



US005283829A

# United States Patent [19]

[11] Patent Number: **5,283,829**

Anderson

[45] Date of Patent: **Feb. 1, 1994**

- [54] **SYSTEM AND METHOD FOR PAYING BILLS ELECTRONICALLY**
- [75] Inventor: **Milton M. Anderson**, Fair Haven, N.J.
- [73] Assignee: **Bell Communications Research, Inc.**, Livingston, N.J.
- [21] Appl. No.: **955,087**
- [22] Filed: **Oct. 1, 1992**
- [51] Int. Cl.<sup>5</sup> ..... **H04K 1/00**
- [52] U.S. Cl. .... **380/24; 380/9; 235/379; 235/381; 379/91; 379/93**
- [58] Field of Search ..... **380/9, 24; 235/379, 235/381; 379/91, 93**

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

3,956,615	5/1976	Anderson et al.	380/24
4,317,957	3/1982	Sendrow	380/24
5,007,084	4/1991	Materna et al.	380/24
5,220,501	6/1993	Lawlor et al.	364/408

**OTHER PUBLICATIONS**

- European Electronic Overview*, Linda K. S. Moore, Consumer Bill Payments Update '92, Apr. 22, 1992.
- Consumer Bill Payments "Front End" Overview*, George C. White, Consumer Bill Payments Update '92, Apr. 22, 1992.
- Bill & Pay Minitel*, Dr. Denis Manelski, Consumer Bill Payments Update '92, Apr. 22, 1992.
- TV Answer Bill Paying*, Daniel M. Pence, Consumer Bill Payments Update '92, Apr. 22, 1992.
- ScanFone by US Order*, John C. Backus Consumer Bill Payments Update, Apr. 22, 1992.
- Screenphone to ATM Networks, Online Resources*, Paul J. Mila Consumer Bill Payments Update, Apr. 22, 1992.
- "Back End" Options to Merchants*, Dennis J. Pope Consumer Bill Payments Update, Apr. 22, 1992.
- Bill Payment Initiation from Retail Stores*, George C. White Consumer Bill Payments Update, Apr. 22, 1992.

- Bill Payment Consolidation Service*, Glen P. Sgambati, Consumer Bill Payments Update '92, Apr. 22, 1992.
- Citibank Enhanced Telephone*, Victor Passaro Consumer Bill Payment Update '92, Apr. 21, 1992.
- Electronic Payments Commentary*, George C. White, Journal of Cash Management, Sep./Oct. 1990.
- "I Threw Away My Checkbook"*, Chris Shipley, PC Computing, Nov. 1990.
- How to Construct Random Permutations from Pseudo Random Functions*, M. Luby and C. Rackoff, SIAM J. Comput., 17(2), 373-386, 1988.
- A New Class of Check-Digit Methods for Arbitrary Number Systems*, IEEE Trans. on Information Theory, IT-31:1-2-105, Jan. 1985.
- Data Encryption Standard*, The National Bureau of Standards Jan. 1977, U.S. Department of Commerce FIPS pub. 46.

*Primary Examiner*—David C. Cain  
*Attorney, Agent, or Firm*—Leonard Charles Suchyta;  
 Loria B. Yeadon

[57] **ABSTRACT**

An electronic bill payment system and method include billing equipment for creating approval records and generating approval numbers for each pre-authorized subscriber. The system also includes an interactive payment approval apparatus into which subscribers dial to approve payment and which determines, based upon information collected, whether to initiate electronic funds transfer. An approval record data base and a call history log data base are also part of the bill payment system. To approve electronic bill payment a subscriber, once pre-authorized, need only dial up the payment approval apparatus and enter the assigned approval number. A series of security checks and comparisons are performed to guard against accidental and malicious entry of approval numbers. Once all security checks are cleared, a confirmation number is announced to the subscriber, and an electronic funds transfer is initiated.

