June 9, 1953 W. R. STULTS 2,641,082

DRAFTING TABLE

Filed May 17, 1950 3 Sheets-Sheet 1

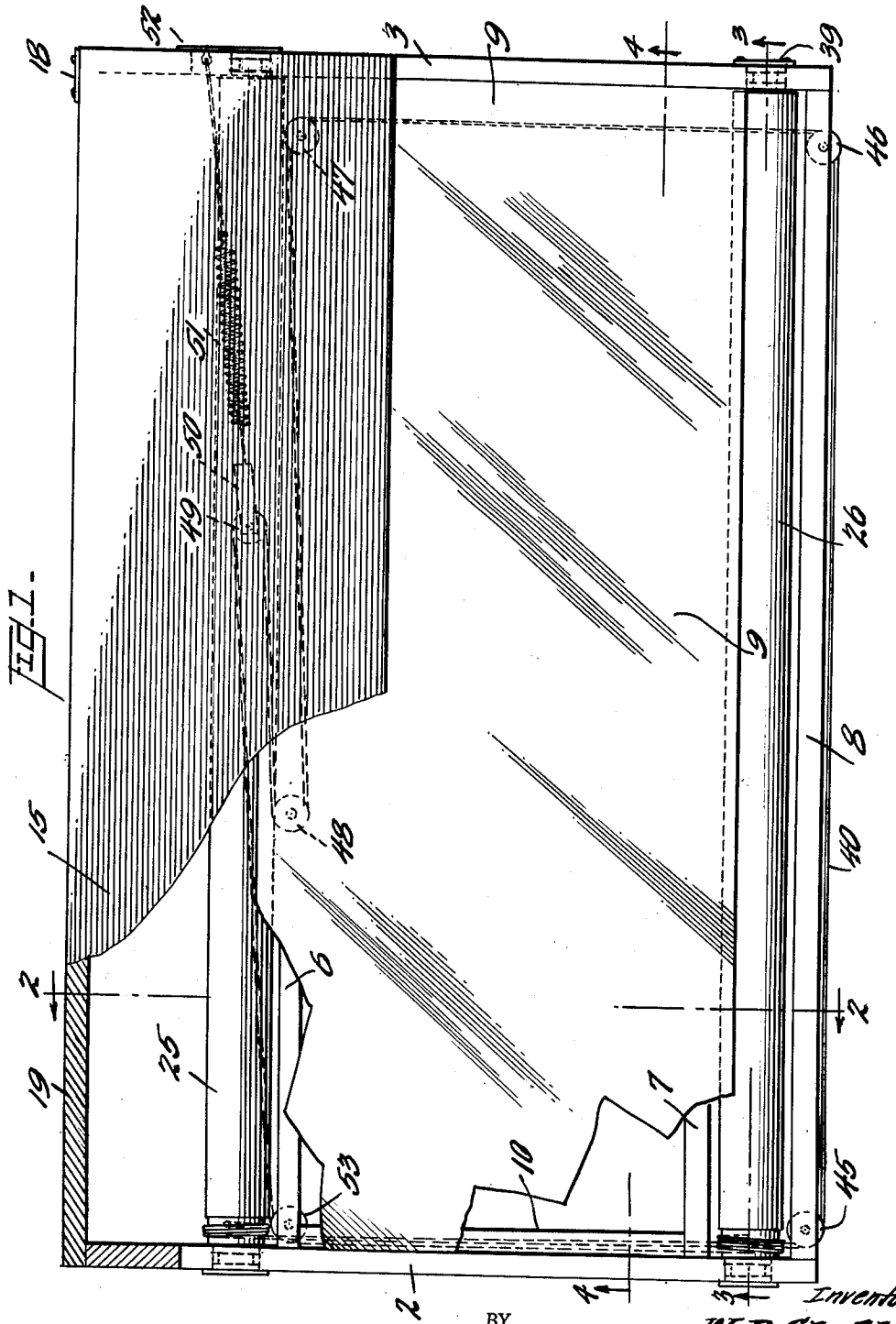


FIG. 1.

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FIG. 2.

