

- [54] **BICYCLE**
- [75] **Inventor:** Ronald Ralph Knapp, Hacienda Heights, Calif.
- [73] **Assignee:** Yamaha International Corporation, Buena Park, Calif.
- [22] **Filed:** Sept. 16, 1974
- [21] **Appl. No.:** 506,447
- [52] **U.S. Cl.:** 280/283; 280/281
- [51] **Int. Cl.:** B62K 25/04
- [58] **Field of Search:** 280/283, 284, 275, 285, 280/281; 180/32

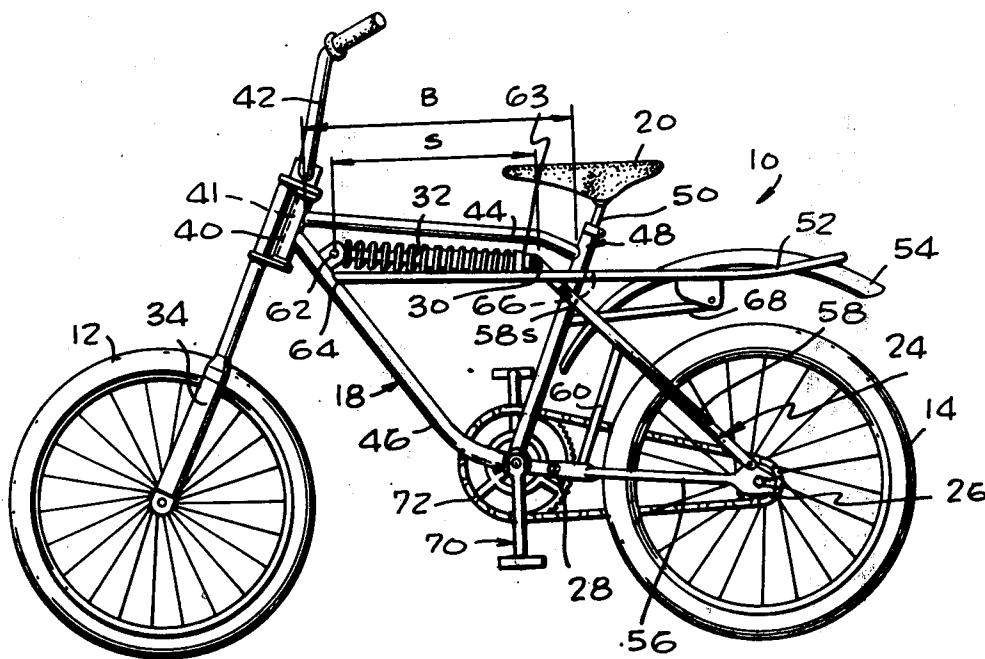
973,217 10/1910 Sager 280/284
 1,152,773 9/1915 White 280/284

Primary Examiner—Kenneth H. Betts
Assistant Examiner—R. Schrecengost
Attorney, Agent, or Firm—Lindenberg, Freilich, Wasserman, Rosen & Fernandez

- [56] **References Cited**
UNITED STATES PATENTS
 644,957 4/1900 Williams 280/284

[57] **ABSTRACT**
 A bicycle is provided having front and rear frames pivotally connected together near the pedal bearings and resiliently coupled by a shock absorber, in which the rear frame has a pair of inclined structural members extending on either side of the seat-supporting tube of the front frame and holding a rear end of the shock absorber at a position directly in front of the seat-supporting tube.

7 Claims, 2 Drawing Figures



1. A *bicycle* comprising:

front and rear wheels;

a front frame having a forward end forming a steering tube, a substantially horizontal upper member extending rearwardly from said steering tube, a diagonal member extending rearwardly and downwardly from said steering tube, and a tubular seat-support member coupling rearward portions of said upper and diagonal members;

a seat assembly including a seat shaft received in said tubular seat-supported member and a seat at the top of said seat shaft;

a pedal assembly rotatably connected to said front frame near the rearward end of said diagonal member thereof;

a steering assembly coupling said front frame to said front wheel, including a steering shaft extending through said steering tube;

a rear frame having a rear end coupled to said rear wheel, a lower front end pivotally coupled to said front frame, and an upper front end which includes a pair of shock-support members extending on either side of said tubular seat-support member.

