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(54) **ELECTRONIC APPARATUS**

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G06F 1/16 (2006.01)

(52) **U.S. Cl.**
USPC **361/679.56**; 361/679.59; 455/575.3; 455/575.4; 455/575.8

(58) **Field of Classification Search**
USPC 361/679.02, 679.27, 679.55, 679.56, 361/679.59; 455/575.1–575.4, 575.8
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,742,478 A * 5/1988 Nigro et al. 361/679.09
4,858,162 A * 8/1989 Kieffer et al. 361/679.41
5,175,672 A * 12/1992 Conner et al. 361/679.09
5,251,102 A * 10/1993 Kimble 361/679.09
5,594,617 A * 1/1997 Foster et al. 361/679.02
5,642,258 A * 6/1997 Barrus et al. 361/679.59
D392,259 S * 3/1998 Simmon D14/341
5,768,100 A * 6/1998 Barrus et al. 361/679.41
5,808,862 A * 9/1998 Robbins 361/679.09
D436,951 S * 1/2001 Andresen D14/336
6,191,941 B1 * 2/2001 Ito et al. 361/679.27
6,233,141 B1 * 5/2001 Lee et al. 361/679.57
D457,857 S * 5/2002 Ogasawara D13/103
6,385,039 B1 * 5/2002 Chiang et al. 361/679.09
6,452,795 B1 * 9/2002 Lee 361/679.41
6,535,378 B1 * 3/2003 Oguchi et al. 361/679.55
6,560,100 B1 * 5/2003 Shin et al. 361/679.41
6,768,637 B1 * 7/2004 Amemiya 361/679.55
6,831,229 B1 * 12/2004 Maatta et al. 174/66
6,894,893 B2 * 5/2005 Hidesawa 361/679.55
6,903,927 B2 * 6/2005 Anlauff 361/679.28
6,930,881 B2 * 8/2005 Karidis et al. 361/679.55
6,956,734 B2 * 10/2005 Shin et al. 361/679.55
6,975,890 B2 * 12/2005 Wu et al. 455/575.1
D514,098 S * 1/2006 Huang et al. D14/315
7,106,579 B2 * 9/2006 Maskatia et al. 361/679.28
7,199,999 B2 * 4/2007 Shin et al. 361/679.55

(Continued)

FOREIGN PATENT DOCUMENTS

JP 11327684 A * 11/1999 ..... G06F 1/16
JP 2010-157441 7/2010

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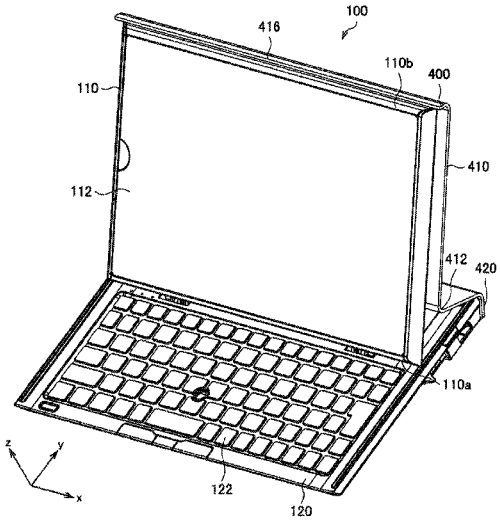
(57) **ABSTRACT**

There is provided an electronic apparatus, including a cabinet having a display surface exposed to an outside, a battery provided at the bottom on an opposite side of the display surface in the cabinet and at least a portion of the battery protruding to an outer side from the bottom, and a height formed at the edge of the cabinet so as to protrude to the outer side to cover the battery.

14 Claims, 22 Drawing Sheets