

UNITED STATES PATENT OFFICE.

R. LINNEUS BOTTS, OF ST. PAUL, MINNESOTA.

DRAFTING-PLOTTER.

SPECIFICATION forming part of Letters Patent No. 709,736, dated September 23, 1902.

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To all whom it may concern:

Be it known that I, R. LINNEUS BOTTS, a citizen of the United States of America, and a resident of St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Drafting-Plotters, of which the following is a specification.

My invention relates to improvements in drafting-plotters. Its object is to provide improved means for drawing or sketching pictures accurately.

To this end my invention consists of a frame having a screen formed by intersecting cords, said frame having indicating-marks for the cords and a back hinged to the frame, having means for locking against the screen when closed and adapted to hold the frame and screen in upright position when open.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of my improved drafting-plotter, shown with the back open and the screen supported in upright position in readiness for sketching a landscape. Fig. 2 is a plan view of the drafting-plotter looking at its back, showing the cover closed and partly broken away to expose a portion of the screen to view; and Fig. 3 is a sectional view of Fig. 2, taken on the line X X.

In the drawings let A represent the frame, which is rectangular in shape. B represents the screen, which is formed by the horizontal cords 2 and vertical cords 3. These cords are spaced equally apart, so as to form rectangular openings. The cords are fastened to the frame between the sections 4 and 5. These sections are glued together at 6; but it is obvious that they may be fastened together by nails or otherwise. Each of the vertical cords is marked by indicating-numerals 7 and the horizontal cords by letters 8. These numerals and letters may be embossed or otherwise fixed upon the frame of the screen. The back 9 is hinged at 10 and 11 to the frame and is adapted to rest flat against the screen when closed, as shown in Figs. 2 and 3. This back is locked closed by the thumb-catch 12, which is pivoted at 13 to the back and adapted to engage the frame in the groove 14. The back is adapted to form a brace for holding the screen erect, as shown in Fig. 1, by un-

locking from the frame and swinging down. Owing to the slight inclination of the back 9 to the table when the frame is standing erect and open, I preferably use hinges the leaves of which are pivoted tight together to cause friction between them. By this means the back acts as a brace when open, as shown in Fig. 1. When it is desired to trace a picture the area of which is less than that of the screen, the picture is placed flat upon the screen and the back closed and locked upon the picture. The screen thus divides the picture into rectangular spaces. The lines and shading of the picture in these rectangular spaces may then be easily traced upon a sheet of paper lined to correspond with the screen at any desired scale.

For use when sketching an object at a distance the screen is placed upon a suitable support, such as the table C, as shown in Fig. 1, with the back open and the screen standing erect. The sight D is placed at a suitable distance from the screen, according to the size it is desired to draw the object. This sight consists of a standard 15, which is provided with the screw 16, by which it may be fastened to the table. The upper end of the standard carries the clip 17, which is provided with the sight-opening 18. This clip is preferably a thin piece of metal perforated at 18. The user of my improved drafting-plotter closes one eye and sights the object through the sight-opening by the other. By thus sighting the object the picture may be read from the screen by following the cords intersecting or closest to the outline of the picture. The picture may then be produced accurately at any desired scale upon the drawing material and each space shaded as it appears.

Having described my invention, what I claim as new, and desire to protect by Letters Patent, is—

1. A drafting-plotter, consisting in combination with the sight D, composed of the standard 15, having a screw 16 for fastening upon a suitable support, and a clip 17 carried by said standard having the sight-opening 18, a screen, composed of evenly-spaced horizontal and vertical cords, a frame to which said cords are suitably fastened, having cord-indicating marks, a brace hinged to said

frame adapted to support the screen erect upon a suitable support when open and to close so as to hold the picture upon the screen, and a tongue and groove for locking the brace closed.

5 2. A drafting-plotter, consisting of a frame composed of two sections, a plurality of intersecting cords fastened between said sections and forming a screen, a combined back and
10 brace hinged to said frame adapted to rest flat against the intersecting cords when closed and to support the frame in upright position

when open, a thumb-catch by which said combined back and brace is locked closed, a sight-standard, and a clip attached to said stand- 15
ard, perforated for viewing an object through the screen formed by the intersecting cords.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

R. LINNEUS BOTTS.

Witnesses:

L. E. WICKMAN,
F. G. BRADBURY.