Sept. 14, 1954 J. F. JOY 2,688,818

DRAFTING TABLE

Original Filed Feb. 17, 1948 2 Sheets-Sheet 1

FIG. 1.

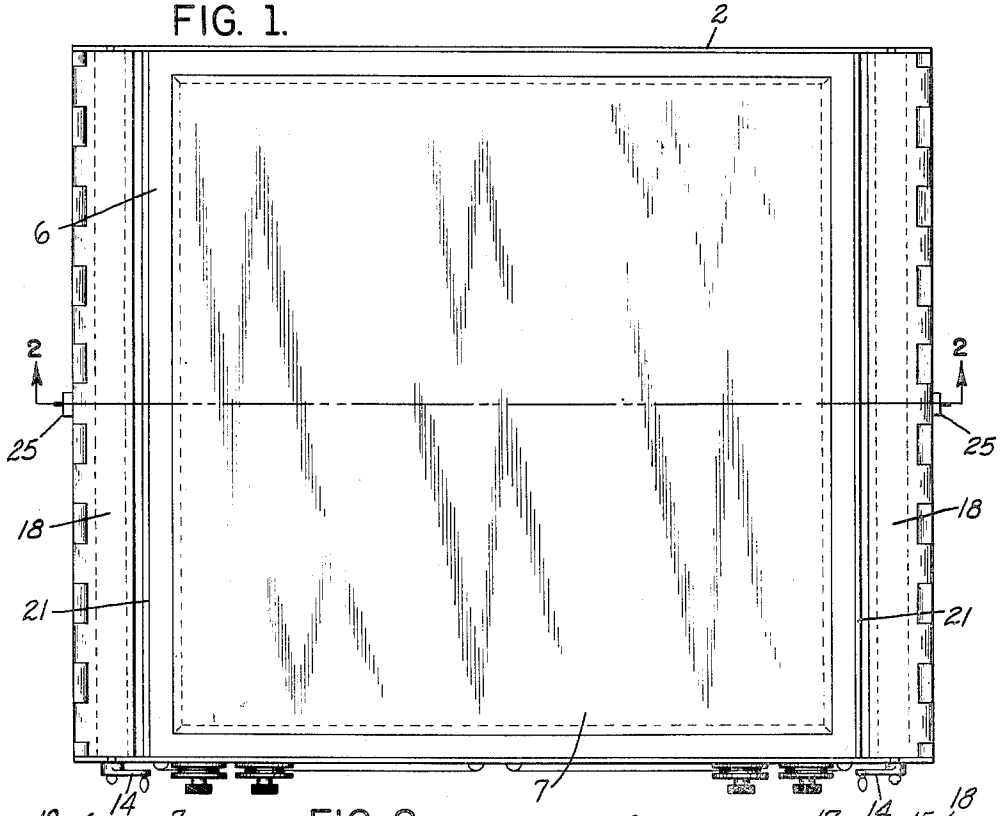
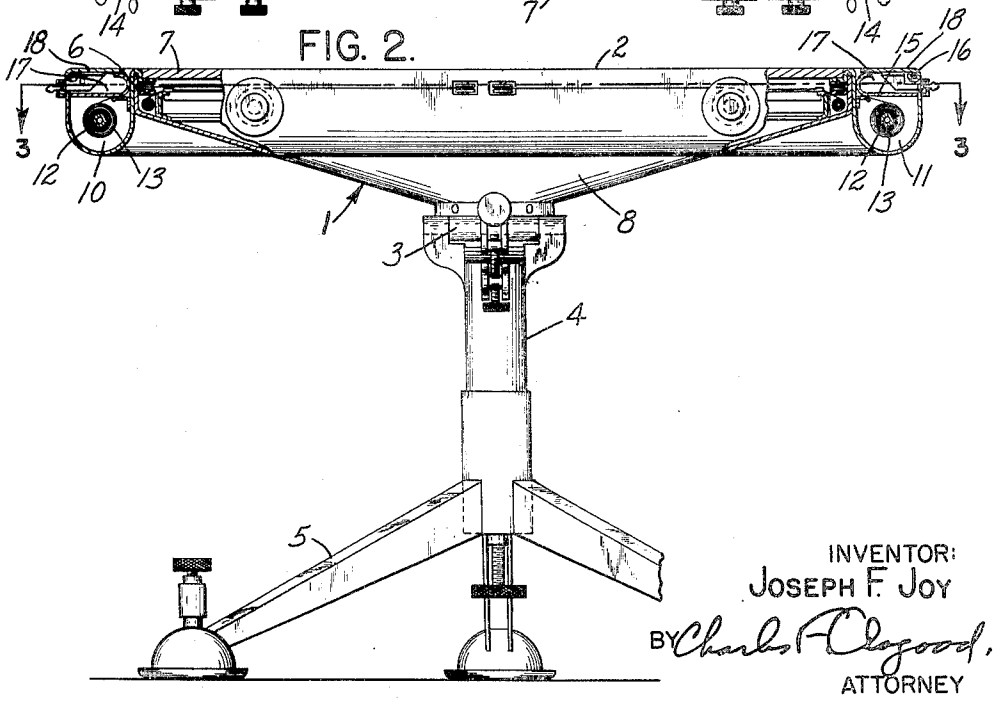


