

[54] **COMMUNICATIONS SYSTEM FOR ALPHANUMERIC INFORMATION EMPLOYING AUDIO TONE SIGNALLING**

[72] Inventors: **James Loton Flanagan, Warren; James Hughes Kronmeyer, Jersey City; John Richard Nelson, Somerville, all of N.J.**

[73] Assignee: **Bell Telephone Laboratories, Incorporated, Murray Hill, Berkeley Heights, N.J.**

[22] Filed: **July 24, 1970**

[21] Appl. No.: **58,074**

3,581,283	5/1971	Reddel.....	179/84 UF
3,405,234	10/1968	West.....	340/171 R
3,582,554	6/1971	Le Blang.....	179/84 UF
3,381,276	4/1968	James.....	179/2 DP
2,073,333	3/1937	Chireix.....	178/25
3,557,311	1/1971	Goldstein.....	179/2 DP
3,536,839	10/1970	Prins.....	179/2 DP
3,213,441	10/1965	Shook.....	340/336
2,200,807	4/1940	Potts.....	340/354
3,292,178	12/1966	Magnuski.....	179/15 BM
2,645,771	7/1953	Labin.....	179/15 BM

Primary Examiner—Kathleen H. Claffy
Assistant Examiner—David L. Stewart
Attorney—Guenther: R. J. and William L. Keefauver

[52] U.S. Cl. 179/84 VF, 179/2 DP
 [51] Int. Cl. H04m 11/00
 [58] Field of Search..... 178/25, 26 R, 26 A, 77, 78, 178/80, 81; 179/2 DP, 15 MM, 4, 2 C, 1 C, 84 UF; 340/336, 337, 349, 354, 171 R, 171 A, 171 PF

[57] **ABSTRACT**

A communications system for exchanging alphanumeric information between remote stations, employing station apparatus (e.g., modified typewriters) capable of generating and responding to an audio tone code. The system is compatible with use of a push-button telephone instrument as an alternative sending station.