- [54] **COMPUTER DESK**
- [76] **Inventor:** Jeffrey A. Turner, 2901 W. Laurel La., Phoenix, Ariz. 85029
- [*] **Notice:** The portion of the term of this patent subsequent to May 22, 2001 has been disclaimed.
- [21] **Appl. No.:** 611,340
- [22] **Filed:** May 17, 1984

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Related U.S. Application Data

- [63] Continuation of Ser. No. 246,143, Mar. 23, 1981, Pat. No. 4,449,762.
- [51] **Int. Cl.⁴** **A47B 57/00**
- [52] **U.S. Cl.** **312/196; 312/194; 312/195; 312/208; 108/25; 108/92**
- [58] **Field of Search** 312/196, 194, 195, 208, 312/107; 108/25, 92, 97, 4, 5; D6/161; 235/146

References Cited

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2,793,926	5/1957	Deaton	312/194
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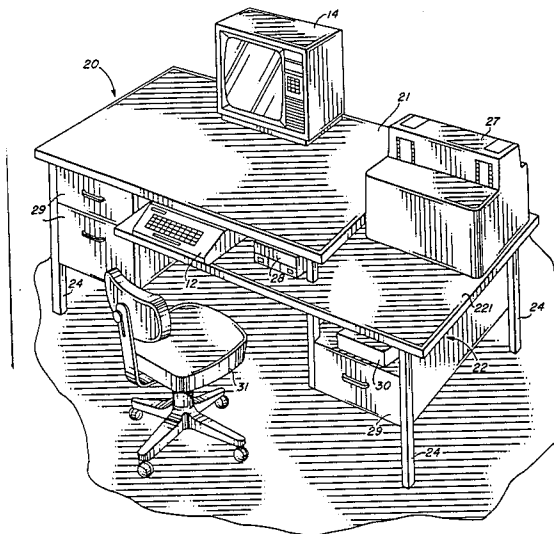
2818030	11/1979	Fed. Rep. of Germany	312/208
1371129	7/1964	France	312/195

Primary Examiner—Victor N. Sakran
Attorney, Agent, or Firm—Poms, Smith, Lande & Rose

[57] **ABSTRACT**

A computer desk may be utilized with computer keyboard terminal equipment or other devices requiring manual manipulation by a user. The desk permits the efficient support of such devices without sacrifice of the desk top working surface available to the user. The computer desk provides a support surface immediately below the work surface on the desk top. This support surface extends toward the desk-user a greater distance than does the desk top work surface. Thus, there is no interference between the desk top work surface and the user's access to equipment emplaced upon the support surface. An extension of the support surface to the side provides additional support areas for associated computer devices or the like without sacrifice of desk top work surface area. Storage areas beneath the desk top work surface and the support surface are provided to store materials and devices of use to a user of the computer desk.

9 Claims, 5 Drawing Figures



1. A computer desk for use with a computer keyboard terminal while preserving a clear desk top work space comprising:

an unencumbered planar desk top work surface;

means for emplacing and fully supporting [NOTE THE USE HERE OF A MEANS PLUS FUNCTION CLAUSE, WHICH MUST BE SUPPORTED IN THE SPECIFICATION]

a computer keyboard terminal below said desk top work surface comprising a support surface coupled below said desk top work surface a distance sufficient to provide support for a computer keyboard terminal; and

said desk top work surface and said support surface each comprises an edge nominally facing a user seated at said desk and said edge of said support surface is advanced toward said user to permit support of the keyboard of a computer keyboard terminal while providing convenient usable access to the keyboard of a terminal so emplaced and supported unimpeded by said desk top work surface.

[54] GOLF GLOVE

2,782,422 2/1957 Bencriscutto 2/161 A

[75] Inventor: He Chung Kahng, Glenview, Ill.

[73] Assignee: Hi-Kahng Trading Co., Chicago, Ill.

