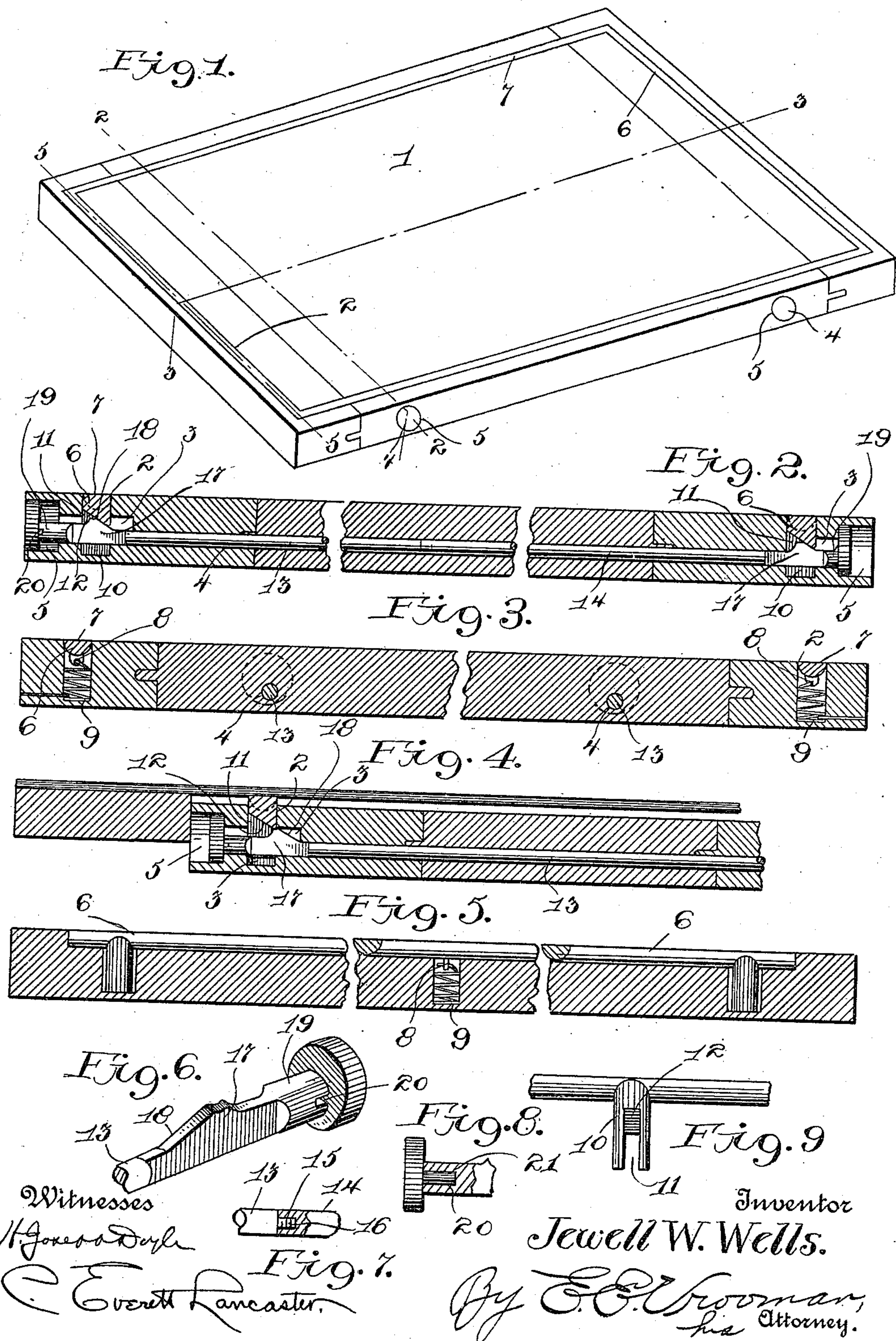


976,019.

Patented Nov. 15, 1910.





# UNITED STATES PATENT OFFICE.

JEWELL W. WELLS, OF WASHINGTON, DISTRICT OF COLUMBIA.

## ATTACHMENT FOR DRAWING-BOARDS.

976,019.

