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Corley et al.

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- (54) **KEYBOARD FOR A HANDHELD COMMUNICATION DEVICE**
- (75) Inventors: **Cortez Corley, Waterloo (CA); Roman Peter Rak, Waterloo (CA)**
- (73) Assignee: **Research in Motion Limited (CA)**
- (**) Term: **14 Years**

EP	0685801	12/1995
EP	0732646	9/1996
EP	0760291	3/1997
EP	0882259	12/1998
EP	0540147	6/1999
EP	1143327	10/2001
GB	2242047	9/1991
JP	2002-251253	6/2002

(Continued)

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Related U.S. Application Data

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- (51) **LOC (8) Cl.** **14-03**
- (52) **U.S. Cl.** **D14/247; D14/455**
- (58) **Field of Classification Search** D14/137, D14/138, 147-148, 247-248, 144, 390, 391, D14/399, 341-347; 379/433.01-433.13, 379/434, 368; 455/550.1-90.3, 575.3, 566, 455/575.1, 575.4, 575.6, 556.1, 556.2; D21/517, D21/329, 331, 333; 345/169, 168; 400/486; D13/168

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

606,903	A	7/1898	Torrey et al.
1,030,002	A	6/1912	Schmitt
1,319,687	A	10/1919	Bates
3,293,362	A	12/1966	Veldkamp
3,633,724	A	1/1972	Samuel

(Continued)

FOREIGN PATENT DOCUMENTS

EP	0129996	1/1985
EP	0267801	5/1988
EP	0278169	8/1988
EP	0538020	4/1993

OTHER PUBLICATIONS

“Programmable Calculators: Hewlett-Packard HP-200LX,” Viktor T. Toth, copyr. 2001, 2002, from web page at www.r-skey.org/hp2001x.htm.

Anonymous: Triangular Toggle Keys for Touch-Tone Phones; IBM Technical Disclosure Bulletin, vol. 31, No. 1, Jun. 1, 1988, pp. 47-49, New York, US.

IBM Technical Disclosure Bulletin; vol. 18, No. 12; May 1976; pp. 4187-4190.

“Phone Key Pads”; from web page www.dialabc.com/motion/keypads.html; printed Jan. 21, 2004.

(Continued)

Primary Examiner—Jeffrey Asch
(74) *Attorney, Agent, or Firm*—Jones Day; Krishna K. Pathiyal; Robert C. Liang

