



US00D381016S

# United States Patent [19]

[11] Patent Number: **Des. 381,016**

Paull et al.

[45] Date of Patent: **\*\*Jul. 15, 1997**

[54] **PALM REST PORTION FOR A KEYBOARD**

D. 341,134 11/1993 Marquardt et al. .... D14/115  
D. 345,152 3/1994 Mermod, Jr. .... D14/115

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(List continued on next page.)

### FOREIGN PATENT DOCUMENTS

43 04 470 8/1994 Germany ..... G06F 3/023  
WO92/14612 9/1992 WIPO ..... B41J 5/00

### OTHER PUBLICATIONS

Swenson, John, "New keyboard designed for Microsoft Windows." *Journal American* (Bellevue, Washington), pp. C1-C2. Sep. 12, 1994.

Churbuck, David C., "My aching hands!", *Forbes*, p. 246, Dec. 20, 1993.

"PS/2E" advertisement, *National Geographic*, Sep., 1993.  
"As RSIs skyrocket, companies are finally taking ergonomics seriously," *PC Week Special Report*, Jun. 28, 1993, p.126.

(List continued on next page.)

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[73] Assignee: **Microsoft Corporation**, Redmond, Wash.

[\*\*] Term: **14 Years**

[21] Appl. No.: **52,741**

[22] Filed: **Mar. 28, 1996**

### Related U.S. Application Data

[60] Continuation of Ser. No. 44,052, Sep. 15, 1995, which is a division of Ser. No. 19,133, Feb. 23, 1994, Pat. No. Des. 362,432, which is a continuation-in-part of Ser. No. 10,111, Jun. 25, 1993, Pat. No. Des. 357,476, and a continuation-in-part of Ser. No. 10,112, Jun. 25, 1993, Pat. No. Des. 357,011.

[51] **LOC (6) Cl.** ..... **14-02**

[52] **U.S. Cl.** ..... **D14/114**

[58] **Field of Search** ..... D14/100, 101, D14/106, 115, 114; D18/1, 7; 235/145 A, 145 R; 200/5 A, 5 R, 6 A, 6 R; 345/168; 364/708.1

### [57] CLAIM

The ornamental design for a palm rest portion for a keyboard, as shown and described.

### DESCRIPTION

FIG. 1 is a front perspective view of a palm rest portion for a keyboard showing our new design;

FIG. 2 is a top plan view thereof;

FIG. 3 is a front elevational view thereof;

FIG. 4 is a bottom plan view thereof;

FIG. 5 is a left side elevational view thereof; and,

FIG. 6 is a right side elevational view thereof.

The broken lines are for illustrative purposes only and form no part of the claimed design.

### [56] References Cited

#### U.S. PATENT DOCUMENTS

D. 317,595 6/1991 Yoshitake ..... D14/100  
D. 323,817 2/1992 Büchen ..... D14/100  
D. 339,800 9/1993 Louis ..... D14/115  
D. 340,445 10/1993 Marquardt et al. .... D14/115