Primary Examiner—Geo. V. Larkin
Attorney, Agent, or Firm—Baker & McKenzie

[22] Filed: Dec. 16, 1974

[21] Appl. No.: 532,875

[52] U.S. Cl. 2/161 A; 2/21

[51] Int. Cl.² A41D 19/00

[58] Field of Search 2/16, 20, 21, 159, 161 R,
2/161 A, 163; 294/25

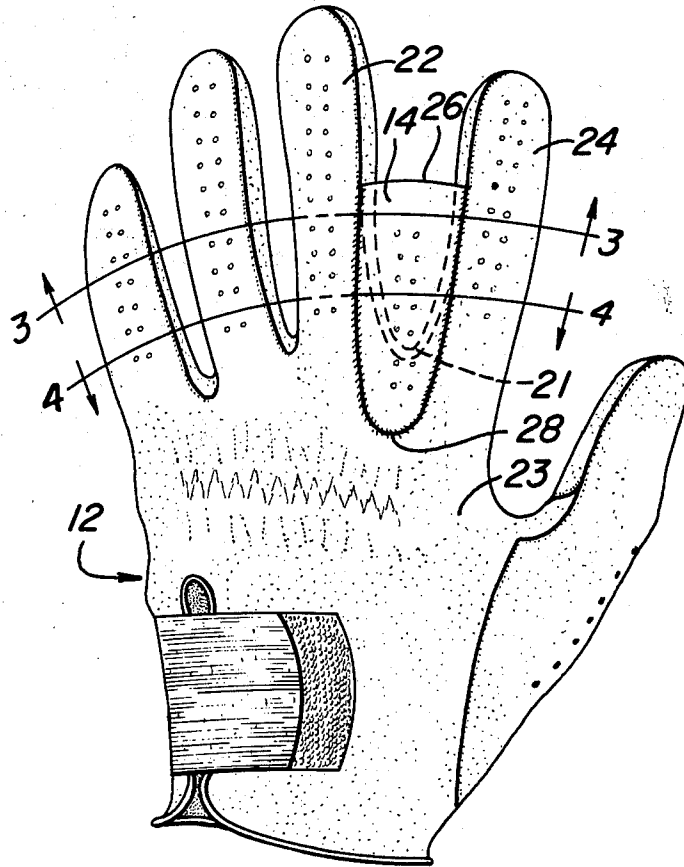
[57] ABSTRACT

A golf glove is disclosed having an extra finger pocket between the index and middle finger pockets for securing one finger of one hand of a golf player between the fingers of the player's other hand.

[56] References Cited
UNITED STATES PATENTS

2,379,430 7/1945 Frost 2/161 A

4 Claims, 6 Drawing Figures



1. A golf glove comprising [PREAMBLE]

[FIRST ELEMENT]

at least an index finger receptacle,

[SECOND ELEMENT]

a middle finger receptacle and

[THIRD ELEMENT]

a back surface

[FIRST LIMITATION OF THIRD ELEMENT]

extending from said receptacles in the direction of the wrist,

[SECOND LIMITATION OF THIRD ELEMENT]

and further comprising another finger receptacle

[THIRD LIMITATION OF THIRD ELEMENT]

disposed adjacent said index finger receptacle

[FOURTH LIMITATION OF THIRD ELEMENT]

and said middle finger receptacle

[FIFTH LIMITATION OF THIRD ELEMENT]

and overlapping a portion of said back section.

[54] **CAMPING APPARATUS FOR VAN-TYPE VEHICLE**

[76] Inventor: **Joseph Diliberti**, 9608 Easter Way, San Diego, Calif. 92131

[22] Filed: **Oct. 24, 1974**

[21] Appl. No.: **517,731**

[52] U.S. Cl. **296/23 R; 5/119; 108/44; 135/5 A; 312/237**

[51] Int. Cl.² **B60P 3/32**

[58] Field of Search **296/22, 24 A, 37 R, 23 R, 296/1 R; 224/42.1 H, 42.1 E, 42.1 R, 42.43, 42.44, 42.01, 42.1 G, 42.46 R, 42.46 A, 42.46 B; 135/5 A, 5 AT; 108/44, 48; 312/237; 5/119; 214/450; 248/235**

[56] **References Cited**

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3,720,438	3/1973	Johnson et al.	135/5 AT
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3,859,931	1/1975	Lalonde	108/44

