

**United States Patent** [19]

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**Kugell et al.**

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- [54] **MULTI-RING TELEPHONE METHOD AND SYSTEM**
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**David Silver**, Cambridge, both of Mass.
- [73] Assignee: **Pilgrim Telephone, Inc.**, Cambridge, Mass.

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- [21] Appl. No.: **590,110**
- [22] Filed: **Jan. 19, 1996**
- [51] Int. Cl.<sup>6</sup> ..... **H04M 3/46; H04M 3/56**
- [52] U.S. Cl. .... **379/211; 379/188; 379/205; 370/261; 370/270**
- [58] **Field of Search** ..... 379/201, 202, 379/203, 204, 205, 206, 211, 212, 93, 95, 188, 199, 37, 354, 355, 356; 370/259, 260, 261, 262, 270, 280; 395/2.4; 340/825.44, 825.45, 825.47

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*Attorney, Agent, or Firm*—Strung Kramer Schaefer & Briscoe

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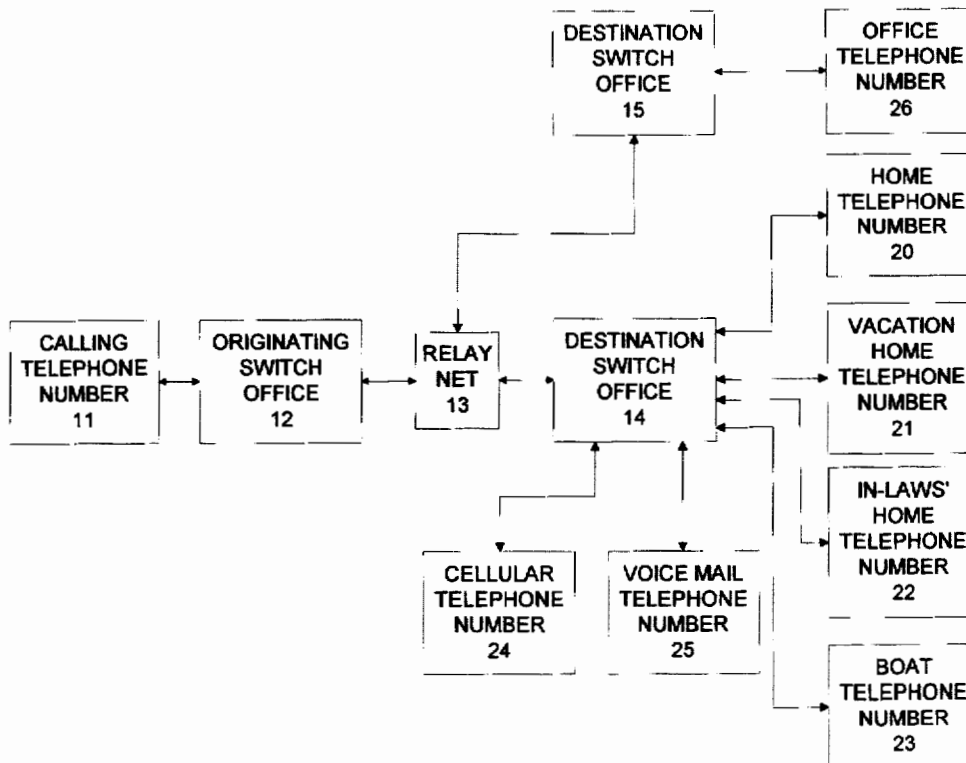
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[57] **ABSTRACT**

A method and system of providing telephone service comprises associating a list of telephone numbers with a representative telephone number. A call to the representative telephone number is detected and a plurality of telephone numbers on the list are simultaneously signalled. Thereafter, signalling is terminated at at least one of the plurality of telephone numbers thereby allowing a connection to be established with one or more parties at telephone numbers among the plurality of telephone numbers. Each telephone number on the list may be a representative number which is associated with another list of telephone numbers.

