United States Patent [19]

Pepper, Jr.

[11]	4,293,734
 [45]	Oct. 6, 1981

[54] TOUCH PANEL SYSTEM AND METHOD

- [75] Inventor: William Pepper, Jr., Bethesda, Md.
- [73] Assignee: Peptek, Incorporated, Bethesda, Md.
- [21] Appl. No.: 14,450
- [22] Filed: Feb. 23, 1979
- [51] Int. Cl.³ G08C 21/00; G01N 27/00
- [52] U.S. Cl. 178/18; 178/19

[56] References Cited

U.S. PATENT DOCUMENTS

3,691,382	9/1972	Somer 250/211 K
3,699,439	10/1972	Turner 178/18
4,013,835	3/1977	Eachus et al 178/18
4,018,989	4/1977	Snyder et al 178/18
4,071,691	1/1978	Pepper, Jr 178/19
4,121,049	10/1978	Roeber 178/18
4,129,747	12/1978	Pepper, Jr 178/19
4,138,592	2/1979	Capehart et al 178/19
4,198,539	4/1980	Pepper, Jr 178/18

FOREIGN PATENT DOCUMENTS

1133757 11/1968 United Kingdom .

OTHER PUBLICATIONS

"What You Can Do With Just 10,000 Electrons", Bro-

chure by Surface Science Laboratories; pages not numbered; before 1/1/79.

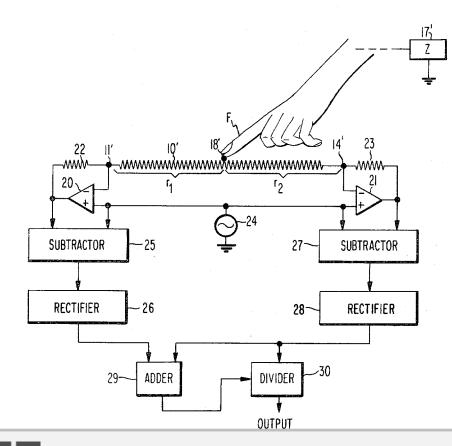
"A Position-sensitive Detector for Electrons", Moak and others; 1975; Journal of Electron Spectroscopy . . . , Netherlands; pp. 151–156.

Primary Examiner—Thomas A. Robinson Attorney, Agent, or Firm—Jim Zegeer

[57] ABSTRACT

A general method is disclosed for accurately determining the location or position of a source or sink of electric current on the surface of a resistance element or impedance layer. Touch panels are described that detect the presence of a user's finger on such surface, and produce output signals corresponding to the position of the finger in one or more axes. A preferred embodiment discloses a touch panel that includes a signal generator and determines the position of the user's finger from current flowing through the user's body to ground. Another touch panel embodiment determines the position of the user's finger from currents caused by ambient electrical noise. A pressure-sensitive touch panel, a transparent touch panel for use with a video display, a touch-panelcontrolled audio mixer, and a video game incorporating touch panels are also disclosed.

