

[54] HANDWRITTEN KEYBOARDLESS ENTRY COMPUTER SYSTEM

[75] Inventor: Ralph Sklarew, Reston, Va.

[73] Assignee: Grid Systems Corporation, Fremont, Calif.

[21] Appl. No.: 29,772

[22] Filed: Mar. 24, 1987

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 889,513, Jul. 25, 1986, abandoned.

[51] Int. Cl.<sup>5</sup> ..... G06K 9/22

[52] U.S. Cl. .... 382/13; 382/57; 382/59; 178/18

[58] Field of Search ..... 382/13, 24, 57, 14; 340/706, 707, 709; 178/18, 19, 20

[56] References Cited

U.S. PATENT DOCUMENTS

3,699,439	10/1972	Turner .	
3,832,693	8/1974	Ishizaki et al. ....	340/707
3,903,517	9/1975	Hafner .....	382/57
4,112,415	9/1978	Hilbrink .....	382/13
4,177,354	12/1979	Mathews .....	178/18
4,177,448	12/1979	Brayton .....	382/14
4,184,147	1/1980	Seelbach .....	382/13
4,365,235	12/1982	Greanias et al. ....	382/13
4,456,787	6/1984	Schlosser et al. ....	178/19
4,475,239	10/1984	van Raamsdonk .....	382/57
4,578,811	3/1986	Inagaki .....	382/13
4,641,354	2/1987	Fukunaga et al. ....	382/13

4,672,677	6/1987	Yamakawa .....	382/13
4,679,241	7/1987	Lukis .....	178/19
4,680,430	7/1987	Yoshikawa et al. ....	178/19
4,680,804	7/1987	Kuzunuki et al. ....	382/13

FOREIGN PATENT DOCUMENTS

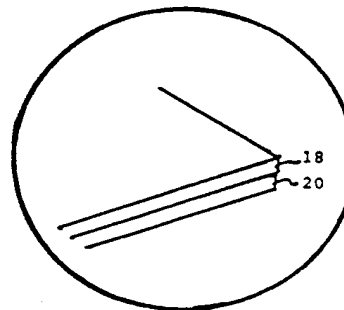
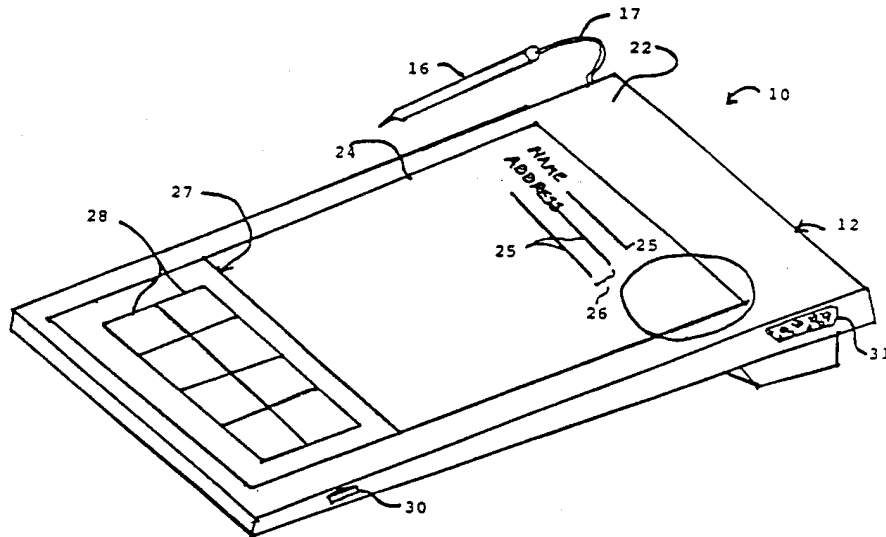
55-143681	10/1980	Japan .....	382/13
2117154	10/1983	United Kingdom .....	382/13

Primary Examiner—Leo H. Boudreau  
Attorney, Agent, or Firm—Townsend & Townsend

[57] ABSTRACT

A keyboardless entry computer system includes a transparent input screen that generates positional information when contacted by a stylus, and a display screen mounted physically below the input screen such that a character that is displayed can be seen below the input screen. The system includes a computer that has been programmed to compile the positional information into Strokes, to calculate Stroke characteristics, and then compare the Stroke characteristics with those stored in a database in order to recognize the symbol drawn by the stylus. Key features of the system are: (1) transparent position sensing subsystem; (2) underlying display on which to mimic drawing of sensed positions and to show characters or symbols; (3) means to convert sensed positions first into plotted Points and then into recognized characters or symbols; and (4) means to "learn" to associate sensed input positions with a character or symbol.