FIG. 2.



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FIG. 3.

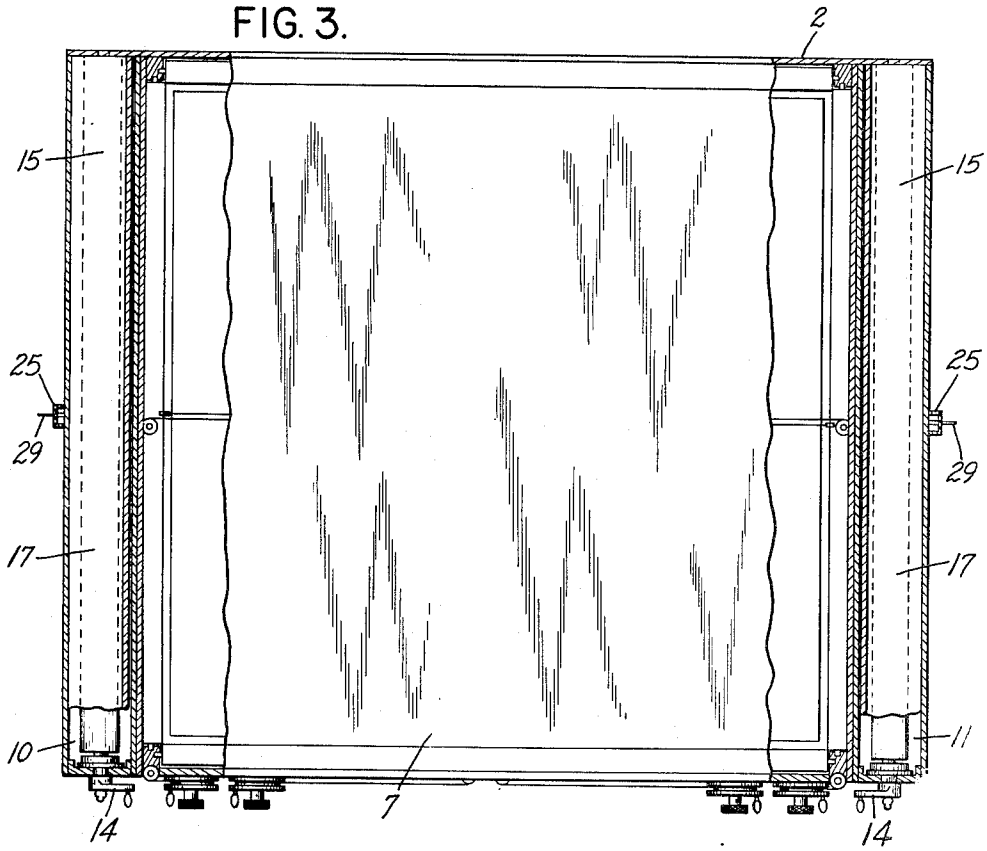


FIG. 4.

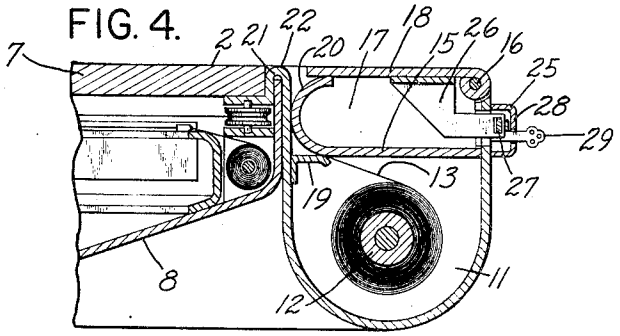
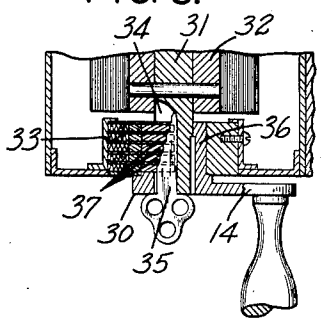


FIG. 5.