Specification of Letters Patent. Patented Nov. 15, 1910.

Application filed September 2, 1909. Serial No. 515,749.

*To all whom it may concern:*

Be it known that I, JEWELL W. WELLS, a citizen of the United States of America, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Attachments for Drawing-Boards, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to drawing boards, and it has for its principal object an attachment therefor by means of which T-squares and the like may be supported above the drawing surface of the board so that  
15 said squares can be used for line work without the necessity of waiting for moist work to dry.

In carrying out the object of the invention generally stated above it is contemplated providing the board with a frame which surrounds the drawing surface thereof, said frame being seated within a groove and having its upper surface normally retained flush with the drawing surface of the board, means being provided whereby the  
20 upper surface of said frame may be raised above but parallel with said drawing surface so that the T-square or other instrument will be firmly supported out of contact with the drawing paper.

In the practical application of the invention it will be understood of course, that the essential features of the same are necessarily susceptible of changes in details and structural arrangements, one preferred and efficient embodiment of which is shown in the accompanying drawing wherein—

Figure 1 is a perspective view of a drawing board equipped with the present invention. Fig. 2 is a vertical sectional view taken on the line 2—2, Fig. 1. Fig. 3 is a similar view taken on the line 3—3, Fig. 1. Fig. 4 is a view similar to Fig. 2, showing a T-square supported above the drawing surface of the board. Fig. 5 is a vertical sectional view taken on the line 5—5, Fig. 1. Figs. 6, 7, and 8 are detail fragmentary views of the adjusting rods for the supporting frame. Fig. 9 is a detail fragmentary  
40 view of the supporting frame.

Referring to said drawings, it will be observed that the present invention has been shown applied to a common type of drawing board such as is used in connection with  
55 drawings for patent applications, but it is

to be understood that the same is equally adapted for all types of drawing boards, tables, desks and the like wherein the T-squares and other ruling instruments are used across the drawing surfaces. 60

In said drawings the board has been designated by 1 and has its drawing surface surrounded by a rectangular groove 2, the sides of which are intersected by the enlarged ends 3 of the openings 4 which extend transversely through the width of the board below the drawing surface thereof. Said enlarged ends 3 communicate with the enlarged and preferably annular recesses 5. 65

A rectangular frame 6 has a flat upper surface 7, said frame being adapted for a snug but sliding fit within the groove 2 and being provided with pendent ears 8 with which one end of springs 9 connect, said springs being suitably fastened within said groove and constantly exerting a pressure tending to draw said frame within said groove so that its flat upper surface 7 will be normally retained flush with the drawing surface of said board. Said frame is also provided with pendent lugs 10 which are bifurcated as indicated at 11, the inner end of the bifurcated portion being provided with an inclined cam surface 12. Said lugs 10 project into the ends 3 of the openings 4, as shown in Figs. 2, 4 and 5. 70 75 80 85

Preferably the board is provided with two of the openings 4, one being adjacent each end of the board, as is indicated in Fig. 1. A sectional rod is slidable in each opening 4, the sections thereof being designated by the numerals 13—14, the section 14 having a threaded socket 15 in its inner end which is engaged by the threaded extension 16 of the section 13 to retain said sections in rigid but detachable relation. The outer end of the sections 12—13 are duplicates, each having a flattened portion 17 which slides through the bifurcated lugs 10 of the frame 6 and is provided with an inclined cam surface 18 which is arranged in opposition to the cam surface 12 of said bifurcated lugs 10 so that when said sectional rods are moved longitudinally in one direction the contact of said cam surfaces 18 and 12 will raise the frame 6 above the drawing surface of the board 1, as shown in Fig. 4, and when moved in an opposite direction will release said frame 6 to permit the springs 9 to draw the frame within the 90 95 100 105 110



groove 2 with its flat surface 7 flush with the drawing surface of the board 1, as is shown in Fig. 5.

Beyond the flattened portion 17, each section 13—14 is provided with a shank 19 which extends into the recesses 5 and has its end slotted as indicated at 20 for the reception of a lug 21 projecting from the head 22, by means of which said heads are held in detachable engagement with said shanks. And as will be obvious, said slots 20 provide means whereby the sections 13—14 may be separated by a suitable turning tool, such as a screw driver. The heads 22 have a snug but sliding fit within the recesses 5.