[56] **References Cited**

UNITED STATES PATENTS

3,472,965 10/1969 Blossom.....340/171 R

11 Claims, 12 Drawing Figures

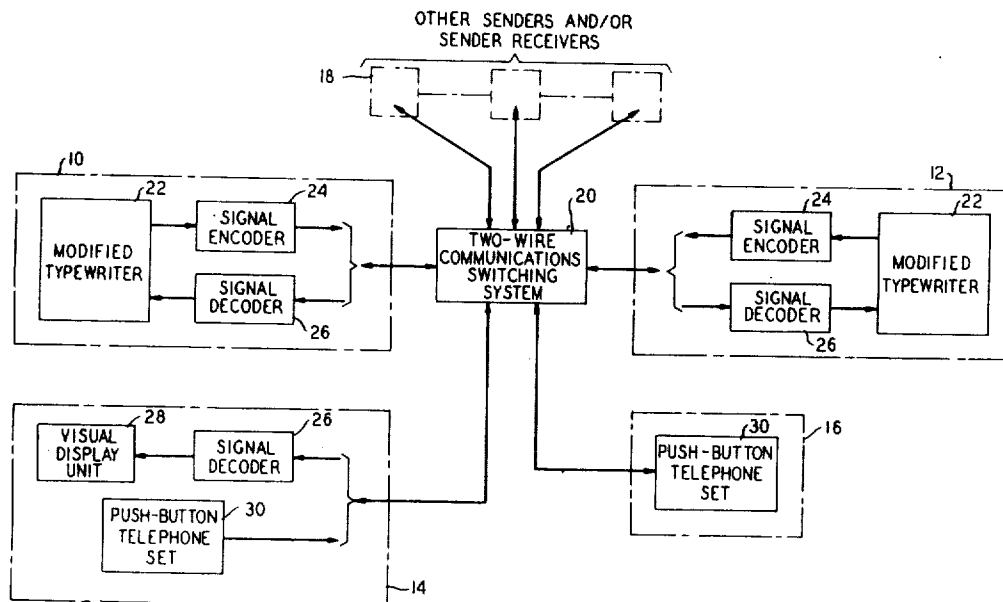
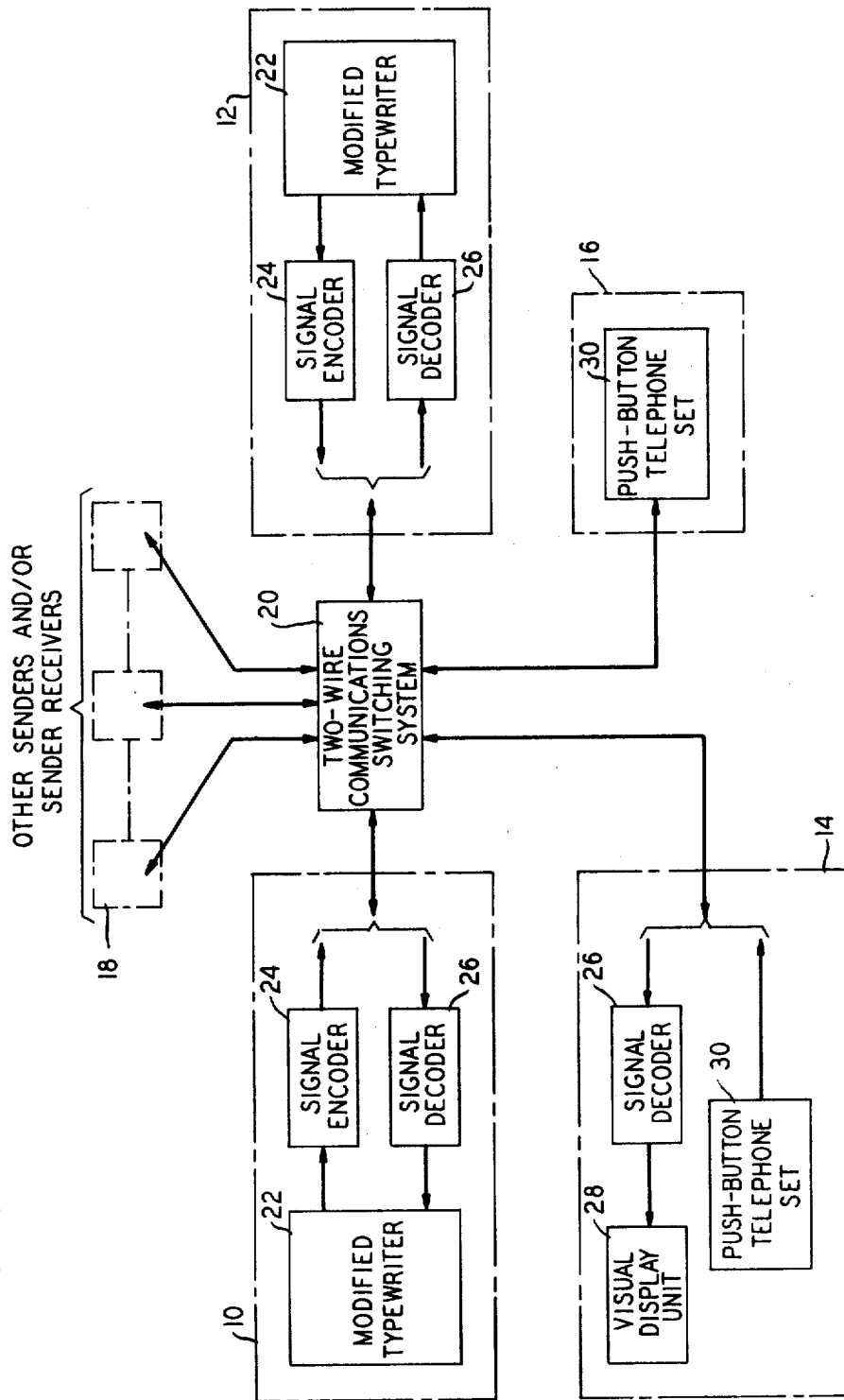


FIG. 1



J. L. FLANAGAN
 INVENTORS J. H. KRONMEYER
 J. R. NELSON

BY *Harold E. Murphy*
 ATTORNEY

FIG. 2

ALPHANUMERIC CHARACTER	CODING SEQUENCE
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
0	0
Q	1-0
Z	1-1-0
• (PERIOD)	1-1-1-0
A	2-0
B	2-2-0
C	2-2-2-0
D	3-0
E	3-3-0
F	3-3-3-0
G	4-0
H	4-4-0
I	4-4-4-0
J	5-0
K	5-5-0
L	5-5-5-0
M	6-0
N	6-6-0
O	6-6-6-0
P	7-0
R	7-7-0
S	7-7-7-0
T	8-0
U	8-8-0
V	8-8-8-0
W	9-0
X	9-9-0
Y	9-9-9-0
(CARRIAGE RETURN)	*-0
(ALPHABETIC MODE)	*-*-* [SPECIAL]
(SPACE)	#-0
(NUMERIC MODE)	##-##-## [SPECIAL]