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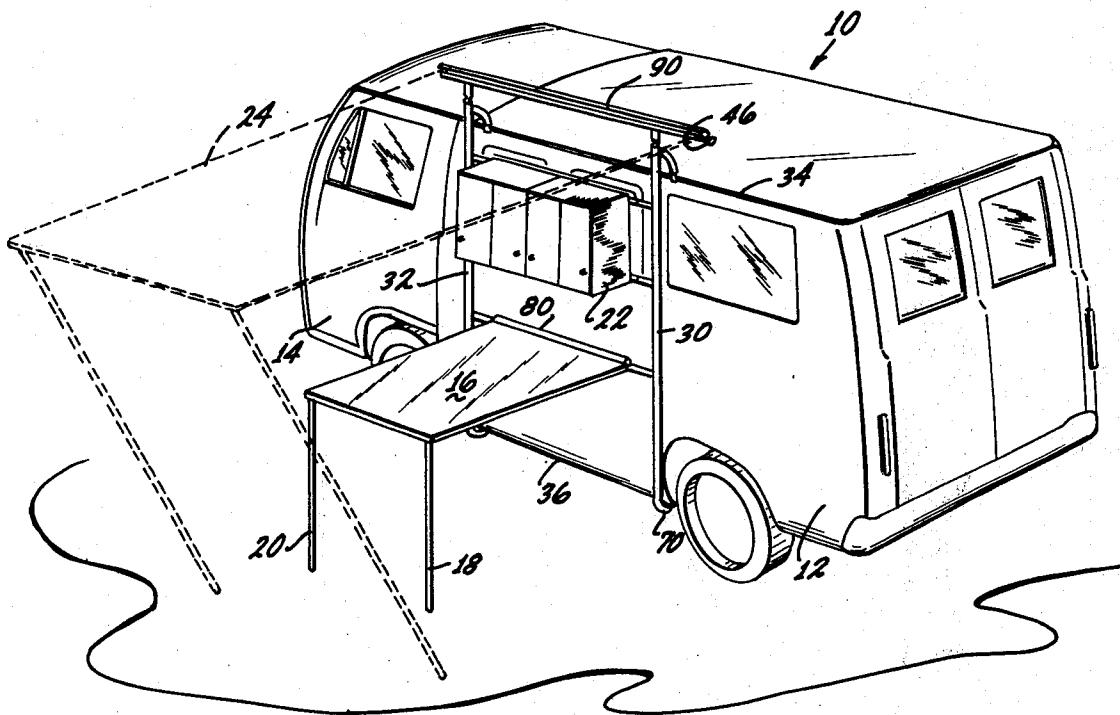
1,437,374	3/1966	France	135/5 A
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Primary Examiner—Robert J. Spar
Assistant Examiner—Ross Weaver
Attorney, Agent, or Firm—Brown & Martin

[57] **ABSTRACT**

A skeletal structure is assembled to the side of a van-type vehicle which structure comprises a pair of parallel, spaced main supporting members which are connected by means of a clamp arrangement to the roof rain gutter of the vehicle and those members include claws as their bottom terminal portions which are adapted to grasp the lower body part of the vehicle. Each of the main supporting members includes horizontal sleeves into which are fit horizontal supporting members which are utilized to support a series of cabinets, a dressing table and an awning. Each of the horizontal supporting members includes a female channel into which are fit compatible or mating channels which are connected to each of the table, cabinets and awning. The apparatus is transported in an unassembled condition and assembled when a camping site has been reached.

2 Claims, 7 Drawing Figures



NOTE:

In what follows, the draftsman used words and perhaps created a vocabulary to better describe the invention. For example:

Removably
Releasably
Tensionly
Slidable

Also note that although the word “comprises” is an open transition word, the draftsman uses the word “comprises” several times.

I Claim:

1. For use with a vehicle, a camping assembly which comprises:

a pair of main support members removably connected vertically to a side of the vehicle, in a spaced parallel relationship,

roof rain gutter attachment means for removably attaching said main support members to a roof rain gutter of the vehicle,

said roof rain gutter attachment means comprises a member projecting from each of said main support members to a point spaced outwardly therefrom and above the roof rain gutter and sloping toward and laterally adjacent the roof rain gutter,

vice means connected to the laterally adjacent terminal end of said members for releasably locking said roof rain gutter in said vice means,

said vice means comprising a fixed arm depending from said member and engaging said roof rain gutter, and

an adjustable clamp member contoured similar to the contour of the roof rain gutter and adapted to grasp the roof rain gutter with substantial surface contiguity,

the lower extremity of each of said main support members being contoured for closely abutting a lower body part of the vehicle, whereby the main support members are tensionly assembled to the vehicle,

a plurality of horizontally extending auxiliary support members removably connected to said main support members, female channel members connected to said auxiliary support members,

a cabinet and awning each adapted for connection to one of said auxiliary support members, each of said cabinet and awning having a male channel connected to one end thereof for slidable reception in said female channels,

and a pin removably received in mutually aligned holes in said male and female channels to secure said male channel in said female channel.



US005340075A

United States Patent [19]

Schriner

[11] Patent Number: **5,340,075**

[45] Date of Patent: **Aug. 23, 1994**

- [54] **ERGONOMIC MOUSE PAD**
- [75] Inventor: **Michael J. Schriner**, Bay Village, Ohio
- [73] Assignee: **Hunt Holdings, Inc.**, Wilmington, Del.
- [21] Appl. No.: **925,729**
- [22] Filed: **Aug. 5, 1992**
- [51] Int. Cl.⁵ **A47B 91/00**
- [52] U.S. Cl. **248/346; 248/118**
- [58] Field of Search 248/118, 118.1, 118.3, 248/118.5, 346, 918, 633; 400/715; 340/710; D14/114