(57) **CLAIM**

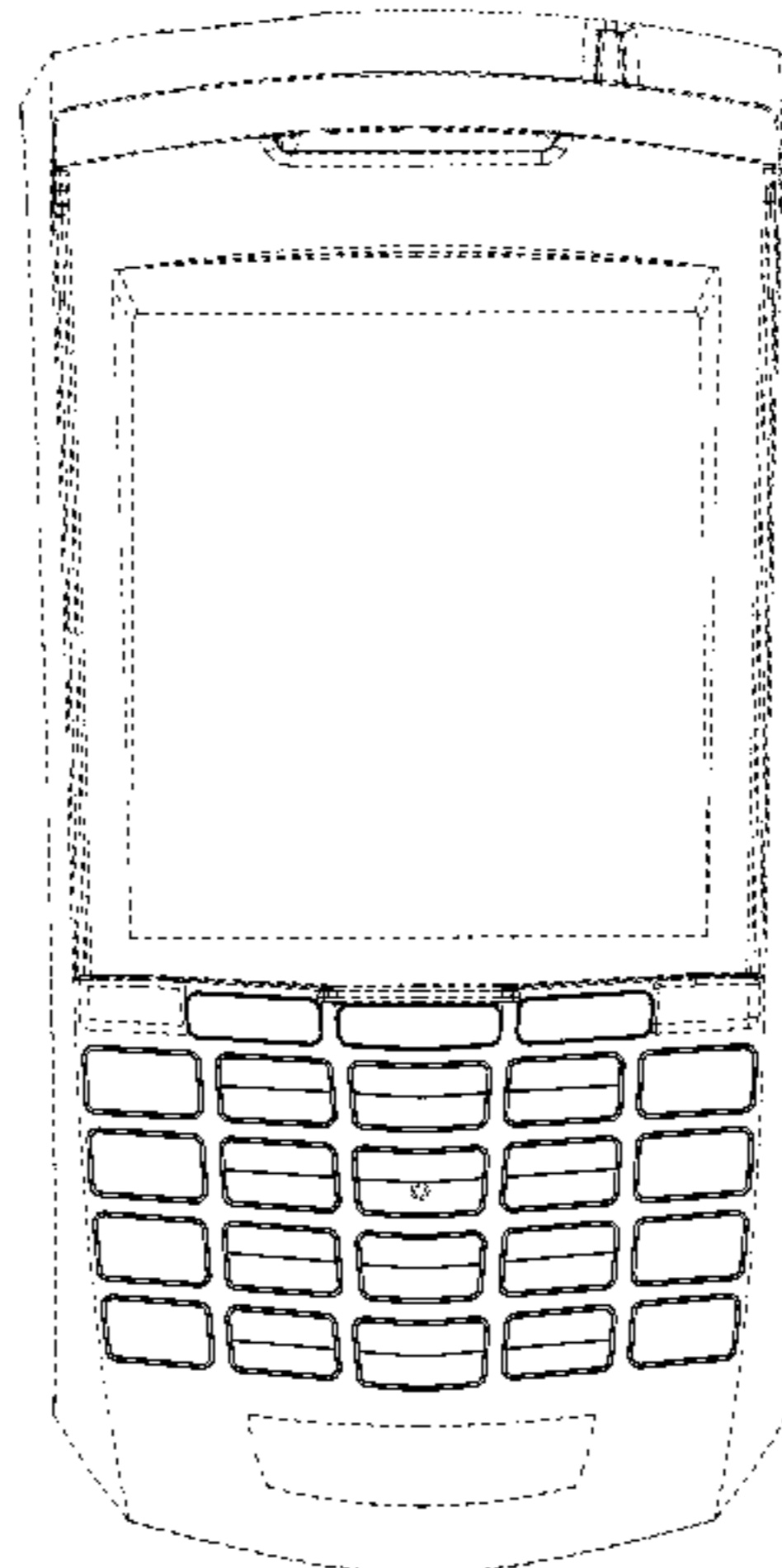
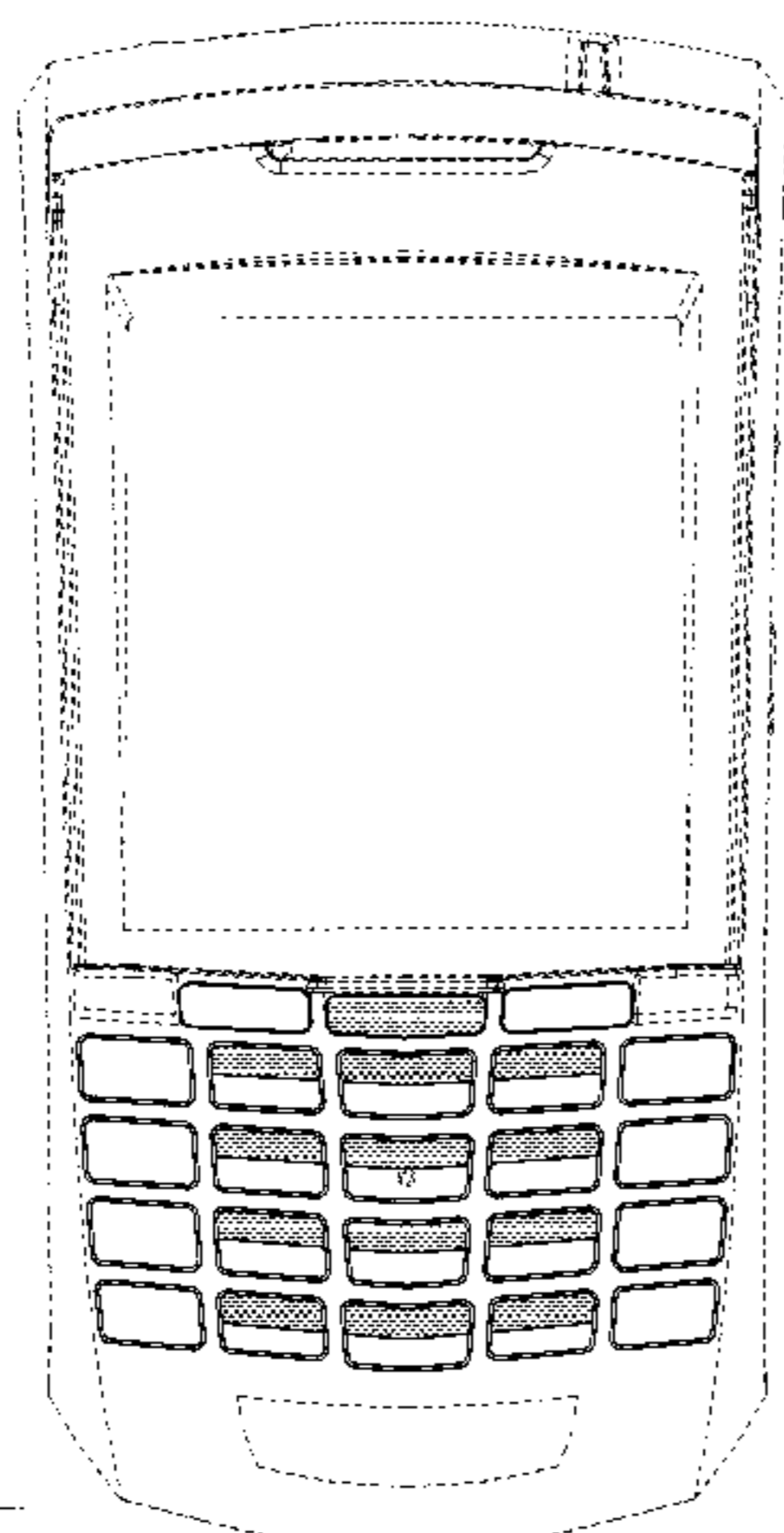
The ornamental design for a keyboard for a handheld communication device, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of an keyboard for a handheld communication device of my new design;
FIG. 2 is a front view thereof;
FIG. 3 is a perspective view of a second embodiment of the keyboard for a handheld communication device of my new design; and,
FIG. 4 is a front view thereof.

The shading at the top of each of the central keys in the first embodiment is intended to represent color contrast.
The broken line showings of FIGS. 1-4 are for illustrative purposes only and form no part of the claimed design.

