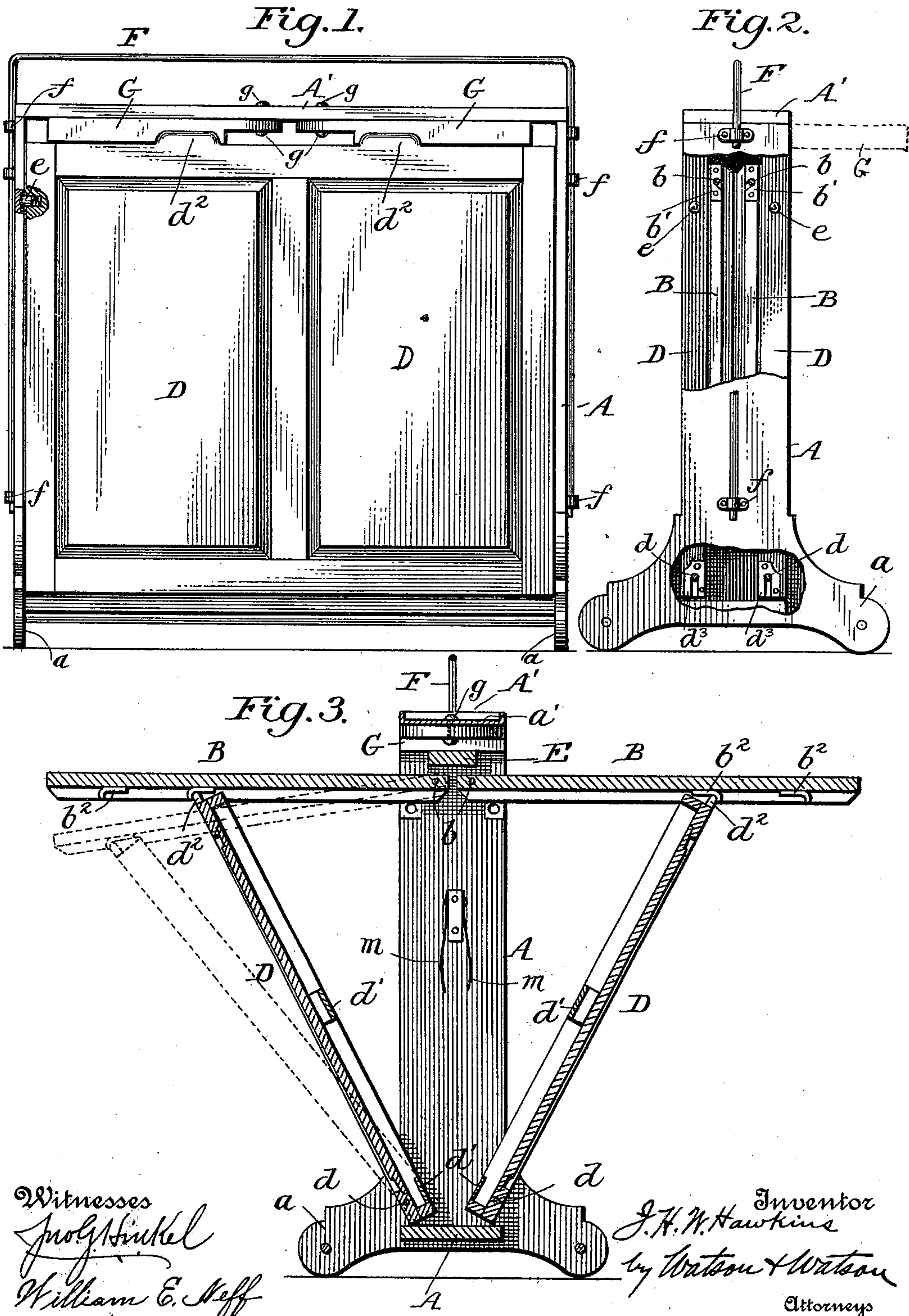


(No Model)

J. H. W. HAWKINS.  
DRAFTING BOARD.

No. 582,786.

Patented May 18, 1897.





# UNITED STATES PATENT OFFICE.

JOHN H. W. HAWKINS, OF WILKES-BARRÉ, PENNSYLVANIA.

## DRAFTING-BOARD.

SPECIFICATION forming part of Letters Patent No. 582,786, dated May 18, 1897.

Application filed February 10, 1896. Renewed October 19, 1896. Serial No. 609,370. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN H. W. HAWKINS, a citizen of the United States, residing at Wilkes-Barré, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Drafting-Boards, of which the following is a specification.

My invention relates to improvements in drafting-boards suitable for architects, engineers, artists, and other draftsmen.

The invention, as illustrated in the accompanying drawings, consists in a pair of drafting-boards pivotally connected to a rectangular frame in such manner that they may be folded within the frame or adjusted for use either horizontally or at different inclinations, in combination with a pair of pivoted portfolios which serve to support the drafting-boards when they are in use and to inclose and protect them when they are folded within the frame. The frame and the outer surfaces of the portfolios may be made quite ornamental, thus embodying the invention in a handsome piece of furniture.

The invention further consists in various details of construction and combinations of parts which will be hereinafter pointed out.

In the drawings, Figure 1 is a side view of an apparatus embodying the invention. Fig. 2 is an end view of the same, partly broken away; and Fig. 3 is a sectional view showing the interior construction and the operation of the invention.

Referring to the drawings, A indicates a frame which stands upon suitable legs *a*, the frame being preferably rectangular and slightly higher than the height at which it is desired to have the drafting-board. Within the frame, near the top, are pivoted two drafting-boards B, by means of pivot-pins *b* upon the frame and suitable hooks or hook-shaped plates *b'* upon the drafting-boards. These drafting-boards swing outward and they may be adjusted in line with each other and horizontal, as shown in full lines in Fig. 3, or they may be inclined, as shown in dotted lines. The drafting-boards when out of use hang vertically in the frame and close together, as shown in Fig. 2.