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2,688,818

UNITED STATES PATENT OFFICE

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DRAFTING TABLE

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Original application February 17, 1948, Serial No. 8,953. Divided and this application May 1, 1951, Serial No. 223,950

4 Claims. (Cl. 45—131)

1

This invention relates to drafting tables and more particularly to a drafting table having improved storage means for the drawing paper and improved paper tensioning means.

An object of the present invention is to provide an improved drafting table having novel features of construction. Another object is to provide improved storage means for the drawing paper within the sides of the table top and including rolls of paper whereby the paper may pass over the table top and be transferred readily from one roll to the other as it is used. Yet another object is to provide improved tensioning means for the drawing paper so that the paper as it passes over the table top is maintained relatively flat and smooth. These and other objects and advantages of the invention will, however, hereinafter more fully appear in the course of the following description.

This application is a division of my copending application, Serial No. 8,953, filed February 17, 1948, now Patent No. 2,652,657.

In the accompanying drawings there is shown for purposes of illustration one form which the invention may assume in practice.

In these drawings:

Fig. 1 is a top plan view of a drafting table in which a preferred illustrative embodiment of the invention is incorporated.

Fig. 2 is a vertical section taken substantially on line 2—2 of Fig. 1, with parts shown in full to facilitate illustration.

Fig. 3 is a horizontal sectional view, with parts shown in full, taken substantially on line 3—3 of Fig. 2.

Fig. 4 is an enlarged fragmentary sectional view taken on the plane of Fig. 2, showing details of construction.

Fig. 5 is a fragmentary horizontal sectional view taken through one of the paper rolls, showing details of the roll lock.

In this illustrative embodiment of the invention, as shown in the drawings, the improved drafting table is generally designated 1 and comprises a rectangular top 2 adjustably mounted at 3 on a pedestal 4 supported by a tripod base 5. The table top comprises a rectangular frame 6 shaped to receive and support a top plate 7 which provides a plane drawing surface. The rectangular frame 6 is supported by a bottom frame 8 which has its base adjustably mounted on the pedestal.

In this improved drafting table construction, the rectangular frame 6 of the table top 2 has closed storage compartments 10 and 11 extending longitudinally at its sides, as shown in Fig. 2, and received in these compartments are rolls 12 on which drawing paper 13 is wound, and these rolls are suitably journaled at their ends within the end walls of the compartments. The portion of the drawing paper intermediate these rolls passes over the plane upper surface of the top plate 7 of the table and the rolls have suitable hand cranks 14, conveniently located at the forward side of the table, whereby the rolls may be rotated to effect transfer of the paper from one roll onto the other as the paper passing over the working surface of the table top is used up. The compartments 10 and 11 have covers 15 hinged at 16 and which may be swung open to obtain access to the rolls 12 to permit removal of the used rolls and insertion of new rolls of paper. The tops of these covers are recessed at 17 to provide trays for receiving drafting tools and are also provided with suitable hinged covers 18. Guide flanges 19 having downwardly bent portions serve to guide the paper as it passes from one roll or extends toward the other roll, and the covers 15 have curved edges at 20 which, when the covers 15 are closed, serve to further guide the drawing paper and provide sufficient frictional contact with the paper to maintain the latter under slight tension so that its portion passing over the plane working surface of the table top is held flat and smooth. The adjacent top edges 21 of the rectangular frame 6, at the inner sides of the compartments, are also rounded at 22 to permit movement of the drawing paper smoothly thereover.

To prevent tampering of the drawings and the drawing tools by unauthorized persons, the paper rolls and compartment covers are provided with locks. The covers 15 of the roll-compartments 10 and 11 and the tray covers 18 are provided with locks 25, as shown most clearly in Fig. 4. Each cover 18 of the tool-trays has a bracket 26 having a slot for receiving a lock bolt 27 contained in a lock case 28 secured to the middle portion of the adjacent side of the rectangular frame 6 and in which a key 29 is insertible. Thus, the compartment covers 15 and the covers 18 may be firmly locked in closed position, and the locks may be readily released by the key which is in the custody of the draftsman in charge of the drawing table. The covers 18 for the trays may be provided with separate locks, if desired.