1 Claim, 4 Drawing Sheets



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U.S. PATENT DOCUMENTS					
D228,137 S	8/1973	Chadima, Jr.	D396,215 S	7/1998	Inukai
D237,622 S	11/1975	Oyama	5,786,776 A	7/1998	Kisaichi et al.
3,967,273 A	6/1976	Knowlton	D397,369 S	8/1998	Rissman
4,029,915 A	6/1977	Ojima	5,790,103 A	8/1998	Willner
D249,345 S	9/1978	Oliveira et al.	D397,679 S	9/1998	Hawkins et al.
D258,956 S	4/1981	Chadima, Jr.	D397,728 S	9/1998	Yuen et al.
D266,855 S	11/1982	Yoshioka et al.	D399,537 S	10/1998	Chi et al.
4,449,839 A	5/1984	Bleuer	5,818,437 A	10/1998	Grover et al.
D278,059 S	3/1985	Desrochers	5,825,353 A	10/1998	Will
D278,341 S	4/1985	Scheid	5,827,082 A	10/1998	Laine
D291,201 S	8/1987	Weisel, et al.	5,841,374 A	11/1998	Abraham
D293,241 S	12/1987	Wan et al.	D402,572 S	12/1998	Han
D298,546 S	11/1988	Yoshioka et al.	D403,362 S	12/1998	Fai
D298,622 S	11/1988	Yubisui et al.	D403,667 S	1/1999	Musha
D299,251 S	1/1989	Enda et al.	5,861,821 A	1/1999	Kato et al.
D303,112 S	8/1989	Desrochers	D406,839 S	3/1999	Forget
D303,981 S	10/1989	Takemata et al.	5,893,798 A	4/1999	Stambolic et al.
D304,175 S	10/1989	Sakaguchi et al.	D409,185 S	5/1999	Kawashima
D304,718 S	11/1989	Sakaguchi et al.	D409,601 S	5/1999	Wicks et al.
4,879,557 A	11/1989	Roche	D411,528 S	6/1999	Tien
D307,888 S	5/1990	Ishida	5,915,228 A	6/1999	Kunihiro et al.
D307,890 S	5/1990	Kim	5,920,308 A	7/1999	Kim
D309,729 S	8/1990	Tanabe	D413,325 S	8/1999	Lee
D312,628 S	12/1990	Yokoi et al.	5,931,873 A	8/1999	Cisar
D313,224 S	12/1990	Yokoi et al.	5,953,541 A	9/1999	King et al.
D313,401 S	1/1991	Tanabe	5,963,197 A	10/1999	Bacon et al.
D313,413 S	1/1991	Langton	5,974,238 A	10/1999	Chase, Jr.
D319,433 S	8/1991	Pearce	D416,001 S	11/1999	Tal et al.
5,059,048 A	10/1991	Sirkin	D416,253 S	11/1999	Hibino
D330,543 S	10/1992	Tsuchida et al.	D416,256 S	11/1999	Griffin et al.
D332,604 S	1/1993	Miyake et al.	5,982,520 A	11/1999	Weiser et al.
5,184,830 A	2/1993	Okada et al.	5,995,026 A	11/1999	Sellers
5,217,295 A	6/1993	Tortola et al.	6,005,496 A	12/1999	Hargreaves et al.
D341,825 S	11/1993	Hamilton	6,006,351 A	12/1999	Peretz et al.
5,288,158 A	2/1994	Matias	6,009,333 A	12/1999	Chaco
D348,654 S	7/1994	Branck et al.	6,011,554 A	1/2000	King et al.
5,336,001 A	8/1994	Lichtenberg	6,014,429 A	1/2000	LaPorta et al.
5,336,002 A	8/1994	Russo	6,014,573 A	1/2000	Lehtonen et al.
5,337,346 A	8/1994	Uchikura	D420,351 S	2/2000	Waldner
5,360,280 A	11/1994	Camacho et al.	D421,019 S	2/2000	Curtis
5,367,298 A	11/1994	Axthelm	D421,020 S	2/2000	Curtis
D356,563 S	3/1995	Berry	6,023,779 A	2/2000	Fullam et al.
D357,253 S	4/1995	Wong	D422,271 S	4/2000	Kawashima
5,410,141 A	4/1995	Koenck et al.	D422,595 S	4/2000	Taylor
5,410,333 A	4/1995	Conway	6,047,047 A	4/2000	Aldridge et al.
5,426,449 A	6/1995	Danziger	6,047,196 A	4/2000	Makela et al.
D359,920 S	7/1995	Sakamoto	6,049,796 A	4/2000	Siitonen et al.
5,436,954 A	7/1995	Nishiyama et al.	6,052,070 A	4/2000	Kivela et al.
5,457,454 A	10/1995	Sugano	D425,056 S	5/2000	Edwards et al.
D367,043 S	2/1996	Ross et al.	D425,057 S	5/2000	Finkbeiner
5,497,151 A	3/1996	Dombroski	D425,887 S	5/2000	Edwards
5,500,643 A	3/1996	Grant	6,084,576 A	7/2000	Leu et al.
D368,708 S	4/1996	Maynard et al.	6,091,956 A	7/2000	Hollenberg
5,543,787 A	8/1996	Karidis et al.	6,094,197 A	7/2000	Buxton et al.
5,563,631 A	10/1996	Masunaga	D429,226 S	8/2000	Siddoway et al.
5,575,576 A	11/1996	Roysden, Jr.	6,102,594 A	8/2000	Strom
5,600,790 A	2/1997	Barnstijn et al.	6,103,979 A	8/2000	Motoyama et al.
5,606,712 A	2/1997	Hidaka	6,107,997 A	8/2000	Ure
5,611,031 A	3/1997	Hertzfeld et al.	D432,511 S	10/2000	Eckholm
D381,021 S	7/1997	Williams et al.	D433,017 S	10/2000	Martinez
D381,638 S	7/1997	Kruse et al.	D433,460 S	11/2000	Griffin et al.
5,659,307 A	8/1997	Karidis et al.	D434,016 S	11/2000	Hunt
5,661,605 A	8/1997	Conway	D434,034 S	11/2000	Burke et al.
D383,756 S	9/1997	Henderson et al.	6,148,261 A	11/2000	Obradovich et al.
5,664,896 A	9/1997	Blumberg	D434,739 S	12/2000	Hanna et al.
5,672,108 A	9/1997	Lam et al.	6,157,323 A	12/2000	Tso et al.
D385,855 S	11/1997	Ronzani	D435,844 S	1/2001	Yeh
D386,497 S	11/1997	Huslig et al.	D436,583 S	1/2001	Newby et al.
5,689,253 A	11/1997	Hargreaves et al.	D436,591 S	1/2001	Abston et al.
5,700,097 A	12/1997	Kuhlenschmidt	D439,230 S	3/2001	Braxton et al.
D389,139 S	1/1998	Oross et al.	D439,898 S	4/2001	Ober et al.
D389,465 S	1/1998	Heiman et al.	D440,562 S	4/2001	Gottliebe et al.
D390,509 S	2/1998	Antzinas et al.	6,212,412 B1	4/2001	Rogers et al.
5,737,394 A	4/1998	Anderson et al.	D441,357 S	5/2001	Kolinen
			D441,733 S	5/2001	Do et al.
			D442,156 S	5/2001	Lee

