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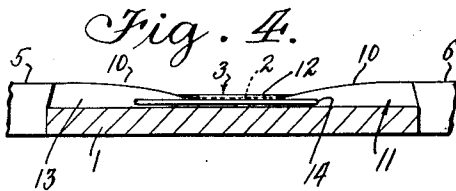
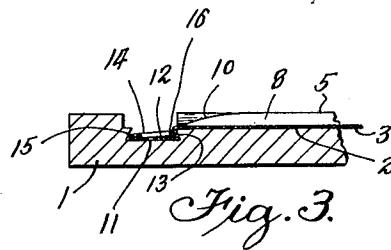
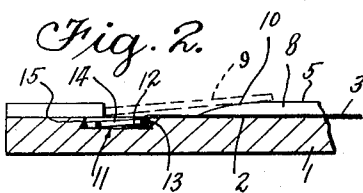
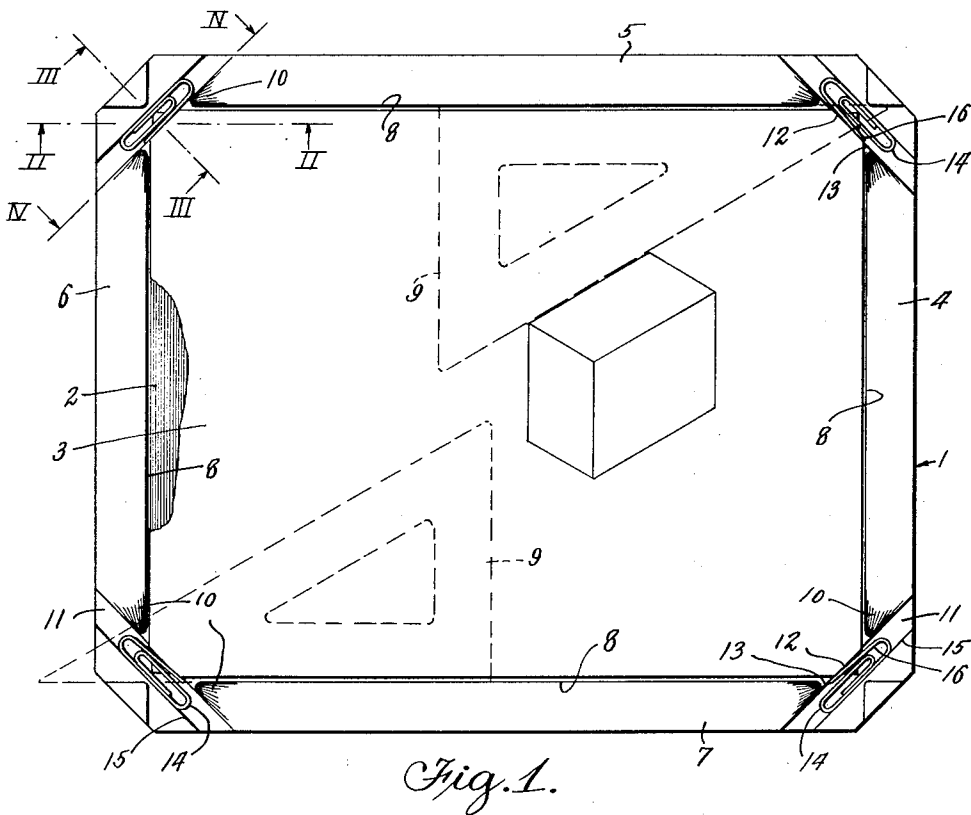
H. E. TWOMLEY

2,060,355

DRAWING BOARD

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2 Sheets-Sheet 1



INVENTOR.

Herbert E. Twomley

BY

Lyon & Lyon

ATTORNEYS

UNITED STATES PATENT OFFICE

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DRAWING BOARD

Herbert E. Twomley, Riverside, Calif.

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4 Claims. (Cl. 45—131)

My invention relates to drawing boards and has particular reference to a compact board to which paper may be readily attached to form a sketching board for use with mechanical drafting implements.

In various engineering pursuits, it is desirable to make sketches, more or less accurate mechanical drawings, or diagrams at locations away from the fully equipped drafting room, and heretofore considerable difficulty has been encountered in making such sketches due to the fact that no adequate surface was ready at hand to support paper on which said sketches were to be made in the field.

