



US008279187B2

(12) **United States Patent**
Geaghan

(10) **Patent No.:** **US 8,279,187 B2**
(45) **Date of Patent:** **Oct. 2, 2012**

(54) **TOUCH SENSITIVE DEVICES WITH COMPOSITE ELECTRODES**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 411 days.

(21) Appl. No.: **12/511,487**

(22) Filed: **Jul. 29, 2009**

(65) **Prior Publication Data**

US 2010/0026664 A1 Feb. 4, 2010

Related U.S. Application Data

(60) Provisional application No. 61/085,693, filed on Aug. 1, 2008.

(51) **Int. Cl.**
G06F 3/044 (2006.01)

(52) **U.S. Cl.** **345/173**; 345/156; 178/18.01;
178/18.06

(58) **Field of Classification Search** 345/156-179;
178/18.01-18.05
See application file for complete search history.

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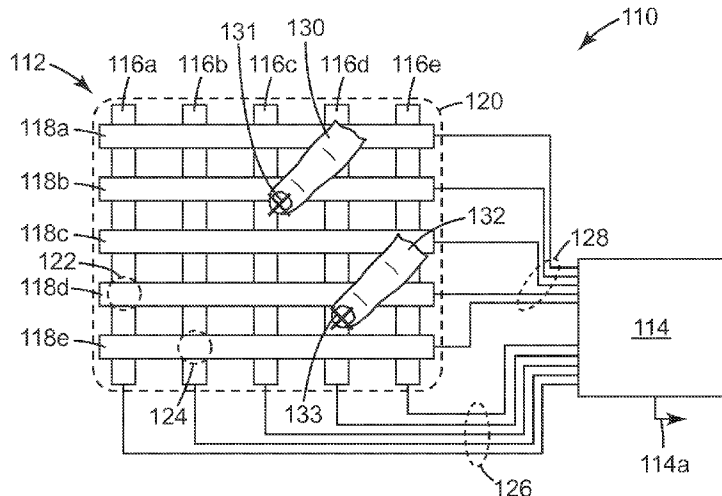
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(57) **ABSTRACT**

A matrix touch panel having upper and lower electrodes, the upper electrodes being composite electrodes made of a plurality of spaced micro-wires, and allowing, for example, an electric field from lower electrodes to pass between the micro-wires and thereby capacitively couple with a touching object, such as a finger.

20 Claims, 12 Drawing Sheets



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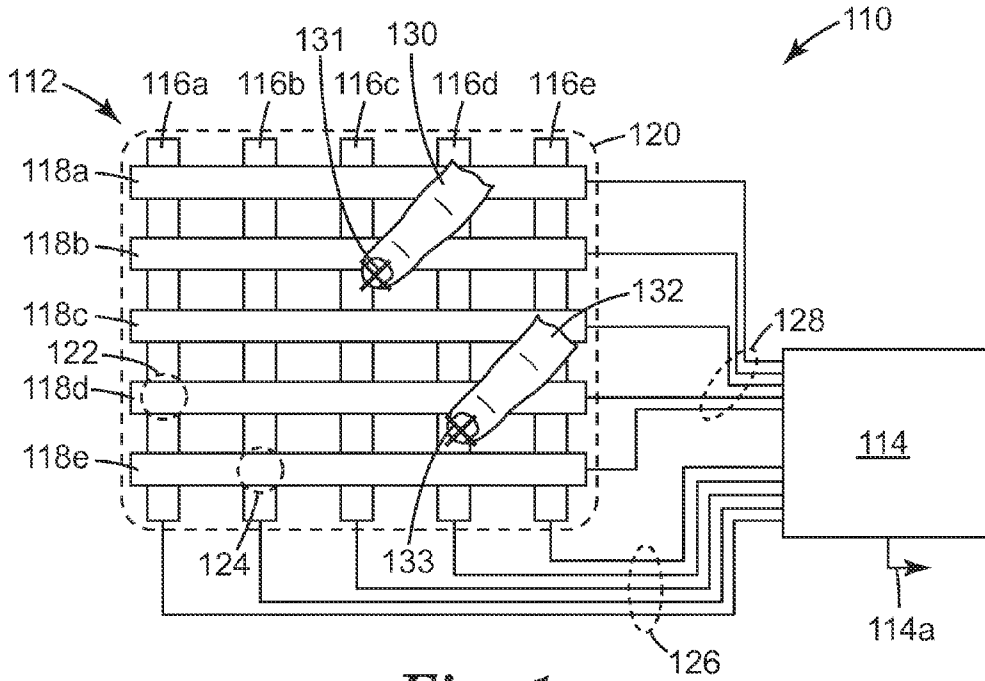


