

George K. Tull

BY Kimmel & Crowell

ATTORNEYS

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FIG. 4.

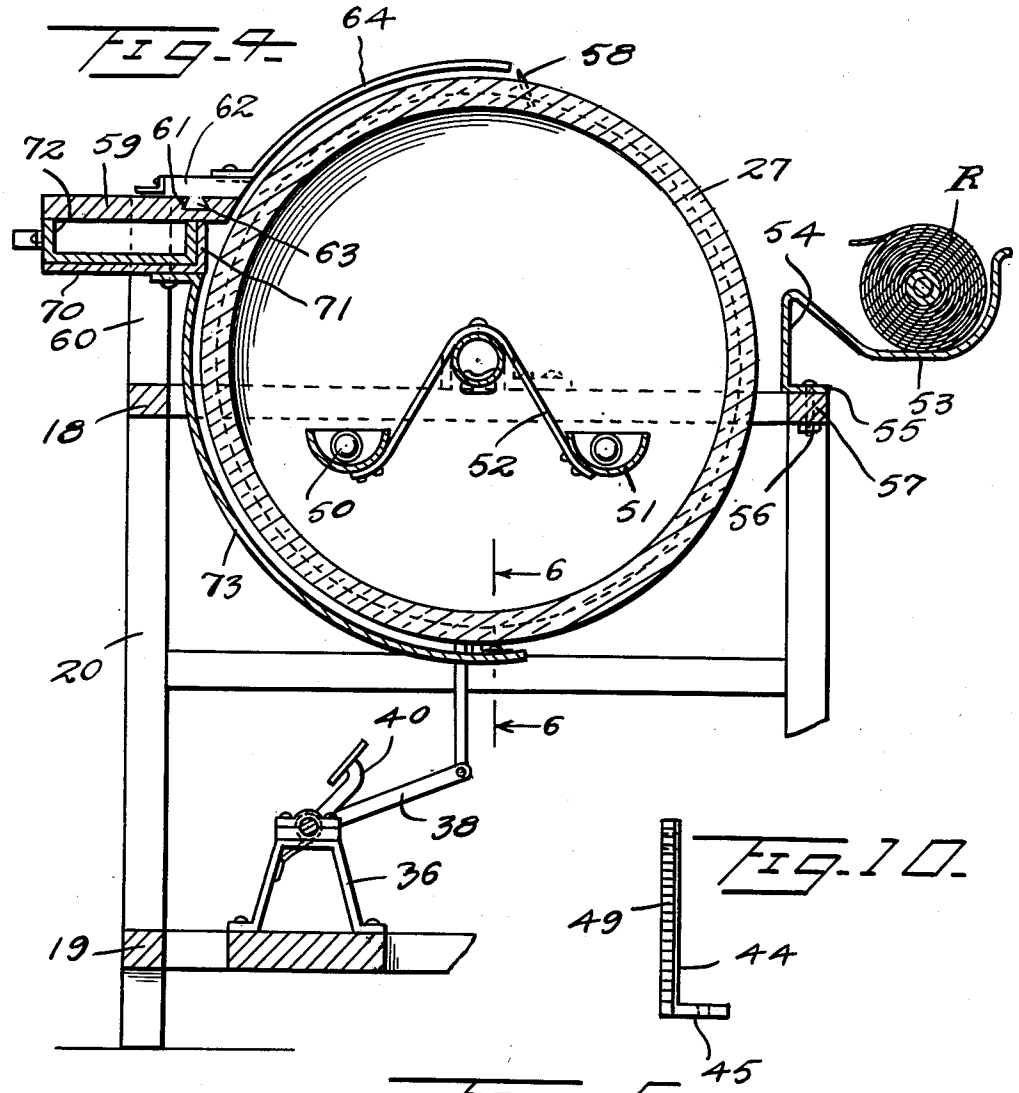
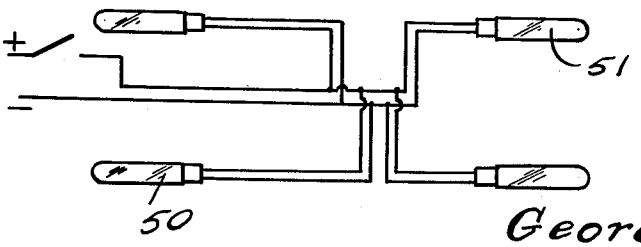


FIG. 10.