5,056,743	10/1991	Zwar et al.	248/118
5,125,606	6/1992	Cassano et al.	400/715 X
5,131,614	7/1992	Garcia et al.	248/118
5,162,781	11/1992	Cambridge	340/710
5,165,630	11/1992	Connor	248/118.1

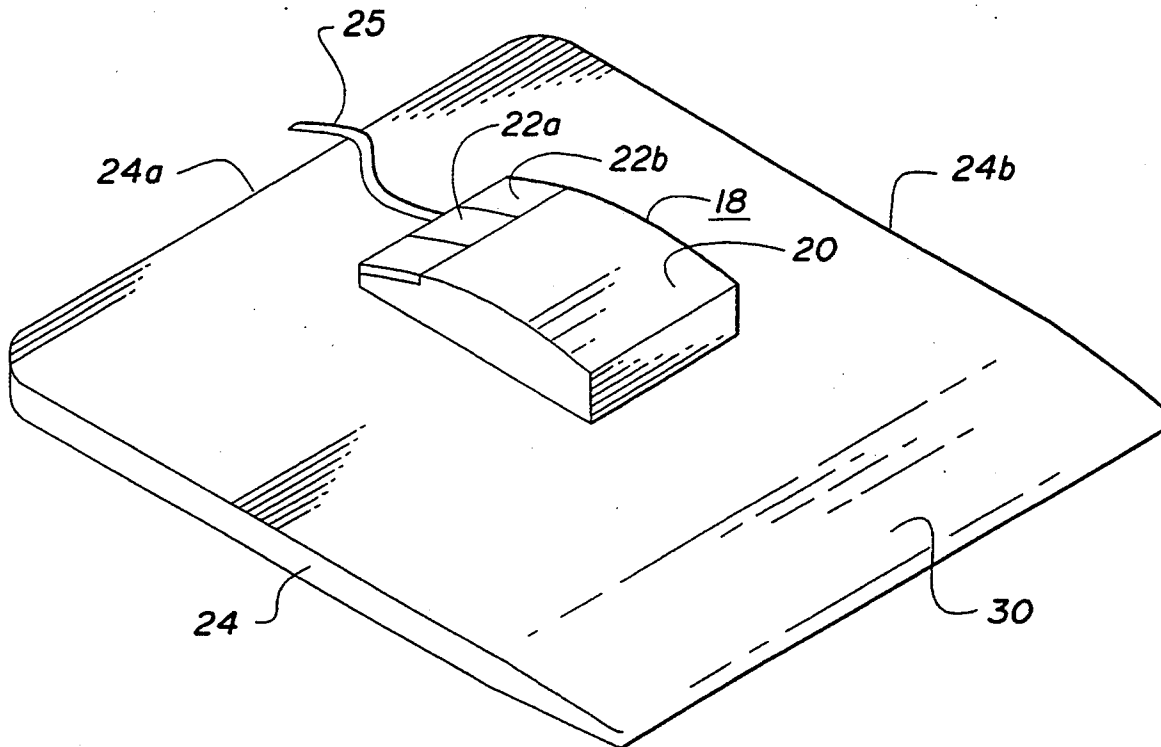
Primary Examiner—Ramon O. Ramirez
Attorney, Agent, or Firm—Synnestvedt & Lechner

[57] **ABSTRACT**

An improved ergonomic mouse pad is disclosed. The mouse pad comprises a four-sided pad constructed from non-skid polymer and having a substantially planar top surface for supporting a computer mouse. Three of the sides of the pad are supported by a vertical sidewall. The planar top surface proximate to the fourth side forms a curved region for facilitating the comfort and ease of use of the hand and wrist of a mouse user.

- [56] **References Cited**
- U.S. PATENT DOCUMENTS**
- D. 285,203 8/1986 Milroy et al. D14/114

3 Claims, 4 Drawing Sheets



1. An ergonomic mouse pad comprising:

a pad having a front edge and a rear edge, and a first substantially flat and horizontal top surface region extending from said rear edge toward said front edge for supporting a computer mouse during its use, and having a second top surface region merging smoothly and sloping downwardly from said first top surface region to said front edge of said pad to provide support and comfort for the hand and wrist of a user of the mouse.

[54] SPORTING SHOES

3,427,020 2/1969 Montour et al. 36/2.5 R
3,546,796 12/1970 Adams 36/2.5 R

[76] Inventors: **Kyozo Sasaki**, No. 4-8, Rokuro kuso-cho; **Minoru Murayama**, No. 18-203, 8-chome, Saido-cho, both of Ashiya, Hyogo, Japan

Primary Examiner—Patrick D. Lawson
Attorney, Agent, or Firm—George B. Oujevolk

[22] Filed: **Dec. 12, 1974**

[57] **ABSTRACT**

[21] Appl. No.: **531,853**

A shoe of the sneaker type. This sneaker is provided with a shoelace or shoe string having branch strings or with a plural number of strings so that said string or strings may be tightened across the instep at a plural number of spots on the shoe. By this, the shoe can be tightened for fitting by the wearer without taking the trouble of adjusting the string as in the case of conventional sneakers.