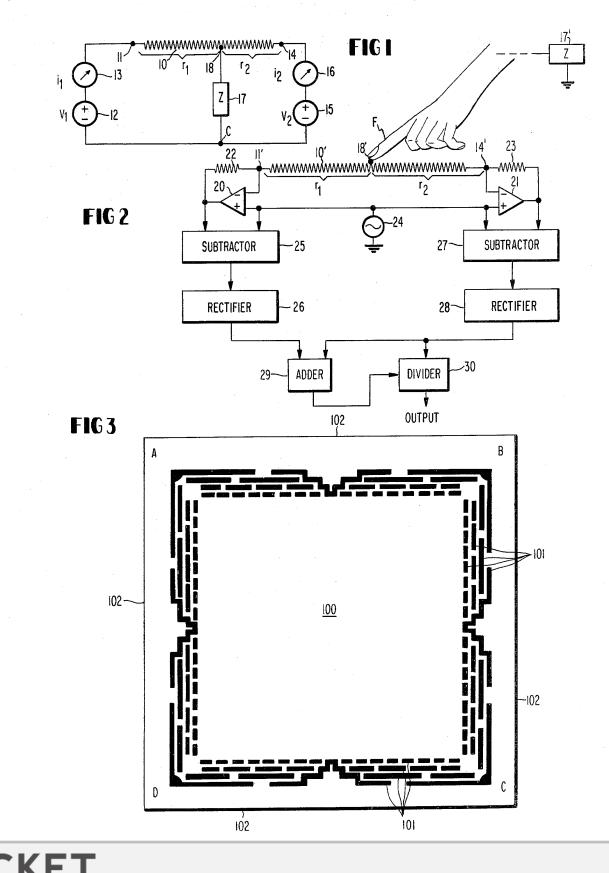
28 Claims, 14 Drawing Vigures



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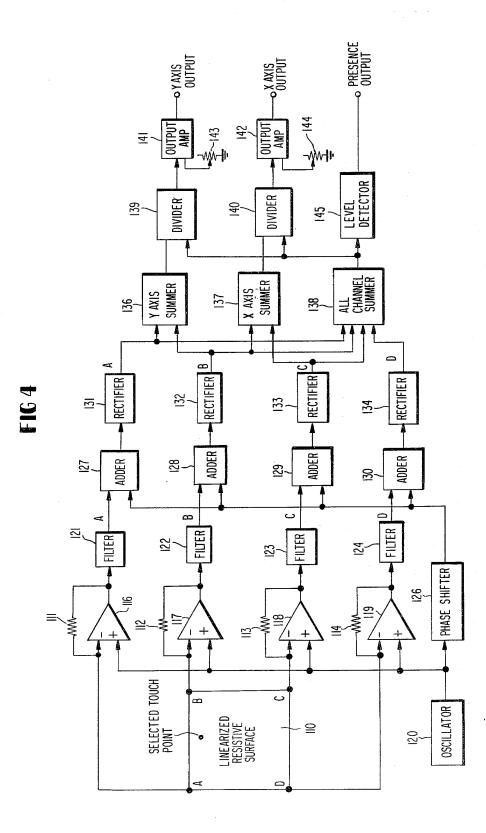
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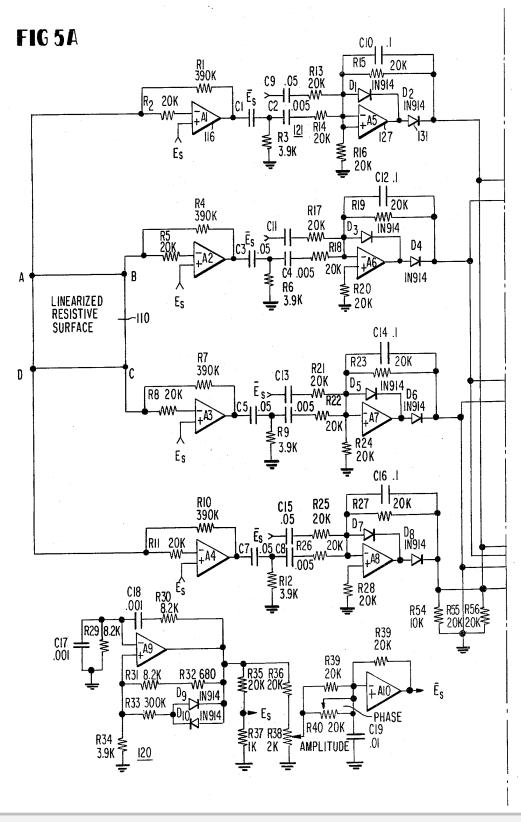


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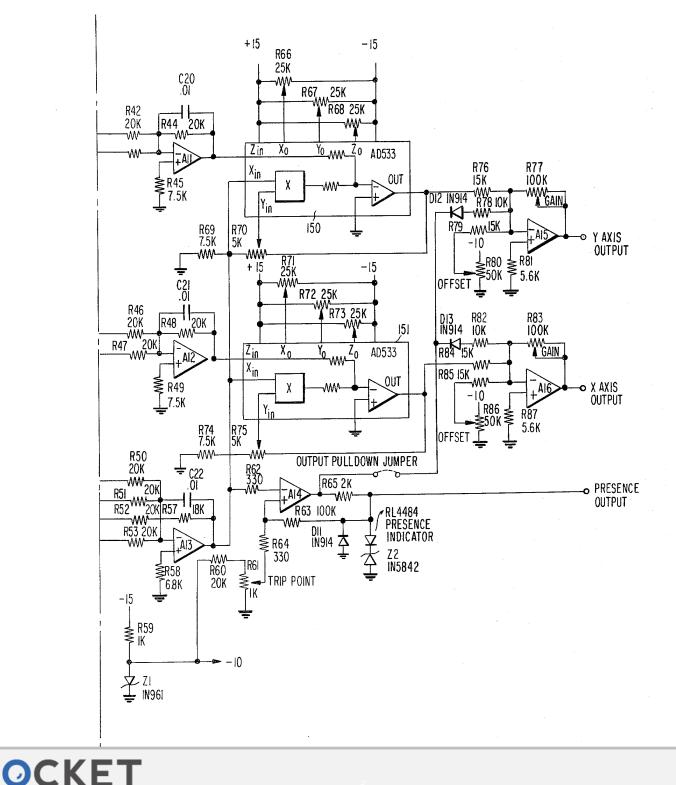
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