US D523,007 S

D442,173 S	5/2001	Wang et al.	6,538,651 B1	3/2003	Haymann et al.
D442,569 S	5/2001	Hanna et al.	D472,551 S	4/2003	Griffin
D443,612 S	6/2001	Evers et al.	D473,226 S	4/2003	Griffin
6,243,789 B1	6/2001	Hasbun et al.	D474,166 S	5/2003	Burns et al.
D445,106 S	7/2001	Mosgrove et al.	D475,047 S	5/2003	Choi et al.
D446,526 S	8/2001	Evers et al.	D475,998 S	6/2003	Salmi
6,278,442 B1	8/2001	Griffin et al.	D476,317 S	6/2003	Lehtonen
D448,355 S	9/2001	Higashi et al.	D476,320 S	6/2003	Arbisi
6,286,064 B1	9/2001	King et al.	D476,330 S	6/2003	Ahearn et al.
6,295,052 B1	9/2001	Kato et al.	D476,647 S	7/2003	Lehtonen
D448,765 S	10/2001	Cohen et al.	D476,983 S	7/2003	Salmi
D449,595 S	10/2001	Park et al.	D476,984 S	7/2003	Salmi
D449,596 S	10/2001	Park et al.	D476,985 S	7/2003	Griffin
D449,604 S	10/2001	Colvin et al.	D477,596 S	7/2003	Hayes
D449,830 S	10/2001	Vuolteenaho et al.	6,597,345 B1	7/2003	Hirschberg
6,297,795 B1	10/2001	Kato et al.	D478,324 S	8/2003	O'Neil
6,304,261 B1	10/2001	Shields et al.	D478,585 S	8/2003	Griffin
6,304,431 B1	10/2001	Kim	D478,882 S	8/2003	Peng et al.
6,307,548 B1	10/2001	Flinchem et al.	6,611,254 B1	8/2003	Griffin et al.
6,307,549 B1	10/2001	King et al.	D479,212 S	9/2003	Eckholm
6,310,609 B1	10/2001	Morgenthaler	D479,216 S	9/2003	Ho-Cheun et al.
D451,079 S	11/2001	Ali	D479,232 S	9/2003	Bruno et al.
D451,092 S	11/2001	Park et al.	D479,233 S	9/2003	Griffin
D451,502 S	12/2001	Vuolteenaho et al.	D480,057 S	9/2003	Ho-Cheun et al.
6,333,734 B1	12/2001	Rein	D480,697 S	10/2003	Lee et al.
D452,687 S	1/2002	Yeh	D480,722 S	10/2003	Griffin
D453,149 S	1/2002	Skoger et al.	6,630,924 B1	10/2003	Peck
D453,158 S	1/2002	Chen	6,647,367 B1	11/2003	McArthur et al.
D453,332 S	2/2002	Herath	D484,477 S	12/2003	Salmi
D454,348 S	3/2002	Yeh	D484,873 S	1/2004	Salmi
D454,349 S	3/2002	Makidera et al.	D487,068 S	2/2004	Isaacs et al.
D454,849 S	3/2002	Eckholm	D487,438 S	3/2004	Sheu
6,356,258 B1	3/2002	Kato et al.	D487,572 S	3/2004	Munstermann
6,374,277 B1	4/2002	Vong et al.	6,703,963 B1	3/2004	Higginson
6,378,234 B1	4/2002	Luo	D488,143 S	4/2004	Ting et al.
D456,794 S	5/2002	Laverick et al.	D488,465 S	* 4/2004	Gartrell et al. D14/247
D456,804 S	5/2002	Fisher et al.	D488,787 S	4/2004	Jung
D456,805 S	5/2002	Ono et al.	D488,789 S	4/2004	Lee
D456,806 S	5/2002	Ahearn et al.	D489,368 S	5/2004	Yoneda et al.
6,385,463 B1	5/2002	Lieberman et al.	D489,717 S	5/2004	Hsieh
6,396,482 B1	5/2002	Griffin et al.	D490,100 S	5/2004	Su et al.
D458,239 S	6/2002	Shim et al.	D490,119 S	5/2004	Griffin et al.
D459,327 S	6/2002	Ali	D490,421 S	5/2004	Everett et al.
D460,057 S	7/2002	Hunt	D490,422 S	5/2004	Iwama et al.
D460,068 S	7/2002	Lanzaro et al.	D491,172 S	6/2004	Sheu
D460,493 S	7/2002	Griffin et al.	D491,543 S	6/2004	Chang et al.
D461,803 S	8/2002	Griffin et al.	D491,929 S	6/2004	Nuovo et al.
D462,357 S	9/2002	Jenkins	D492,276 S	6/2004	Walliser et al.
D463,421 S	9/2002	Lanzaro et al.	D492,296 S	6/2004	Arbisi
D463,425 S	9/2002	Jenkins	D492,305 S	6/2004	Choi et al.
6,452,588 B1	9/2002	Griffin et al.	D492,306 S	6/2004	Martin et al.
D464,645 S	10/2002	O'Neil	D492,657 S	7/2004	Jensfelt
D464,962 S	10/2002	MacGregor et al.	D492,659 S	7/2004	Medeiros et al.
D464,963 S	10/2002	Nishida	D492,660 S	7/2004	Kim et al.
D464,995 S	10/2002	Griffin et al.	D492,681 S	7/2004	Ahearn et al.
6,459,968 B1	10/2002	Kochie	D493,436 S	7/2004	Okada et al.
D465,219 S	11/2002	Tamaki et al.	D493,457 S	7/2004	Hsu
D466,116 S	11/2002	Bhatia et al.	6,765,556 B1	7/2004	Kandogan et al.
D466,877 S	12/2002	Hawkins et al.	D493,778 S	8/2004	Walliser et al.
D466,878 S	12/2002	Porter	D493,781 S	8/2004	Sheu
D467,235 S	12/2002	Hawkins et al.	D494,559 S	8/2004	Fuxen
D467,918 S	12/2002	Fitch et al.	D494,561 S	8/2004	Kagami et al.
6,489,950 B1	12/2002	Griffin et al.	D494,949 S	8/2004	Amholt et al.
D468,307 S	1/2003	Chuang	D494,950 S	8/2004	Keunecke
D468,714 S	1/2003	Maruska et al.	6,785,387 B1	8/2004	Albrecht
D469,367 S	1/2003	Mirabelli et al.	D495,687 S	9/2004	Arbisi
6,507,336 B1	1/2003	Lunsford	D496,019 S	9/2004	Okada et al.
D469,748 S	2/2003	Riebeiro et al.	D496,020 S	9/2004	Lee
D469,749 S	2/2003	Kim	D496,343 S	9/2004	Lin et al.
D470,137 S	2/2003	Everett et al.	D496,641 S	9/2004	Seo
D470,150 S	2/2003	Lewis, Jr. et al.	D496,655 S	9/2004	Harries et al.
D470,842 S	2/2003	Bhatia et al.	6,799,303 B1	9/2004	Blumberg
D470,843 S	2/2003	Horiki	D496,921 S	10/2004	Huang
D471,904 S	3/2003	Majanen	D496,933 S	10/2004	Wu
D472,225 S	3/2003	Griffin	D497,160 S	10/2004	Nagao et al.
6,535,749 B1	3/2003	Iwata et al.	D497,361 S	10/2004	Gartrell et al.