Fig. 1

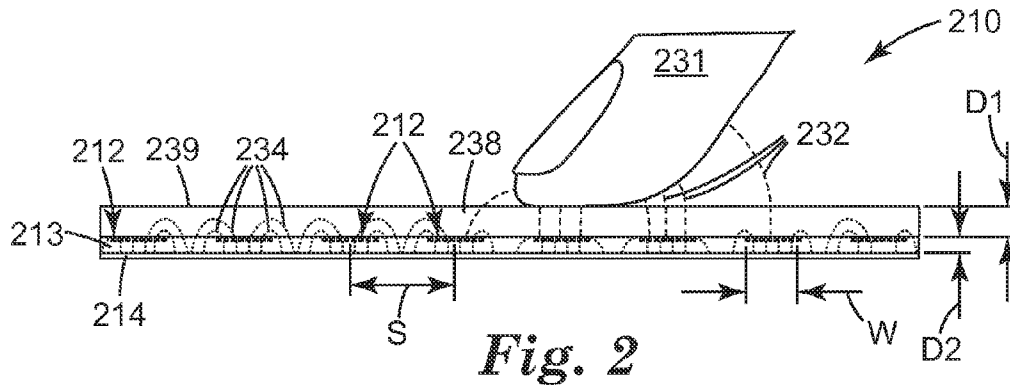


Fig. 2

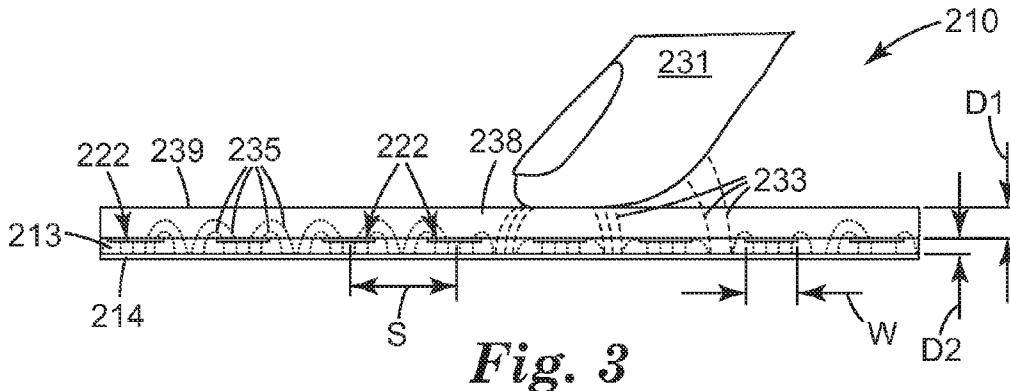


Fig. 3

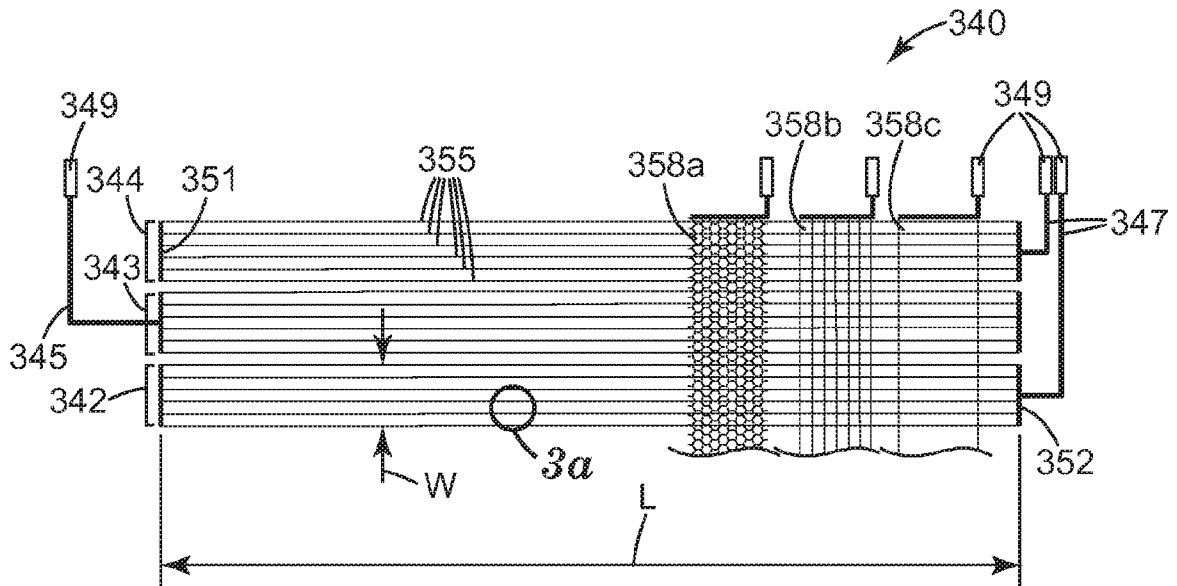


Fig. 4

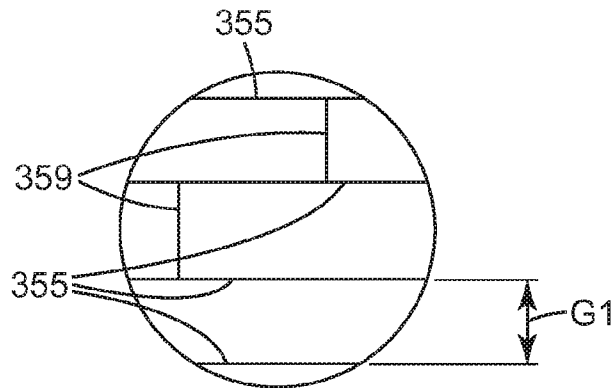


Fig. 4a

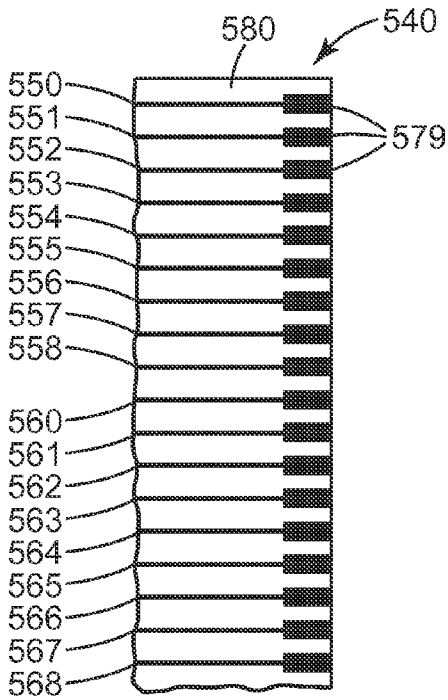