**1 Claim, 5 Drawing Sheets**



## U.S. PATENT DOCUMENTS

|            |         |                |       |            |
|------------|---------|----------------|-------|------------|
| D. 347,216 | 5/1994  | Ciccone        | ..... | D14/114    |
| D. 348,453 | 7/1994  | Riley et al.   | ..... | D14/115    |
| D. 357,011 | 4/1995  | Paull et al.   | ..... | D14/115    |
| D. 357,476 | 4/1995  | Paull et al.   | ..... | D14/115    |
| D. 361,562 | 8/1995  | Beltz          | ..... | D14/115    |
| D. 362,432 | 9/1995  | Paull et al.   | ..... | D14/114    |
| D. 364,155 | 11/1995 | Chung          | ..... | D14/115    |
| 4,378,553  | 3/1983  | McCall         | ..... | 340/365 R  |
| 4,483,634  | 11/1984 | Frey et al.    | ..... | 400/489    |
| 4,655,621  | 4/1987  | Holden         | ..... | 400/100    |
| 4,669,903  | 6/1987  | Herzog et al.  | ..... | 400/489    |
| 4,949,080  | 8/1990  | Mikan          | ..... | 340/711    |
| 4,974,183  | 11/1990 | Miller         | ..... | 364/709.12 |
| 5,004,196  | 4/1991  | Gross          | ..... | 248/118.3  |
| 5,017,030  | 5/1991  | Crews          | ..... | 400/485    |
| 5,021,771  | 6/1991  | Lachman        | ..... | 340/709    |
| 5,056,743  | 10/1991 | Zwar et al.    | ..... | 248/118    |
| 5,073,050  | 12/1991 | Andrews        | ..... | 400/82     |
| 5,119,078  | 6/1992  | Grant          | ..... | 340/741    |
| 5,129,747  | 7/1992  | Hutchison      | ..... | 400/489    |
| 5,144,302  | 9/1992  | Carter et al.  | ..... | 341/20     |
| 5,145,270  | 9/1992  | Darden         | ..... | 400/488    |
| 5,156,475  | 10/1992 | Zilberman      | ..... | 400/472    |
| 5,158,256  | 10/1992 | Gross          | ..... | 248/118.3  |
| 5,212,473  | 5/1993  | Louis          | ..... | 340/711    |
| 5,242,139  | 9/1993  | Aldrich        | ..... | 248/118    |
| 5,244,296  | 9/1993  | Jensen         | ..... | D14/114 X  |
| 5,302,040  | 4/1994  | Louis          | ..... | 400/489    |
| 5,339,097  | 8/1994  | Grant          | ..... | 345/168    |
| 5,360,280  | 11/1994 | Camacho et al. | ..... | 400/489    |
| 5,372,441  | 12/1994 | Louis          | ..... | 345/168 X  |
| 5,397,189  | 3/1995  | Minogue        | ..... | 400/489    |
| 5,456,542  | 10/1995 | Welch et al.   | ..... | 400/492    |
| 5,464,292  | 11/1995 | Grant          | ..... | 400/715    |

## OTHER PUBLICATIONS

"Marquardt MiniErgo-MF2," *PC Week*, Jun. 7, 1993 and blow up of picture at bottom of p. 93.

Adler, Jerry et al., "Typing Without Keys," *Newsweek*, Dec. 7, 1992, 2 pages.

Marquardt-MiniErgo 1:1 brochure, Sep., 1992.

Lu, H. and F. Aghazaden, "Infogrip Chordic Keyboard Evaluation," *Proceedings of the Human Factors Society 36th Annual Meeting*, 1992, pp. 268-271.

Kroemer, K.H.E., "Use and Research Issues Of A New Computer Keyboard," *Proceedings of the Human Factors Society 36th Annual Meeting*, 1992, pp. 272-275.

Feder, Baraby J., "Different Strokes for Computing," *The New York Times*, Aug. 9, 1992, p. 9.

"Ergonomic requirements for office work with visual display terminals (VDTs)—Part 4: Keyboard requirements," Draft International Standard for ISO, 1992, pp. 1-45.

"Input Device For OS/2," *IBM Technical Disclosure Bulletin*, Apr., 1991, p. 255.

Metker, Thomas et al., "Ergonomic keyboard design—studies of learning and relearning," University of Muenster, Department of Psychology, 1991, pp. 1-9.

"Comfy typer," *Popular Science*, Sep., 1990, p. 10.

Thompson, David A. et al., "Analysis of the Tony!™ Variable Geometry VDT Keyboard," *Proceedings of the Human Factors Society 34th Annual Meeting*, 1990, pp. 365-369.

Dyer, Hilary et al., *Human Aspects of Library Automation*, 1990, pp. 97-99.

Ilg, Rolf, "Ergonomic keyboard design," *Behaviour and Information Technology*:693), 1987, pp. 303-309.

*Ergonomic Keyboard Design Results of a Research Project*, Fraunhofer Institute for Industrial Engineering and Organization, Stuttgart, 1987, 4 pages.

"Split Keyboard," *IBM Technical Disclosure Bulletin*: 29(7), Dec. 1986, p. 3110.

Nakaseko, M. et al., "Studies on Ergonomically Designed Alphanumeric Keyboards," *Human Factors* : 27(2), 1985, pp. 175-187.

Noyus, Jan, "The QWERTY keyboard: a review," *Int. J. Man-Machine Studies*:18, 1983, pp. 265-281.