6,809,660	B1	10/2004	Bestle
D497,892	S	11/2004	Peng
D497,907	S	11/2004	Griffin
D498,473	S	11/2004	Sheu
D498,752	S	11/2004	Kagami et al.
D499,088	S	11/2004	Sheu
D499,723	S	12/2004	Kagami et al.
D500,500	S	1/2005	Chien
D500,992	S	1/2005	Shen et al.
D502,157	S	2/2005	Kim et al.
D502,159	S	2/2005	Chan et al.
D502,160	S	2/2005	Chen et al.
D502,455	S	3/2005	Brandis et al.
D502,933	S	3/2005	Munstermann
D503,162	S	3/2005	Kagami et al.
D503,163	S	3/2005	Chan et al.
6,867,965	B1	3/2005	Khoo
D503,697	S	4/2005	Kim
2001/0006587	A1	7/2001	Keinonen
2001/0044828	A1	11/2001	Kikinis
2001/0048378	A1	12/2001	Horie
2002/0027549	A1	3/2002	Hirshberg
2002/0032011	A1	3/2002	Park
2002/0149566	A1	10/2002	Sarkissian
2003/0006968	A1	1/2003	Solomon
2003/0067445	A1	4/2003	Hirshberg et al.
2003/0073456	A1	4/2003	Griffin et al.
2003/0083021	A1	5/2003	Hsu et al.
2003/0107555	A1	6/2003	Williams
2003/0160712	A1	8/2003	Levy
2003/0193478	A1	10/2003	Ng et al.
2004/0108994	A1	6/2004	Kato
2004/0142734	A1	7/2004	Kim
2004/0165924	A1	8/2004	Griffin
2004/0171411	A1	9/2004	Shimoda et al.
2004/0189607	A1	9/2004	Afanasiev
2004/0198249	A1	10/2004	Griffin
2005/0014537	A1	1/2005	Gammon et al.
2005/0019079	A1	1/2005	Griffin et al.
2005/0053225	A1	3/2005	Griffin
2005/0054376	A1	3/2005	Griffin et al.

FOREIGN PATENT DOCUMENTS

JP	2002-222037	8/2002
JP	2002-297292	10/2002
JP	2003-258977	9/2003
WO	98/33111	7/1998
WO	98/44631	10/1998
WO	99/37025	7/1999
WO	00/30381	5/2000
WO	00/38041	6/2000
WO	00/74240	12/2000
WO	01/50335	7/2001
WO	01/85460	11/2001
WO	01/95081	12/2001
WO	01/095358	12/2001
WO	DM/059367	3/2002
WO	DM/060792	6/2002
WO	02/088920	11/2002
WO	03/012617	2/2003

WO	03/019519	3/2003
WO	03/041047	5/2003
WO	03/056784	7/2003
WO	03/100804	12/2003
WO	03/107165	12/2003

OTHER PUBLICATIONS

Commercial Telecommunication Standards, E-series ITU-T Recommendations, from web page http://www-comm.itsa.disa.mil/itu/r_e0.html; printed Jan. 21, 2004.

“Using Numeric Keypad with 4-way keys as New Standard for Text Entry in Compact/Mobile Devices,” David Hirschberg; 3 pages; submitted to a demonstration session in CHI 2003 conference.

“Smart Virtual Keyboard System Suitable for Mouse or Stylus Entry”, Ruediger W. Knodt, Xerox Disclosure Journal 18 (1993) May/Jun., No. 3, Stamford, Conn., pp. 245–246.

“Iconic Text Entry Using a Numeric Keypad”, by John Jannotti, from web page www.pdos.lcs.mit.edu/~jj/jannotti.com/papers/iconic-uist02/; printed on Jan. 22, 2004.

