

[54] **CLIP BOARD WITH PENCIL HOLDER**

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[62] Division of Ser. No. 705,984, Feb. 16, 1968, abandoned.

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[51] Int. Cl.A44b 21/00, B42f 1/02

[58] Field of Search281/45; 282/29 A; 24/67.5, 24/67.7, 81 PH

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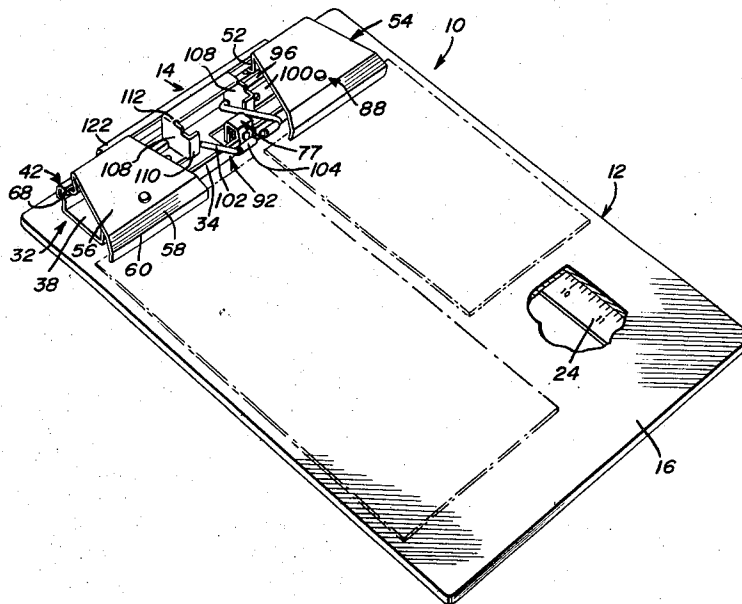
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[57]

ABSTRACT

A clip board comprising a clamping unit affixed to one end of an enlarged rectangular board. The clamping unit includes a pair of laterally spaced pressure arms individually operable or simultaneously operable at the option of the user of the clip board for the releasable clamping of sheets of paper or the like to the board. Each pressure member is operated through its individual lift arm against the action of a spring resiliently biasing the pressure member closed.

