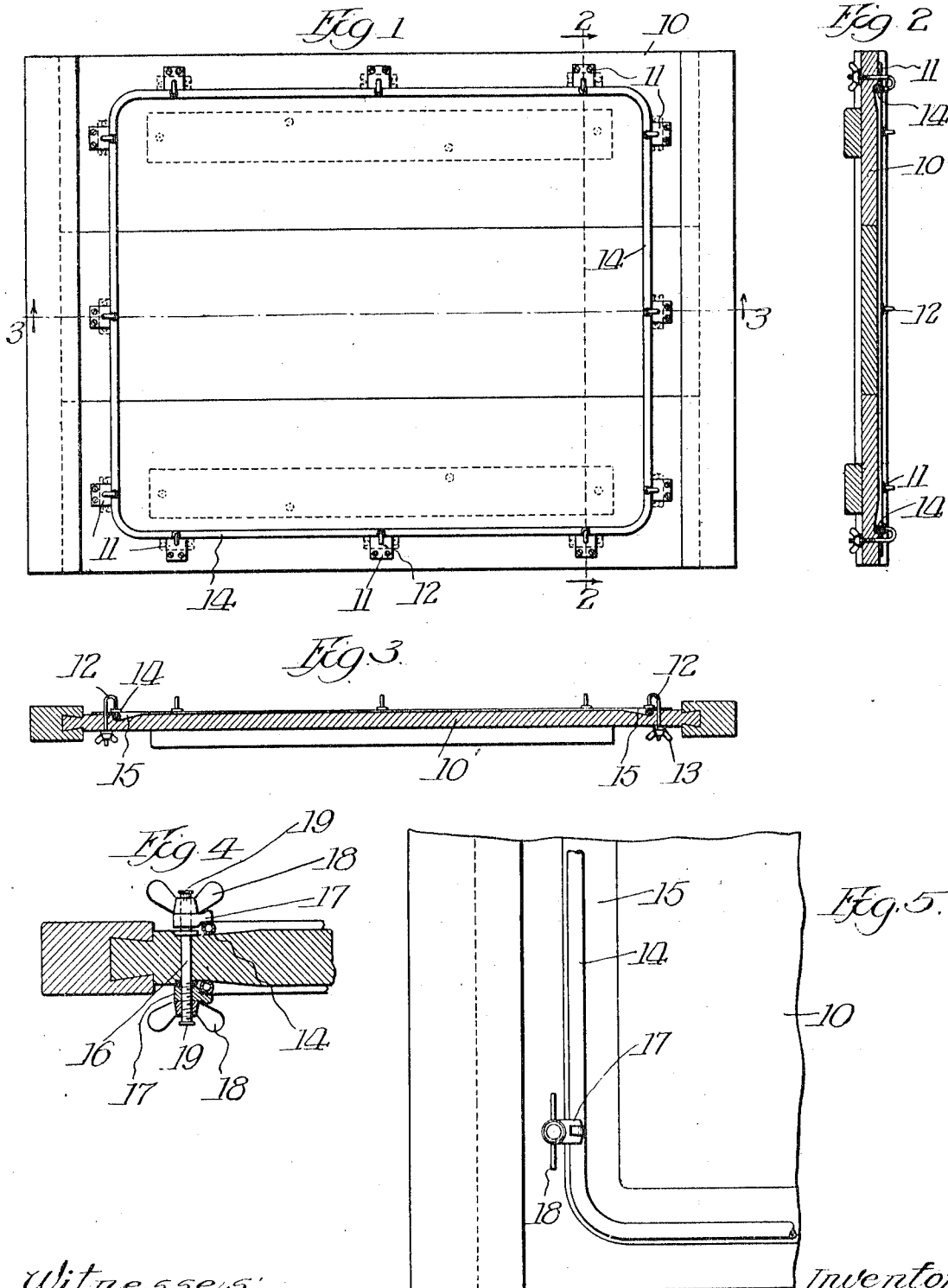


W. P. WELBANKS.
DRAFTING BOARD.
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1,055,374.

Patented Mar. 11, 1913.



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UNITED STATES PATENT OFFICE.