[52] U.S. Cl. **36/2.5 R; 36/50**

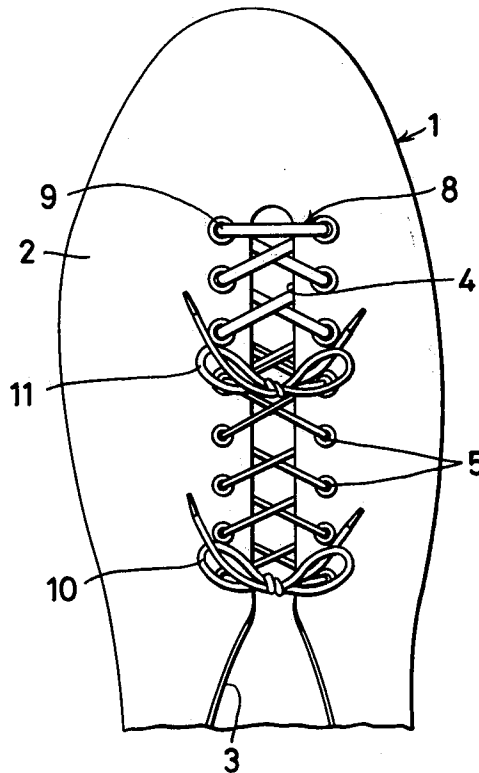
[51] Int. Cl.² **A43B 11/00**

[58] Field of Search **36/2.5 R, 50**

[56] **References Cited**
UNITED STATES PATENTS

453,475 6/1891 Harding 36/2.5 R

3 Claims, 5 Drawing Figures



1. A shoe, including [SIMPLE PREAMBLE]

[FIRST ELEMENT]

an instep

[FIRST LIMITATION]

with a plural number of elongated shoe strings,

[FIRST LIMITATION OF FIRST LIMITATION]

said strings having a middle section

[SECOND LIMITATION OF FIRST LIMITATION]

and being so arranged as to be tightened across said instep at a plurality of locations,

[SECOND ELEMENT]

and, fastening means at said middle portion combining said strings in parallel.

[54] **SPEAKER SYSTEM**

[75] **Inventor:** John L. Butler, Marshfield, Mass.
 [73] **Assignee:** Ambient, Inc., N. Marshfield, Mass.
 [22] **Filed:** Apr. 8, 1974
 [21] **Appl. No.:** 458,843

Primary Examiner—Stephen J. Tomsky
Attorney, Agent, or Firm—Wolf, Greenfield & Sacks

[52] **U.S. Cl.** 181/144; 181/153; 181/147
 [51] **Int. Cl.²** H05K 5/00
 [58] **Field of Search** 181/144-154;
 179/1 GA, 1 E

[57] **ABSTRACT**

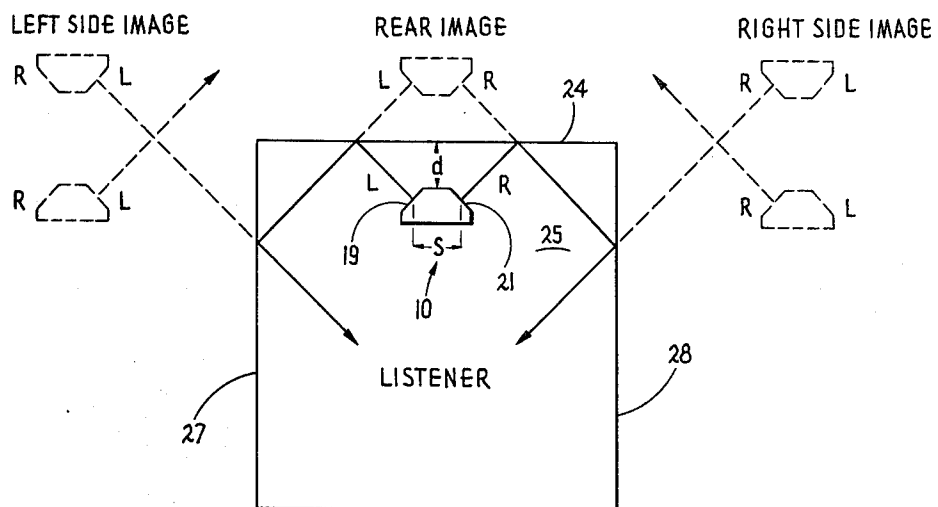
The system provides improved bass response and stereo effect with the use of a plurality of speakers that are preferably disposed in a unitary cabinet. If two woofer speakers are employed they are disposed at an angle to each other and are disposed relatively close to each other to provide mutual coupling and improved bass response. Also, the speakers are spaced from a rear wall of the listening room so as to permit the coupling and also to enhance the spacial response by sound reflection from not only the rear wall but also the side walls thereby also providing improved sound realism through increased reverberation. Quadraphonic operation is also readily provided with the use of two cabinets.