7 Claims, 8 Drawing Figures



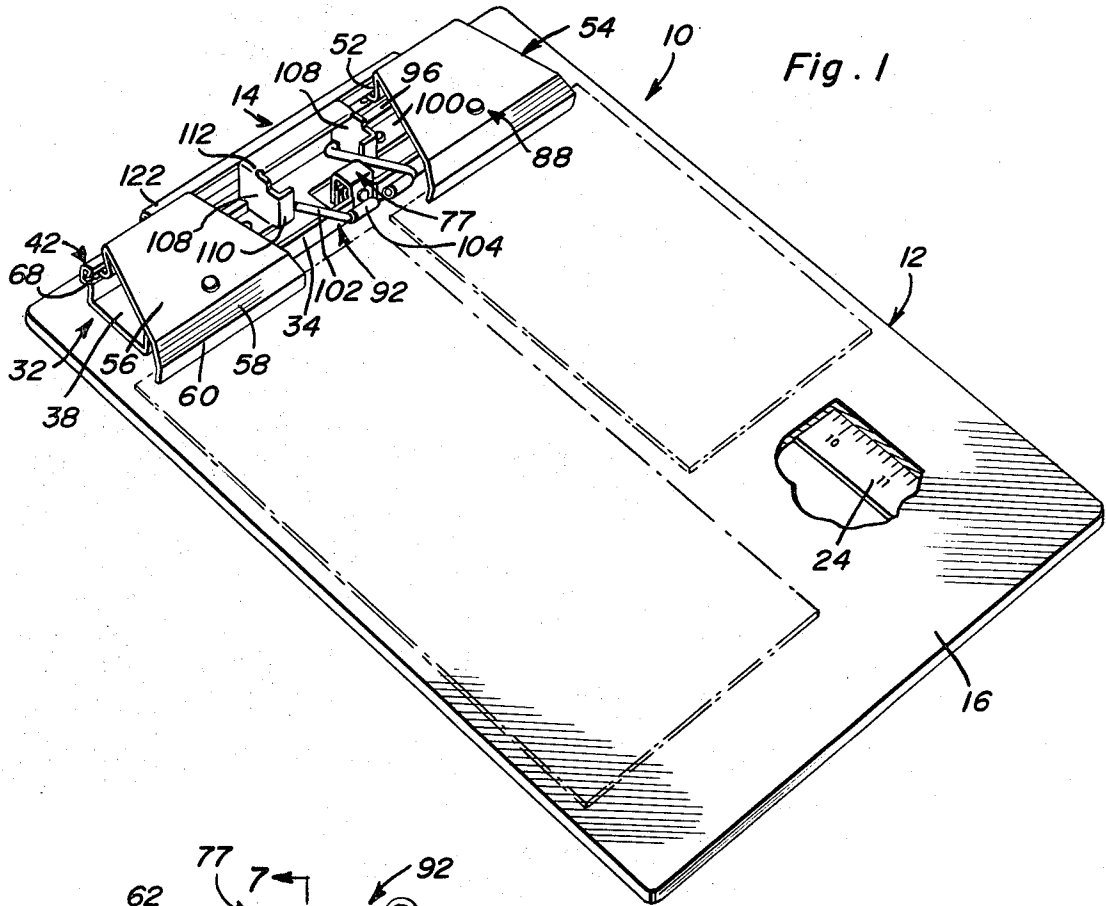


Fig. 1

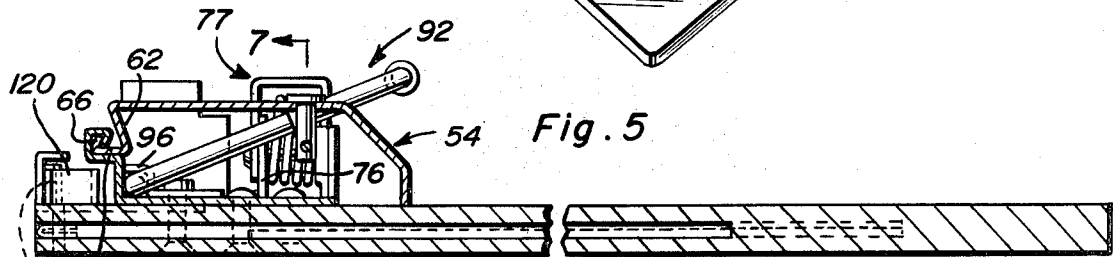


Fig. 5

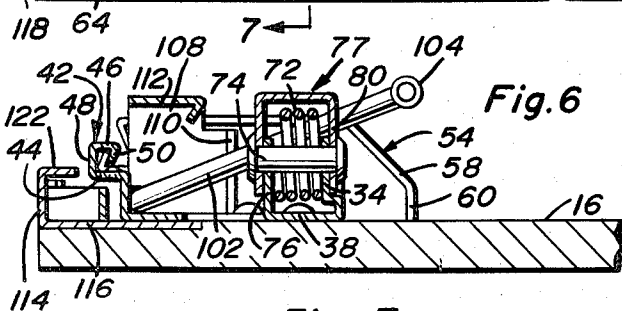


Fig. 6

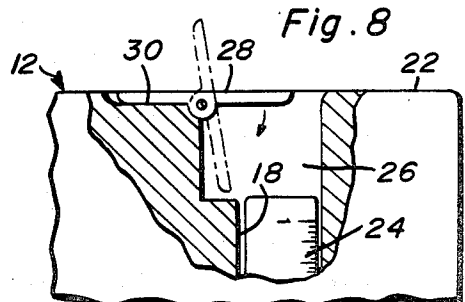


Fig. 8

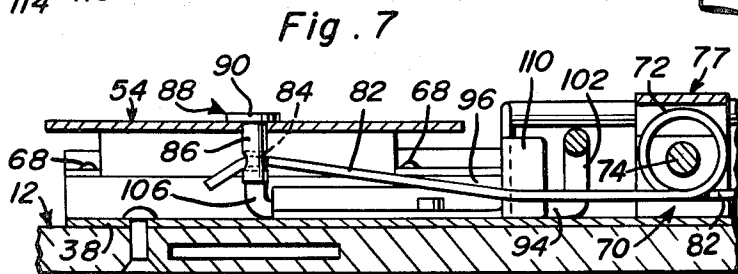


Fig. 7

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Fig. 2

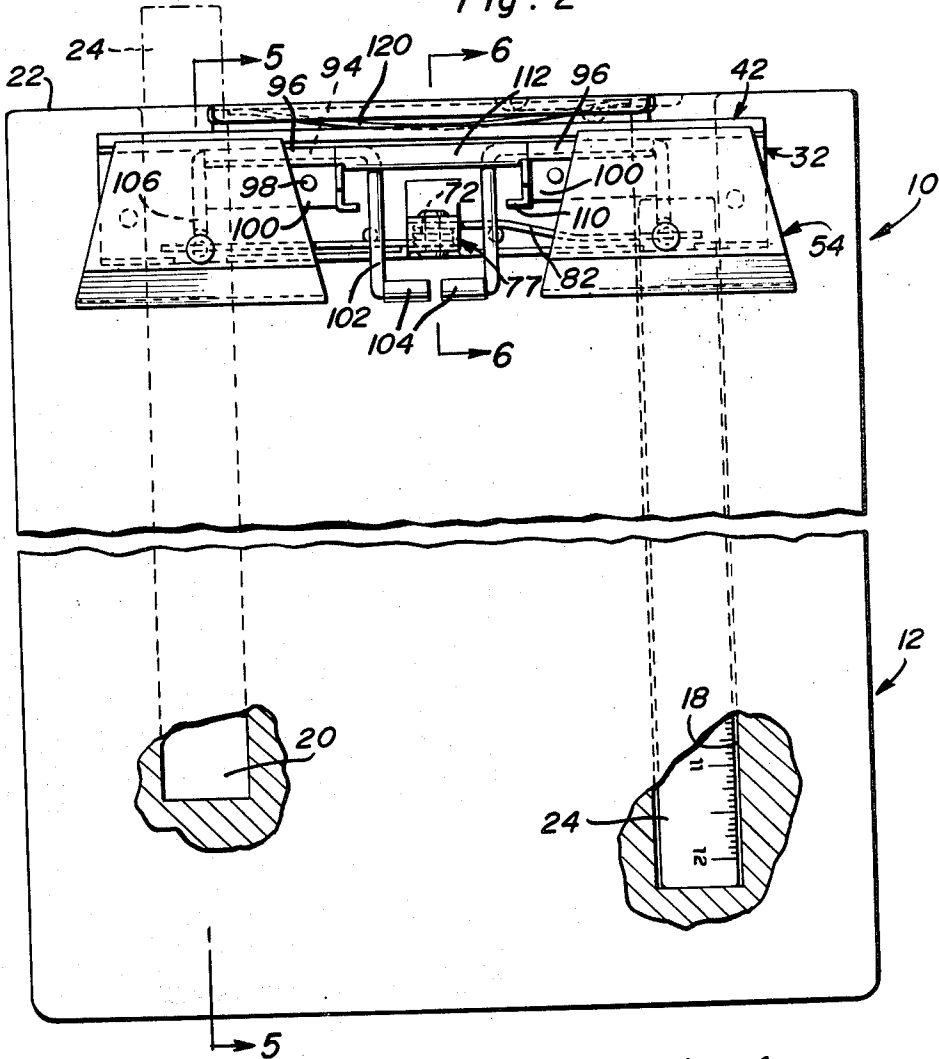


Fig. 3

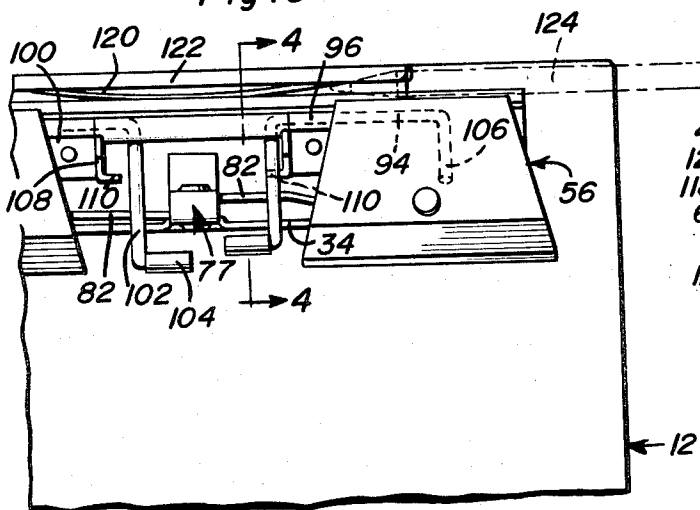
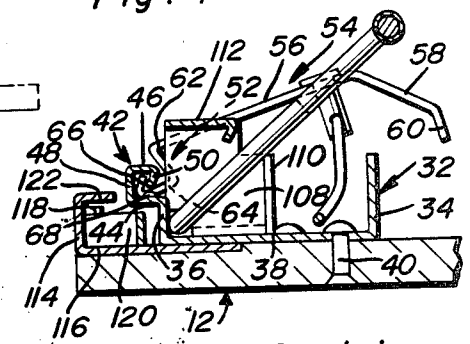


Fig. 4



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CLIP BOARD WITH PENCIL HOLDER

This is a division of application, Ser. No. 705,984, for CLIP BOARD WITH INTERNAL RECEPACLE, filed Feb. 16, 1968, now abandoned.

The instant invention generally relates to clip boards, and is more particularly concerned with a clip board which both incorporates unique internal storage facilities and has novel clamp means associated therewith for fixedly retaining paper on the upper or writing surface of the board.

It is a primary object of the instant invention to provide a clip board wherein the clamping unit associated therewith is provided in two individually operated laterally spaced sections capable of, in addition to an individual clamping manipulation thereof, being manipulated as a single unit, with the manipulation being effected in a simple trouble-free manner.