21 Claims, 14 Drawing Sheets



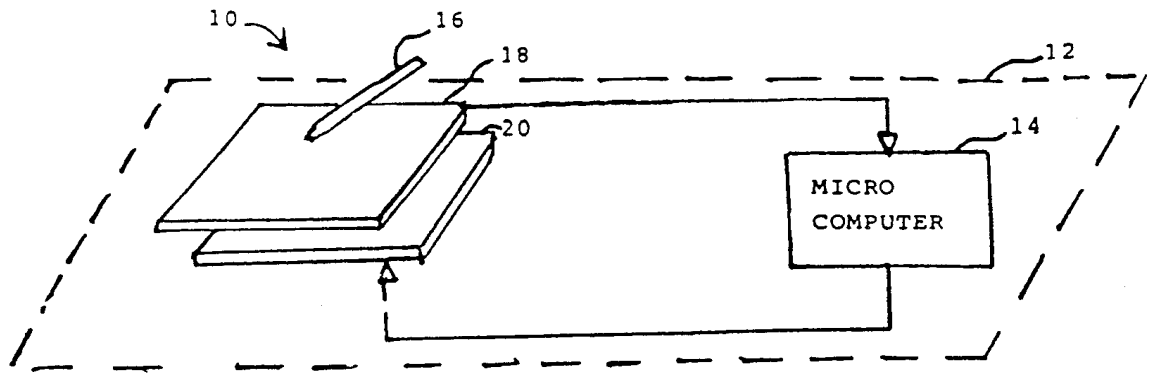


FIG. 1

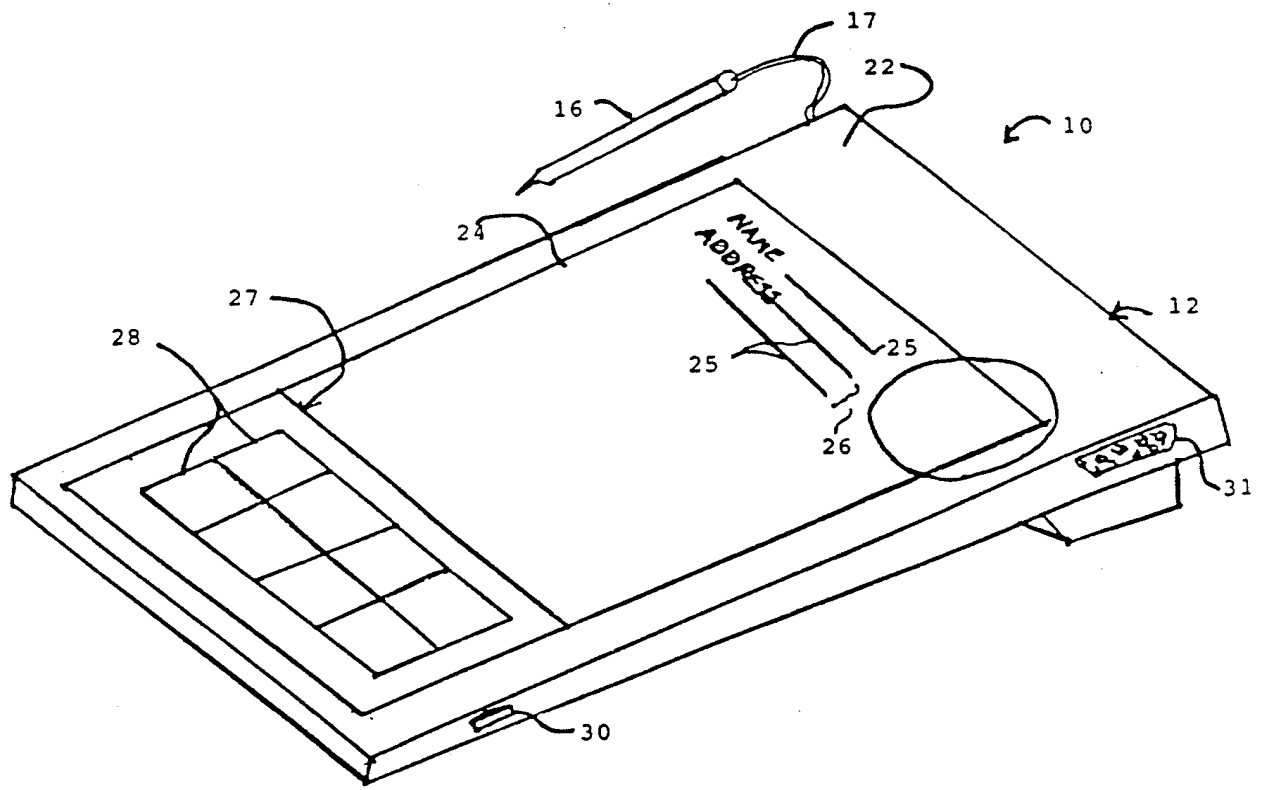
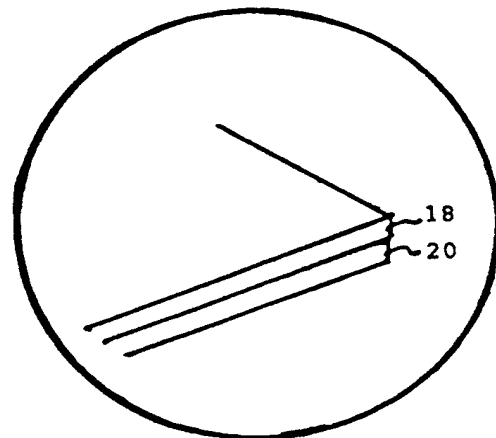