**19 Claims, 12 Drawing Sheets**

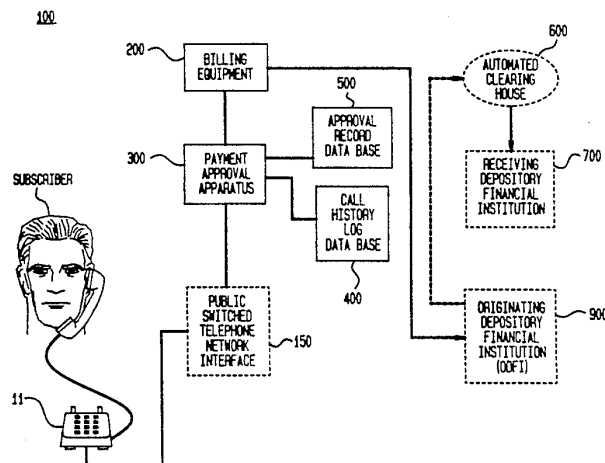


FIG. 1

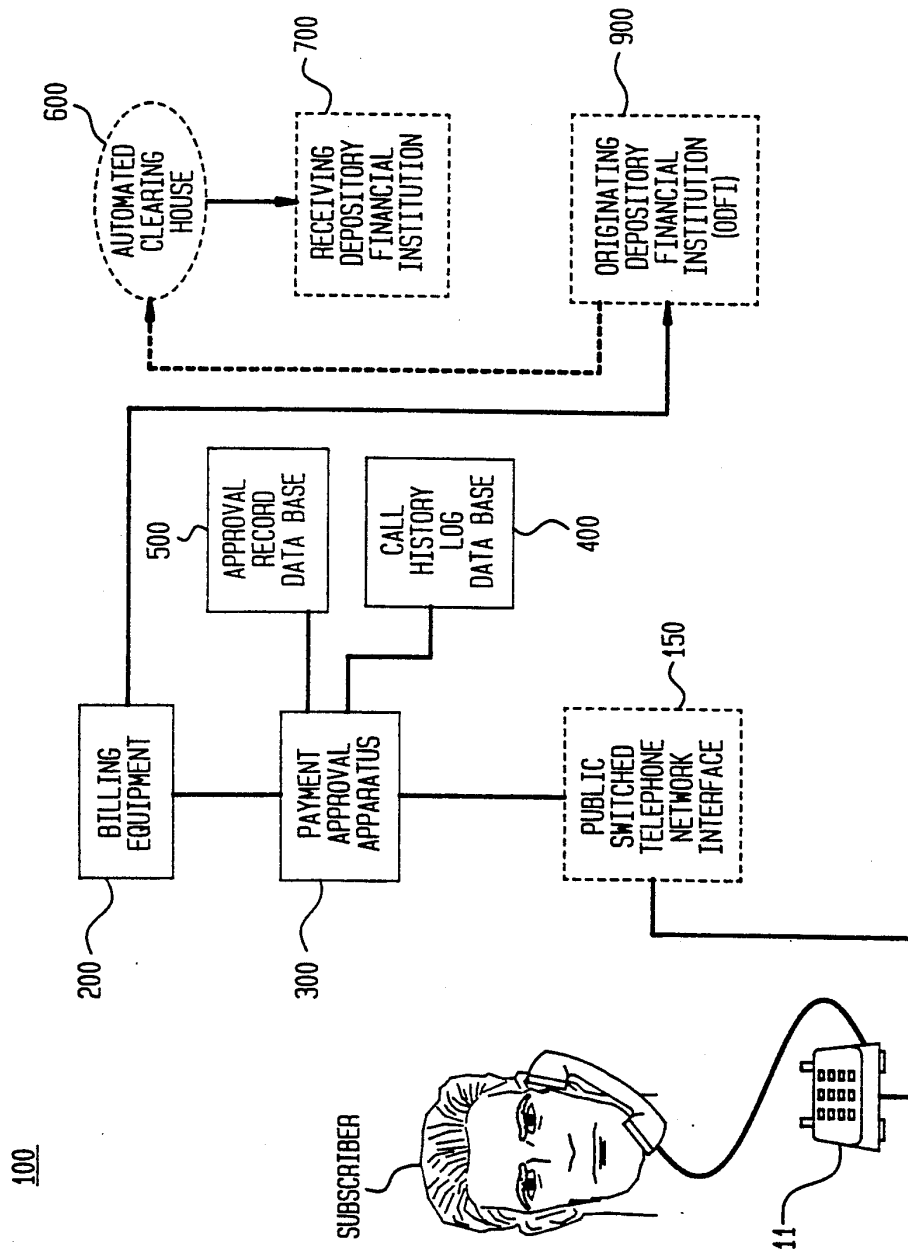
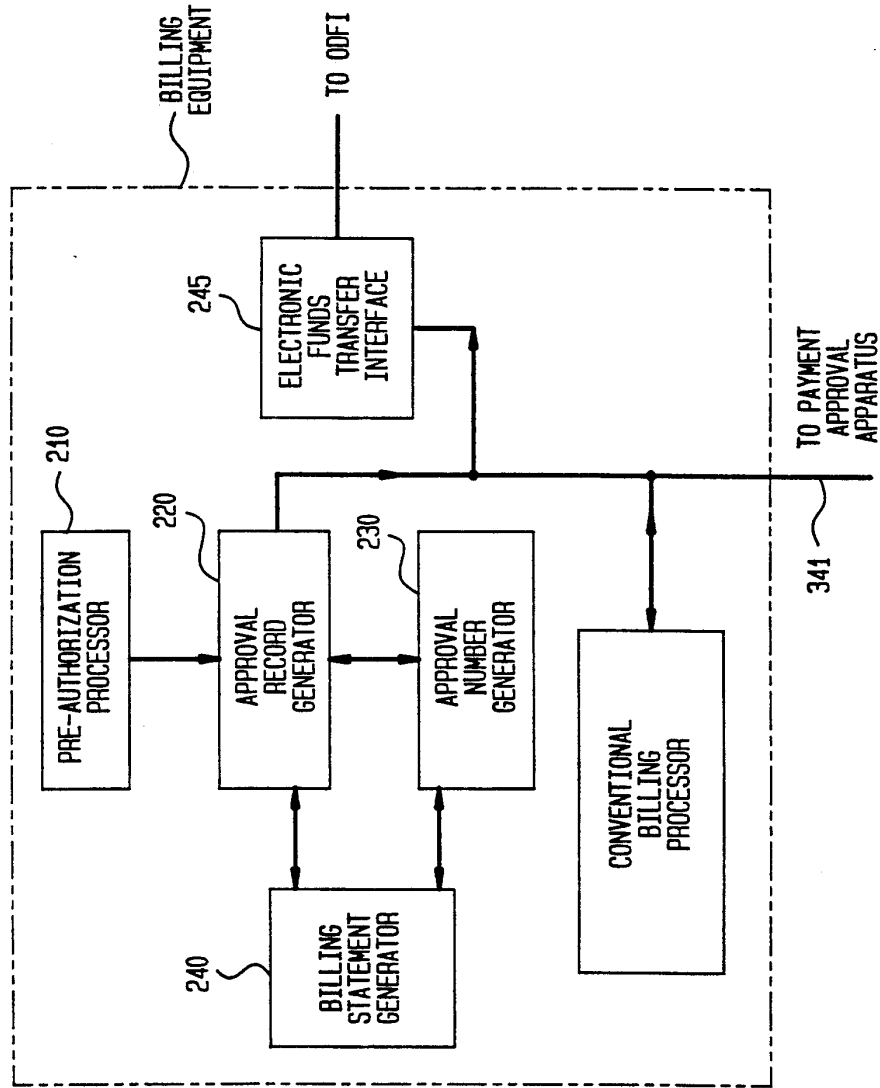