Fig. 5a

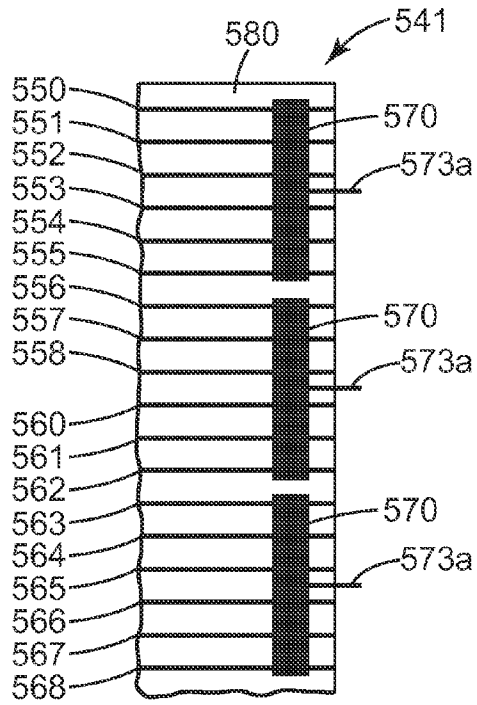


Fig. 5b

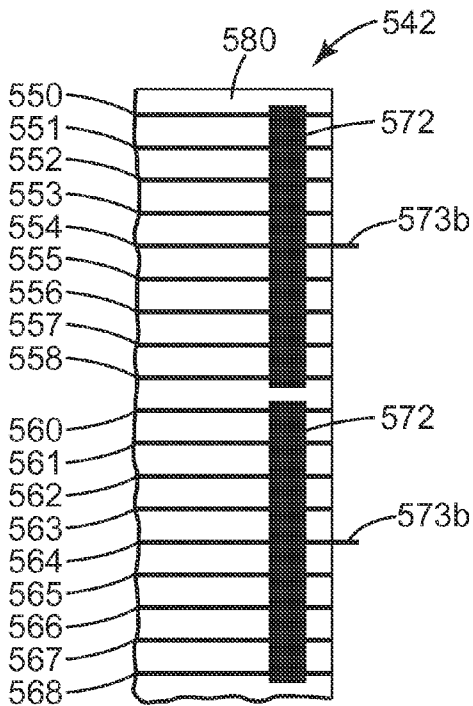


Fig. 5c

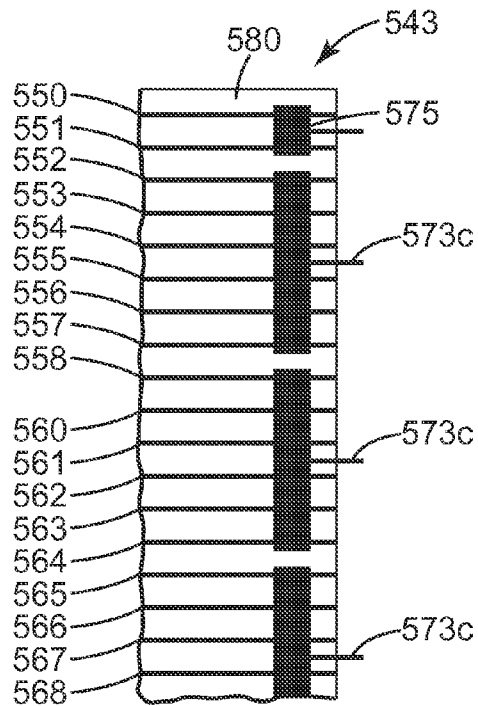


Fig. 5d

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