

Feb. 1, 1955

R. A. SENIOR ET AL
AEROBOARD

2,701,173

Filed April 2, 1954

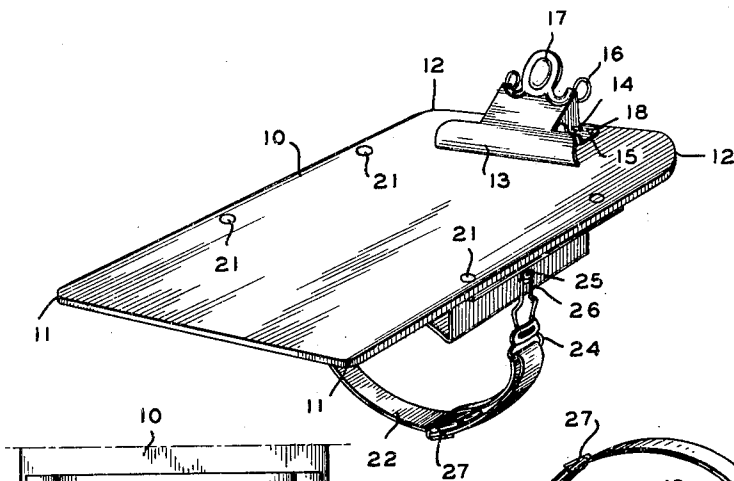


FIG. 1

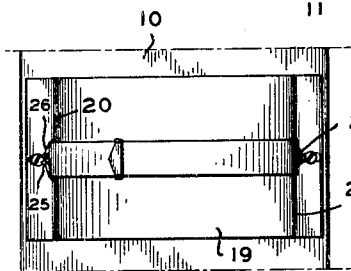


FIG. 5

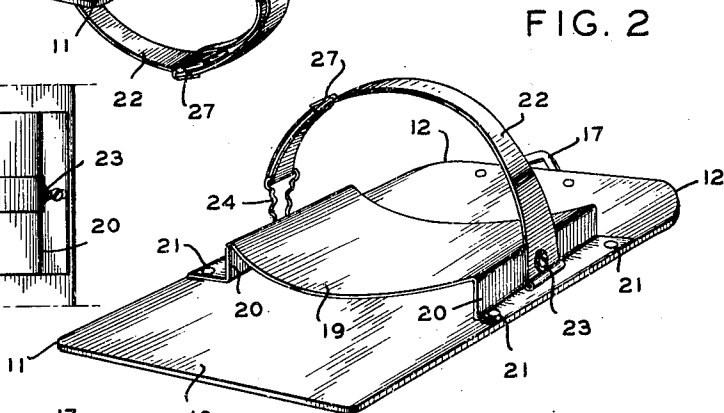


FIG. 2

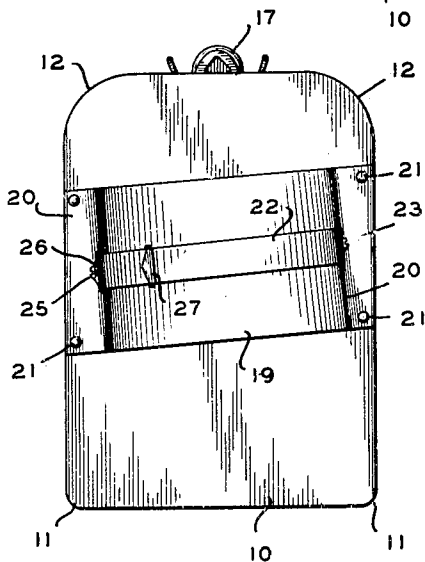


FIG. 3

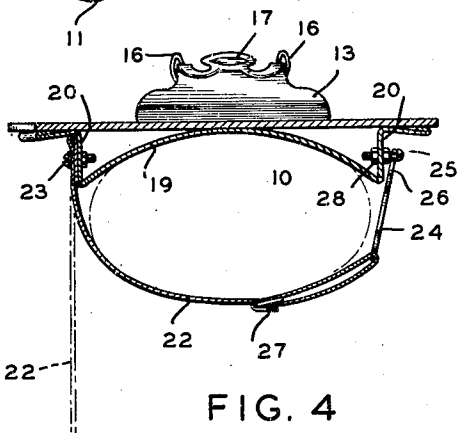


FIG. 4

INVENTORS
R. A. SENIOR
M. R. BUNDY

BY *A. Yates Dowell*
ATTORNEY

1

2,701,173

AEROBOARD

Richard A. Senior and Merton R. Bundy, Greenville, N. C.

Application April 2, 1954, Serial No. 420,484

3 Claims. (Cl. 311—23)

This invention relates to supports and more particularly to supports designed to provide tables or surfaces on which writing paper, charts, maps or the like may be held during use of the same. The invention further relates to mechanisms for mounting such supports so that they may be conveniently used.

At times it is desirable to write or record certain information on thin sheet material or to view certain material present on sheet material, and this is made difficult due to the fact that the hands are occupied or at least it is not convenient to hold a pad and write upon it or to hold a chart, map, or other object, and read from it at the same time.

This is particularly true of airplane pilots, state highway troopers and the like or for other persons who must have both hands free but need a readily visible board with means for holding a paper to be written upon or bearing information of some character which it is desired to read.