Even in cases where a sufficiently flat and rigid paper-supporting surface might be available, no provisions were available for guiding triangles, straight edges or other mechanical implements which might be required in the making of quick and accurate sketches.

It is, therefore, an object of this invention to provide a drawing board which may be sufficiently compact to be readily transported as, for example, in the ordinary brief case, and which has self-contained guiding means constituting straight edges against which other straight edges, triangles, or other drafting instruments, may bear in the making of sketches or accurate drawings.

Another object of the invention is to provide a self-contained drawing board comprising a relatively thin but rigid paper-supporting body having self-contained means for attaching paper to the surface thereof.

Another object of the invention is to provide a drawing board of the character set forth in which border members are arranged on two or more edges of the board projecting above the paper-supporting surface thereof, to act as guides for triangles, straight edges or other drafting implements.

Another object of the invention is to provide a drawing board of the character set forth in the preceding paragraph, wherein the intersecting border members on adjacent edges of the board are adapted to guide straight edges, triangles, or other drafting implements, along the border member on one edge out of abutting relation with the border member on the adjacent side.

Other objects and advantages will be apparent from a study of the following specifications, read in connection with the accompanying drawings, wherein

Figure 1 is a plan view of a drawing board constructed in accordance with my invention;

Figure 2 is a vertical sectional view taken along line II—II of Fig. 1;

Figure 3 is a detail sectional view taken along line III—III of Fig. 1;

Figure 4 is a detail sectional view taken along line IV—IV of Fig. 1;

Figure 5 is a partial plan view of the modified form of drawing board constructed in accordance with my invention, and illustrating a modified form of paper attaching means;

Figure 6 is a detail sectional view taken along line VI—VI of Fig. 5;

Figure 7 is a partial plan view of a still further modified form of the invention, illustrating a further modified form of paper attaching means;

Figure 8 is a detail sectional view taken along line VIII—VIII of Fig. 7; and

Figure 9 is a detail sectional view, similar to Fig. 8, illustrating the manner of attaching the paper thereto.

Referring to the drawings, I have illustrated my drawing board as comprising a body member formed as a substantially flat plate-like board which may be constructed of any desired length and width and thickness, though I prefer to construct the same of relatively thin material, such as thin well-seasoned wood in one piece, or ply wood, or it may be molded from any suitable plastic material, the particular material from which the board is made being immaterial except that it must have the characteristic of remaining flat under varying atmospheric and temperature conditions.

The board 1 is preferably constructed with a plane drawing surface 2 extending over the major portion of the surface of the board 1 to provide a sunken or recessed drawing surface thereon adapted to receive the paper 3 upon which the drawing or sketch is to be made, it being understood that the surface 2 of the board 1 is carefully formed to present a true plane surface upon which the paper 3 may rest. The edge portions of the board surrounding the sides of the drawing surface 2 constitute elevated border members 4, 5, 6, and 7, which may be of any desired width or shape, provided that their inner edges 8 constitute a straight line or straight edge extending parallel to the side of the board.

As illustrated herein, the border members 4, 5, 6, and 7 constitute border members extending along the four sides of the periphery of the drawing surface 2 so that the raised portions or border members present straight edges projecting above the surface 2 of the board and extending completely therearound, permitting the employment

of triangles 9, or other straight edge instruments, to be placed in abutting relation with the edges 8 of the border members and moved therealong so that the edges 8 constitute straight edges guiding the triangles or other drafting instruments in the same manner as though these instruments were placed against a T-square on the ordinary drawing board.

While I have illustrated herein the border members on all four edges of the board, it will be understood by those skilled in the art that the border members may extend only along two of the edges of the board, such as along one side and one end of the board, to constitute straight edge guides for the drawing instruments which will extend at right angles to each other.