[56] **References Cited**

UNITED STATES PATENTS

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2,710,662	6/1955	Camras	181/145
3,131,783	5/1964	Mares	181/145
3,582,553	6/1971	Bose	181/147
3,627,948	12/1971	Nichols	181/147
3,670,842	6/1972	Ekdahl et al.	181/147

9 Claims, 5 Drawing Figures



What is claimed is:

1. A speaker system for use in a listening room having means defining a plurality of reflective surfaces including an end wall, said system comprising [PREAMBLE USES THE TRANSITION WORDS “including” AND “comprising”, but only the last one, “comprising” is the TRANSITION FOR THIS CLAIM]

a unitary dual channel speaker enclosure

having a plurality of enclosing walls [WHEN MORE THAN ONE IS NECESSARY, THE WORD “plural” or “plurality” IS USED.

including a pair of walls disposed at an angle, other than a straight angle, to each other and also at an acute angle to the end wall of the room, and a pair of speaker arrays each including a low audio frequency speaker and an upper audio frequency speaker, each array carried, respectively, by each wall of the pair of walls and the speakers of each array being operated from different stereo channels to provide left and right channel signals to respective arrays

thereby providing stereo effect in a unitary enclosure,

each said low frequency speaker operating over a low frequency range having an upper frequency limit, said enclosure being positioned a predetermined distance from the end wall to permit mutual coupling between the low audio frequency speakers wherein the distance d is less than or equal to $\lambda/4$ wherein λ is the wavelength of sound corresponding to the upper frequency limit of the low frequency speakers, said low frequency speakers being disposed apart a distance s to provide mutual radiation resistance at bass frequencies, and radiating toward the end wall, wherein the distance s is less than or equal to $\lambda/2$ where λ is the wavelength of sound corresponding to the upper frequency limit of the low frequency speakers.

[54] ADJUSTABLE TENNIS RACKET HANDLE

[76] Inventor: John K. Hedberg, 4970 Lowell Blvd., Denver, Colo. 80221

[22] Filed: May 13, 1974

[21] Appl. No.: 469,705

[52] U.S. Cl. 273/75; 273/73 J; 273/81.2

[51] Int. Cl.² A63B 49/08

[58] Field of Search 273/75, 73 J, 81.2, 80 D, 273/1.5 R

[56] References Cited

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2,379,572	7/1945	Gibson	273/1.5 R X
3,534,960	10/1970	Hanks	273/75
3,560,033	2/1971	Barkus	273/81.2 UX
3,674,267	7/1972	Hollis	273/75

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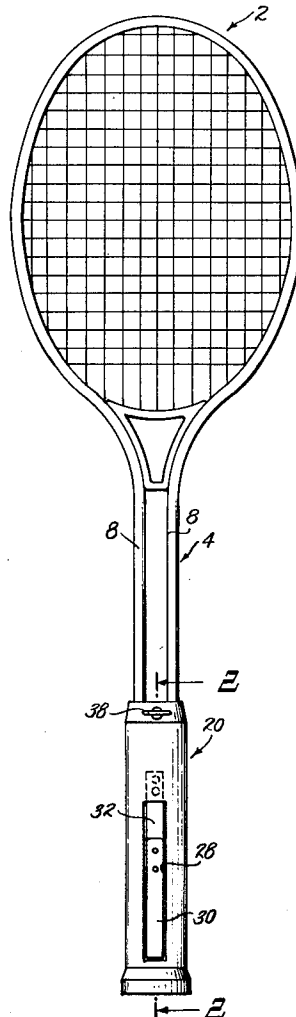
772,931 4/1957 United Kingdom..... 273/81.2

Primary Examiner—Paul E. Shapiro
Attorney, Agent, or Firm—Bacon & Thomas

[57] ABSTRACT

A tennis racket handle is slidably adjustable along a shank and a ball movable with the handle is engageable in any of a plurality of longitudinally spaced depressions on the shank. In one form the ball is urged away from the depressions by a spring and can be held in a selected depression only by a firm grip on the handle. In another form a spring and cam normally holds the ball in a selected depression and is released by pressing a button extending to the exterior of the handle.