FIG. 5.



INVENTOR

George K. Tull

BY Kimmel & Crowell

ATTORNEYS

Patented Apr. 6, 1954

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UNITED STATES PATENT OFFICE

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ROTARY DRAFTING TABLE

George K. Tull, Green Cove Springs, Fla.

Application October 30, 1951, Serial No. 253,894

2 Claims. (Cl. 45—129)

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This invention relates to drafting tables.

An object of this invention is to provide a drafting table which is cylindrical in configuration and is rotatably supported on a frame structure and which includes means for locking the table in adjusted position.

Another object of this invention is to provide a cylindrical drafting table which is formed out of transparent or translucent material with lighting means within the cylinder so as to light up the drawing paper to facilitate work thereon and to permit tracing.

A further object of this invention is to provide a cylindrical drafting table which will facilitate work on relatively large sheets.

A further object of this invention is to provide in a cylindrical drafting table, a perpendicular or vertical line guide and scale which is horizontally adjustable along a stationary rest or table.

With the above and other objects in view, my invention consists in the arrangement, combination and details of construction disclosed in the drawings and specification, and then more particularly pointed out in the appended claims.

In the drawings—

Figure 1 is a detail end elevation of a cylindrical drafting table constructed according to an embodiment of this invention,

Figure 2 is a plan view, partly broken away and in section, of the device,

Figure 3 is a sectional view taken on the line 3—3 of Figure 1,

Figure 4 is a sectional view taken on the line 4—4 of Figure 3,

Figure 5 is a diagrammatic view showing the electric circuit for a lighting means within the table,

Figure 6 is a fragmentary sectional view taken on the line 6—6 of Figure 4,

Figure 7 is a fragmentary sectional view taken on the line 7—7 of Figure 6,

Figure 8 is a fragmentary sectional view taken on the line 8—8 of Figure 1,

Figure 9 is a fragmentary front elevation, partly in section, of the device,

Figure 10 is a detail front elevation of one of the stationary segments at each end of the rotary table.

Referring to the drawings, the numeral 15 designates generally a frame structure which is formed of end frame members 16 and 17, connected together by upper and lower horizontal connecting members 18 and 19 respectively. Each end frame is formed of a front upright 20 and a rear upright 21, with upper and lower

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connecting bars 22 and 23 respectively secured between the uprights 20 and 21. An intermediate horizontal connecting bar 24 is also connected between the uprights 20 and 21.

A horizontally disposed shaft 25 of tubular construction is fixedly carried on the upper frame members 22, being secured to bearing members 26. A transparent or translucent cylindrical member 27 is disposed about the shaft 25 and the cylindrical member 27 has end caps 28 secured to the opposite ends thereof, which are rotatable on the shaft 25.

The end caps 28 include inwardly projecting annular flanges 29 which on their outer surface or periphery are formed with two series of graduations 30 and 31. Each end cap 28 is also provided with a circular series of teeth or grooves 32 which comprise keepers which are adapted to be engaged by a rockable locking member 33 which is rockably carried by a mounting 34 fixed to the intermediate frame member 24.

A shaft 35 is journalled in bearings 36 which are carried by a lower longitudinal frame member 37 which is fixed between the end members 15 and 16, and one end of the shaft 35 has fixed thereto a lever 38. A link 39 is pivotally connected between the lever 38 and the locking member 33 so that rocking of the shaft 35 will effect rocking of the locking member 33.

A pedal 40 is fixed to the inner end of the shaft 35 and a spring 41 normally biases the shaft 35 to a position maintaining the locking member 33 in released position. There are two of these shafts 35 disposed adjacent each end of the frame structure so that the table 27 may be locked against rotation from either end of the frame structure.