FIG. 2



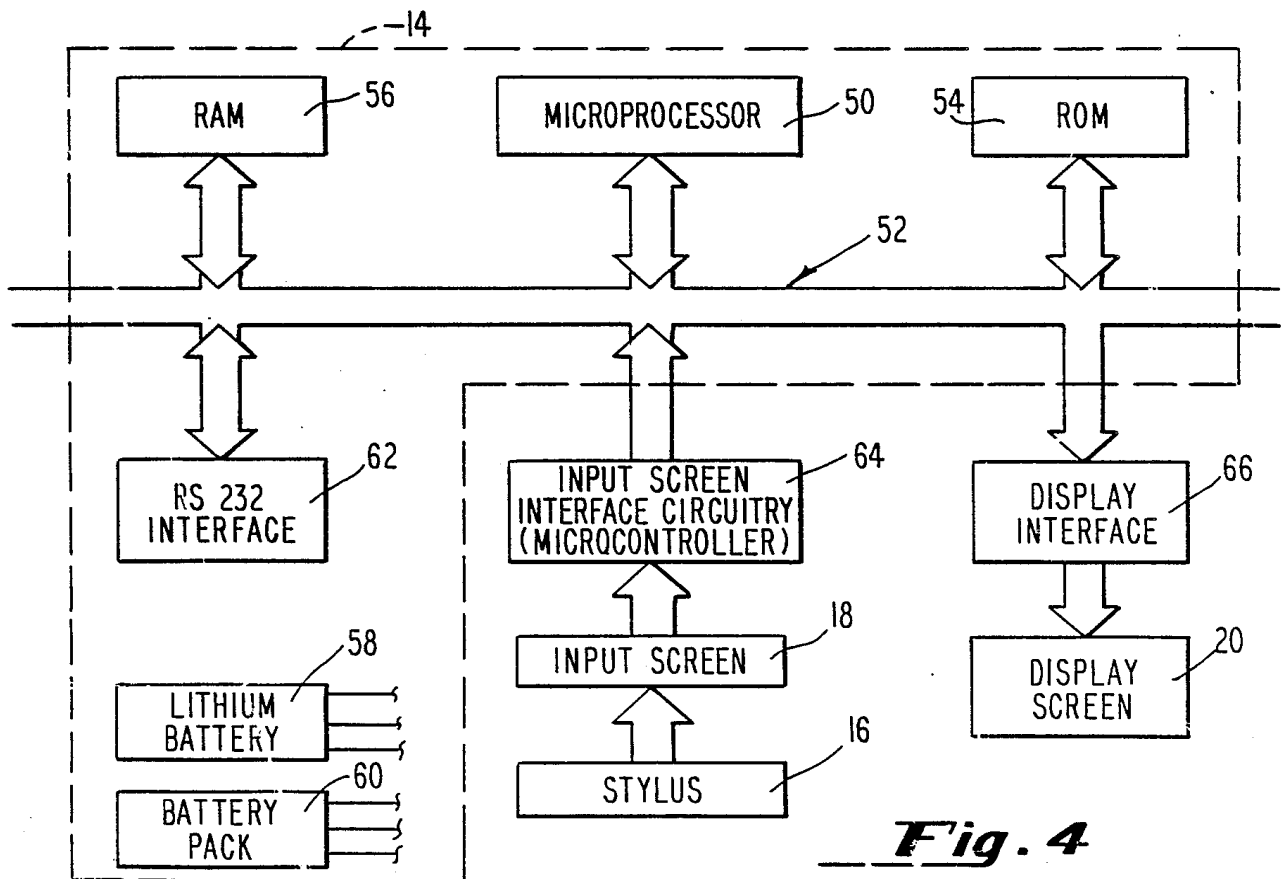