Another significant object of the instant invention resides in the provision of a clamping unit for clip board which is of a relatively simple construction combining maximum paper clamping ability with a highly desirable ease of operation.

In addition, an important object of the instant invention is to provide a unique manner for storing as well as temporarily holding a ruler or the like which can be used in conjunction with work being performed on the clip board.

Basically, the above objects are achieved through the provision of an enlarged board having a clip unit mounted on one end thereof and including a pair of internal ruler receiving chambers, one being of a depth capable of receiving the entire ruler which is subsequently locked therein, and the other chamber being of a depth so as to receive only a portion of the ruler with a portion of the ruler projecting therefrom for easy access thereto during the use thereof. The clamping unit itself includes a pair of laterally spaced pressure members each biased downwardly into clamping engagement with the writing surface of the board and each having a separate lift member or arm associated therewith for effecting a selected release thereof. The lift arms are activated by an upward movement of the operating handles thereon and capable of being locked in an elevated position.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a perspective view of the clip board comprising the instant invention with a portion thereof broken away for purposes of illustration;

FIG. 2 is a partial top plan view of the clip board of the instant invention with portions broken away;

FIG. 3 is an enlarged plan detail of a portion of the clamping unit;

FIG. 4 is a transverse cross-sectional view taken substantially on a plane passing along line 4—4 in FIG. 3;

FIG. 5 is a transverse cross-sectional view taken substantially on a plane passing along line 5—5 in FIG. 2;

FIG. 6 is a transverse cross-sectional view taken substantially on a plane passing along line 6—6 in FIG. 2;

FIG. 7 is a transverse view taken substantially on a plane passing along line 7—7 in FIG. 5; and

FIG. 8 is a detail view illustrating the manner in which the closure for the ruler storage chamber operates.