Palm Tungsten C, Rough Guide to Pocket Stuff, Oct. 03, p. 45 (2 pgs).

Palm Tungsten W, Stuff Magazine, Dec. 03, p. 140.

Handspring Treo 600, Stuff Magazine, Dec. 03, p. 136.

Handspring Treo 90, Rough Guide to Pocket Stuff, Oct. 03, p. 46 (2 pgs).

Handspring Treo 270, Rough Guide to Pocket Stuff, Oct. 03, p. 39 (2 pgs).

Sony Clie PEG-UX50, Stuff Magazine, Jan. 04, p. 74 (2 pgs).

Sony Clie NX70V, Rough Guide to Pocket Stuff, Oct. 03, p. 45.

Sony Ericsson P800, Stuff Magazine, Dec. 03, p. 65 (2 pgs).

Sony Ericsson P900, Stuff Magazine, Jan. 04, p. 12.

Orange E100, Rough Guide to Pocket Stuff, Oct. 03, p. 41 (2 pgs.).

Stuff Magazine, Jan. 04, p. 113.

Nokia 7600, Stuff Magazine, Jan. 04, p. 24 (2 pgs).

Nokia N-Gage, Stuff Magazine, Dec. 03, p. 65.

Nokia 3650, Stuff Magazine, Dec. 03, p. 141 (2 pgs).

Siemens SX1, Stuff Magazine, Jan. 04, p. 64 (2 pgs).

TelMe T919, Rough Guide to Pocket Stuff, Oct. 03, p. 39.

Motorola A920, Stuff Magazine, Dec. 03, p. 137.

Sony Ericsson P900, Stuff Magazine, Jan. 04, p. 78 (2 pgs).

Sony Clie NZ90, Rough Guide to Pocket Stuff, Oct. 03, p. 47 (2 pgs).

Motorola A920, Stuff Magazine, Dec. 03, p. 72 (2 pgs).

Mackenzie, I. Scott & Soukoreff, R. William, “Text Entry for Mobile Computing: Models and Methods, Theory and Practice,” Human Computer Interaction, 17(2):147–198, 2002 (50 pages).