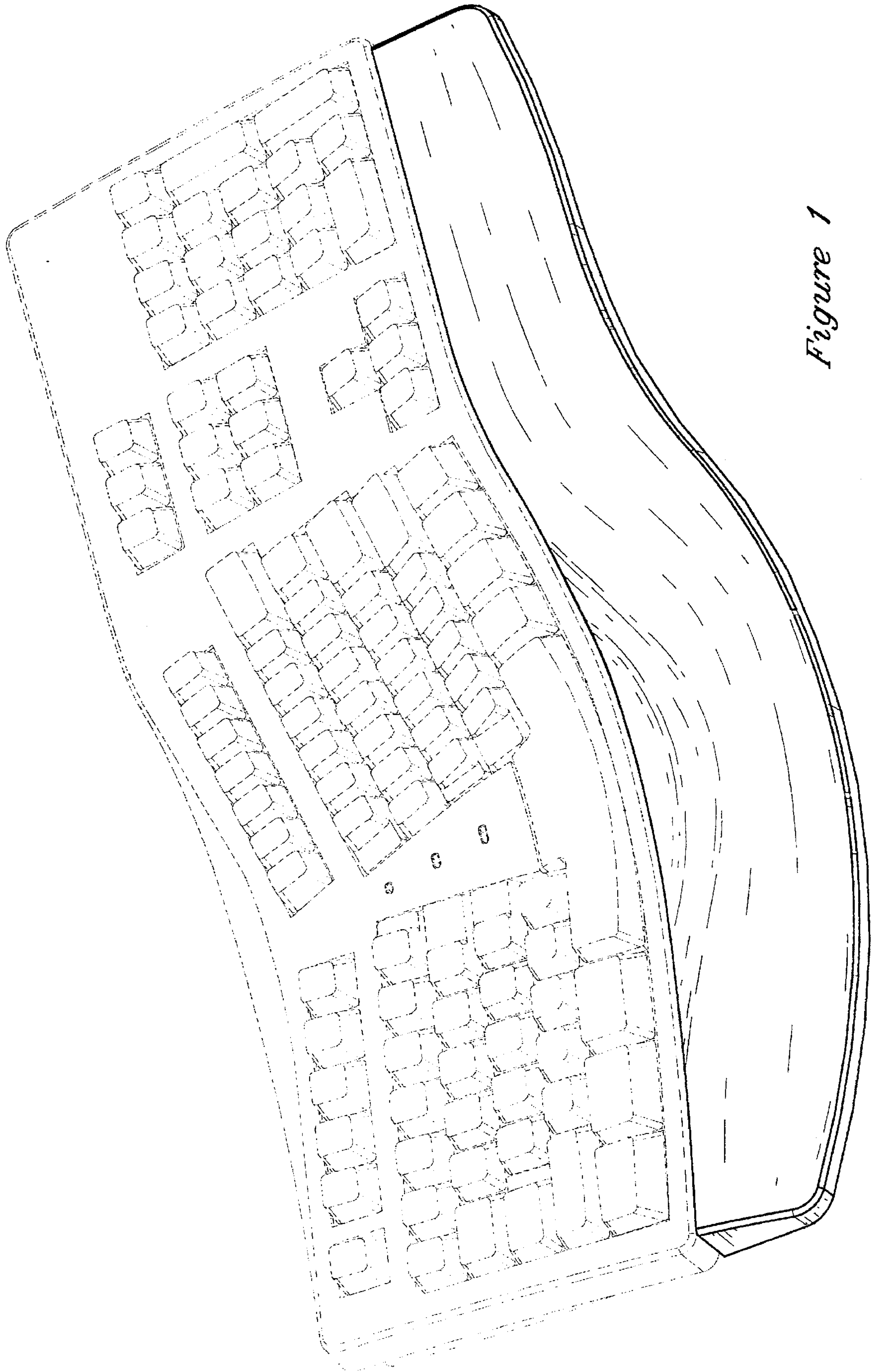
Phasant, Steven, "Working With Computers," *Ergonomics, Work and Health*, 1980, pp. 240-244.

Kroemer, K.H.E., "Human Engineering the Keyboard," *Human Factors*: 14(1), 1972, pp. 51-63.

"Introducing The Color-Book!" brochure, Gateway 2000, 1993.

"MyKey," brochure, Ergonomixx, 1994.