Since the drawing surface 2 of the board is recessed or sunken below the surface of the border members, it will be apparent that as the triangles or other instruments are moved along the edge of one border member the ends of the triangles would strike the border members along the adjacent edge, that is, if the triangle 9 is moved to the left along the border member 8, the point of the triangle would engage or strike the border member 6. This, however, may be obviated by causing the triangle to be cammed up over one of the border members when it approaches the same while guided along the adjacent border member. For example, the border members along two adjacent sides may be so shaped as to terminate just short of meeting each other or intersecting each other at the corner formed by the adjacent sides and the terminal ends of the border members may be beveled downwardly to meet the plane of the paper supporting surface and inwardly toward the paper supporting area thereof, as is indicated at 10. Thus as the triangle is moved along one of the border members in the making of a drawing or sketch, and approaches the adjacent border member, the approaching point of the triangle will engage and ride up on the beveled surface 10 and will be lifted out of abutting relation with the adjacent border member. In this manner the triangle or other drawing instrument may be guided along one of the border members to draw lines on the paper without interference by engagement or abutment of the instrument upon the adjacent border member, thus permitting the entire area of the board to be readily covered by movement of the drawing instrument, while it is guided along one of the border members.

While the paper 3 may be attached to the board 1 by any suitable means, I prefer to provide self-contained paper attaching means, such as a recess 11, extending angularly across each corner of the board so as to intersect both the border members and the projecting corner of the recessed paper-supporting surface 2 of the board.

By referring particularly to Figures 2, 3, and 4, it will be observed that the recess 11 is formed with a substantial dove-tailed shape so that the corner 12 of the paper, when bent over the edge 13 of the recess 11, may be gripped therein by the insertion of any suitable wedge member 14 which bears against the edges 13 and 15 of the recess 11. One simple form of wedge member which may be readily employed is an ordinary wire paper clip, the recess 11 being of slightly greater width than the width of such paper clip, requiring the bending outwardly of one end 16 of the paper clip in order to permit the same to completely extend across the recess 11. The paper clip then becomes a resilient wedge member which will grip and hold the corner 12 of the paper

within the recess 11. By employing a recess 11 at each of the four corners of the board, it will be apparent that the paper will be rigidly secured to the board at the four corners of the paper.

It will also be noted that since the border members 4-5, 5-6, 6-7, 7-4 extend, respectively, at right angles to each other, the paper, when placed upon the board and secured thereto by the clips, may be readily aligned with the straight edges formed by the border members and thus any sketches or drawings which are made upon the paper will be accurately aligned and all horizontal and vertical lines will be in parallel relation to the edges of the paper.

In Figures 5 and 6 I have illustrated a modified form of the board shown in Fig. 1, the board 1a being constructed in the same manner as described with reference to the board 1, including the sunken drawing surface or paper supporting portion 2a surrounded by raised border members 5a and 6a in the same manner as described with reference to Fig. 1. However, in this instance a different form of paper-holding means is provided, which may be constructed by forming an outwardly projecting hinge member formed as a projecting portion 20 of the board 1a at the corner of the board and having a recess 21 cut diagonally across the corner of the board, this recess being preferably dove-tailed to form a shoulder over which the paper 3a may extend, and to form the recess within which the bowed section 22 of a spring wire clamp 23 may seat to hold the paper in place.

The spring wire clamp may be formed of a single length of wire bent in a substantially oval shape, the ends 24 and 25 of the wire being seated within holes or bores extending into the hinge member 20. Thus the spring clamp 23 may be lifted out of the seating relation with the recess 21, as shown particularly in Fig. 6, to permit the paper to be placed upon the board and then the spring clamp may be sprung down and snapped in place in the recess 21, holding the paper firmly therein.

In Figures 7, 8, and 9, I have shown a still further modified form of paper-attaching means, the board in this instance being preferably constructed in the same manner as described with reference to Fig. 1, the board proper, 1b, having sunken or recessed paper-supporting surfaces 2b surrounded by border members 4b, 5b, and 6b, to constitute the straight edge guides for triangles 9b or other drafting implements. However, in this instance, the intersecting portions of the border members 4b and 5b are provided with an angularly extending recess 30 preferably beveled outwardly as it approaches the paper-supporting surface 2b of the board.

A leaf spring member 31 may be attached to each corner of the board, as by means of screws 32, the spring member 31 having a downwardly bent front edge portion 33 projecting over a portion of the recess paper-supporting surface 2b to engage the projecting corner 12b of the paper 3b. The corners of the board are preferably formed with a bore 34 having an enlarged or counterbored portion 35 near the upper surface of the board to receive therein a button 36 accessible from underneath the board through the countersunk or enlarged opening 37 communicating with the bore 34.