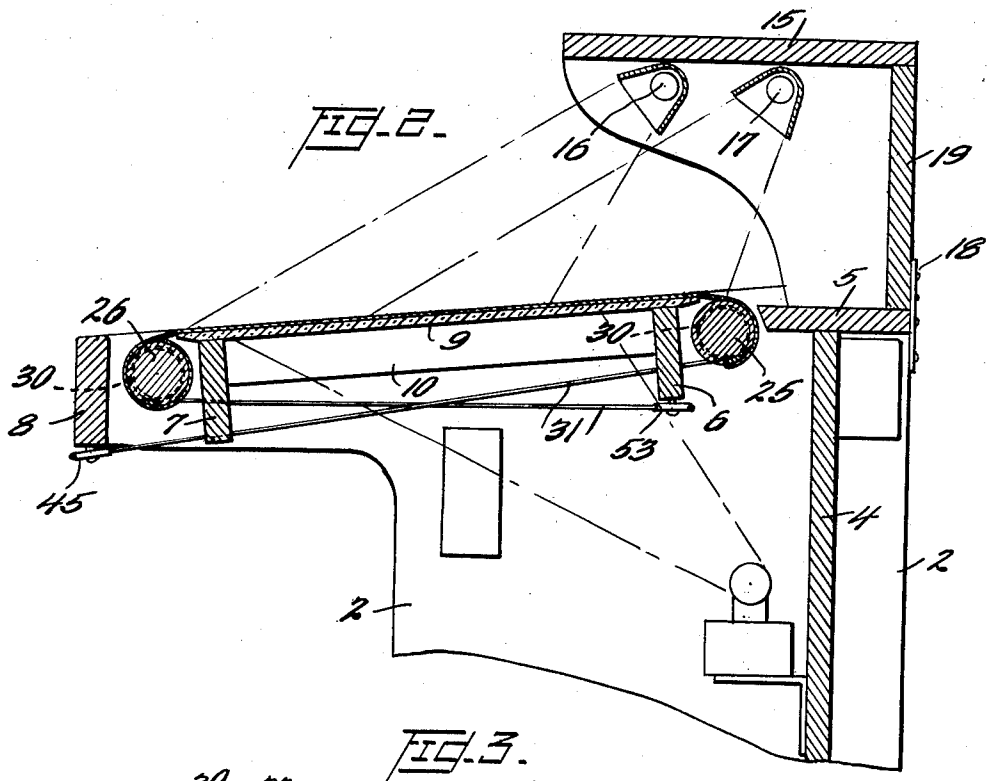
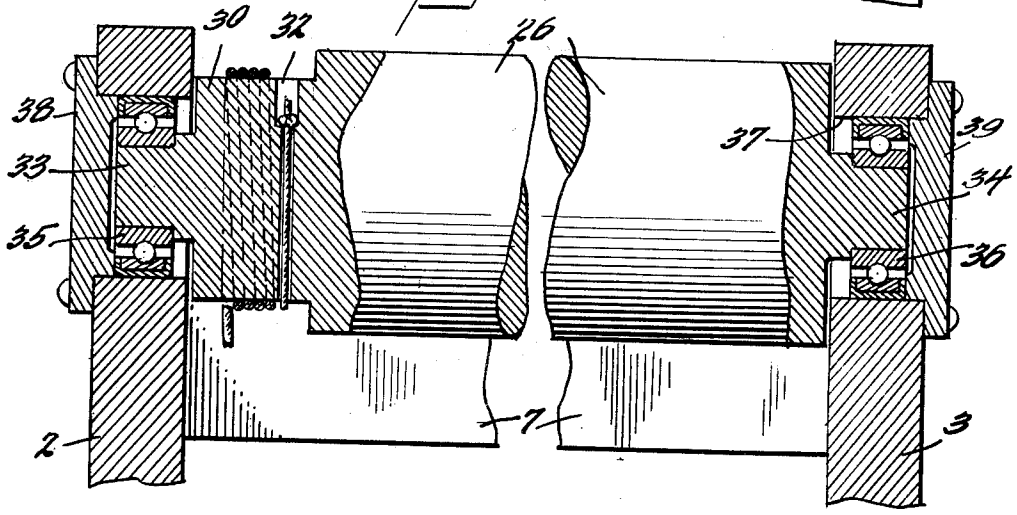


FIG. 3.



