

May 20, 1947.

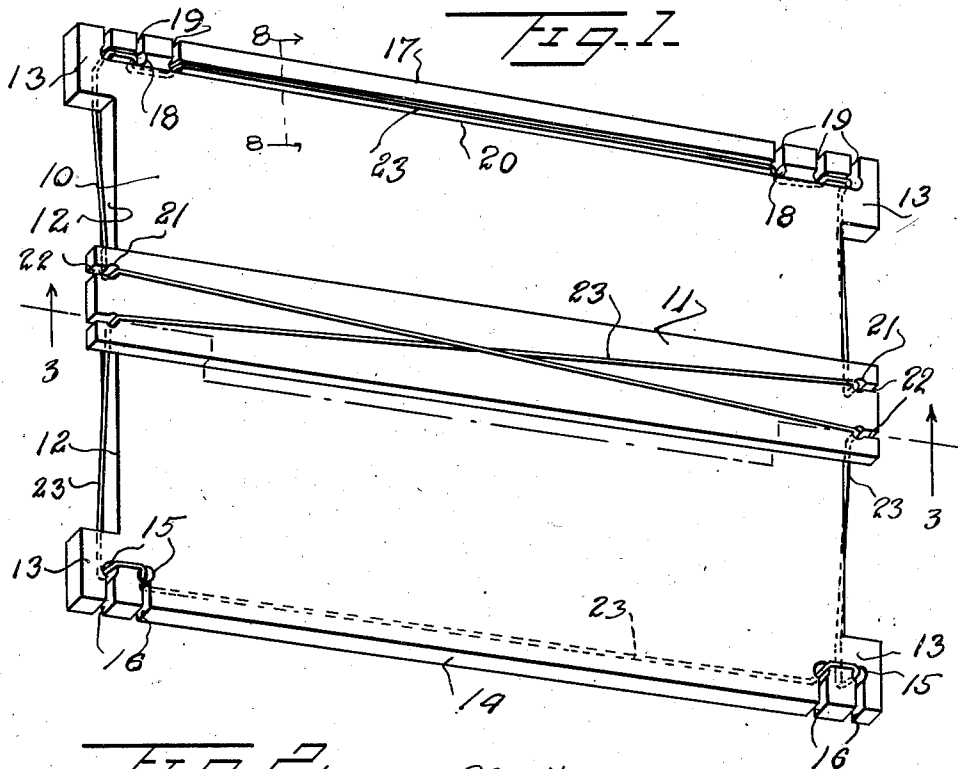
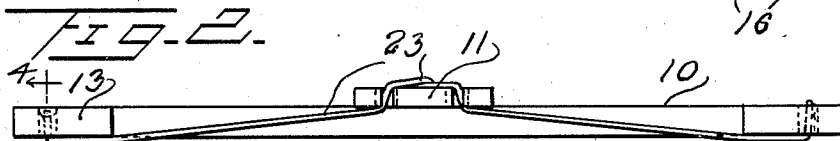
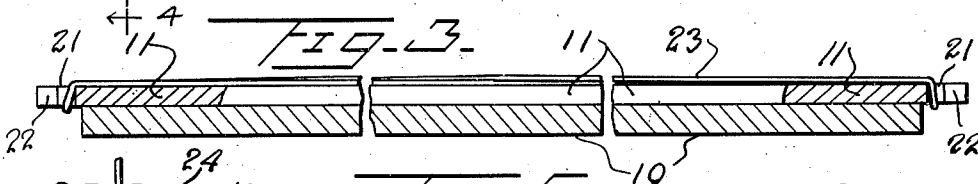
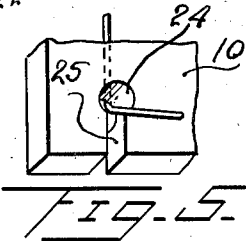
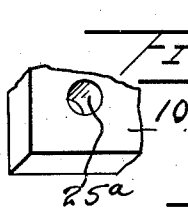
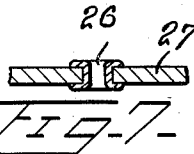
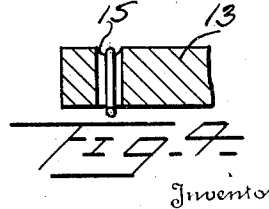
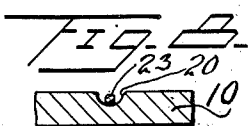
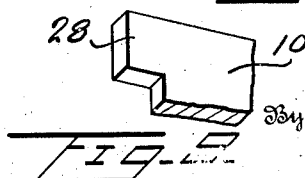
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2,420,835