As illustrated particularly in Fig. 9, the paper may be detached from, or attached to, the board by merely pressing a finger into the countersunk opening 37 to elevate the button 36, thereby lift-

ing the spring clip 31 and permitting ready insertion or removal of the corner of the paper.

A slight hump may be placed in the leaf spring 31, as indicated at 38, so positioned as to engage the points of triangles or other instruments to elevate them out of abutting relation with the border member upon the adjacent side.

It will therefore be observed that I have provided a compact drawing board provided with straight edges on at least two adjacent sides thereon against which triangles and other drawing implements may bear, making it unnecessary to employ a separate straight edge or T-square which, as will be appreciated by persons who have attempted to make drawings on small pads or small drawing boards, are difficult to handle because of the necessity of holding the T-square tightly against the edge of the board, while at the same time the triangles or other drawing implements must be held in tight engagement with the T-square. My drawing board eliminates this almost impossible operation by providing upon the board itself the rigid straight edge surfaces which substitute for the T-square and require only the manipulation of the triangle or other drawing instrument.

It will also be observed that by providing the straight edge members around all four of the edges of the board the triangles and similar drawing instruments may be manipulated over any portion of the board without interference by the other border members and yet permits any point upon the board to be reached with the triangle or straight edge drawing instrument which is used.

While I have shown and described the preferred embodiment of my invention, I do not wish to be limited to any of the details of construction shown or described herein, except as defined in the appended claims.

I claim:

1. In a drawing board construction, a body member having a flat area constituting a plane paper-supporting surface, a border member extending along at least two of the adjacent sides of said surface area and projecting above the plane of said surface, the inner edges of said border members extending substantially perpendicularly to the plane of said surface to constitute guide edges along the sides of said surface for guiding drawing instruments over said surface, and means at the corner formed by said adjacent sides for camming an instrument out of abutting relation with one of said border members as it is guided along the adjacent border member.

2. In a drawing board construction, a body member having a flat area constituting a plane paper-supporting surface, a border member extending along at least two of the adjacent sides of said surface area and projecting above the plane of said surface, the inner edges of said bor-

der members extending substantially perpendicularly to the plane of said surface to constitute guide edges along the sides of said surface for guiding drawing instruments over said surface, and each of said border members terminating short of the corner formed by said adjacent sides and having its terminal end beveled downwardly and inwardly toward the paper-supporting area to form a cam surface to engage and lift an instrument out of abutting relation with said border member as said instrument is moved toward said corner.

3. In a drawing board construction, a body member having a flat area constituting a plane paper-supporting surface, a border member extending along at least two of the adjacent sides of said surface area and projecting above the plane of said surface, the inner edges of said border member extending substantially perpendicularly to the plane of said surface to constitute guide edges along the sides of said surface for guiding drawing instruments over said surface, and each of said border members terminating short of the corner formed by said adjacent sides and having its terminal end beveled downwardly and inwardly toward the paper-supporting area to form a cam surface to engage and lift an instrument out of abutting relation with said border member as said instrument is moved toward said corner, and means at the corner of said board, projecting through the space formed between the terminals of said adjacent border members and into said paper-supporting area for engaging and holding a corner of the paper lying on said paper-supporting area.

4. In a drawing board construction, a body member having a flat area constituting a plane paper-supporting surface, a border member extending along at least two of the adjacent sides of said surface area and projecting above the plane of said surface, the inner edges of said border members extending substantially perpendicularly to the plane of said surface to constitute guide edges along the sides of said surface for guiding drawing instruments over said surface, each of said border members terminating short of the corner formed by said adjacent sides, paper-holding means comprising a substantially flat spring secured at the corner of said board and projecting through the space formed between the terminals of said adjacent border members and into said paper-supporting area for engaging and holding a corner of the paper lying on said paper-supporting area, and means on said spring member forming a cam surface engageable by an instrument to lift said instrument out of abutting relation with said border member as said instrument is moved toward said corner.

HERBERT E. TWOMLEY.