**47 Claims, 9 Drawing Sheets**



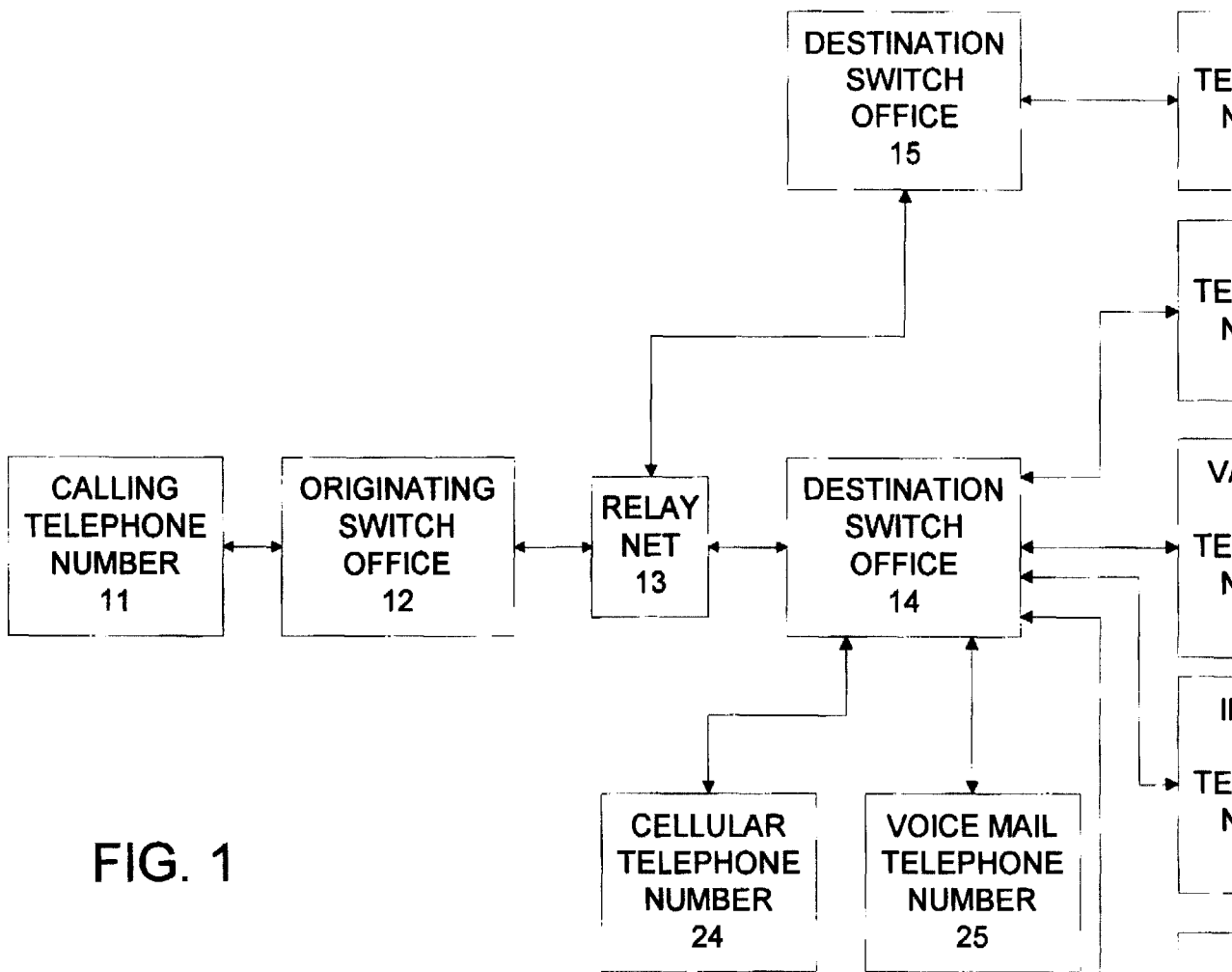


FIG. 1

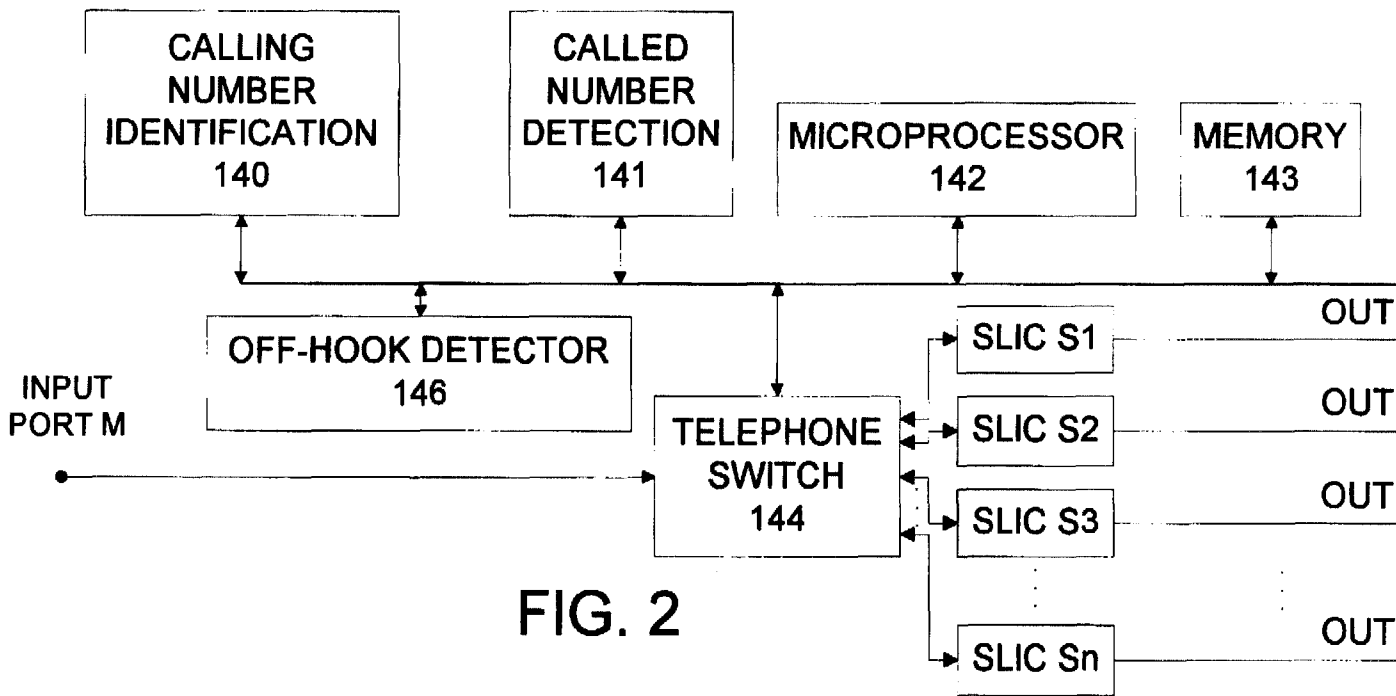


FIG. 2

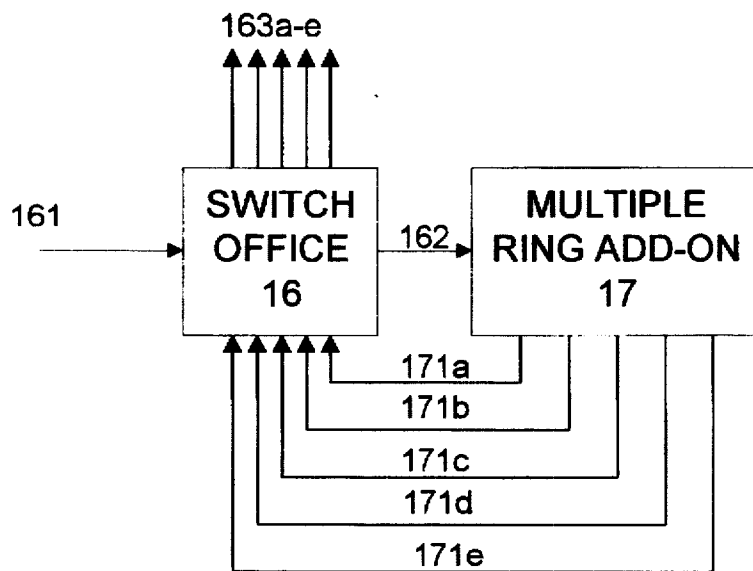


FIG. 2A

REPRESENTATIVE NUMBER: 800-555-1234		SIGNALLING TERMINATION REQUIREMENTS: 1 OFF		
LIST OF ASSOCIATED NUMBERS	TIME PARAMETERS	ANI PARAMETERS	SIGNALLING DELAY PARAMETERS	VERIFICATION PARAMETERS
HOME TEL. NUMBER 20	6PM-12AM ONLY	TABLE A (EXCLUDED NOS.)	5 RINGS ONLY	PIN NO
VACATION HOME TEL. NUMBER 21	9AM-5PM, M-F ONLY	TABLE A (EXCLUDED NOS.)	5 RINGS ONLY	PIN NO
IN-LAWS' HOME TEL. NUMBER 22	6 PM-10 PM, AUGUST ONLY	TABLE B (EXCLUDED NOS.)	START AFTER 6 RINGS	VOICE C
BOAT TEL. NUMBER 23	SAT. & SUN. ONLY	TABLE C (PERMITTED NOS.)	NONE	PIN NO
CELLULAR TEL. NUMBER 24	ALL TIMES	NO EXCLUSIONS	NONE	NON
VOICE MAIL TEL. NUMBER 25	JULY 15 - JULY 28 ONLY	NO EXCLUSIONS	START AFTER 20 RINGS	NON

FIG. 3

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