June 3, 1941. H. L. DE LISLE 2,244,391

DRAFTING BOARD

Original Filed Jan. 21, 1938 2 Sheets-Sheet 1

Fig. 1

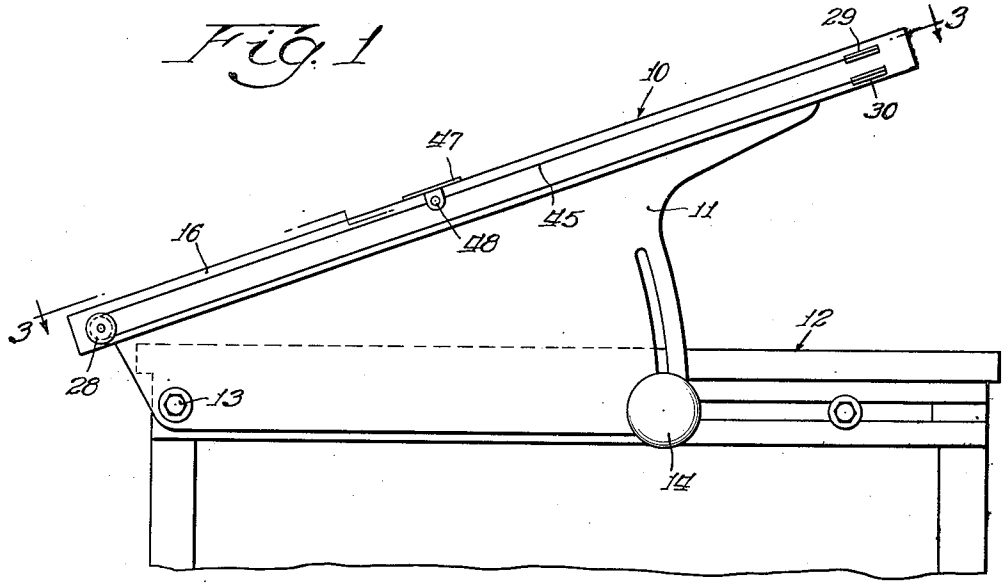
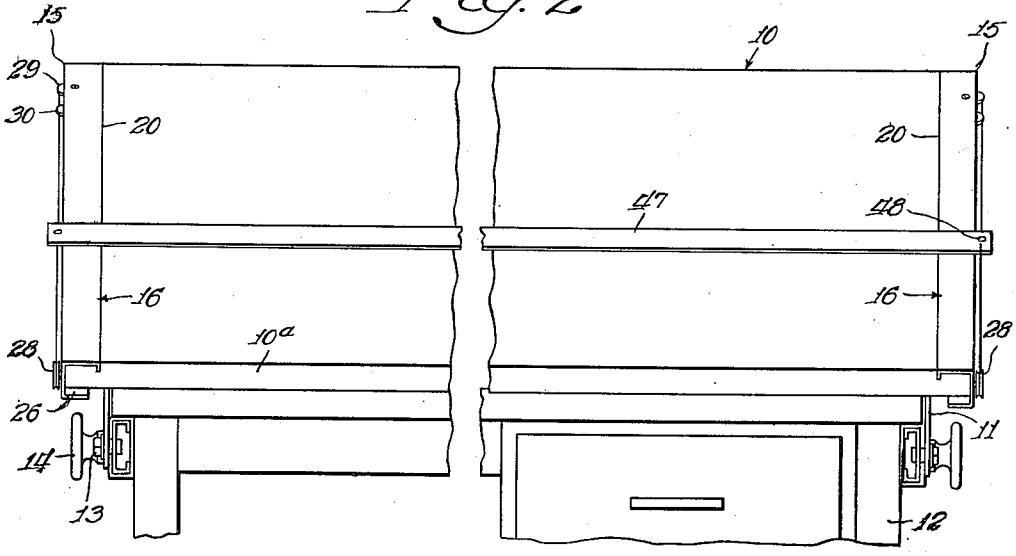