Referring now more specifically to the drawings, reference numeral 10 is used to generally designate the clip board comprising the instant invention. This clip board 10 consists basically of an enlarged generally rectangular flat board or panel 12 and a clamping unit 14 mounted on the flat upper or writing surface 16 of the board 12 adjacent the upper end thereof.

The board 12 has a pair of laterally spaced elongated internal pockets or chambers 18 and 20 defined therein and opening through the upper edge 22 thereof. These chambers 18 and 20 are particularly adapted to receive a ruler or the like 24, the chamber 18 being of a depth so as to completely receive the ruler 24 below an enlarged mouth end 26 within which a closure member 28 is mounted, thus forming in effect

a storage chamber for the ruler 24. With particular reference to FIG. 8, it will be appreciated that the closure member 28 is pivotally mounted to the board 12 at an intermediate point along its length so as to move to a first full line position paralleling the edge and overlying a sufficient portion of the mouth end 26 of the chamber or pocket 18 so as to preclude the movement of the ruler 24 therefrom. In this position, it will be noted that one end portion of the closure 28 seats within a recess 30 in the upper edge 22 so as to present a flush appearance therewith and retain its orientation in overlying relation to the chamber 18. When the ruler 24 is to be released, the closure member 28 is pivoted to the phantom line position of FIG. 8 so as to project partially into the enlarged mouth portion 26 of the chamber 18 and allow the movement of the ruler 24 thereby. The shorter chamber 20, noting FIG. 2, will receive the ruler 24 with a portion of the ruler 24 projecting laterally from the upper end 22 of the board 12. This chamber 20 will thus provide a highly desirable pocket into which the ruler 24 can be temporarily placed during use so as to retain the ruler 24 for easy access thereto, rather than requiring the reinsertion of the ruler 24 into the storage chamber 18 which in turn would require an inverting of the entire clip board 10 so as to withdraw the ruler 24 when its use is desired. In other words, the chamber 18 completely receives and stores the ruler 24, while the chamber 20 acts as a temporary receiver for the ruler 24 which will project therefrom for easy access thereto.

Referring now specifically to the clamping unit 14, it will be noted that this unit 14 includes an elongated U-shaped mounting base 32 including front and rear parallel upstanding walls 34 and 36 interconnected by a flat bight portion 38 integral with the lower edges of each of the walls 34 and 36. This bight portion 38 is positioned on the board writing surface 16 across the upper end portion thereof and is rigidly affixed thereto in any suitable manner, such as through the utilization of rivets 40.

The rear wall 36 has a mounting rail 42 integrally defined along the upper edge thereof, this rail including lower and upper horizontal wall portions projecting rearwardly from the rear wall 36 and interconnected by a rear vertical wall portion 48. The inner edge of the upper horizontal wall portion 46 has a downwardly and rearwardly angled forward wall portion 50 integral therewith and terminating in spaced relation above the bottom wall portion 44.

The rail 42, through the opposite open ends thereof, slidably receives the integrally formed mounting portions 52 defined longitudinally along the rear edges of a pair of pressure members 54 which function, as shall be explained presently, so as to releasably clamp paper or the like to the board 12. Each pressure member 54, defined from a single rigid metal or plastic sheet, includes a flat horizontal portion 56 which overlies the base 32 and terminates in a downwardly and forwardly angled portion 58 which in turn terminates in a vertical portion 60 directly engageable against the upper surface 16 of the board 12 forward of the front wall 34. The horizontal portion 56 is of course at an elevation so as to be spaced vertically above the upper edge of the front wall 34. With reference to FIGS. 1, 2 and 3, it will be noted that each pressure member 54 is of a gradually increasing width from the rear edge of the top plate portion 56. The mounting portion 52 is integrally formed within the top portion 56 and depends therefrom as will be readily apparent from FIGS. 4 and 5. This mounting portion 52 includes a downwardly and forwardly inclined wall portion 62 terminating in a horizontal rearwardly directed wall portion 64 which overlies the lower horizontal portion 44 of the mounting rail beneath the inclined portion 50 of the mounting rail, with the horizontal portion 64 in turn terminating in an upwardly and forwardly inclined portion 66 which engages within the rail 42 between the generally vertical portions 48 and 50 so as to in effect pivotally retain the corresponding pressure member 54 for movement between a first position engaged with the writing surface 16 and a second position pivoted upwardly approxi-