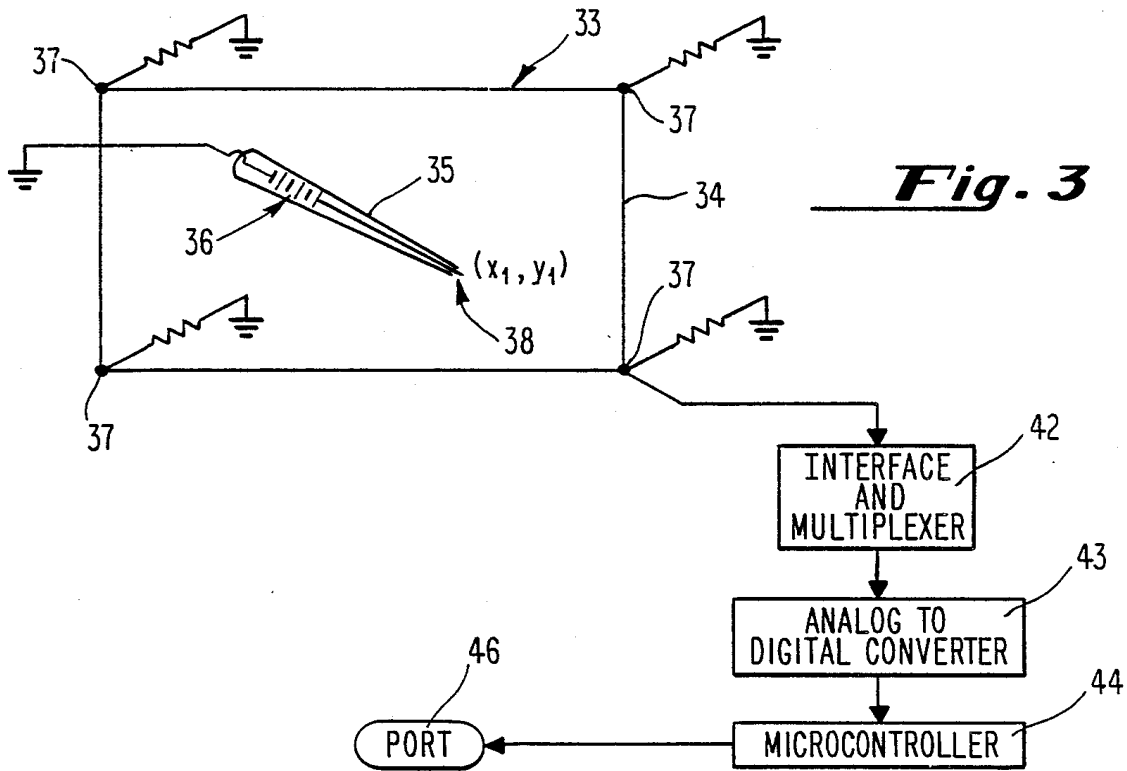
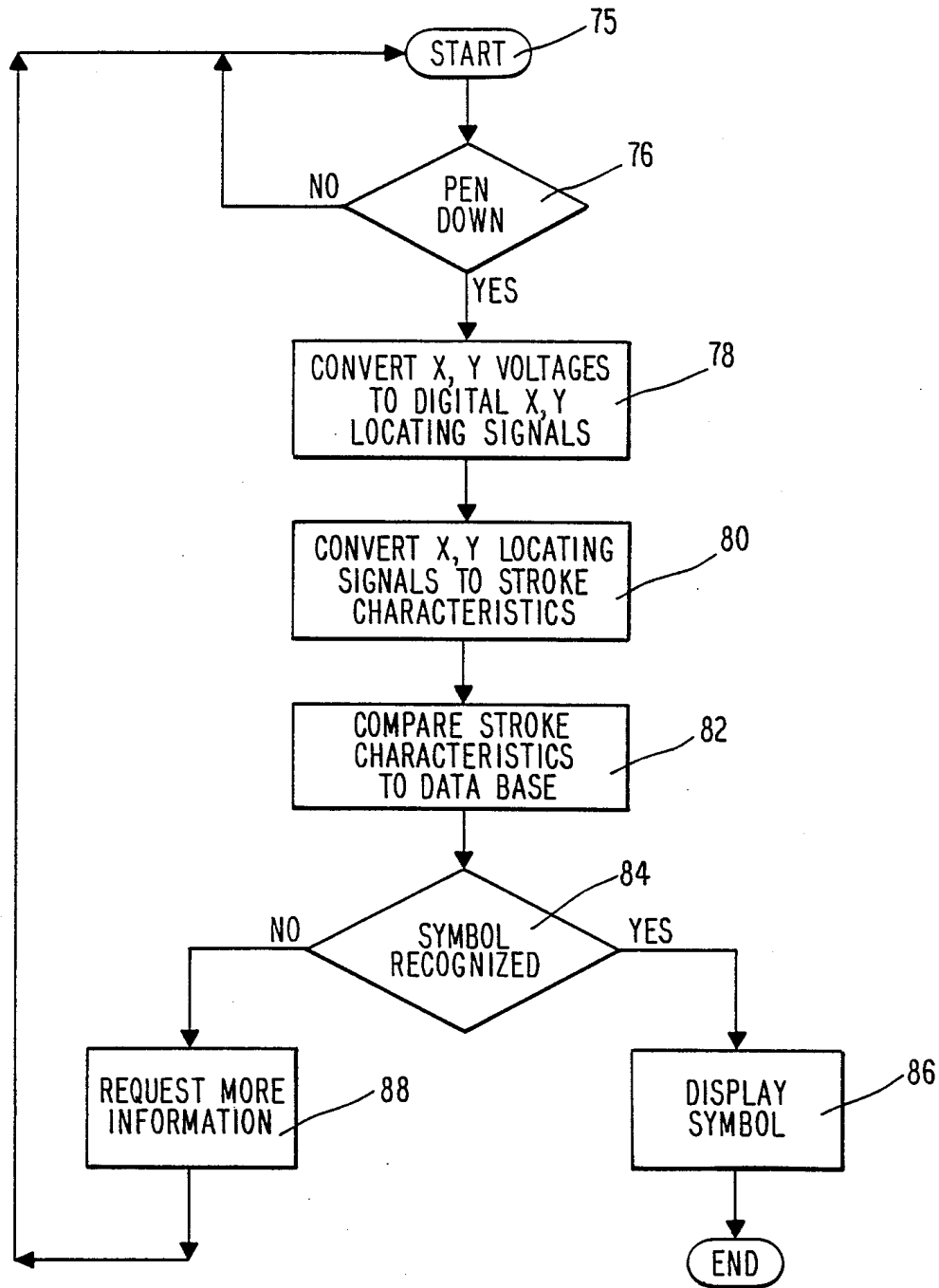