Fig. 2



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Fig. 3

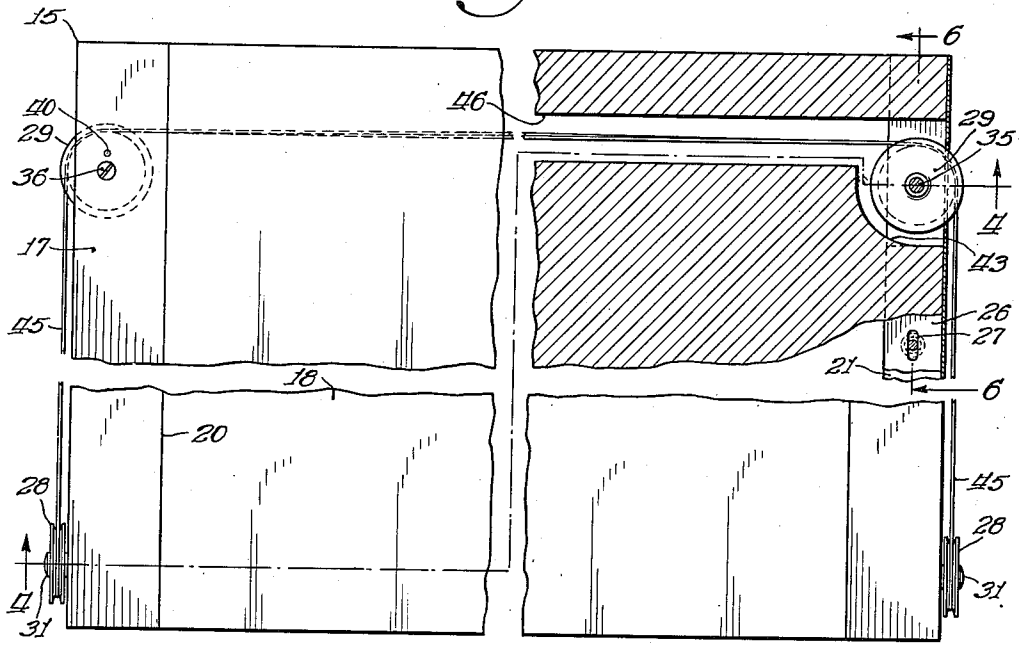


Fig. 4

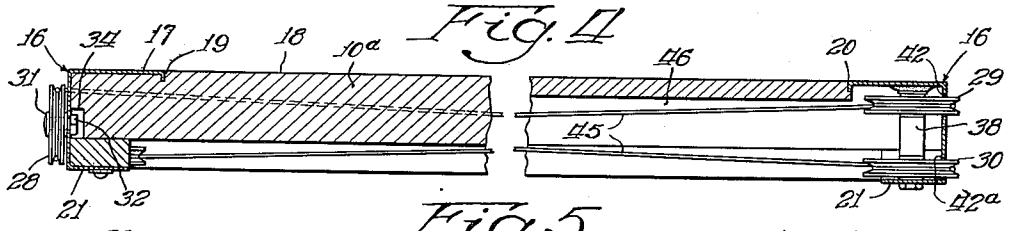
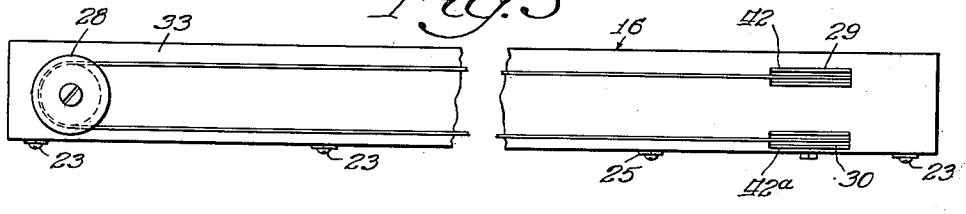