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FIG. 4.

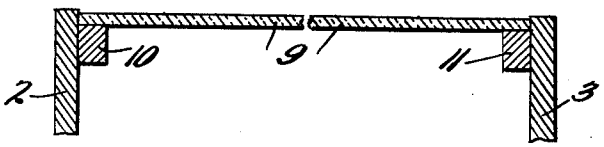


FIG. 5.

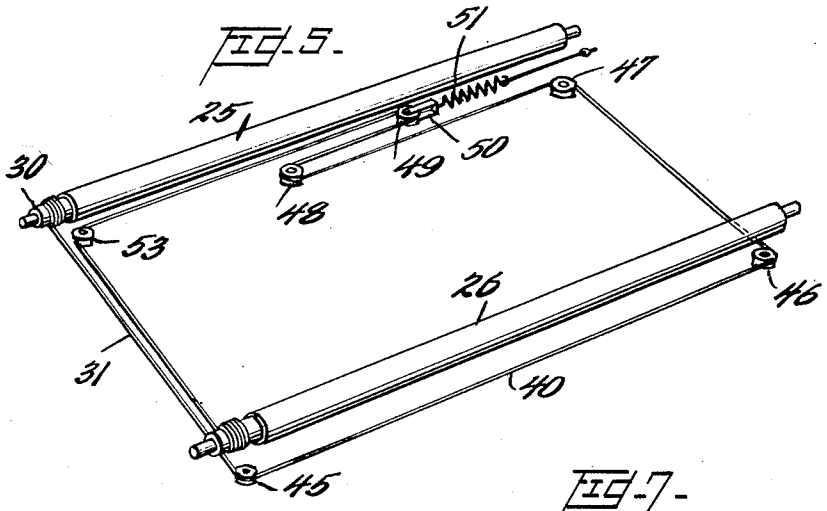


FIG. 6.

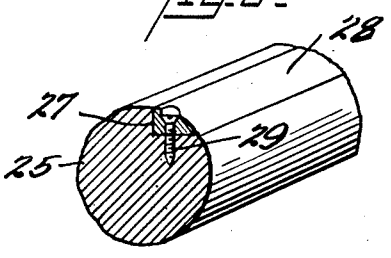
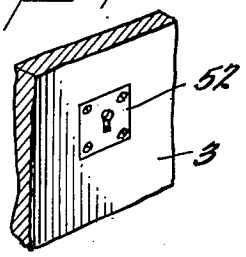


FIG. 7.



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UNITED STATES PATENT OFFICE

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DRAFTING TABLE

William R. Stults, Jacksonville, Fla.

Application May 17, 1950, Serial No. 162,532

1 Claim. (Cl. 45—131)

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This invention relates to tables for draftsmen and the like, having for its principal object the provision of structural features and mechanism by which a drawing having one relatively long dimension may be accommodated readily by a table having a working area one dimension of which relatively is much less than the long dimension of the drawing.

Another object of the invention resides in the provision of two parallel rollers for supporting and feeding the drawing paper, one end of the drawing paper being secured either directly or indirectly to at least one of the rollers, and a single spring-tensioned rope-like belt or cord engaging each of said rollers and passing across and under the front edge of the table and readily accessible for manipulation by the draftsman, said belt when manipulated causing rotation of said rollers and feed of the drawing paper in the desired direction across the working area of the table.

A still further object of the invention is the provision of a table having a flexible moveable or rollable top the ends of which are secured to said rollers for movement thereby across the working area, the drawing paper to be secured to said top as by adhesive cellulose tape or strips of similar material so that said paper may be caused to travel over the working area with the flexible top during the execution of the drawing by the craftsman.

With these and other objects in view, the invention resides in the novel details of construction and combinations of parts as will be disclosed more fully hereinafter and particularly covered by the claim.