It is an object of the invention to provide a relatively thin stiff support-providing board or body on which writing paper, charts, maps and the like may be held by a spring clip at the upper end of the same and with a mounting-saddle having a curved intermediate portion adapted to conform generally to the curvature of the thigh of a user and with an elastic strap or band adapted to extend around the thigh of the user, on the opposite side from the saddle, for detachably securing the mounting board to the thigh so that it may be used while the hands are free.

Another object of the invention is to provide a simple and inexpensive supporting board with holding means for supporting and retaining sheet material on which data may be recorded or having information thereon adapted to be viewed and which may be readily attached to and detached from the thigh of the user such as an airplane pilot for holding his charts, etc., state highway troopers or other persons who must have both hands free but requires a readily visible device for one purpose or another.

Another object of the invention is to provide a durable board of composition or the like material with rounded corners which will not interfere with the movements of the user and with means for mounting the board so that it may be directly viewed without twisting the neck or other effort by the operator and with adjustable means which can yield slightly to the flexing of the muscles of the user for mounting such board notwithstanding variations in the size of the thighs of the persons to whom it is applied.

Further objects and advantages of the invention will be apparent when taken in conjunction with the accompanying drawings wherein:

Fig. 1 is a perspective of a type of device illustrating one application of the invention;

Fig. 2, a bottom perspective thereof;

Fig. 3, a bottom plan view;

Fig. 4, a section on the line 4—4 of Fig. 1, and illustrating the use of the structure; and

Fig. 5, a detail of a modified way of mounting the thigh engaging portion.

Briefly stated, the invention comprises a relatively thin stiff board of a size to conveniently support sheet material carrying or adapted to receive data thereon, such board being generally of rectangular shape with rounded corners and provided with a slip centrally of its upper end for retaining the sheet material on the board with-

2

out requiring that the user hold the same with his hands.

Means is provided for fastening the board to the thigh of the user, such means including a wide transverse plate or saddle curved to conform to the curvature of the thigh and with end portions bent to provide supporting brackets for attachment to the underside of the board and with an elastic strap attached at one side and having detachable connection with the other side of such plate so that the board may be readily fastened to the thigh or removed therefrom.

With continued reference to the drawings, a body or board 10 of relatively hard stiff plastic or other material has rounded corners 11 at its bottom end and corners 12 at its upper end rounded on a larger radius to eliminate awkwardness in use of the board or interference of the corners with its use. Due to the fact that it is thin, it may be easily applied and used without inconvenience or being tiresome on account of its weight.

In order to maintain sheet material on the board where it may be viewed and written upon if desired, a conventional spring clip 13 is employed which includes a pivot 14 and a mounting bracket 15 as well as a spring 16 for maintaining the bracket 13 in contact with the board but permitting the clip to be spaced from the board when pressure is applied to the operating portion 17. The bracket 14 may be fastened to the board by means of rivets 18 or other fastening elements.

In order to hold the board in the proper position, a mounting plate or saddle is provided having a curved intermediate portion 19 with its ends bent to form supporting or mounting brackets 20 secured to the board by rivets or other fastening means 21. As will be obvious from the consideration of Fig. 3, the curved portion is disposed at a slight angle to the longitudinal axis of the board so that when the board is in place on the thigh of the said user, the board will be turned slightly relative to the user for easy viewing.

In order to fasten the device in its position of use an elastic strap 22 has one end attached by a bolt or other fastener 23 to the portion 20 of the saddle at one side of the board and has a wire-attaching element 24 at its opposite end for engagement with and detachment from said screw or fastener 25. The narrow portion 26 of the attaching device serves to prevent accidental disengagement of the fastening element.

The elastic strap 22 extends through the upper end of the fastening element 24 and is provided with a slidable buckle 27 for adjusting the length of the strap to accommodate a device to thighs of different sizes. The bolt 23 serves to permanently attach one end of the strap 22 while the fastening element 24 engages the head fastener 25, such headed fastener having a threaded shank with lock nuts 28 adjustably maintaining the headed fastener in the desired adjusted position with the head properly spaced from the supporting bracket of the saddle member.

Instead of the rivets 21 for fastening the bracket forming ends 20 of the saddle, a saddle 19' may have bracket forming ends 20' squared and the saddle secured in different angular positions, by means of a single fastening element 29 attached to the board 10 and extending through slots 30 in the ends 20'. This structure permits adjustment from the axis of the board in either direction.

It will be obvious to those skilled in the art that various changes may be made in the invention without departing from the spirit and scope thereof and therefore this invention is not limited to that shown in the drawings nor to that described in the specification but only as indicated in the appended claims.

What is claimed is:

1. A supporting device comprising a body for attachment to the limb of a user, fastening means for securing said body upon said limb comprising a mounting plate transversely curved to conform to the transverse curvature of the limb to which the body is to be attached and of a size to solidly engage said limb for a substantial portion of the length thereof, brackets attached to said mounting plate and spaced transversely of said mounting plate and connecting said mounting plate to said body, and a strap for disposition about the limb

3

of the user, and means for attachment of said strap transversely of said device intermediate the edges of said mounting plate.

2. The structure of the preceding claim in which the curved portion of the mounting plate is disposed at an angle to the longitudinal axis of said body for offsetting the longitudinal axis of the body relative to the length of the limb of the user thereby facilitating the use of the device.

3. The invention according to claim 2 in which the body is a writing board.

4

References Cited in the file of this patent

UNITED STATES PATENTS

327,759	Boyle	Oct. 6, 1885
1,930,478	Jones	Oct. 17, 1933
2,338,816	Lockhart	Jan. 11, 1944
2,638,805	Bigelow	May 19, 1953