DRAWING BOARD AND STRAIGHT-EDGE

Filed Oct. 12, 1944

2 Sheets-Sheet 1



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DRAWING BOARD AND STRAIGHT-EDGE

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Fig. 10

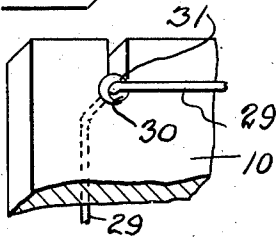


Fig. 11

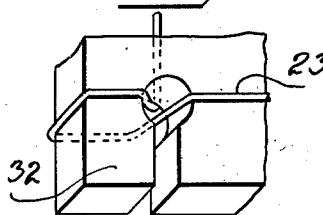


Fig. 12

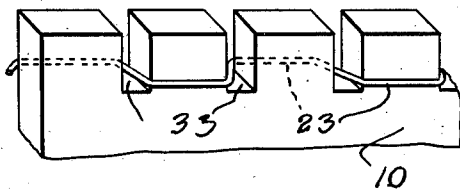


Fig. 13

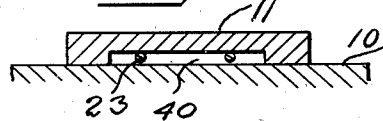


Fig. 14

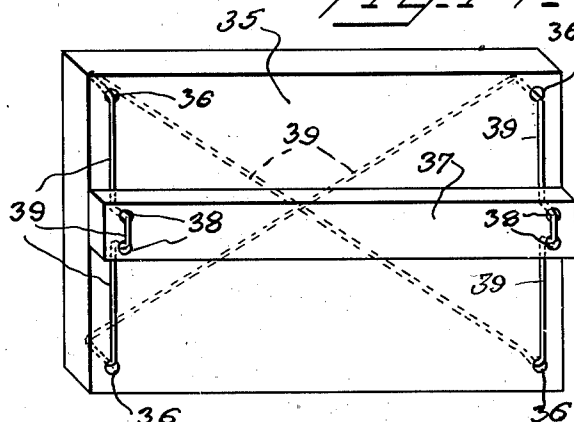
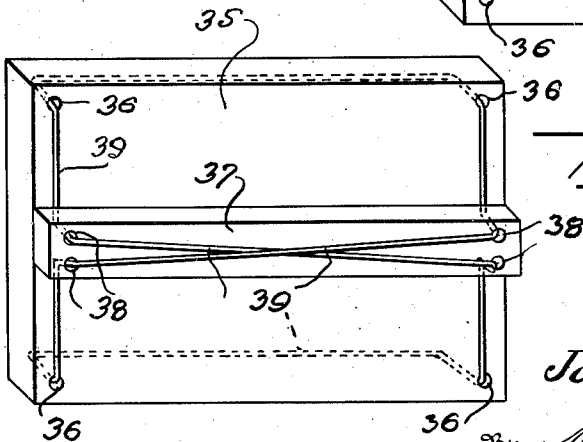


Fig. 15

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DRAWING BOARD AND STRAIGHTEDGE

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2 Claims. (Cl. 33-80)

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This invention relates generally to the class of geometrical instruments and pertains particularly to an improved combined sketch or drawing board and straight-edge.

An important object of this invention is to provide as a unit, a drawing board and straight-edge mounted thereon and attached thereto in a novel manner whereby the straight-edge may be moved up and down across the board for the marking off of parallel lines, while at the same time there may be used also other drawing implements over the surface of the board and around the edges thereof without interference from the straight-edge and attaching means therefor.

Another object is to provide a combination drawing device of the character stated which is of such simplicity of design as to readily lend itself to production by stamping, moulding, pressing or cutting, from practically any material which will maintain a smooth surface for the purpose of drawing.

A more specific object is to provide a combined drawing board and straight-edge which, due to their shape and the apertures therethrough, can be easily connected with a flexible cord or cable, coupling the straight-edge to the board in a novel manner whereby the straight-edge is securely held in working position but may be readily shifted up and down the board to various positions easily and quickly. Adjustments of the straight-edge can be made simply by sliding certain parts of the flexible guide through the apertures, there being no fastening or holding devices other than the apertures in the board and straight-edge. Once the straight-edge has been adjusted the flexible cord is then fixed or secured at some of the apertures, and the straight-edge will maintain a parallel relation to its adjusted position when moved over the surface of the board.