*Figure 1*

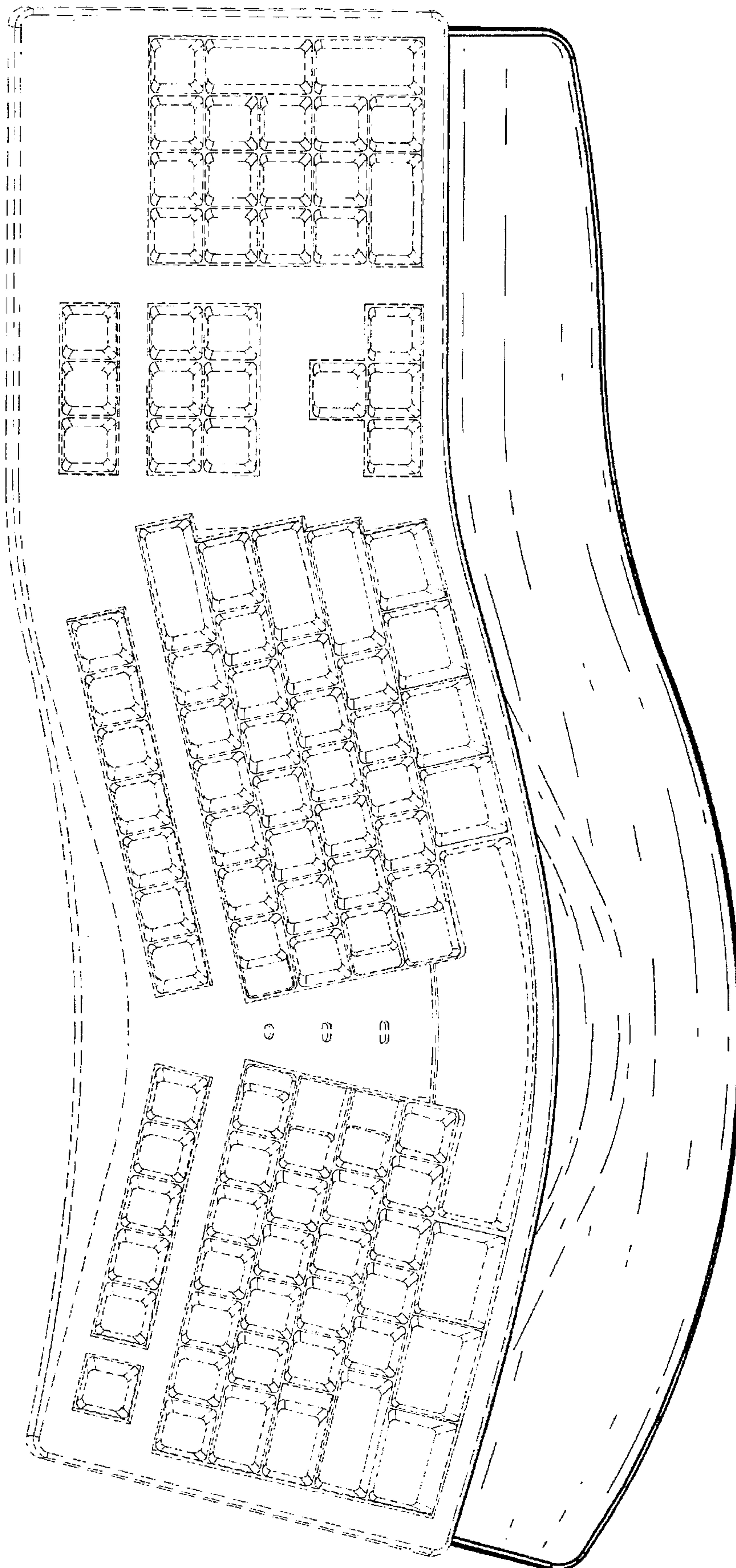
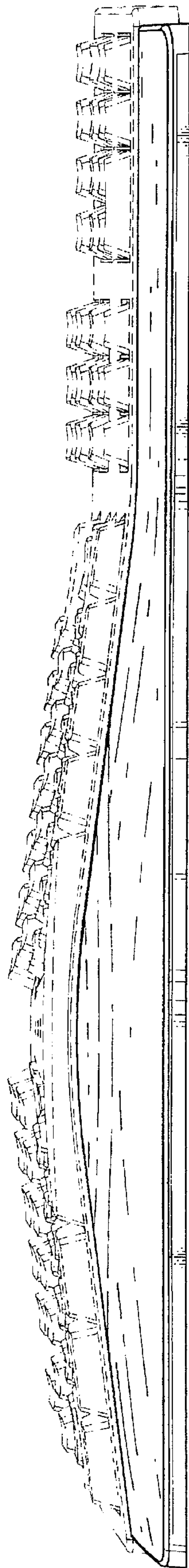