Fig. 5



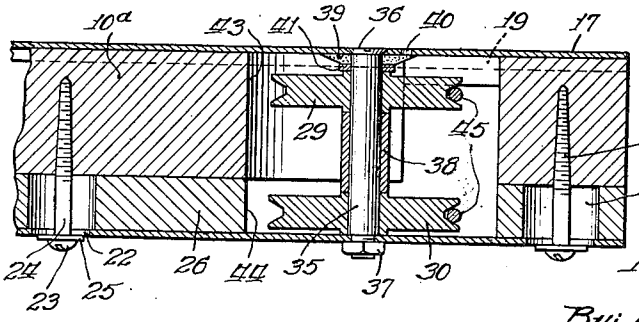


Fig. 6

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2,244,391

DRAFTING BOARD

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Original application January 21, 1938, Serial No. 186,185. Divided and this application March 18, 1940, Serial No. 324,541

4 Claims. (Cl. 33—80)

This invention relates to drafting boards and, among other objects, aims to provide improved equipment for mechanical draftsmen and the like.

An important object of the invention is to provide greater simplicity of construction and enhanced ease and accuracy of operation of a device of this class.

In one aspect the invention is particularly adapted for drafting boards having parallel rule attachments associated therewith.

This application is a division of my co-pending application Serial No. 186,185, filed January 21, 1938, which has matured into Patent Number 2,194,889.

The present invention will be understood by reference to the accompanying drawings, in which—

Figure 1 is a side elevational view of a drafting board embodying my invention;

Figure 2 is a front elevational view of the structure of Fig. 1;

Figure 3 is an enlarged plan view of the structure of Fig. 1, being partially in plan section on the line 3—3 of Fig. 1;

Figure 4 is a staggered vertical section on the line 4—4 of Fig. 3;

Figure 5 is a side view of the structure of Fig. 3; and

Figure 6 is a section taken on the line 6—6 of Fig. 3, still further enlarged.

Referring to the illustrative construction shown in the drawings, the board 10 may be suitably supported on brackets 11 mounted on a table 12 in accordance with the disclosure and claims of my said co-pending application, provision being made, as therein described, by means inclusive of pivots 13 and clamps 14, for adjusting the position of the board 10 with respect to the table 12.

In accordance with the present invention, the board 10 advantageously comprises a body 10*a* of wood, but is edged as at 15—15 by a four sided metal channel member 16 at each side of the board. This channel member 16 has an upper side or face 17 which is set into the working surface 18 of the board so as to be flush therewith and to cause the surfaces 17 and 18 to be the continuous working surface of the board. Depending from the free edge of the channel member at its upper face is another side of the channel member 16 constituting a locking lip 19 integral with the channel member and which is snugly set into the board along the inner edge of the channel member as at 20, thus locking the channel member and board together against relative lateral movement. I provide means for securing the channel member and board together adjacent the lower faces thereof as next described.

In this instance, the under side or face 21 of the channel member 16 has slots 22 therein spaced longitudinally of the channel member and somewhat elongated in this direction. Wood screws 23 have their shanks 24 passing through the slots 22 and into the body of the board. A washer 25 may be inserted between the head of the screw 23 and the channel member. In this instance, for a purpose later pointed out, the channel members 16 are enlarged vertically of the board and I have shown a wood filler strip 26 carried along the under face of the board at its side edge through which the screws 23 also pass, the filler strip 26 desirably having slotted perforations 27 corresponding to the slots 22 for the screw shanks. This construction permits self-adjustment of the channel members and the board body to varying conditions of room temperature and humidity.