It will be seen from the foregoing that by pushing the sectional rods in one direction, the frame 6 will be raised above the drawing surface of the board, as is suggested in Fig. 4, and that by shoving said rod in an opposite direction, the frame will be released, whereupon the springs 9 will automatically return the frame to its normal position with the groove 2.

What I claim as my invention is:—

1. In a device of the character described, the combination with a drawing board, of an instrument supporting frame mounted therein and normally retained with its upper surface flush with the drawing surface of said board, and means for raising said frame above and parallel with said drawing surface.

2. In a device of the character described, the combination with a drawing board, of an instrument supporting frame within said board, means for manually raising said frame above and parallel with the plane of the drawing surface of the board to support an instrument spaced therefrom, and means for automatically returning said frame to a position with its upper surface flush with the drawing surface.

3. In a device of the character described, the combination with a drawing board, of an instrument supporting frame mounted therein, means slidable through said board for raising said frame above and parallel with the drawing surface of said board, and means for returning said frame to its original position.

4. In a device of the character described, the combination with a drawing board having a grooved surface, of an instrument support slidably mounted in said groove and normally retained flush with said surface, and means for raising said support above and parallel with said surface.

5. In a device of the character described, the combination with a drawing board, of an instrument support carried thereby and normally retained flush with the drawing surface thereof, and means for raising said support above and parallel with said draw-

ing surface to space an instrument from said board.

6. In a device of the character described, the combination with a drawing board having a groove surrounding its drawing surface, of a supporting frame seated in said groove and normally retained flush with said drawing surface, and means for raising said frame above said surface.

7. In a device of the character described, the combination with a drawing board having a groove surrounding its drawing surface, a frame seated in said groove, springs for holding said frame in said groove with its upper surface flush with the drawing surface of the board, and means slidable through said board for raising said frame above said drawing surface.

8. In a device of the character described, the combination with a drawing board, said board having a groove surrounding its drawing surface, a frame slidable therein, springs for holding said frame in said groove flush with said drawing surface, and means for raising said frame above the plane of said drawing surface against the tension of said spring.

9. A device of the character described, comprising a drawing board having a groove surrounding its drawing surface, in combination with a spring held frame seated in said groove flush with said drawing surface and provided with pendent cam surfaces, and rods slidable in said board and provided with cam surfaces adapted to contact with the cam surfaces of said frame to raise the frame above the plane of said drawing surface.

10. A device of the character described, comprising a drawing board provided with a groove surrounding its drawing surface, a frame seated therein, springs for holding said frame in said groove with its outer surface flush with the said drawing surface, and rods having cam surfaces and mounted in said board and adapted to be moved longitudinally in one direction to cause said cam surfaces to elevate said frame relative to said drawing surface.

11. A device of the character described comprising a drawing board, a frame surrounding the drawing surface thereof, pendent lugs carried by said frame and provided with cam surfaces and rods slidable in said board and provided with cam surfaces which cooperate with the cam surface of said lugs to raise said frame relative to said drawing board.

12. A device of the character described comprising a drawing board having a groove surrounding its drawing surface and also provided with transverse openings which intersect said groove, a frame seated in said groove and provided with pendent lugs



which enter said openings, said lugs being  
bifurcated and provided with cam surfaces,  
springs for normally retaining said frame in  
said groove with its outer surface flush with  
5 said drawing surface, and a rod slidable in  
each opening and having flattened cam sur-  
faces slidable through said bifurcated lugs  
and adapted to contact with the cam surfaces  
thereof to raise said frame above said draw-  
10 ing surface.

13. In a device of the character described  
the combination with a drawing board, of

a support surrounding the drawing surface  
of said board, means for raising said sup-  
port above the plane of said drawing sur- 15  
face to space a drawing instrument in par-  
allel relation therewith, and means for re-  
turning said support to its original position.

In testimony whereof I hereunto affix my  
signature in presence of two witnesses.

JEWELL W. WELLS.

Witnesses:

H. JOSEPH DOYLE,  
IRV. L. McCATHRAN.