Referring to the accompanying drawings forming a part of this specification and in which like parts are designated by like numerals in all the views—

Fig. 1 is a top plan view of a drafting table made in accordance with this invention, with parts broken away to show more clearly some of the underlying structure;

Fig. 2 is a vertical transverse sectional view of the drafting table, said view being taken as on the line 2—2 of Fig. 1 and looking in the direction of the arrows;

Fig. 3 is a vertical sectional view, taken as on the line 3—3 of Fig. 1 and looking in the direction of the arrows, to illustrate the mounting of a feed roller;

Fig. 4 is a vertical sectional view, taken as on the line 4—4 of Fig. 1 and looking in the direction of the arrows, to illustrate the mounting of

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a glass or other transparent or translucent pane serving as a support for the drawing paper;

Fig. 5 is a partial perspective view, more or less diagrammatic in form, illustrating the threading or routing of the cord or rope by which rotation may be imparted to the rollers for feeding the drawing paper;

Fig. 6 is a partial perspective view in transverse section of one of the feeding rollers and illustrating the means for securing the end of said flexible top and/or the drawing paper to said roller; and

Fig. 7 is a partial perspective view of an anchor plate for engaging and holding the end of the helical spring utilized for tensioning the cord associated with said rollers.

The drafting table comprises two end members or legs indicated at 2 and 3, said members being secured in spaced parallel relation by a vertical backboard 4 and a horizontal shelf-like member 5. A plurality of parallel cleats or braces 6, 7 and 8 also aid in maintaining the parallel relation of the side legs, the tops of said cleats and said legs being disposed substantially in the plane of the working area of the table, and cleat 8 being disposed at the front edge of the table. A pane of glass 9, or other hard transparent or translucent material, is fitted across and rests upon the top surfaces of cleats 6 and 7, the side edges of said pane being supported in any convenient manner as by rabbets formed in the side legs, or as by resting upon the top surface of auxiliary cleats 10 and 11 carried by the side legs, with the top surface of said pane lying in and constituting the plane of the working area of the table, whereby said pane is seen to be readily removeable as for cleaning purposes, breakage, etc.

A top shelf 15 is provided above the working area at the rear of the table, and under this shelf there is mounted a light-source preferably comprising two fluorescent electric lamps such as 16 and 17 adjusted for casting light rays upon the working area of the table, the limiting rays of light from which are indicated in Fig. 2 by the dashed lines, said lamps so mounted beneath the shelf 15 that the light therefrom will not be objectionable to or interfere with the draftsman working upon the table. This shelf 15 may be made readily removable from the table as by the provision of brackets or plates indicated at 18 interconnecting the shelf support 19 and the side legs.

Two rollers are mounted in spaced parallel relation to each other at the top of the table as

clearly shown in Figs. 1 and 2, one or first roller 25 being disposed between the shelf-like member 5 and the cleat 6, and the other or second roller 26 being disposed in the space between the two front cleats 7 and 8. One or both of these rollers, as desired, is provided with a rabbet or groove 27 adapted to receive a complementally formed locking strip 28 secured in place as by screws 29 (see Fig. 6) so that the end of a strip of drawing paper can be inserted in said rabbet and tightly secured to the roller by said locking strip, all as should be readily understood. Said drawing paper may then be passed over the top of the pane 9 and wound up on the other roller. If preferred, a flexible moveable or rollable table top may be provided in the nature of a sheet of paper, sheet plastic material, sheet oil-cloth, etc., with its opposite ends suitably secured to said rollers as by the locking strip 28, said sheet being of sufficient length to accommodate the largest drawing anticipated, with the extra length of said sheet wrapped around the rollers, the actual drawing paper to be secured to said sheet temporarily as by adhesive cellulose tape or strips of similar material so that said drawing paper may be caused to travel over the working area with the flexible top during the execution of the drawing by the draftsman; this plan is particularly advantageous when a relatively small size drawing is contemplated.

Referring particularly to Fig. 3 there is shown a mounting for each roller as well as the end construction of each roller. That is to say, one end of the first roller is reduced in diameter to provide a drum portion 30 around which the cord 31 may be wound, the end of said cord being knotted as shown and secured within a transverse bore 32. Each end of said roller is further reduced in diameter to provide the trunnions 33 and 34 having tightly-pressed thereon roller or ball bearings generally identified by the numerals 35 and 36, said ball bearings snugly engaging the inner surface of a bore such as 37 formed in each of the side legs 2 and 3 and thereby completing the bearing structure for the roller. To prevent axial displacement of the roller in its bearings, cover plates such as 38 and 39 may be provided exteriorly of the side legs.