* cited by examiner

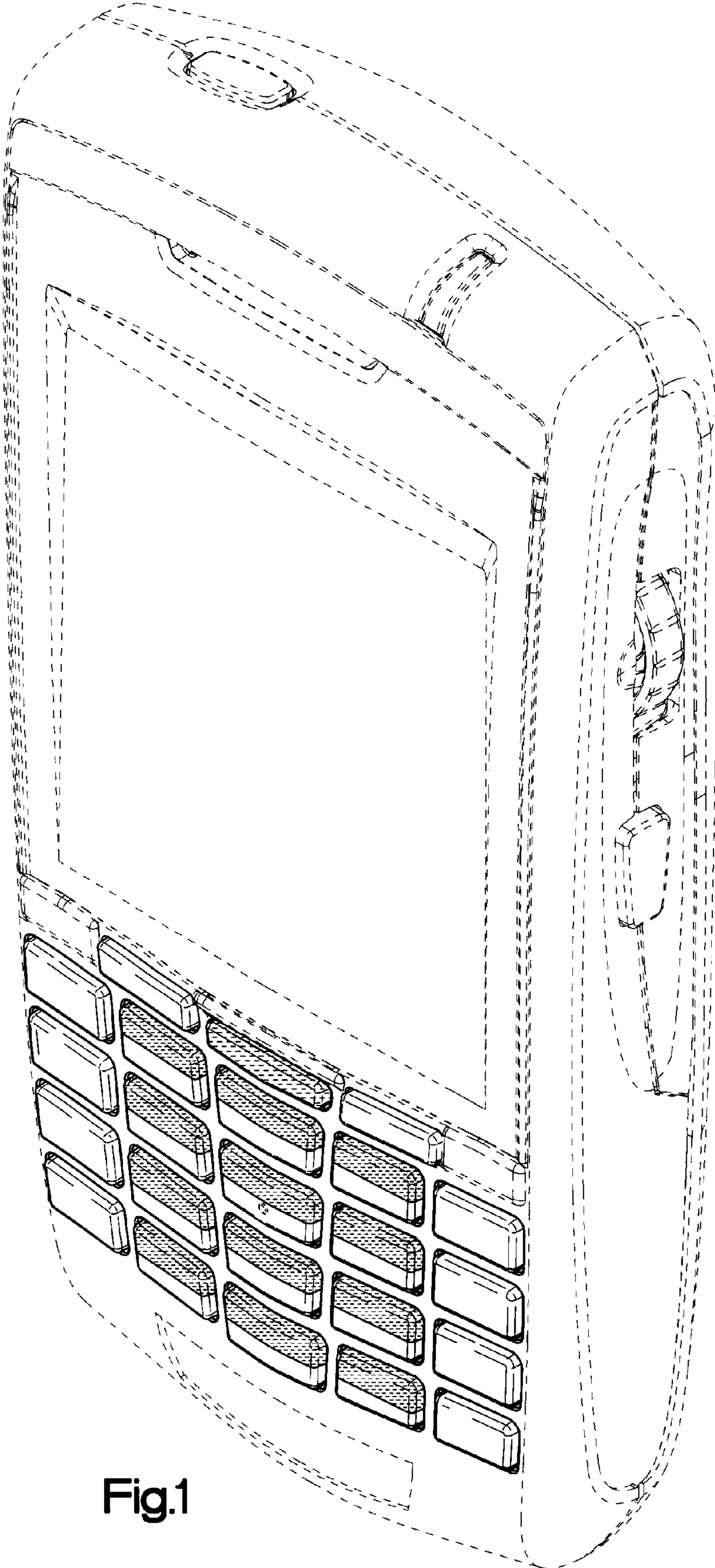


Fig.1

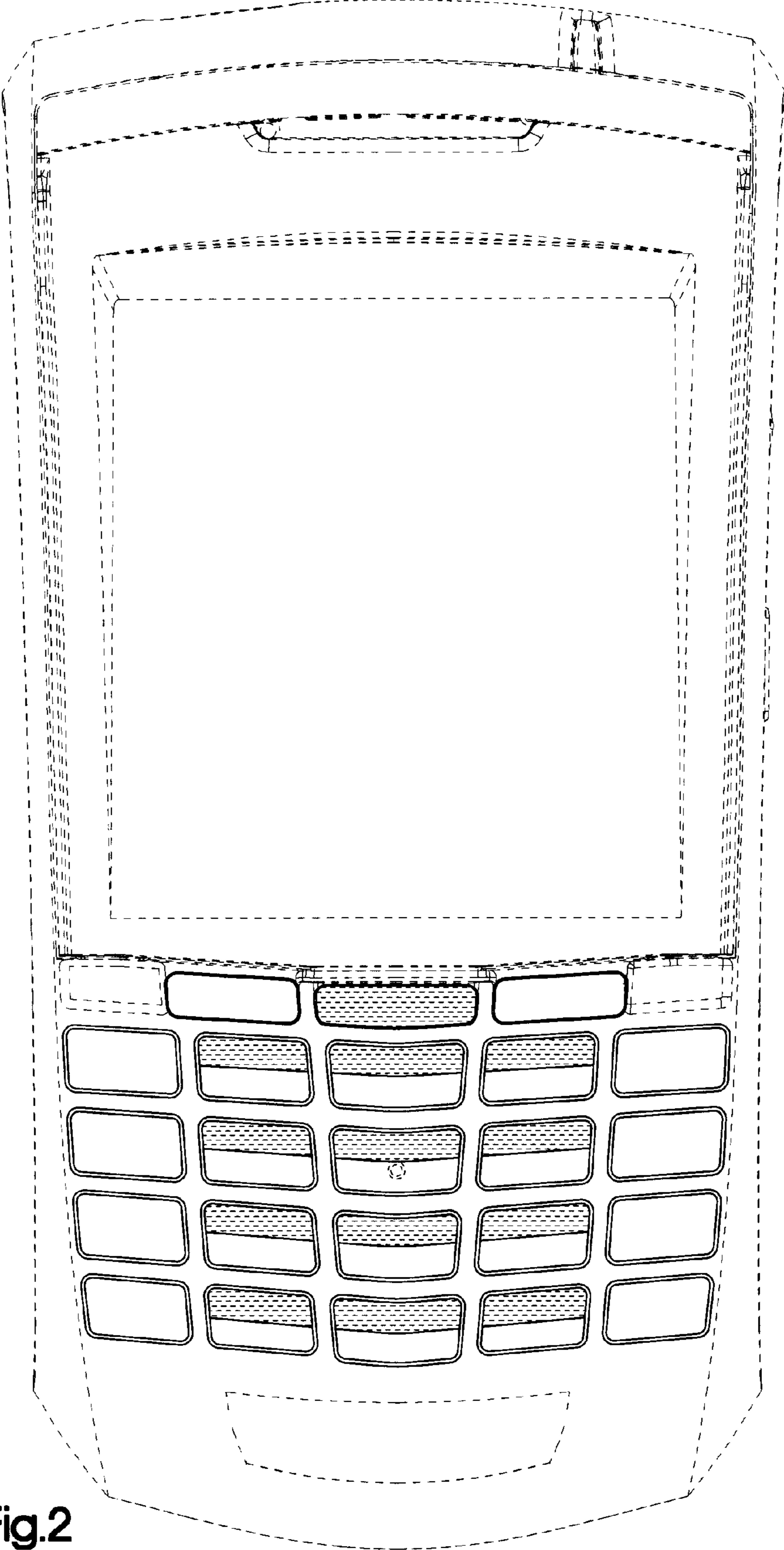