The paper rolls 12 contained in the compartments 10 and 11 are also each provided with a lock 30 which is shown most clearly in Fig. 5. In this construction, the paper roll has a shaft

31 surrounded by a tubular body 32 on which the paper is wound. Secured to the end wall of the compartment, within the latter, is a lock case 33. The shaft has a key receiving slot 34 in which a key 35 is insertible. The hand crank 14 has carried by its hub 36 a series of tumblers 37, which project into the shaft-slot 34 to lock the paper roll against rotation. When the key is turned, these tumblers are ejected from the shaft-slot 34 to release the paper roll. Thus, the drawing paper may be wound up on the rolls, as desired, and the paper rolls may be firmly locked in position, and the paper rolls may be unlocked only by the person in authority who retains custody of the key. If desired, the same key may be used to lock both the compartment and the covers and the paper rolls. Evidently, various other types of locking means for the rolls and covers may be employed.

As a result of this invention, an improved drafting table is provided having novel features of construction. The novel arrangement of the paper storage rolls within compartments at the sides of the table enables the drawing paper to be passed over the plane top of the table working surface between the rolls and be readily transferred from one roll to the other as the paper is used. The curved guiding surfaces on the table top and compartment covers provide suitable guides for the drawing paper and serve to maintain the latter under proper tension. The provision of the locks for the paper rolls and compartment and the covers prevents tampering by unauthorized persons. The manners of use and other advantages of the invention will be clearly apparent to those skilled in the art.

While there is in this application specifically described one form which the invention may assume in practice, it will be understood that this form of the same is shown for purposes of illustration and that the invention may be modified and embodied in various other forms without departing from its spirit or the scope of the appended claims.

What I claim as new and desire to secure by Letters Patent is:

1. In a drafting table, the combination comprising a table top having a top plate providing a plane working surface, closed storage compartments extending longitudinally along opposite sides of said table top, rolls of drawing paper arranged in said compartments and having the portion of the paper extending between said rolls passing over the plane working surface of said top plate, guiding and tensioning means for the paper as it passes from one roll and extends towards the other roll including guiding surfaces at the sides of said table top and releasable tensioning elements in adjacency to each roll and respectively cooperating with said guiding surfaces in the guiding and tensioning of the paper, said elements being releasable to permit removal of said rolls from said compartments, and means for rotating said rolls to transfer paper from one roll to the other with the intermediate portion of said paper between said rolls moving between said cooperating guiding surfaces and over the working surface of said top plate during such transfer, said cooperating guiding surfaces frictionally engaging the paper as the latter moves therebetween.

2. In a drafting table, the combination comprising a table top having a plane working surface and upright guiding surfaces at its sides, closed storage compartments extending along opposite side edges of said table top, rolls for drawing paper arranged in said compartments and on which drawing paper is wound, the portion of the paper between said rolls passing over said upright guiding surfaces and transversely over the plane working surface of said table top, and covers for said compartments and openable to permit removal or insertion of paper rolls, said covers when closed having means cooperating with said upright guiding surfaces respectively for frictionally engaging the paper as it passes from one roll and extends toward the other roll to maintain the portion of the paper passing over the working surface under proper tension, said covers when in opened position disposed out of frictional contact with the paper and permitting removal of said rolls from said compartments.

3. In a drafting table, the combination comprising a table top having a plane working surface, said table top providing guiding surfaces at the sides of said plane working surface, closed storage compartments extending along opposite side edges of said table top, rolls for drawing paper arranged in said compartments and on which drawing paper is wound, the portion of the paper between said rolls passing over the plane working surface of said table top, and covers for said compartments and openable to permit removal or insertion of paper rolls, said covers when closed having guiding surfaces cooperating with said guiding surfaces for guiding the paper as it passes from one roll and extends toward the other roll, said covers movable into open position with their guiding surfaces spaced apart laterally from said first mentioned guiding surfaces out of guiding contact with the paper and when in opened position permitting removal of said rolls from said compartments.

4. In a drafting table, the combination comprising a table top having a plane working surface, said table top providing upright guiding surfaces at the sides of said plane working surface, closed storage compartments extending along opposite side edges of said table top, rolls for drawing paper arranged in said compartments and on which drawing paper is wound, the portion of the paper between said rolls passing over the plane working surface of said table top, covers for said compartments and openable to permit removal or insertion of paper rolls, said covers when closed having guiding surfaces cooperating with said guiding surfaces for guiding the paper as it passes from one roll and extends towards the other roll, and associated paper-guiding surfaces at the inner side walls of said compartments.

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