4 Claims, 10 Drawing Figures



1. A tennis racket having a head and a shank fixed thereto;

a handle slidably mounted on said shank for sliding movement thereon toward and from said head and having a hand-grip portion;

interengageable means on said shank and on said handle for releasably latching said handle in each of a plurality of positions along said shank;

said interengageable means on said handle being movably carried thereby for movement thereon toward and from said shank;

resilient means urging said interengageable means on said handle in a direction outwardly of said handle;

manually interengageable means on said hand-grip portion, adjacent the outer surface thereof, positioned to be engageable by the hand of a player gripping said hand-grip portion and being movable to move said interengageable means on said handle against the urging of said resilient means whereby a player may, by manipulating the hand holding the racket, selectively latch or release said handle relative to said shank.

[54] TOOTHBRUSH

[76] Inventor: James S. H. Kim, 105 Kingston Court, New Orleans, La. 70114

[22] Filed: Apr. 23, 1974

[21] Appl. No.: 463,205

[52] U.S. Cl. 15/167 R; 15/106
 [51] Int. Cl.² A46B 9/04
 [58] Field of Search..... 15/167 R, 167 A, 176, 106

[56] References Cited

UNITED STATES PATENTS

1,682,548	8/1928	Bigoney	15/167
1,981,657	11/1934	Miller	15/167
2,043,898	6/1936	Malcolm	15/167
2,845,649	8/1958	Hutson	15/167
3,624,667	11/1971	Muhler	15/167
3,742,549	7/1973	Scopp et al.	15/167

FOREIGN PATENTS OR APPLICATIONS

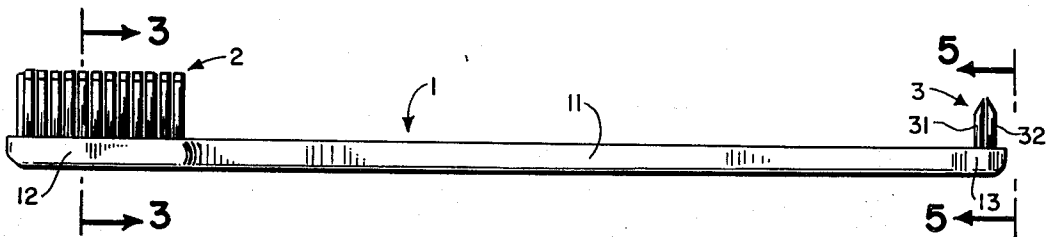
1,100,290	3/1955	France	15/167
177,878	3/1954	Austria	15/167

Primary Examiner—Peter Feldman
 Attorney, Agent, or Firm—Pugh & Keaty

[57] ABSTRACT

A double-ended toothbrush having two bristle portions, a major or larger, contoured bristle portion at one end and a minor or smaller wedge-shaped bristle portion at the other, both formed of parallel rows of bristles extending out perpendicularly from a base which is longer and narrower than most available toothbrushes. The larger brush head has four parallel rows of tufts (except at its end) which are shaped or contoured to conform to the natural contour of the teeth and gingivae, with the two outer rows forming a shallow concavity, the shape allowing the use of the natural back-and-forth brushing action. The smaller, interdental brush head is made of six tufts arranged in two parallel rows which are cut in a uni-bevel facing outwards to form a small wedge-shaped interdental brush.

10 Claims, 16 Drawing Figures



1. A double-ended tooth-brush comprising: [THIS IS REFERRED TO AS THE PREAMBLE]

[FIRST ELEMENT]

an elongated handle

[LIMITATION OF THE FIRST ELEMENT]
having two end portions;

[SECOND ELEMENT]
a first major brush portion

[LIMITATION OF THE SECOND ELEMENT]
mounted on one of said end portions consisting of a group of parallel, juxtaposed tufts, of parallel bristles emanating out from said handle in a direction perpendicular thereto; and

[THIRD ELEMENT]
a second smaller interdental brush portion

[LIMITATION OF THE THIRD ELEMENT]
mounted on the other of said end portions consisting of a group of parallel, juxtaposed tufts of parallel bristles emanating out from said handle in a direction perpendicular thereto,

[STATEMENT OF FUNCTION]
whereby said major brush portion can be used to clean the major tooth surfaces, and, as a supplement to said major brush portion, said interdental brush portion can be used as a cleanser of interdental and interproximal spaces and as an interdental stimulator.