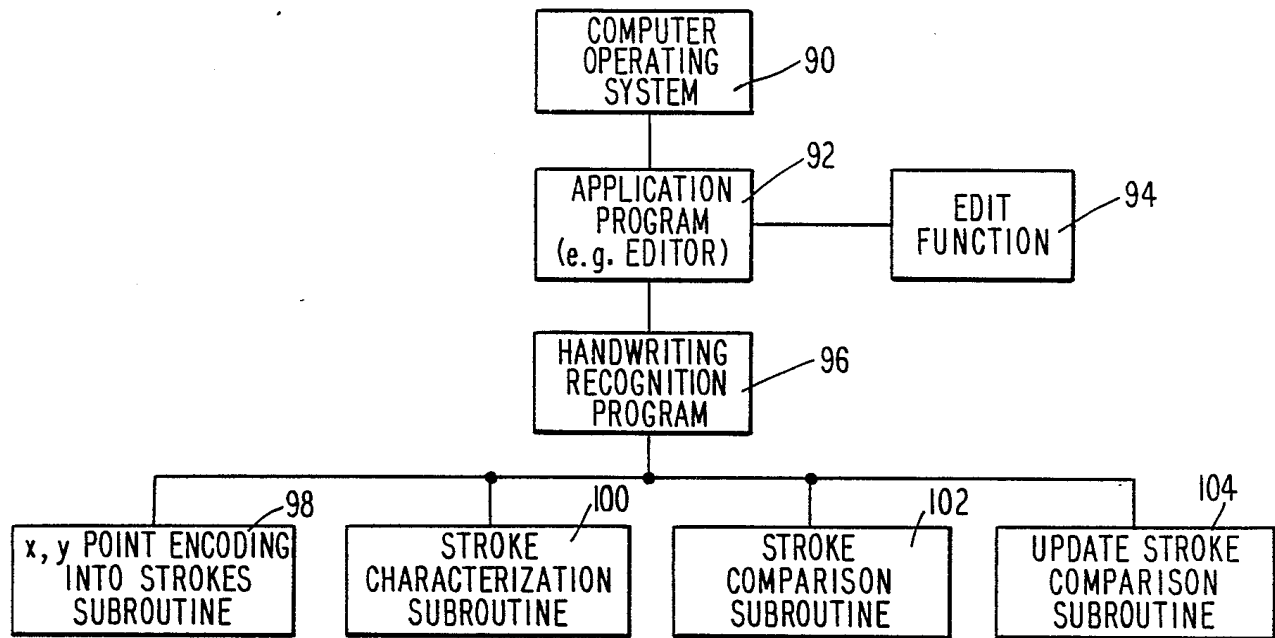


