Oct. 1, 1963 E. C. WESTHOFF 3,105,279

CLIP BOARD

Filed Dec. 31, 1962

Fig. 1.

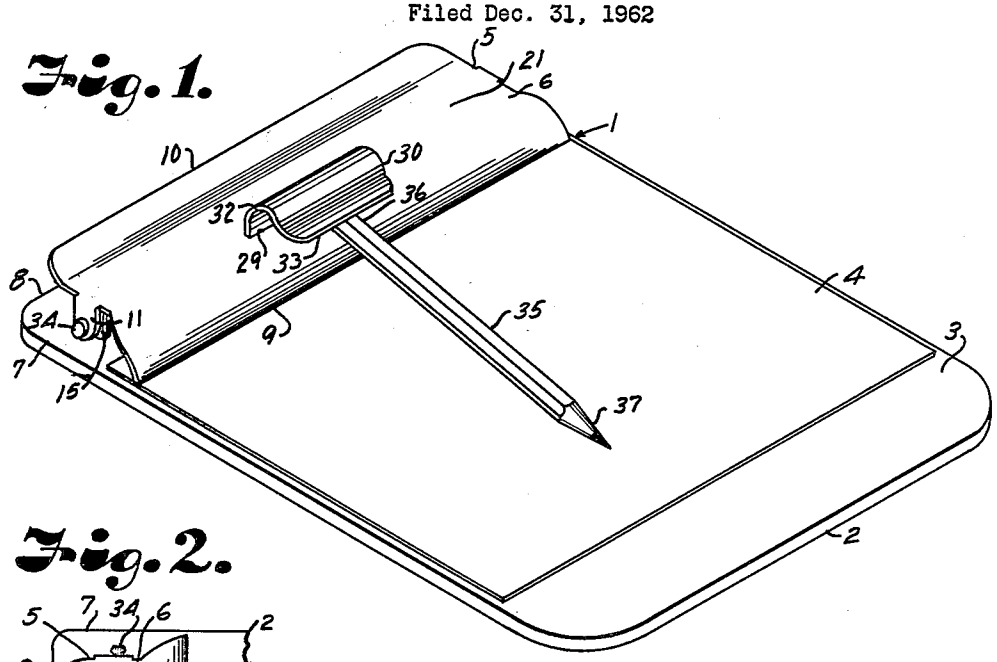


Fig. 2.

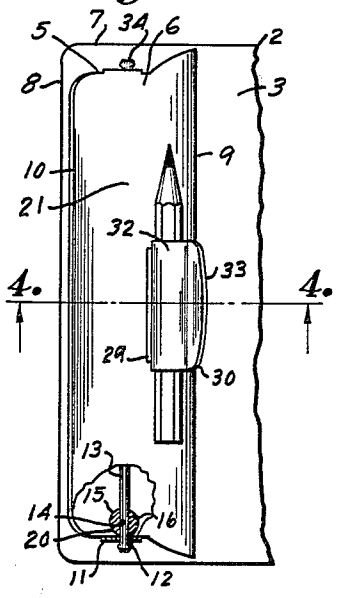


Fig. 4.

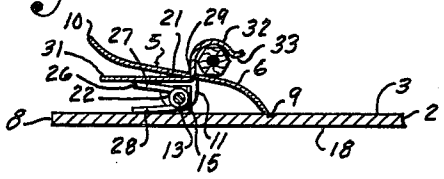


Fig. 5.

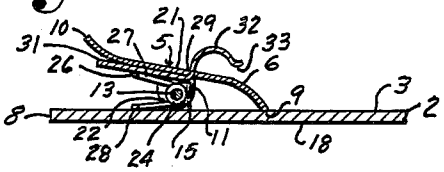
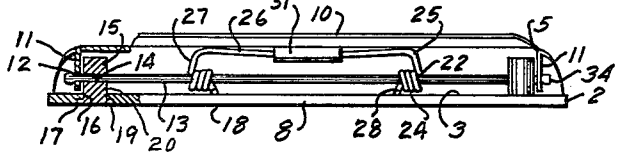


Fig. 3.



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CLIP BOARD

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7 Claims. (Cl. 24—81)

This invention relates to devices for removably holding sheets, pads and the like, and more particularly to clip boards wherein one or more sheets of paper and the like are resiliently clamped against a stiff member that provides support for said sheets during writing and the like thereon.

