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United States Patent [19]

Collins

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[54] **DOUBLE SIDED KEYBOARD FOR A TELEPHONE**

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[52] **U.S. Cl.** **379/433**

[58] **Field of Search** 379/433, 428, 379/434, 88.04; 235/381, 382; 361/777, 778

[56] **References Cited**

U.S. PATENT DOCUMENTS

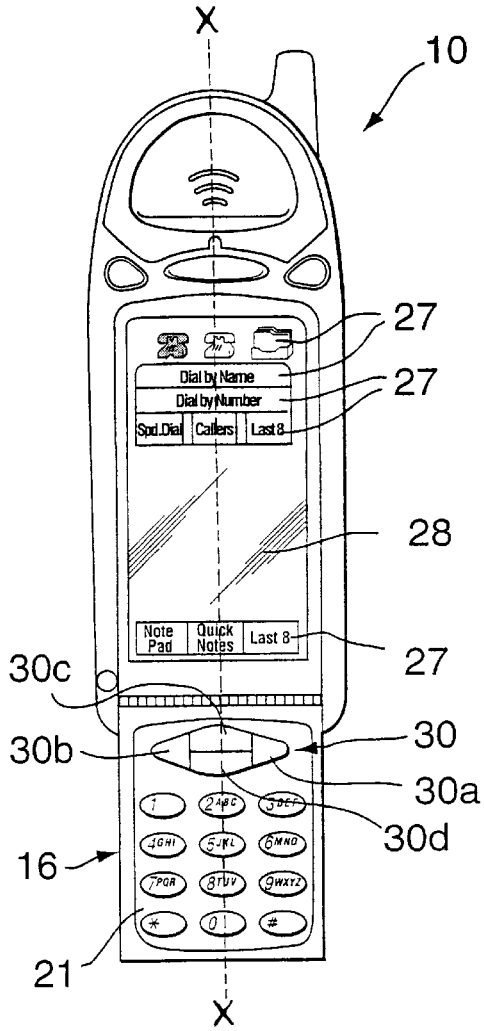
5,189,632	2/1993	Ab	346/705.05
5,564,078	10/1996	Nagai	455/89
5,584,054	12/1996	Tyneski et al.	455/89
5,652,421	7/1997	Veeneman et al.	235/381
5,764,489	6/1998	Leigh et al.	361/777
5,822,405	10/1998	Astarabadi	379/88.04

FOREIGN PATENT DOCUMENTS

0164743	7/1988	Japan	379/434
2146813A	4/1985	United Kingdom .	

Primary Examiner—Jack Chiang

[57] **ABSTRACT**

A portable telephone has a hinged flap with a keyboard on each side of the flap, allowing a user to dial or punch a telephone number when the flap is in the open position or when the flap is in the closed position.

20 Claims, 5 Drawing Sheets