A second locking member 42 is secured to a spring 43 and the spring 43 is fixed to the inner side of a sector-shaped plate 44 having a lower flange 45 which is fixed by fastening means 46 to the upper frame bar 22. The locking member 42 is normally biased to a released position and is adapted to be moved inwardly to engage a selected keeper 32 by means of a bolt 47 which is threaded through the sector member 44 and is provided with a knob 48. The arcuate forward edge of each sector member 44 is formed with graduations 49.

A plurality of light bulbs 50 are disposed interiorly of the cylindrical member 27, being disposed within upwardly directed reflector members 51 which are carried by downwardly divergent bracket members 52 fixed to the shaft 25. The hollow shaft 52 provides a means whereby

the conductors may be extended into the interior of the cylindrical table 27 for connection with the light bulbs 50.

A saddle 53 is disposed at the rear of the frame structure and is adapted to support a paper roll R. The saddle 53 includes a vertically disposed supporting plate 54 having a base flange 55 secured by fastening means 56 to a rear upper frame bar 57. The cylindrical table 52 has extending from the outer surface thereof a plurality of longitudinal spaced apart pins 58 which are adapted to engage the leading edge of the paper for holding the paper on the surface of the table 27. A horizontally disposed combined table and arm rest 59 is secured between vertical extensions 60 carried by the front frame members 20, and the upper surface of the table 59 has a dove-tail keyway 61 disposed therein adjacent the inner edge of the table 59.

A slide 62 engages the upper side of the table 59 and is formed with a dove-tail key 63 slidably engaging in a keyway 61. A longitudinally curved line guide 64 is fixed to the slide 62, extending upwardly over the surface of the table 27, and guide 64 is formed with graduations 65 and 66 along each lengthwise edge thereof.

The table 59 is formed along its inner edge with graduations 67 and is also formed with a second series of graduations 68 outwardly from the slide 62. A pointer 69 is fixed to the slide 62 and is adapted to overlie the graduations 68.

The table 59 has secured to the lower side thereof a lower plate 70 having a vertical inner edge 71 which is secured by any suitable means to the lower side of the table 59. A plurality of drawers 72 are slidably disposed between the plate 70 and the lower side of the table 59.

A transversely arcuate shield 73 is fixed to the lower side of the plate 70 and extends downwardly beneath the cylindrical table 27 so that when the light bulbs 50 are lighted there will not be any glare directed forwardly from the table 27. In addition, the shield 73 provides a means whereby the paper on the table 27 will not be contacted by the knees or legs of the draftsman when the paper is moved around to the lower side of the table 27.

In the use and operation of this drafting table, the leading edge of the paper is drawn from the roll R and is pierced by the pins 58. The table 27 may then be turned so as to dispose the paper at the forward side of the frame structure and when the paper has been properly positioned the table 27 may be locked against rotation by means of the locking members 42. Where the table 27 is to be held stationary for only a short time, the selected pedal 40 may be rocked forwardly and downwardly so as to swing one of the lower locking members 33 downwardly into a keeper 32.

It will be understood that the cylinder herein disclosed may be made out of any suitable material either transparent or non-transparent.

I do not mean to confine myself to the exact details of construction herein disclosed, but claim all variations falling within the purview of the appended claims.

What I claim is:

1. A rotary drafting table comprising a stationary frame, a horizontal shaft carried by the upper portion of said frame, a cylindrical body about said shaft, graduated scales at each end of said cylindrical body, said scales being graduated in different degrees, end caps carried by said body rotatably engaging said shaft, each cap having a plurality of radially arranged grooves about the periphery of the face thereof locking members rockably carried by said frame at each end in a position to engage in a selected one of said grooves, lower shafts carried by said frame at each end, a pedal at one end of each shaft, a crank arm at the opposite end of each shaft, a link pivotally connected between each locking member and each crank arm for individual operation, and a spring constantly urging each shaft to rotate to a released position, and additional locking members engageable with the grooves of each cap carried by said frame for holding said cylindrical member against accidental displacement.

2. The structure of claim 1 wherein the additional locking members comprise threaded elements engageable through threaded bores in the frame, wedge-shaped members abutting the ends of said threaded elements, and resilient members biasing said wedge-shaped members toward engagement with said grooves.

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