Heretofore, flat board-like members have had clips adjacent an end wherein the clip structure included hingedly connected metal members, one of which is secured to the board with a spring or springs arranged to urge an edge of the other metal member toward the board to clamp sheets of paper or the like between said edge and the board. Such devices have been used particularly by persons while standing and making sketches or notes, as well as for many other purposes, but while in use or being carried the free ends of the sheets may blow up and become torn or wrinkled. Also, during carrying of the devices the pencil or the like used to write on the sheets may be misplaced or lost, and while some boards have had extra attachments for carrying a pencil such structures increase the cost.

The principal objects of the present invention are to provide a clip board structure wherein the clip portion includes a pencil holding member biased into holding position with the same resilient member that biases the clip member into sheet holding position; to provide a clip board structure adapted to hold a member arranged in extending relation to the clip toward the free end of a sheet on the board to aid in holding said free end in board engagement; to provide a clip board that is of relatively few parts, that is economical to manufacture and assemble, that will hold a pencil when not in use and facilitate retaining of sheets on the board.

Other objects and advantages of this invention will become apparent from the following description taken in connection with the accompanying drawings wherein are set forth by way of illustration and example certain embodiments of this invention.

FIG. 1 is a perspective view of a clip board embodying the features of the present invention.

FIG. 2 is a partial plan view of the clip board illustrating a pencil in the pencil retaining portion thereof and with portions broken away to show mounting members.

FIG. 3 is an end elevation of the clip board from the clip end thereof with portions broken away to show a mounting of an anchor member on the board.

FIG. 4 is a sectional view through the clip board and pencil holder taken on the line 4—4, FIG. 2.

FIG. 5 is a sectional view through the clip board similar to FIG. 4 but wth the pencil removed.

Referring more in detail to the drawings:

The reference numeral 1 generally designates a clip board structure which includes a flat rigid panel or board member 2 having a flat work supporting surface 3 adapted to have sheets 4 of paper, pad and the like positioned thereon with a clip structure 5 mounted on said board to engage said sheets to hold same on the board. The clip structure has an elongate rigid clamp plate member 6 preferably formed of metal arranged adjacent one end 7 of the board 2 preferably transversely of said board or generally parallel to the edge 8 thereof. The member 6 has opposite edges 9 and 10 and at the ends of said member intermediate the edges 9 and 10 there are downwardly extending ears 11 having apertures 12 through which extends a hinge pin or rod 13. The hinge pin 13 also extends through apertures 14 in support or anchor members 15 carried by the board 2 whereby the clamp plate member 6 is pivotally mounted relative to said board. In the structure illustrated, the board 2 has spaced apertures 16 or bores extending therethrough with counterbores or recesses 17 extending inwardly from the bottom face 18 of the board. The anchor members 15 have heads 19 positioned in the recesses 17 and shanks 20 extending through the bores 16 to provide upwardly extending portions that mount the hinge pin 13. It is preferred that the anchor members 15 be located inwardly of the ears 11 but in engagement therewith to eliminate movement of the clamp plate member 6 longitudinally of the hinge pin.

In the structure illustrated, the clamp member 6 is formed of a sheet of metal with the ears 11 integral and with the intermediate portion 21 extending between the opposed ears generally flat. The clamp member 6 in the portion extending from the flat area 21 to the edge 10 or rearwardly preferably curves upwardly as illustrated in FIG. 4, and the portion extending toward the edge 9 or forwardly is curved downwardly as illustrated in FIG. 4 whereby the clamp member is generally S-shaped transversely thereof.

A resilient member or spring 22 is arranged to bias the clamp member 6 whereby the edge 9 is urged against the face 3 of the board 2 or sheets thereon. In the structure illustrated, the resilient member 22 is in the form of a spring formed of a single piece of wire having spaced coil portions 24 sleeved on the hinge pin 13 with said coils connected by a generally U-shaped portion 25 which includes a long bar portion 26 and legs 27. The legs 27 are connected to the coils 24 at opposed ends with the other ends of the coils terminating in arms 28 that extend outwardly and engage the upper face of the board 2, while the bar portion 26 and legs 27 thereof extend outwardly from the hinge pin toward the edge 10 of the clamp member 6 and are biased toward the lower surface thereof. This arrangement of the spring provides a biasing of the clamp member 6 tending to swing the forward portion between the hinge pin 13 and the edge 8 of the board upwardly and thereby engage the edge 9 of the clamp member 6 with the board.