Other objects and advantages will become apparent as the description of the invention proceeds, the invention being best understood from a consideration of the following description when taken with the accompanying drawings, it being understood, however, that minor changes may be made in the construction and arrangement of parts, so long as such changes do not depart from the invention as expressed in the appended claims.

In the drawings:

Figure 1 is a more or less diagrammatic view in perspective of one embodiment of the present invention.

Figure 2 is a view in elevation of one end edge of the same.

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Figure 3 is a sectional view taken on line 3-3 of Figure 1.

Figure 4 is a sectional view on line 4-4 of Figure 2.

Figure 5 is an enlarged detail of a combination hole and slot by which the threading of the flexible guide is facilitated.

Figure 6 shows an isolated hole to be used in boards wherein extreme simplicity of construction is sought.

Figure 7 shows the use of a metal or plastic grommet.

Figure 8 shows a section through a groove taken on line 8-8 of Figure 1.

Figure 9 shows another construction of cord or cable guide.

Figure 10 illustrates a manner of limiting the movement of the cord.

Figure 11 illustrates a manner of "fixing" or securing the flexible guide or cord.

Figure 12 illustrates another manner of "fixing" the flexible guide.

Figure 13 shows a type of groove used upon the underside of the straight-edge.

Figure 14 shows another embodiment of the method of coupling the straight-edge with the board.

Figure 15 shows still another embodiment of the method of coupling the straight-edge with the board.

Referring more particularly to the drawings, the numeral 10 designates one application of a sketch or drawing board constructed in accordance with the present invention while the straight-edge to be used thereon is designated 11.

Each end of the board 10, as shown in Figure 1, is cut out or recessed through the major extent of the edge as indicated at 12, thus forming at each corner the outwardly extending ears 13.

While the board construction as shown in Figure 1 may be used in actual practice, it may also be considered as a composite of several features to be used in modified forms or constructions, as will be readily apparent from the following description.

At the bottom edge 14 there are formed two or more, if desired, apertures 15, near each bottom ear 13. One aperture 15 of each pair is formed through the ear and the other one inwardly from the first aperture but relatively close thereto. Each of these apertures 15 has a slot 16 leading thereinto from the bottom edge.

At the top edge 17 there are shown three apertures 18, more or less if desired, arranged in a line paralleling the top edge and relatively

close together. An end of one of each of the groups is in the adjacent ear 13, and each aperture has leading thereinto from the top edge, a slot 19.

In the top surface of the board there is formed the cord groove 20, which is parallel with the adjacent edge and extends across each of the apertures 18 and across the portion of board between them. It will be understood that groove 20 may if desired be formed in the bottom surface of the board for protection of the cord.

The overall length of the board is from the outer end or edge of one ear 13, to the outer edge of the opposite ear, longitudinally of the board.

The length of the straight-edge may be equal to the overall length of the board, and therefore when placed in working position on the board has a portion at each end extended over the adjacent recess 12. Of course, this straight-edge may be longer or shorter than the board 10, and still come within the scope of the present invention.

At each end of the straight-edge, in the part which overlies the recess, are formed two apertures 21, and each has opening thereinto from the adjacent end edge, a slot 22.

The straight-edge is slidably and adjustably held in position on the board by the length or strand of cord 23.

Several ways or methods of threading the flexible strand through the board and straight-edge apertures may be employed, and in Figure 1 it will be seen that the cord, if it is traced from the upper left corner of the board, to the right, runs up through the outermost aperture 18, back and forth through the adjacent apertures and along the portions of the groove 20, therebetween, then along the groove 20, to the right hand group of apertures 18, weaving back and forth, coming out at the bottom of the board and running across the bottom of the ear into the right hand recess 12. The cord then runs under the straight-edge to and up through the first hole 21, to the top of the straight-edge, then diagonally to and down through the aperture 21 at the lower left corner of the straight-edge and along in the adjacent recess 12, to and up through the lower left hand aperture 15, back down through the adjacent aperture 15, to and along the underside of the board to and up and down through the right hand corner apertures 15, passing then in the right recess 12, to the lower right hand corner aperture 21, in the straight-edge. It then runs up through this aperture to and diagonally across the top of the straight-edge to and down through the aperture at the left upper corner thereof, thence along the recess under the top left ear to the point of origin.

With this arrangement it will be seen that by the process of threading the flexible cord back and forth through the opening 18, the movement of the cord is restrained somewhat so that it will not slip accidentally, but it may be made to slide when desired. Also the end recesses allow for the bringing of the cord up to the ends of the straight-edge without carrying it across the ends of the boards, thus bringing the cord inside the ends of the board. By crossing the cord on the straight-edge, the latter is maintained against movement from its original setting and by the provision of the channel 20 the cord is kept below the top surface of the board and will not interfere with instruments, such as

angles, curves and the like, placed on the board.