Fig.2

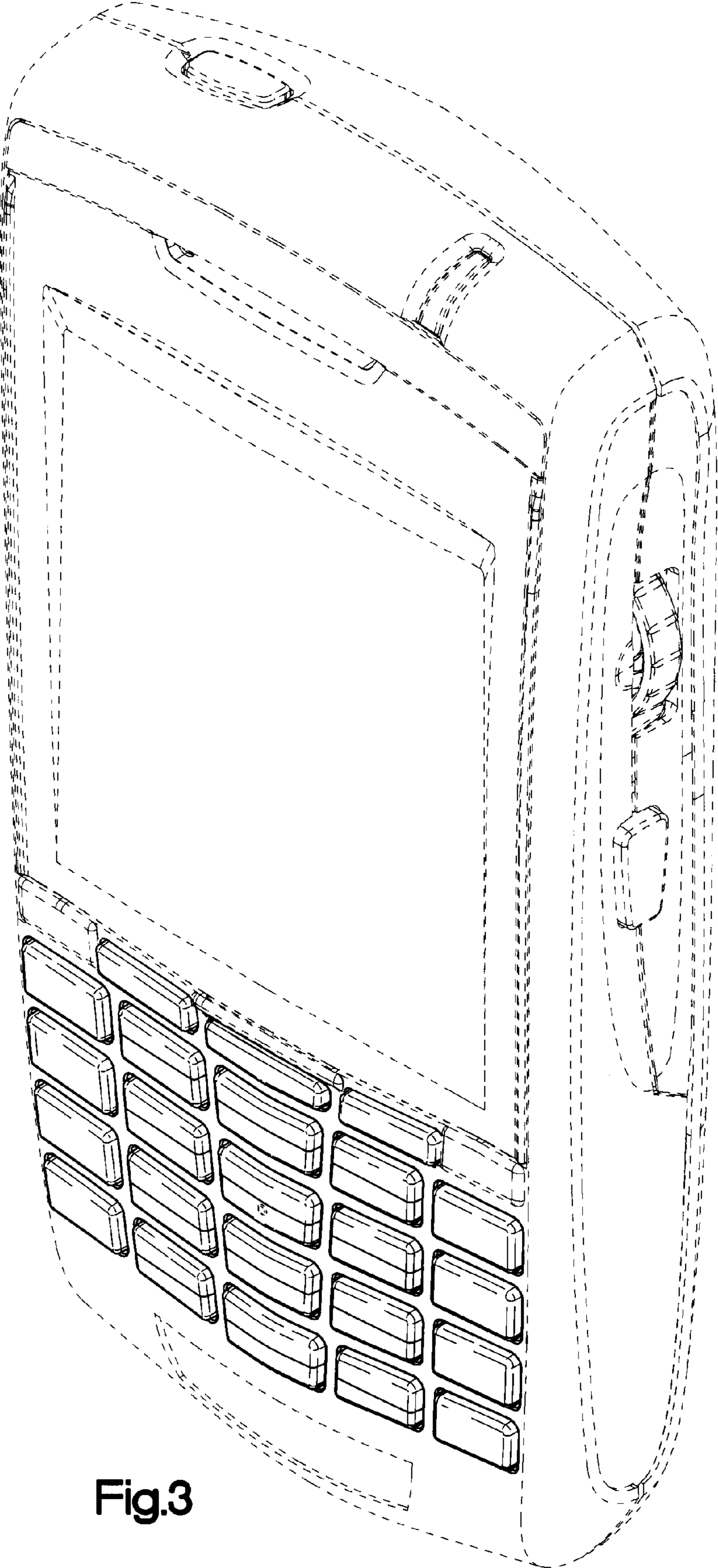


Fig.3

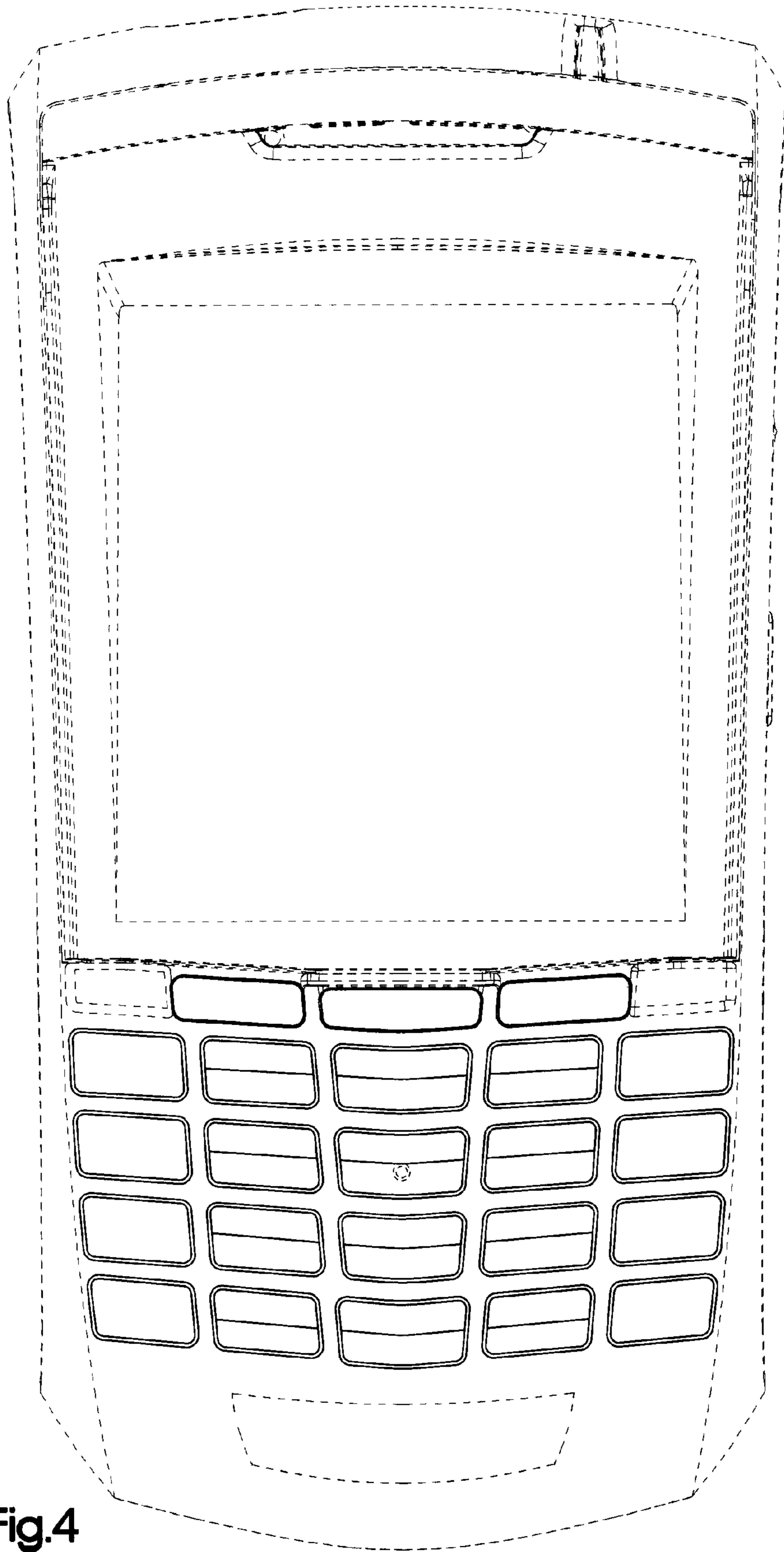


Fig.4