The clamp member 6 has a slot 29 arranged therein substantially parallel with the hinge pin and centrally located between the ears 11. A pencil clip member 30 preferably formed of sheet metal has an arm 31 in underlying relation to the rearward portion of the clamp member 6 or that portion between the hinge pin 13 and the edge 10 whereby said arm 31 is between the member 6 and the bar 26 of the spring 22. The pencil holder 30 at the forward end of the arm turns upwardly and extends through the slot 29 and then is curved forwardly and downwardly to form a curved portion 32 having a radius in the nature of one-half the diameter of a pencil, pen or the like. The forward end of the pencil holder 30 is preferably curved upwardly as at 33 to present a rounded portion to facilitate removing a pencil between the curved portion 33 and the clamp member 6.

In assembling a structure constructed as described, the pencil holder 30 is mounted on the clamp member 6 by inserting the arm 31 through the slot 29 so that the arm underlies the rearward portion of the clamp member 6. Then the anchor members 15 are inserted through the bores 16 to position the heads 19 in the recesses 17 so that the upper portion of the members 15 extend above the face 3 of the board. Then the clamp member 6 with the pencil holder 30 thereon is arranged with the ears 11 outwardly from the members 15. The hinge pin 13 is then inserted through the apertures 12 and 14 in one side of the structure, then the spring is positioned whereby the

coil portions 24 align with the hinge pin and the hinge pin inserted through the coil portions and then through the other anchor member 15 and ear 11. The outer ends of the hinge pin are then formed or otherwise provided with abutments 34 to retain the pin 13 in place. With this assembly, and the bar portion 26 of the spring below the arm 31, the spring provides upward bias of the arm 31 to force same against the rear portion of the clamp member 6 to bias both the pencil holder and the forward portion of the clamp plate downwardly toward the board.

When it is desired to place some paper or other sheets on the face 3 of the board, the rear portion of the clamp member 6 is pressed downwardly toward the face 3 of the board to raise the edge 9 upwardly and then the sheets are moved between the edge 9 and the board. Upon release of the rear portion of the clamp member 6, the spring 22 swings the forward portion of the clamp member 6 downwardly to engage the edge 9 with the sheets to clamp said sheets in place. When it is desired to place a pencil in the holder 30, the pencil is placed flat on the forward portion of the clamp member 6 and moved under the upwardly curved portion 33 and then into the curved portion 32 of the holder so that the pencil is between the curved portion 32 and the upper face of the clamp plate member 6. This causes the arm 31 to move in a hinging motion relative to the clamp member 6, but the spring pressing against the arm 31 applies a downward force through the forward portion or curved portion of the holder and through the pencil to the forward portion of the clamp member 6 thereby retaining the spring pressure at the edge 9 to hold the sheets in place. When the pencil is removed, the spring 22 causes the arm 31 to move up against the rear portion of the clamp member 6 and thereby still urge the edge 9 against the sheets on the board. During use or in carrying the board with sheets thereon, a pencil or other rigid member 35 has one end 36 inserted under the forward portion of the pencil holder 30 and the other end 37 engaging the sheets 4 adjacent their free ends. This applies a downward force on the sheets to hold same in place and the forces acting on the clamp member 6 and pencil holder 30 are the same as when a pencil is positioned in and longitudinally of the curved portion 32 of the holder. It is believed that this clip board is a simple, economical structure with few parts that holds both sheets of paper and pencils, and that the structure is durable for efficient long life.

It is to be understood that while I have illustrated and described one form of my invention, it is not to be limited to the specific form or arrangement of parts herein described and shown except insofar as such limitations are included in the claims.

What I claim and desire to secure by Letters Patent is:

1. A pad clamping device for use on a work support surface of a board comprising,

(*a*) an elongate clamp member having opposed longitudinal edges with one edge adapted to bear in contact with an article which is to be clampingly held between said clamp member and the work supporting surface,

(*b*) means including a hinge rod extending longitudinally of said clamp member and pivotally mounting said clamp member on said board with the longitudinal edges of said clamp member spaced from the axis of the hinge rod whereby said one edge engages the work supporting surface of the board and the other edge is spaced upwardly therefrom,

(*c*) said clamp member having a longitudinal slot substantially above said hinge rod,

(*d*) a second clamp member extending through said slot with a clamp portion extending from said slot above the first-named clamp member toward said one edge thereof, said second clamp member having an arm extending from the slot toward the other edge of the first-named clamp member in underlying relation thereto,

(*e*) and a resilient member having portions engaging said board and the arm of the second clamp member in spaced relation to said hinge member to bias said arm toward the first-named clamp member and thereby move the clamp portion of said second clamp member to yieldingly clamp an article therebetween, said resilient member through its engagement with the arm of the second clamp member and the association of the first and second clamp members biasing the first-named clamp member to yieldingly clamp an article between said one edge of the first-named clamp member and the work supporting surface of the board.