In the aspect to which the invention is particularly adapted for drafting boards having parallel rule attachments associated therewith, the channel member 16 carries exteriorly adjacent its forward end a horizontally axled cable pulley 28 and interiorly adjacent its rear end a pair of somewhat vertically axled pulleys 29—30. Pulley 28 may be axled on a trunnion 31 clamped as by nut 32 to the side or face 33 of the channel member, the trunnion 31 passing through this face and the nut 32 being thus within the channel, space therefor being provided by cutting away the wood of the board body as at 34. The pair of pulleys 29—30 is shown jointly axled on the vertical pivot pin 35 which may have a head 36 countersunk to be flush with the upper face 17 of the channel and secured as by nut 37 at the under face thereof. A sleeve 38 on the pin 35 spaces the pulleys 29 and 30 vertically apart and between the upper pulley 29 and the channel member may be advantageously inserted a fibre washer 39 to which an oil hole 40 gives access for lubrication. A metallic washer 41 may be disposed between the fibre washer 39 and the hub of the pulley wheel 29.

Adjacent the pulleys 29 and 30 respectively, the channel member 16 is slotted as at 42 and 42*a* to receive the pulleys 29 and 30 partially therethrough, and, to accommodate the pulleys within the interior of the board, I have shown the board cut away below its working surface

adjacent the pulleys 29 and 30 desirably on a radius 43. The filler strip 26 is also discontinued as at 44 for this purpose.

So constructed and arranged, the conventional endless cable 45 may be entrained about the pulleys just described and passing from one side of the board to the other through a cable-way 46 on the under face of the board which communicates with the cut-outs 43 adjacent the pulley structures 29 and 30. The usual straightedge 47 may then be connected as at 48 to the upper runs of the cable 45 at each side of the board, a pulley 28 and the outer peripheries of the pulleys 29 and 30 being aligned by my board construction here described, from front to rear of the board, so as to suitably space the cable 45 laterally exteriorly of the board, as best shown in Fig. 3, to have the depending clamping lug 48 of the straightedge 47 engage the cable as best shown in Figs. 1 and 2.

The nut 32 may be welded to the inner face of the channel side wall 33 and the trunnion 31 may be in the form of a screw, as best shown in Fig. 5, to release or tighten the pulley 28 as desired.

Thus, as is well known in the art, the straightedge 47 becomes a part of a parallel rule attachment which is inclusive of the channel construction of my present invention, and as the straightedge is moved with the cable from front to rear of the board and having once been set parallel to the front edge of the board, say, will remain parallel in its respective translatory positions.

So constructed and arranged, I have provided a drafting board comprising a unitary metal finish for the side edge thereof which minimizes wear at these points and at the same time provides a housing for the cable pulleys while enhancing the ease and effectiveness of operation of these parts.

Having described my invention, I claim—

1. In a drafting board, the combination with a board body of wood or the like, of a four sided metal channel member carried by the edge of the body and having an upper face flush with the body working surface, one of said channel sides providing a locking lip depending from the free edge of the channel member at said upper face, said locking lip being embedded in the body, and means securing the channel member and body longitudinally adjustably together at the adjacent lower faces thereof.

2. The structure of claim 1 wherein the channel member carries exteriorly adjacent its forward end a horizontally axled cable pulley and interiorly adjacent its rear end a pair of somewhat vertically axled pulleys and slots are provided in the channel member and body adjacent said pair of pulleys receiving the pulleys partially therethrough.

3. The structure of claim 1 wherein the channel member carries exteriorly adjacent its forward end a horizontally axled cable pulley and interiorly adjacent its rear end a pair of somewhat vertically axled pulleys and slots are provided in the channel member adjacent said pair of pulleys receiving the pulleys partially therethrough, and wherein the body is cut away below its working surface adjacent said pairs of pulleys to permit the pulleys to turn therein and adjacent the forward pulley to receive the axle means therefor.

4. The structure of claim 1 wherein the means securing the lower faces of the channel member and body together include slots in the channel member elongated in the direction thereof and screws having shanks passing through said slots into the body.

HAROLD L. DE LISLE.