United States Patent [19]

King et al.

[11] **Patent Number: 4,565,999**

[45] **Date of Patent: Jan. 21, 1986**

[54] **LIGHT PENCIL**

[75] Inventors: **Allen King**, Needham; **Peter Collins**, Danvers; **Jay Goldman**, Wellesley, all of Mass.

[73] Assignee: **Prime Computer, Inc.**, Natick, Mass.

[21] Appl. No.: **466,074**

[22] Filed: **Apr. 1, 1983**

[51] **Int. Cl.**[4] **G09G 1/00**

[52] **U.S. Cl.** **340/706**; 340/707; 340/708; 340/709; 340/825.19; 178/18

[58] **Field of Search** 340/705, 706, 707, 708, 340/709, 710, 711, 712, 980, 825.19; 358/103, 104; 178/18; 356/152

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,618,029	11/1971	Graven .	
3,885,096	5/1975	Inuiya	340/705
3,917,412	11/1975	Stoutmeyer et al.	356/152
3,917,955	11/1975	Inuiya	340/711
3,986,030	10/1976	Teltscher	250/349
4,028,725	6/1977	Lewis	358/103
4,103,435	8/1978	Herndon	358/104
4,109,145	8/1978	Graf	340/712
4,111,555	9/1978	Ellis	356/141
4,150,285	4/1979	Brienza et al.	250/203
4,209,255	6/1980	Heynau et al.	356/152
4,263,592	4/1981	Takahashi et al.	340/706
4,293,855	10/1981	Perkins	340/712
4,349,815	9/1982	Spooner	340/705
4,364,035	12/1982	Kirsch	340/707
4,369,439	1/1983	Broos	340/710
4,390,873	6/1983	Kirsch	340/707

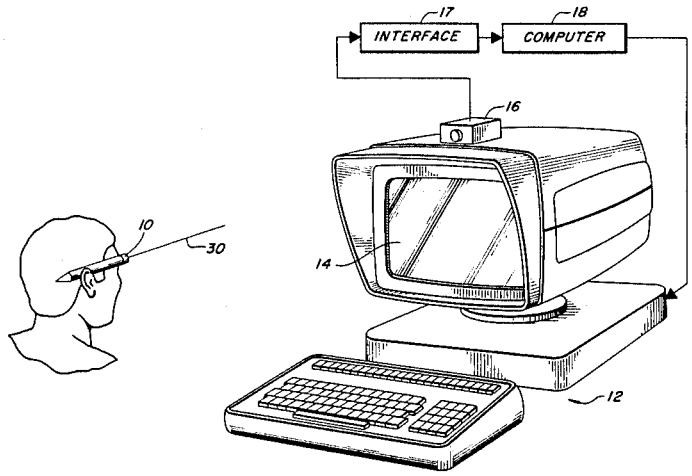
FOREIGN PATENT DOCUMENTS

55-131841	10/1980	Japan	340/715

Primary Examiner—Gerald L. Brigance

Attorney, Agent, or Firm—Lahive & Cockfield

[57] **ABSTRACT**

A cursor control system for use with a data terminal having a display consists of a radiation source and associated radiation sensor. Either the source or sensor is fixed with respect to the display while the other is moveable and may be fixed to the user's head. The system translates the motion of the user's head into a directional signal for controlling cursor position on the screen.

19 Claims, 9 Drawing Figures