mately 45° therefrom. It will be appreciated that the hingedly related portions are so orientated relative to each other as to preclude a disengagement of the pressure members 54 from the mounting rail 42, while at the same time allowing for a free pivotal movement of the pressure members 54 throughout the desired range. As noted previously, the pressure members 54 will be mounted on the rail 42 by a lateral sliding of the mounting portions 52 into the rail 42 between the opposite ends thereof. Once the pressure members 54 have been located adjacent the opposite ends of the base 32, suitable portions of the mounting rail 42 to each side of each of the pressure members 54 can be slightly deformed, as at 68, so as to retain the pressure members 54 against sliding movement.

Each of the pressure members 54 is to be resiliently biased into its lowered paper clamping position by appropriate spring means 70. The spring means 70 includes a central coil or coiled portion 72 mounted on a pin 74 affixed between the front wall 34 and a vertical wall portion 76 immediately rearward thereof and projecting integrally upward from the base bight portion 38, the wall portion 76 actually being defined by a tab cut from the bight portion 38 and bent vertically upward parallel to the front wall 34. The spring coil 72 is enclosed by a U-shaped housing 77 mounted thereover and secured to the front wall 34 and wall portion 76 by the pin 74, the opposed ends of which are provided with enlarged retaining heads. With reference to FIGS. 2, 3 and 6, it will be noted that the front wall 34, is actually recessed in alignment with the spring 72 in order that the overlying front leg 80 of the housing 77 and the head provided on the forward end of the pin 74 might provide a coplanar continuation of the front wall 34 to the opposite sides thereof thus eliminating any undesirable projection which might affect a proper alignment of received papers against the vertical front wall 34.

The spring means 70 includes a pair of oppositely directed spring arms 82 projecting laterally from the central coil 72, these spring arms arcing upwardly and having the end portions thereof received through holes 84 defined through the shanks 86 of a pair of headed retainers or pins 88, each of which projects vertically through one of the pressure members 54 and is retained thereon by an enlarged positioning head 90. The spring means 70 is so tensioned as to, through the spring arms 82, effect a constant downward biasing of the pressure members 54 so as to effectively clamp papers or the like to the board writing surface 16. Noting FIG. 7, it will be appreciated that the spring arms 82, immediately beyond the pin shanks 86, are downwardly inclined, thus facilitating a smooth sliding through the shank passages 84 as the pressure members 54 are pivoted upwardly.

The raising or release of each of the pressure members 54 is effected through a rod-like lift member 92 which consists of an elongated body portion 94 rotatably mounted along the lower edge of the rear wall 36 by a housing 96 affixed by rivets 98 or the like extending through an integral horizontal projecting base portion 100 on the housing 96. The inner end of the rotatably received body portion 94 has a forwardly projecting integral lift arm 102 thereon, this lift arm extending forwardly beyond the front wall 34 laterally to one side of the spring housing 77, and in turn terminating in a laterally directed handle 104 positioned immediately forward of the spring housing 77 and in parallel slightly spaced alignment with the corresponding handle 104 on the lift member 92 associated with the second pressure member 54. The second end of the rotatably mounted body portion 96 of each lift member 92 also includes a forwardly projecting integral arm 106 which is angled upwardly so as to engage the undersurface of the corresponding pressure member 54 whereby a raising of the handle 104 of the corresponding lift member 92 will, through the rotatably mounted body 96, effect an upward swinging of the arm 106 which in turn will through the sliding engagement of the forward end of the arm 106 with the undersurface of the pressure member 54, effect an upward swinging of the pressure member 54. With the handles 104 of the two pressure members 92 being located in spaced adjacent orientation rela-

tive to each other, it will be appreciated that both handles can easily be either individually or simultaneously manipulated so as to effect a release of one or both pressure members 54.