2. A pad clamping device for use on a work support surface of a board comprising,

(*a*) an elongate clamp member transversely curved in a generally S-shape and having opposed longitudinal edges with one edge adapted to bear in contact with an article which is to be clampingly held between said clamp member and the work supporting surface,

(*b*) spaced anchor members on said board and extending upwardly from the work supporting surface thereof,

(*c*) means including a hinge rod extending longitudinally of said clamp member between said clamp member and the work supporting surface pivotally mounting said clamp member on said spaced anchors with the longitudinal edges of said clamp member spaced from the axis of the hinge rod whereby said one edge engages the work supporting surface of the board and the other edge is spaced upwardly therefrom,

(*d*) said clamp member having a longitudinal slot substantially above hinge rod,

(*e*) a second clamp member extending through said slot with a clamp portion extending from said slot above the first-named clamp member toward said one edge thereof, said second clamp member having an arm extending from the slot toward the other edge of the first-named clamp member in underlying relation thereto,

(*f*) and a resilient member sleeved on said hinge rod and engaging the arm of the second clamp member in spaced relation to said hinge member to bias said arm toward the first-named clamp member and thereby move the clamp portion of said second clamp member to yieldingly clamp an article therebetween, said resilient member through its engagement with the arm of the second clamp member and the association of the first and second clamp members biasing the first-named clamp member to yieldingly clamp an article between said one edge of the first-named clamp member and the work supporting surface of the board.

3. A pad clamping device as set forth in claim 2 wherein:

(*a*) the board has spaced bores extending therethrough and the anchors have shanks slidably mounted in said bores in the board with heads engaging an under surface of said board and the resilient member has portions engaging the work supporting surface of the board and the arm of the second clamp member to urge same apart and thereby maintain the shank heads in engagement with said board.

4. A pad clamping device as set forth in claim 2 wherein:

(*a*) the clamp portion of the second clamp member has a transverse curve in the shape of an inverted U adapted to receive a pencil and the like therein in yieldably clamped relation between said clamp portion and the first-named clamp member.

5. A pad clamping device as set forth in claim 2 wherein:

(*a*) the resilient member is a wire spring with longitudinally spaced coils sleeved on the hinge rod with legs extending from one side of the coils to engage

the board work supporting surface in spaced relation to the hinge pin and other legs extending from the other ends of the coils with end portions of said legs connected by a bar that extends in underlying engagement to the arm of the second clamp member in spaced relation to the hinge pin.

6. A clip board comprising:

(*a*) a rectangular board having a work supporting surface,

(*b*) an elongate clamp member mounted at one end of said board and swingable relative to an axis extending longitudinally of said clamp member and parallel to said work supporting surface, said clamp member having opposed longitudinal edges spaced from said axis with one of said longitudinal edges adapted to engage the work supporting surface with the other of said edges spaced above said surface, said clamp member having a longitudinal slot therein adjacent said axis.

(*c*) a second clamp member extending through said slot and having a portion extending toward said one edge of the first-named clamp member in overlying relation thereto,

(*d*) an arm on said second clamp member extending from said slot toward said other edge of the first-named clamp member in underlying relation thereto,

(*e*) and resilient means between said arm and the work supporting surface of the board and having engagement therewith in spaced relation to the axis to yieldably urge the arm toward the first clamp member and swing the first clamp member to yieldably urge said one edge thereof toward the work supporting surface of said board.

7. A pad clamping device as set forth in claim 6 wherein:

(*a*) the first-named clamp member is mounted on a hinge rod and the resilient member is a wire spring with longitudinally spaced coils sleeved on the hinge rod with legs extending from one side of the coils to engage the board work supporting surface in spaced relation to the hinge pin and other legs extending from the other ends of the coils with end portions of said legs connected by a bar that extends in underlying engagement to the arm of the second clamp member in spaced relation to the hinge pin.

No references cited.