Pivoted on pins *d*, in the bottom of the frame outside of the drafting-boards, are a

pair of portfolios D. These portfolios are provided with retaining-bars *d'* at the middle and bottom thereof, and they are each adapted to hold a considerable number of drawings or sheets of blank drawing-paper. When the drafting-boards are in use, they are sustained in the desired position by the portfolios. As shown, this is accomplished by means of a series of hooks *b<sup>2</sup>* upon the drafting-boards and projections *d<sup>2</sup>* upon the portfolios, the hooks being adapted to engage the projections, as shown in Fig. 3. The portfolios close up against a cross-bar E, near the upper part of the frame, and they are retained in their closed position by small spring-bolts *e* or other suitable locking devices. As shown, the bolts *e* have round ends, and the portfolios can be closed or opened simply by applying sufficient force to them to move the bolts back by the cam action of the round ends. The portfolios are preferably detachable, so that they may be removed for cleaning. As shown, they are provided with slotted plates *d<sup>3</sup>*, the open-ended slots fitting over the pivot-pins *d*. Springs *m m* press the drafting-boards against the portfolios and keep them from shaking, and also throw them out, so that they can be easily grasped when the portfolios are unlocked.

The upper bar *a'* of the frame has a beading about it, and it forms a convenient tray A', upon which the drawing materials may be laid while the drafting-board is in use. This bar *a'* can also be used as a stand for drawings or articles to be copied, in conjunction with an adjustable wire bail F, which slides vertically in fastenings *f*, the bail forming a rest against which the copy may lean or upon which a copy may be hung by suitable hooks.

Between the tray A' and the cross-bar E are a pair of pivoted trays G, which, as shown, are pivotally connected with the upper cross-bar at their inner ends by suitable pivots *g*. These trays are suitable for holding drafting instruments and materials, and when they are not in use they are closed by the upper bar and locked in their closed positions by the projections *d<sup>2</sup>* on the portfolios.

When it is desired to use one of the drafting-boards, one of the portfolios is opened and lowered until it is horizontal or nearly so. The drafting-board is then swung up to a hori-



zontal position or to the desired inclination, and the portfolio is then brought up and engaged with a pair of the hooks *b*, beneath the drafting-board. This gives a firm support to the board. The swinging tray *G* can be swung out over the board, thus placing the instruments in a convenient position for the draftsman.

When two operators wish to work at the same time, the two boards can be used. There is sufficient space between the cross-bar *E* and the board to permit the drawing to be passed underneath the boards, so that it can occupy both boards at one time and to allow of the use of long squares or straight-edges for continuing lines from one board to the other. I am thus enabled to handle very large drawings on an apparatus of moderate size.

When folded up, the drafting-boards and portfolios are vertical, and they occupy very little floor-space. It is particularly adapted for technical schools and colleges, where space is limited and valuable and many drawing-boards are used. Drawings can be left on the boards over night or for a longer period and kept perfectly clean and free from dust by simply folding the drawing-boards and closing the portfolios upon them. If desired, the portfolios may be provided with locks and keys to prevent unauthorized persons from tampering with the drawings or the instrument-trays.

The frame *A* is preferably made of wood, and it may be paneled and otherwise ornamented, if desired. The feet *a* may be made of wood, but they are preferably made of cast metal in order to insure strength and stability. I have shown the drafting-boards detachably connected with the frame. This is a preferable arrangement, inasmuch as it permits the boards to be readily taken out when it is necessary to clean them or resurface them. It also enables me to use a number of boards in connection with one stand, which is very convenient when it is desired to work on extra drawings without removing the drawings from the boards in the frame.

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

1. In a drafting appliance, the combination with the frame, of a drafting-board pivoted at its upper edge to the frame and adapted to be folded within said frame or to swing outward into a horizontal position, and a portfolio pivoted at its lower edge to the frame

and adapted to form a support for the drafting-board when the latter is raised for use and to inclose the drafting-board when it is folded within the frame, substantially as described.

2. In a drafting appliance, the combination with the rectangular frame, of a pair of drafting-boards pivoted within the frame at their upper edges, said drafting-boards being adapted to swing outward and into a common horizontal plane, and a pair of portfolios adapted to support the drafting-boards when they are raised for use, and to inclose them when they are folded within the frame, substantially as described.

3. In a drafting appliance, the combination with a rectangular frame, of a drafting-board pivoted at its upper edge to the frame and provided with a series of catches on its lower surface, a portfolio pivoted at its lower edge to the lower part of the frame and having projections for engaging the catches of the drafting-board, the said portfolio being adapted to support the drafting-board at different inclinations when it is raised for use and to inclose and protect it when it is folded within the frame, substantially as described.

4. In a drafting appliance, the combination with the rectangular frame, of the drafting-boards pivoted at their upper edges to the upper part of the frame, the portfolios pivoted at their lower edges to the lower part of the frame, and the trays pivoted in the frame above the drafting-boards, the portfolios being adapted to support the drafting-boards in their operative positions and to inclose the drafting-boards and lock the trays within the frame when they are not in use, substantially as described.

5. In a drafting appliance, the combination with the rectangular frame having suitable legs, of the drafting-boards pivoted at their upper edges in the frame, means for supporting said drafting-boards in their operative positions, the trays pivoted at the upper part of the frame and adapted to swing outward over the drafting-boards, the fixed tray on top of the frame, and the copy-rest consisting of the adjustable bail sliding in suitable holders upon the sides of the frame, substantially as described.

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

JOHN H. W. HAWKINS.

Witnesses:

D. O. COUGHLIN,  
GEO. T. BISEL.