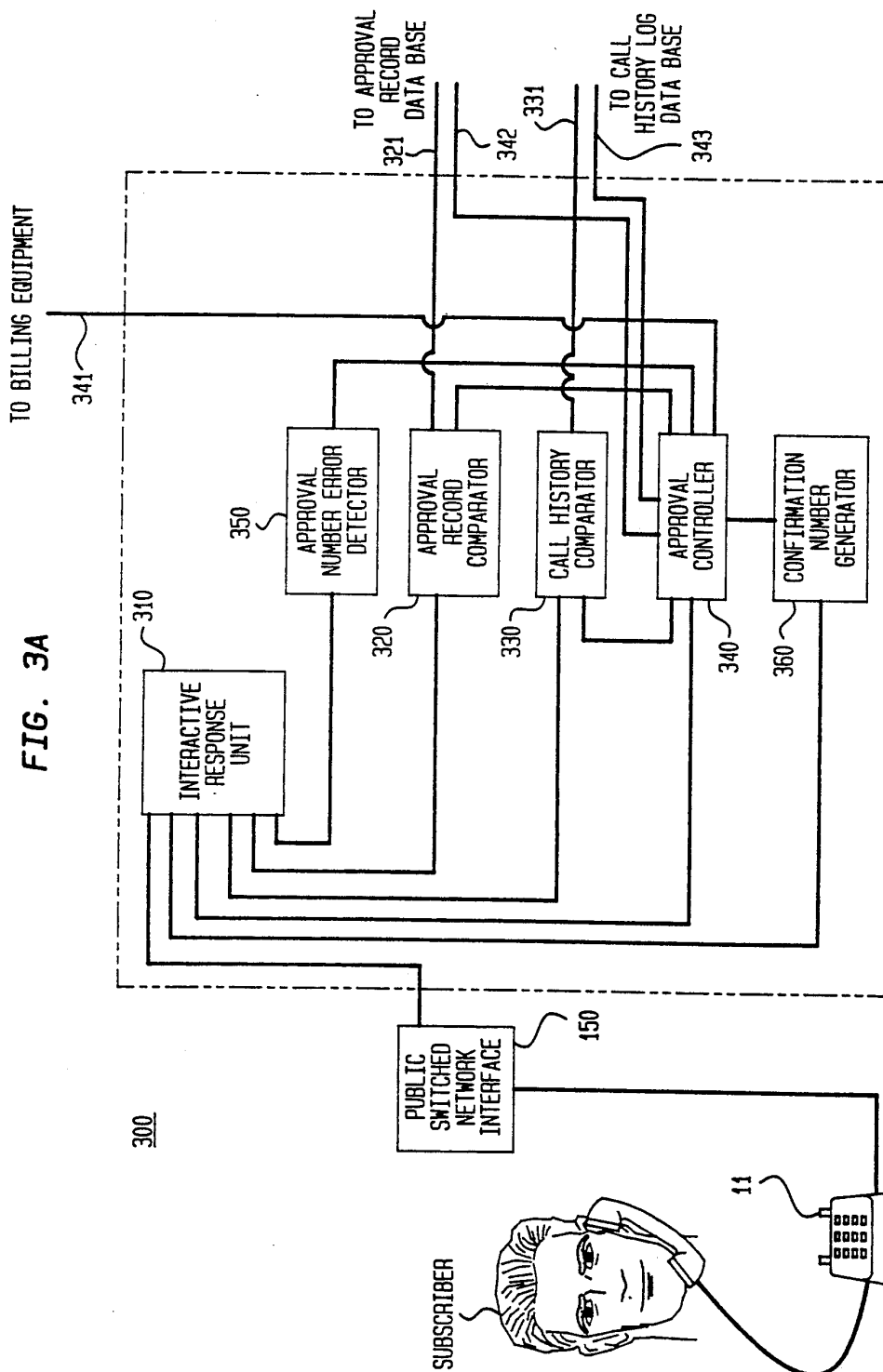
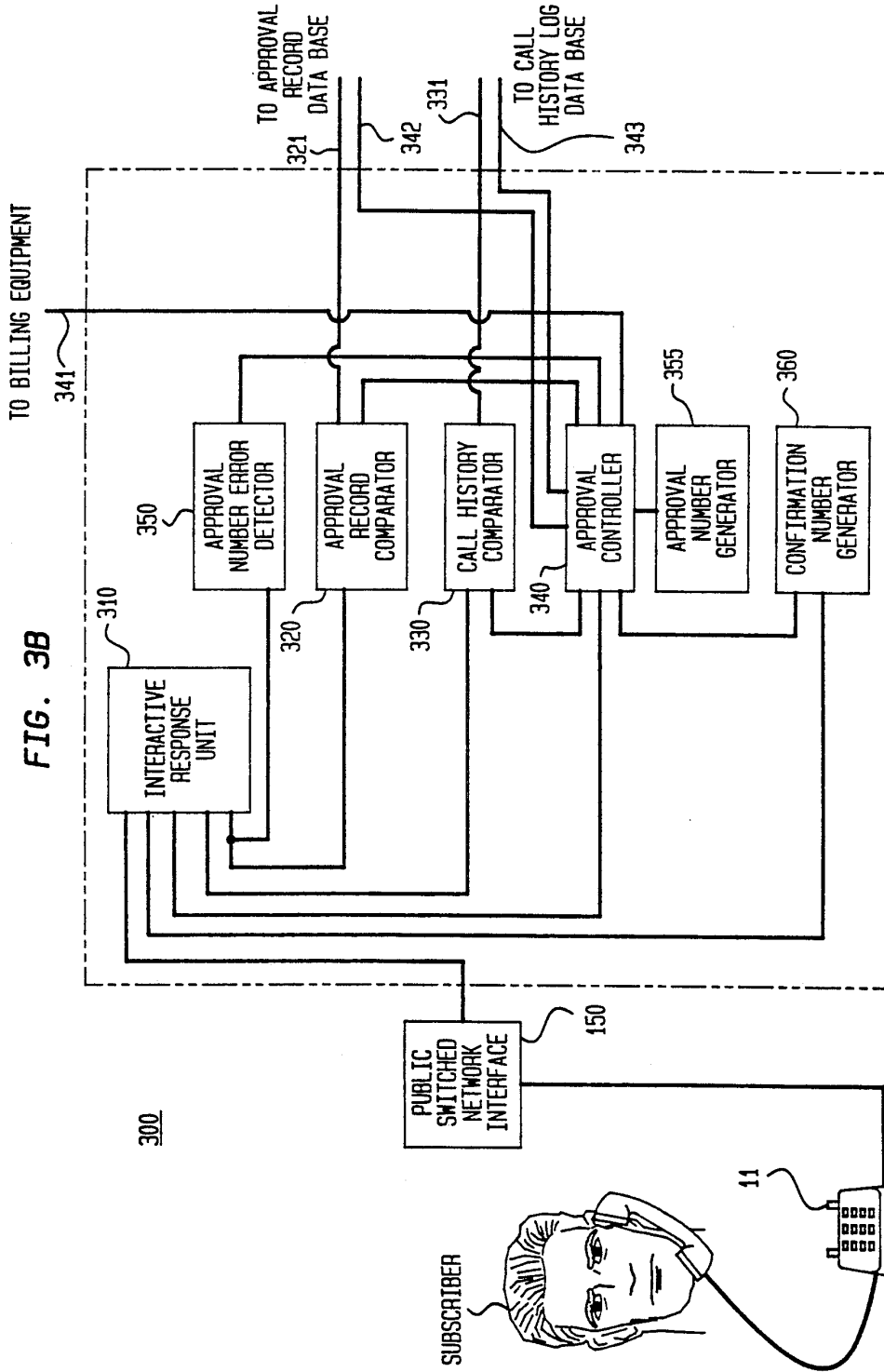


FIG. 2



200





# 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.