Figure 2

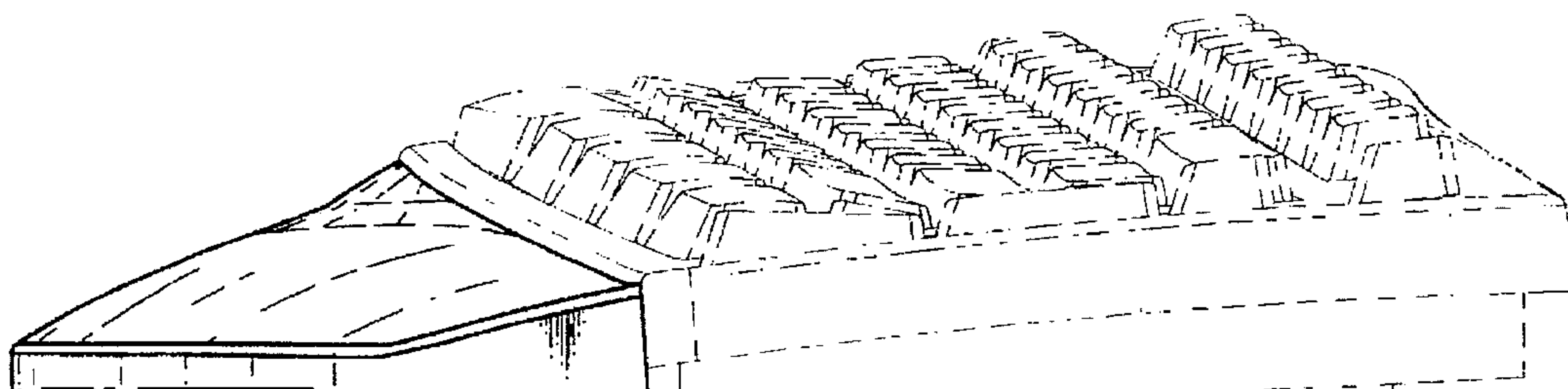


*Figure 3*

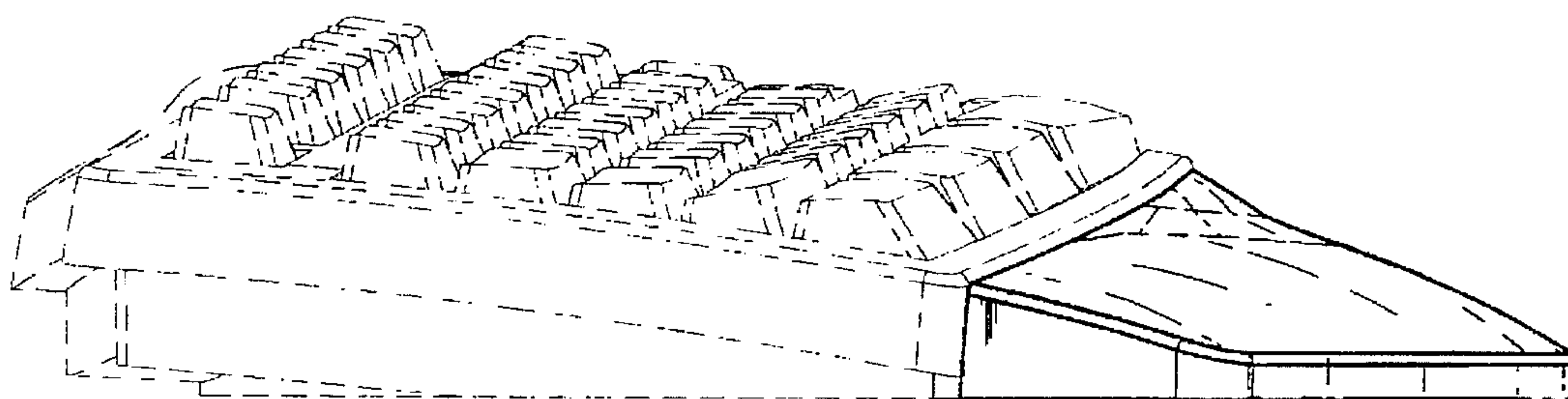


*Figure 4*





*Figure 6*



*Figure 5*