Each of the flat bases 100 associated with the pressure member retaining housings 96 includes, at the inner end thereof, a vertical wall 108 projecting perpendicularly forward from the rear wall 36 and terminating in a lateral front wall 110. With reference to FIGS. 1 and 2, it will be appreciated that the front wall 110 normally terminates laterally outward of the adjoining lift member arm 102. However, inasmuch as each body portion receiving housing 96 is open at both ends, and inasmuch as each lift member body portion 94 is longer than the associated housing 96, a lateral sliding movement of each lift member 92 can be effected. The purpose of this is to enable a selective locking of each of the pressure members 54 in an elevated position. This is effected by sliding the particular lift member 92 laterally outward so as to position the elevated lift arm 102 over the upper edge of the front wall 110, as indicated in FIGS. 3 and 4, whereby the front wall 110 will act so as to retain the lift member 92 elevated against the biasing force of the spring means 70. It will be noted that in laterally sliding one of the lift members 92, the free end of the pressure member engaging arm 106 will merely slide thereunder and still retain its lifting engagement with the pressure member 54. Noting FIG. 1 in particular, it will be seen that a transverse plate 112 is provided integrally with and transversely between the vertical walls 108, this transverse portion 112 limiting the upward swinging movement of the lift member arms 102 and also functioning as a convenient means for suspending the clip board 10 from a hook or the like.

Rearward of the rear base wall 36, and extending parallel thereto for a major portion of the base 32, is a vertically projecting wall 114 which is affixed to the board 12 by an appropriate horizontal base portion 116. The opposite ends of this vertical wall 114 include integral inwardly curled portions or flanges 118 which are received about and retain the opposite ends of a bowed flexible spring 120 which bows toward the adjacent rear wall 36 in general underlying relation to the mounting rail 42. A suitable retaining flange 122 is integrally formed along the upper edge of the vertical wall 114 and projects inwardly therefrom in overlying relation to the spring 120. The purpose of the spring 120 is to releasably clamp a pencil, pointer or the like slidably inserted between the walls 36 and 114 from either end thereof, FIG. 3 including a phantom line showing of a pencil 124 being inserted.

From the foregoing, it will be appreciated that a unique clip board has been defined, this clip board, in addition to incorporating means for accommodating various implements to be utilized therewith, including a ruler and pencil, also incorporates a unique clamping unit. The clamping unit includes a pair of laterally spaced pressure members which can be individually or simultaneously manipulated through a pair of lift members which incorporate operating handles located centrally on the board for easy access thereto. The lift handles are moved upwardly in a simple manner, normally utilizing a single thumb in engaging either one or both of the handles with the movement of the handles being easily effected through a substantially natural movement of the handle-engaging thumb. Either or both of the lift members, subsequent to a raising thereof, can be shifted slightly laterally outward so as to lock the lift member or lift members in an elevated position, and thereby retain the pressure members released from the clamped material without requiring a continued engagement of the user's hand therewith. Further, in view of the use of a common spring means for both pressure members, and the specific orientation of the spring means, it will be appreciated that a raising of one pressure member will automatically increase the pressure on the other pressure member to strengthen the holding force thereof. Additionally, it should be noted that the vertical walls of the base are also of significance in providing an effective means to prevent a warping of the board.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A clip board comprising a rigid panel having the upper surface thereof adapted for use as a writing surface, clamp means mounted on the panel adjacent one end of the panel, said one end constituting the top of the panel, said clamp means being adapted to releasably retain paper or the like on the writing surface by engaging the paper adjacent the top thereof and clamping the paper between the clamp means and the writing surface, said clamp means comprising and elongated base, pressure means, means pivotally mounting said pressure means to said base for pivotal movement between a first position engaging the upper surface of the panel and a second position upwardly angled therefrom, spring means mounted on said base and engaging said pressure means, said spring means biasing said pressure means to the first surface engaging position, and lift means rotatably mounted on said base and operatively associated with said pressure means, said lift means including first arm means incorporating manipulating handle means thereon and second arm means slidably engaged with the pressure means, the means pivotally mounting the pressure means comprising an elongated mounting rail defined longitudinally along the rear edge portion of the base, said mounting rail including spaced upper and lower horizontal wall portions interconnected along the rear edges thereof by a vertical wall portion, the forward edge of the upper horizontal wall portion having a downwardly and rearwardly angled forward wall portion integral with the forward edge thereof, said downwardly and rearwardly angled forward wall portion terminating in spaced relation above the lower wall portion, said pressure means including a downwardly and forwardly inclined wall portion positioned just forward of the forward wall portion of the mounting rail, a horizontal rearwardly directed wall portion integral with the downwardly and forwardly inclined wall portion, said rearwardly directed wall portion extending beneath the edge of the mounting rail forward wall portion and overlying the lower horizontal wall portion of the mounting rail, said rearwardly directed wall portion of the pressure means terminating in an upwardly and forwardly inclined portion positioned between the upper and lower horizontal wall portions of the mounting rail rearward of the forward wall portion of the mounting rail, the relationship between the various wall portions being such so as to enable a sliding pivotal movement therebetween.