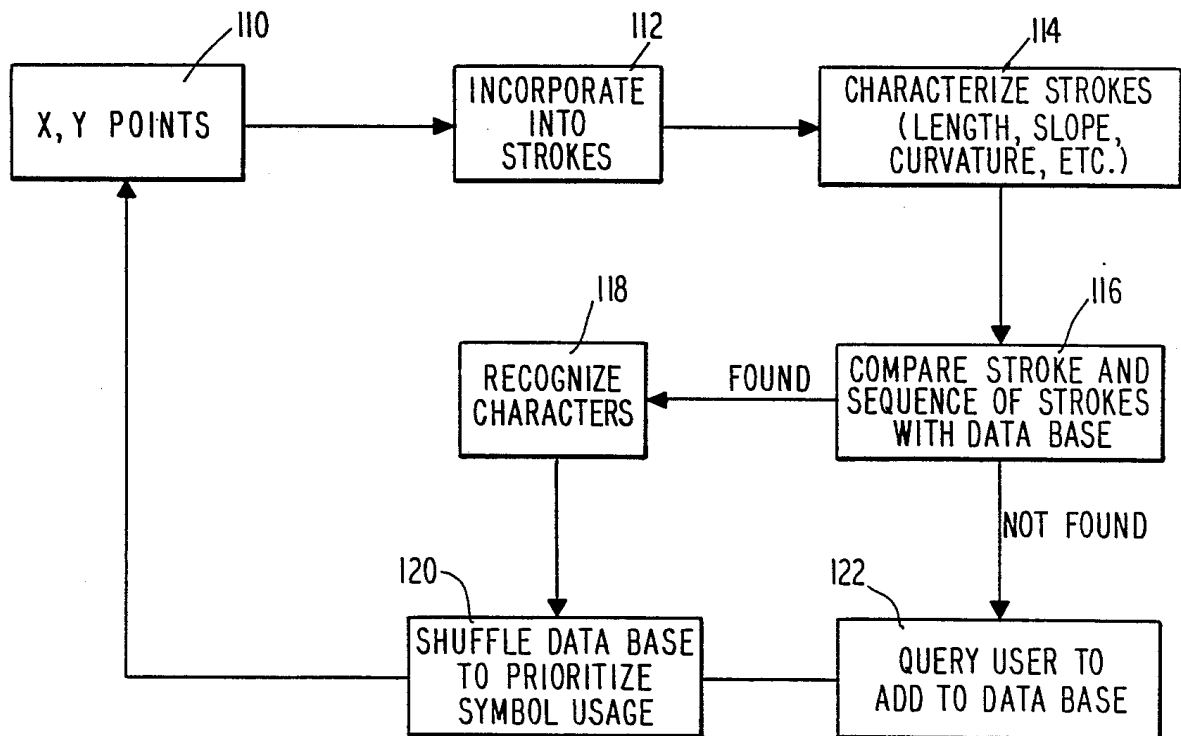
Fig. 4



**Fig. 5**



**Fig. 6**



**Fig. 7**

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.