Means is provided for rotating the rollers, said means being a rope, cord or other similar device 31 one end of which is secured to the drum portion of the first roller, and the other end of which is secured to the drum portion of the second roller, with a suitable length of said cord wound around the drum portion of each roller to provide for the length of flexible top wrapped around the opposite or other roller, this cord turning the rollers when it is manipulated by the draftsman. This cord relatively is of considerable length and conveniently is threaded or routed around and under the working area of the table, this routing being diagrammatically illustrated in Fig. 5.

In other words, one end of said cord is secured to an end of first roller 25 and wound about the drum portion 30 thereof, passing from said drum at the left end of the table to and over a pulley or sheave 45 freely mounted for rotation on the under side of front cleat 8 (see Fig. 2), and from said sheave the cord passes to a similar sheave 46 freely mounted for rotation at the right front under corner of said cleat, and thence along the right-hand side of said table to a similar sheave 47 freely mounted for rotation at the right under end of cleat 6, and thence to a similar sheave 48 mounted for rotation at a relatively mid-point of the under side of said cleat 6. An idler or floating sheave 49 is carried by a yoke or bifurcated bracket 50 attached to one end of a helical spring 51, the other end of which spring is secured to the anchor plate 52 as in a bayonet slot, said anchor plate being attached to the right-hand leg of the table. Said cord passes from sheave 48 to and around sheave 49, and thence passes to and around a similar sheave 53 to the drum portion of second roller 26, being wound thereabout and having its end secured as in the bore 32 of said drum, said sheave 53 being freely rotatable through its securement at the left-hand under corner of cleat 6. In thus applying this cord to the rollers, a proper tension is maintained by the spring 51 to keep said cord tight, and through the cord tension is maintained in the flexible moveable top, and yet the tension of said spring is yieldable in accordance with the amount of drawing paper applied to the rollers.

It will thus be apparent that a relatively long sheet of drawing paper may be accommodated by this drafting table, since a portion of said paper may be wound up on one roller and unwound or fed therefrom to the other roller as the drawing progresses; that is to say, the draftsman may start the drawing at one end of the drawing paper and feed said paper by the rotation of the rollers so as to present a new portion of the paper sheet for the continuation of the drawing, or if the draftman needs to work upon the farthest remote area of the table he will not be compelled to "lie down" on the front or near portion of the drawing to reach the rear area, but all he needs to do is to grasp the bight of cord 40 which is disposed under the front edge of the table and pull the cord either to the left or to the right to give proper rotation to the rollers to bring the rear area of said paper toward him for further work on the drawing.

It is obvious that those skilled in the art may vary the details of construction and arrangements of parts without departing from the spirit of this invention wherefore it is desired not to be limited to the exact foregoing disclosure except as may be required by the claim.

What is claimed is:

In a drafting table, first and second rollers arranged in spaced parallel substantially horizontal relationship thereon, bearings rotatably supporting the ends of said rollers, a flexible web greater in length than the distance between said rollers secured at its ends to the latter, a continuous cord secured at one end to one end of said first roller thence extending forwardly in a direction at substantially right angles to said rollers to and beneath the adjacent end of said second roller, a pulley adjacent to the said adjacent end of said second roller, said cord passing over said pulley and thence parallel with said latter roller to the opposite end thereof, a second pulley adjacent to said opposite end of said second roller, said cord passing over said last named pulley and thence reawardly to and over a guide pulley near the adjacent end of said first roller and then inwardly of the latter and in parallelism therewith to and around a pulley disposed intermediate the ends of said first roller, thence in reverse direction and over a floating sheave, thence again reversing in parallelism with and to the opposite end of said first roller, a pulley adjacent to the end of the last named roller, said cord passing over said pulley thence forwardly therefrom and permanently connected to the adjacent end of said second roller, and a contractile spring sup-

porting said floating sheave to maintain the said continuous cord in tightened relationship.

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