United States Patent [19]

Loebner

[11] **Patent Number: 4,949,079**

[45] **Date of Patent: Aug. 14, 1990**

[54] **BRIGHTPEN/PAD GRAPHIC DEVICE FOR COMPUTER INPUTS AND THE LIKE**

[76] Inventor: **Hugh Loebner,** 220 W. 98th St., #2B, New York, N.Y. 10025

[21] Appl. No.: **46,722**

[22] Filed: **May 7, 1987**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 725,126, Apr. 19, 1985, abandoned.

[51] **Int. Cl.**[5] **G09G 5/00**

[52] **U.S. Cl.** **340/706;** 340/709; 340/707; 382/58

[58] **Field of Search** 340/706, 707, 708, 709, 340/712; 178/18; 382/56, 68; 358/285, 488, 496

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,337,860	8/1967	O'Hara, Jr.	340/707
3,539,995	11/1970	Brandt	340/365 P
3,613,066	10/1971	Cooreman	178/18
3,618,029	11/1971	Graven	340/707
3,673,579	6/1972	Graven	340/365 S
4,078,151	3/1978	McNeary	178/18
4,205,304	5/1980	Moore	340/707
4,292,621	9/1981	Fuller	382/46
4,464,652	8/1984	Lapson et al.	340/710
4,517,559	5/1985	Deitch et al.	340/712
4,550,250	10/1985	Mueller et al.	340/710
4,553,842	11/1985	Griffin	340/712
4,688,933	8/1987	Lapeyre	178/18
4,704,698	11/1987	Reiniger	358/285
4,707,109	11/1987	Kanno et al.	340/707
4,743,974	5/1988	Lockwood	358/285
4,788,587	11/1988	Bitoh	358/285
4,816,921	3/1989	Akiyama et al.	358/285

FOREIGN PATENT DOCUMENTS

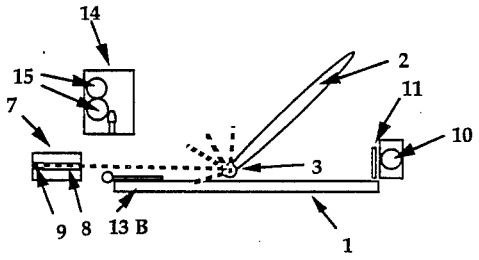
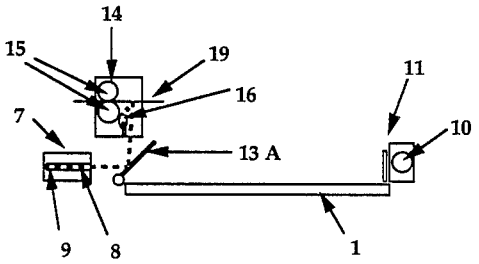
0039232	3/1985	Japan	340/712

OTHER PUBLICATIONS

"Input for Computer Graphics Display", by A. Spiridon, in Western Electric Technical Digest, No. 22, Apr. 1971, p. 39.

Primary Examiner—Jeffery A. Brier

[57] **ABSTRACT**

Scanning devices are used to enter graphic information into computer systems. They typically use photo-optic detectors. Digitizing devices are used to enter coordinate positions into computer systems. One technique uses styluses, either fingers or light emitters. This invention shows how the same photo-optical systems can perform both functions.

4 Claims, 4 Drawing Sheets