2. The structure of claim 1 wherein said pressure means comprises a pair of laterally spaced duplicate pressure members, said lift means comprising a lift member associated with each pressure member, each lift member including first and second arm means, the first manipulating arm means of each lift member projecting forwardly into generally overlying relation to the upper surface of the panel, the second arm means of each lift member projecting forwardly into underlying rela-

tion with the associated pressure member, a transverse portion interconnecting the rear ends of the two arm means associated with each pressure member and being pivotally affixed to said base whereby an upward swinging of the first manipulating arm means will effect a simultaneous upward swinging of the associated second arm means and an upward swinging of the associated pressure member.

3. The structure of claim 2 wherein each pressure member includes a depending pin-like member having a transverse passage therethrough, said spring means comprising a base mounted coil orientated between the pressure members and a pair of integral oppositely directed spring arms slidably engaged through said holes, said spring means being tensioned so as to, through said spring arms, effect a downward biasing of the pressure members into engagement with said upper writing surface with a raising of one pressure member increasing the pressure on the other pressure member through the common spring means.

4. The structure of claim 3 including means for retaining each pressure member in its second raised position, said last-mentioned means comprising a rigid horizontal surface laterally outward of each lift member manipulating arm means, each lift member being longitudinally slidable so as to position the corresponding raised manipulating arm means on said surface so as to retain said manipulating arm means, and consequently the associated pressure member, in an elevated position.

5. The structure of claim 4 wherein said base includes a vertically projecting wall depending from the forward edge of the lower horizontal wall portion, a second wall paralleling said vertically projecting wall rearwardly thereof and including a laterally directed flange on the upper edge thereof extending toward said vertically projecting wall generally coplanar with the lower horizontal wall portion so as to generally define a four-sided enclosure, and internal spring means mounted between the two walls in a manner so as to frictionally engage a pencil or the like within the enclosure, said pencil being inserted from one end thereof.

6. The structure of claim 2 including means for retaining each pressure member in its second raised position, said last-mentioned means comprising a rigid horizontal surface laterally outward of each lift member manipulating arm means, each lift member being longitudinally slidable so as to position the corresponding raised manipulating arm means on said surface so as to retain said manipulating arm means, and consequently the associated pressure member, in an elevated position.

7. The structure of claim 1 wherein said base includes a vertically projecting wall depending from the forward edge of the lower horizontal wall portion, a second wall paralleling said vertically projecting wall rearwardly thereof and including a laterally directed flange on the upper edge thereof extending toward said vertically projecting wall generally coplanar with the lower horizontal wall portion so as to generally define a four-sided enclosure, and internal spring means mounted between the two walls in a manner so as to frictionally engage a pencil or the like within the enclosure, said pencil being inserted from one end thereof.

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