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A. ROCCATI

3,180,028

DRAFTING DESK

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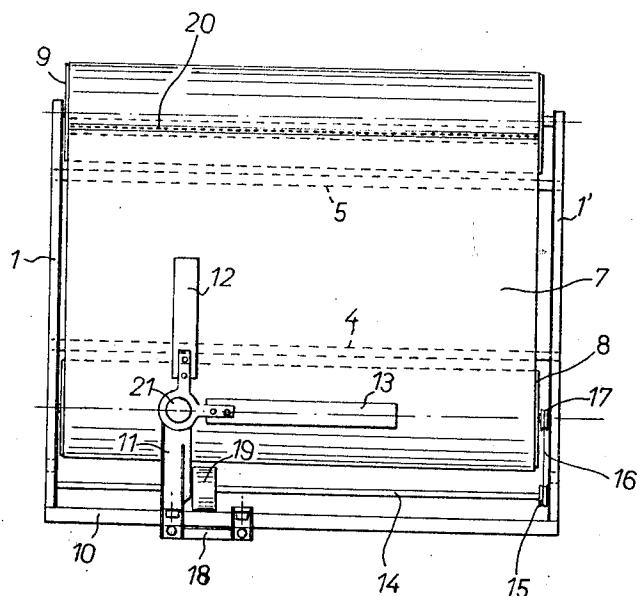


Fig. 1

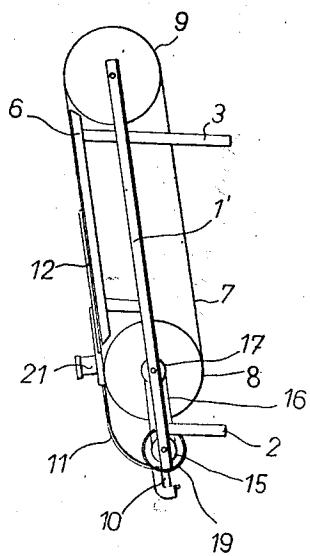


Fig. 2 Alberto Roccatti

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DRAFTING DESK

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4 Claims. (Cl. 33—79)

The object of the present invention is a drawing desk having an inclined position, on which there runs, on horizontal rollers, a belt conveying the drawing paper sheet, whereas the universal drawing device runs only in the horizontal sense, thereby obtaining both the vertical and horizontal movements necessary for the execution of any drawing.

The advantages offered by the drawing desk according to this invention can be summarized as follows:

(a) Unchanged position of the designer's hands and arms for any size of drawing;

(b) Possibility for the designer of remaining seated all the time while executing drawings of any size;

(c) As a consequence of the conveying belt slide and therefore of the drawing paper sheet slide too, the visual angle formed by the eye and drawing is always the same, which quickens the execution of this latter;

(d) Since the universal drawing device hand grip, which is located at the apex of the two rules set at a right angle, is brought to overhang by a support sliding along a horizontal shaft and mounted on bearings, there ensues that the rules do not adhere to the drawing paper unless the designer presses onto the hand grip in order to draw the lines;

(e) A maximum visibility, since the universal drawing device is without the vertical parallelograms for supporting the rules, which characterizes instead the universal drawing devices already existing on the market;

(f) Maximum capacity as to the utilizable drawing size which is about double the total dimensions of the universal drawing device.

Further details will appear in the course of the following description referring to the attached drawing reported merely as an example and not limiting, which description will make one understand how the present invention can be realized, noting the particulars deriving both from the text and from the drawing which are part of the invention itself.

FIG. 1 presents a front view of the drawing desk according to the invention.

FIG. 2 is a side view.

The drawing desk according to the invention, which can be placed upon an existent level table, is essentially constituted by a square frame formed by two inclined lateral uprights 1, 1' resting on four feet 2, 3 and connected by the transverses 4, 5 on which rests the plane 6 supporting the conveying belt 7 turning on two parallel horizontal rollers 8, 9 between which said wooden plane is interposed. The rollers are neutrally mounted on the before mentioned uprights which are extended downwards and connected to a rectified horizontal guide bar 10, on which there runs the overhanging appendix 18 of the support 11 of the rules 12, 13 forming the universal drawing device; between said guide 10 and the lower roller 8 there is located and rotatably supported by the uprights 1, 1' a square section shaft 14 on one end of which there is keyed a pulley 15 connected, through the transmission 16, to a pulley 17 keyed to the roller 8. The rotating movement of the square shaft 14 and, consequently, the

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sliding of the conveying belt 7, are given by the manoeuvre of the sleeve 19 keyed to it, which is sliding and brought rotating by the support 11 so that the universal drawing device, formed by the rules 13, 12, the support 11, the appendix 18 and the sleeve 19, is only susceptible of running along the shaft 14 and guide bar 10.

The conveying belt 7 is preferably derived from a proper plastic material sheet, its two ends being elastically connected to each other by means of the application of a perforated rubber strip 20 and the drawing paper sheet is fixed to the belt by means of "scotch."

All the organs susceptible of rotating and translating movement are mounted on ball bearings and the universal drawing device 11 being brought to overhang springing on the shaft 14 makes the rules 12, 13 slide horizontally along the desk without touching the drawing for the execution of which it is enough to press the hand grip 21 of the universal drawing device itself.

It is now convenient to remark that the horizontal rule 13 must be positioned on the roller axis, this also in order to shorten to the minimum the length of the universal drawing device support 11.

It is evident that, extending the four legs 2, 3 down to the ground, the whole constitutes a desk by itself, including the universal drawing device, without the necessity of making it rest upon a plane. Of course, on the basis of the principle of the invention, whose object is a drawing desk having an inclined position on which there slides on horizontal rollers a belt conveying the drawing paper sheet, whereas the universal drawing device runs only horizontally, the apparatus in question can undergo all the constructive modifications considered as necessary for its practical realization, without impairing the originality of the invention.

What I claim is:

1. A drafting desk with a work plane for drawing paper comprising, in combination, horizontal rollers, a belt running on said horizontal rollers for conveying a drawing paper sheet, a horizontal guide mounted parallel to said horizontal rollers and located outside the perimeter of the drawing paper work plane, and a universal drawing device movably mounted on said horizontal guide so as to move transversely to the movement of said belt, further characterized by

one of said horizontal rollers positioned higher than the other of said horizontal rollers whereby said belt is caused to run on an inclined plane on its upper run, a rotatably supported square section shaft positioned between said horizontal guide and the lower one of said horizontal rollers,

a first pulley keyed on said square section shaft, a second pulley keyed to the lower one of said horizontal rollers, and transmission means connecting said first and said second pulleys.

2. The drafting desk of claim 1, further characterized by

a sleeve keyed to said square section shaft rotating said shaft and moving said belt, said sleeve adapted for sliding motion on said shaft.

3. The drafting desk of claim 1, further characterized by

spring means overhanging said shaft, connecting said universal drawing device with said horizontal guide, and a hand grip on said universal drawing device whereby said drawing device may be pressed toward the desk for use in execution of drawings.

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4. The drafting desk of claim 1, further characterized
by
said universal drawing device including a rule substan-
tially parallel to the rotational axis of said lower
horizontal roller and positioned substantially over
said axis.

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