Figures 5 to 7 and 9 to 12 and 14 illustrate different uses of apertures and slots, as, for example, in Figure 5 a single corner aperture 24 and slot 25 are shown in place of two or more, while Figure 6 shows how a single or isolated aperture 25a may be used at a corner of the board. Figure 7 shows the use of an aperture reinforcing grommet 26 which might be used in boards of thin and inexpensive construction, the board 27 being formed probably of pressed paper board, thin wood, or plastic, where the material is not substantial enough to withstand the cutting action of the sliding flexible strand.

Figure 9 shows a cut-out corner forming an ear 28, with which might be used any of the other methods of threading the cord.

Figure 10 shows a means of "fixing" the flexible strand 29 by means of a knot 30 to prevent or limit the movement of the strand through the board aperture 31.

Figure 11 shows another means of "fixing" the strand or cord 23 by winding the same around a part 32 of the board to prevent the strand from sliding, while still another method of accomplishing the result is shown in Figure 12 by weaving the strand 23 through a combination of slots 33, formed for the purpose. This is a means also of taking up slack in the flexible strand, and is more adaptable for securing the cord where it is continuous and where the method as described in connection with Figure 10 can not be applied. If desired, the apertures, cuts and slots shown in Figures 10, 11 and 12 may have rounded edges to allow free sliding movements of the flexible strand.

Figure 13 shows a modified construction of the straight-edge where the edge has a groove 40, formed along its under face, to be used to receive the flexible guide, when this is run between the straight-edge and the board.

Figure 14 illustrates, more or less diagrammatically, a basic method of threading the flexible cord or strand through the board and straight-edge. Here it will be seen, the board 35 merely has an aperture 36 therethrough at each corner. The straight-edge 37 also has four apertures 38, each adjacent one corner and the straight-edge while shown as being the same length as the board as in the form of Figure 1, it may be longer or shorter if desired. The flexible cord 39 runs through the two apertures at each end of and straight across the straight-edge to the underside thereof and then across the adjacent end of the board to a corner aperture passing downwardly therethrough and being crossed beneath the board. Here the cord slides through four points or the four point apertures at the corners of the board, and the cord may be fixed at only two or four combinations of the point apertures 38 in the straight-edge 37.

In Figure 15 another basic method is shown. Here the board and straight-edge are the same, but the arrangement of the flexible cord is different, being somewhat as in Figure 1. In this arrangement the cord runs parallel to the top and bottom edges of the board upon the underside, coming up through the corner apertures 36, across the ends of the board on top, then up through the corner apertures 38 of the straight-edge, but is crossed upon the top of the straight-edge. Here the flexible guide slides through four points of the straight-edge, i. e., the apertures 38 and may be fixed at any two or four combinations of the pointer apertures 36 in the board 35.

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From the foregoing it is believed the construction and manner of using the present invention will be readily apparent and also that with any one of the forms of the invention shown the operation of laying off parallel lines upon a sheet of drawing paper or other material lying on the board, may be easily, quickly, and accurately accomplished.

I claim:

1. A drawing device of the character described comprising a board, a straight edge disposed upon the board and extending across the same, a flexible strand having portions extending across and connecting with the ends of the board and with the adjacent ends of the straight edge and adjustably holding the straight edge in desired position on the board whereby the straight edge may be shifted to different parallel positions, and the surface of said board having a groove therein with the flexible strand positioned in said groove so that movements of the flexible strand will not be restricted, the working of the flexible strands in said grooves permitting unobstructed sliding movements of instruments over the surface of the board.

2. A drawing device of the character described comprising a board, a straight edge disposed upon the board and extending across the same, a flexible strand having portions extending across and

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connecting with the ends of the board and with the adjacent ends of the straight edge and adjustably holding the straight edge in desired position on the board whereby the straight edge may be shifted to different parallel positions, and the surface of said board having a groove therein with the flexible strand positioned in said groove so that movements of the flexible strand will not be restricted, the working of the flexible strands in said grooves permitting unobstructed sliding movements of instruments over the surface of the board, each end edge of the board having a recess therein extending substantially the full width of the board and over which recesses the adjacent ends of the straight edge extend, the flexible strand from each corner of the board extending along said recesses toward and through the extended ends of the straight edge.

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