WALLACE P. WELBANKS, OF DULUTH, MINNESOTA.

DRAFTING-BOARD.

1,055,374.

Specification of Letters Patent.

Patented Mar. 11, 1913.

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To all whom it may concern:

Be it known that I, WALLACE P. WELBANKS, a citizen of the United States, and resident of Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Drafting-Boards, of which the following is a description.

My invention relates and has particular reference to a board so arranged that drawing paper or cloth may be stretched thereon without the possibility of wrinkles or blisters. This is particularly necessary in color work for maps and work of similar nature. The present method is to wet the sheet which is to be used, then lay it on a drawing board and glue the edges to the board, at the same time stretching the sheet so that when it dries it will lie perfectly flat with all wrinkles or blisters removed. This method requires very considerable skill in order that the lines on the sheet to be stretched be not pulled out of true. Furthermore, much time is consumed in the operation.

One of the objects of this invention is to provide a device which shall quickly and accurately stretch the wet sheet so that when dried the sheet shall be held flat on the face of the board, all the lines being retained in their proper relation to each other without distortion.

My invention will be more readily understood by reference to the accompanying drawings, wherein,

Figure 1 is a plan view of a board such as contemplated by me; Fig. 2 is a transverse section on the line 2—2 of Fig. 1; Fig. 3 is a longitudinal section on the line 3—3 of Fig. 1; Fig. 4 is a fragmentary enlargement of a modified form, and Fig. 5 is a detail plan of the construction shown in Fig. 4.

Referring more particularly to the drawings it will be seen that I provide a drawing board 10, of any preferred construction. At intervals on the surface of the board I mount perforated plates 11, through which is extended a clamping member 12, having a threaded lower end to which is applied a thumb-nut 13. A frame 14 is provided this frame being composed preferably of a round tubing or bar and is adapted to be seated on the board in a groove 15, provided on the working face thereof. It will be seen upon reference to Figs. 2 and 3 that the approach to this groove slopes gradually and that therefore the paper or cloth is not bent over

any sharp edges. It is important that there be a plurality of independent clamping devices for the frame, inasmuch as it may be necessary to clamp one edge of one point tighter or more loose than others. My arrangement provides for this.

In the modification shown in Figs. 4 and 5, a similar board and frame are provided and a groove is constructed as heretofore described. However, I provide the opposite side of the board with the groove and arrange the clamping member and an additional frame accordingly. The clamping member is composed of a stem 16, threaded on both ends. Swiveling clamping members 17 are provided, these being actuated by thumb-nuts 18. After the clamps and nuts are placed on the stem, the ends 19 are flanged or riveted over to prevent the accidental removal of the thumb-nuts.

In operation, the sheet to be applied is moistened and placed upon the board, the sheet being of slightly larger size than the frame 14. After the sheet is properly located the frame is placed thereupon and the clamps adjusted. Upon the actuation of the thumb-nuts the frame is clamped in the groove against the sheet, the result being that the sheet is uniformly stretched in all directions. One of the objects in sloping the approach to the groove is that the sheet is thus compelled to fit the board tightly and prevent it from drawing from under the frame. The shrinkage of the sheet when it dries will then remove all wrinkles or blisters. A particular object gained in this construction is that the wet sheet is not stretched around any sharp corners which, it will be understood, would tend to tear the same.

The form and number of clamps may be varied as well as the shape and arrangement of the parts, all without departing from the spirit of my invention.

I claim:

1. In a device of the class described, the combination of a board provided with a groove near its edge, a frame adapted to be detachably fitted within said groove, and a plurality of independent clamps having means for applying a graduated force on said frame, said clamps being positioned on four sides of said frame, substantially as described.

2. In a device of the class described, the combination of a board provided with a con-

tinuous groove near its edge, the approach to said groove being inclined, a frame, and a plurality of independent screw actuated clamps positioned on four sides of said board and adapted to securely clamp said frame at a plurality of points with a graduated action, substantially as described.

3. A device of the class described, comprising, in combination, a board having

grooves upon both faces thereof, frames adapted to be seated in said grooves and means for clamping said frames in said grooves, substantially as described.

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