NUMERIC MODE

ALPHABETIC MODE

FIG. 3A

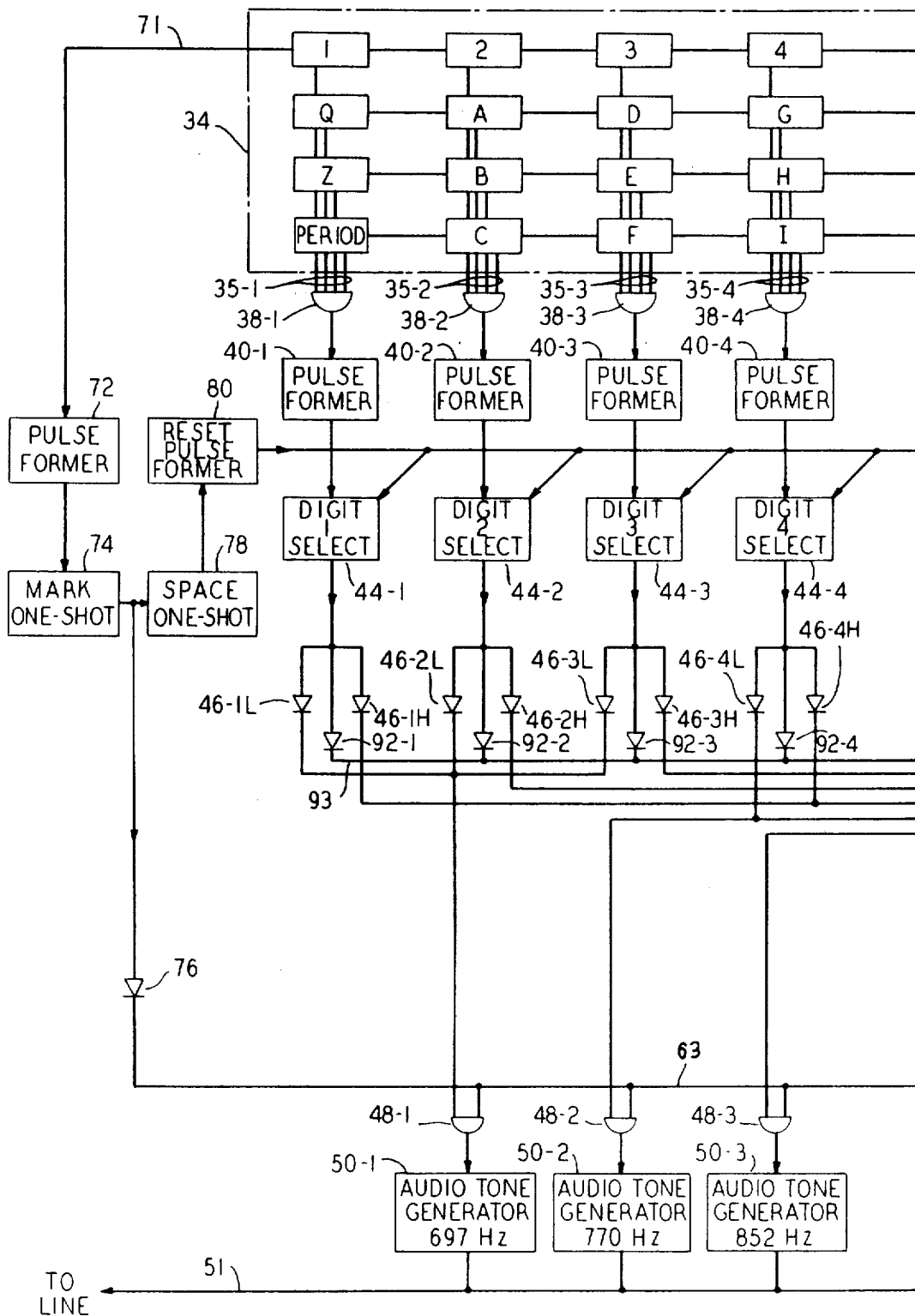
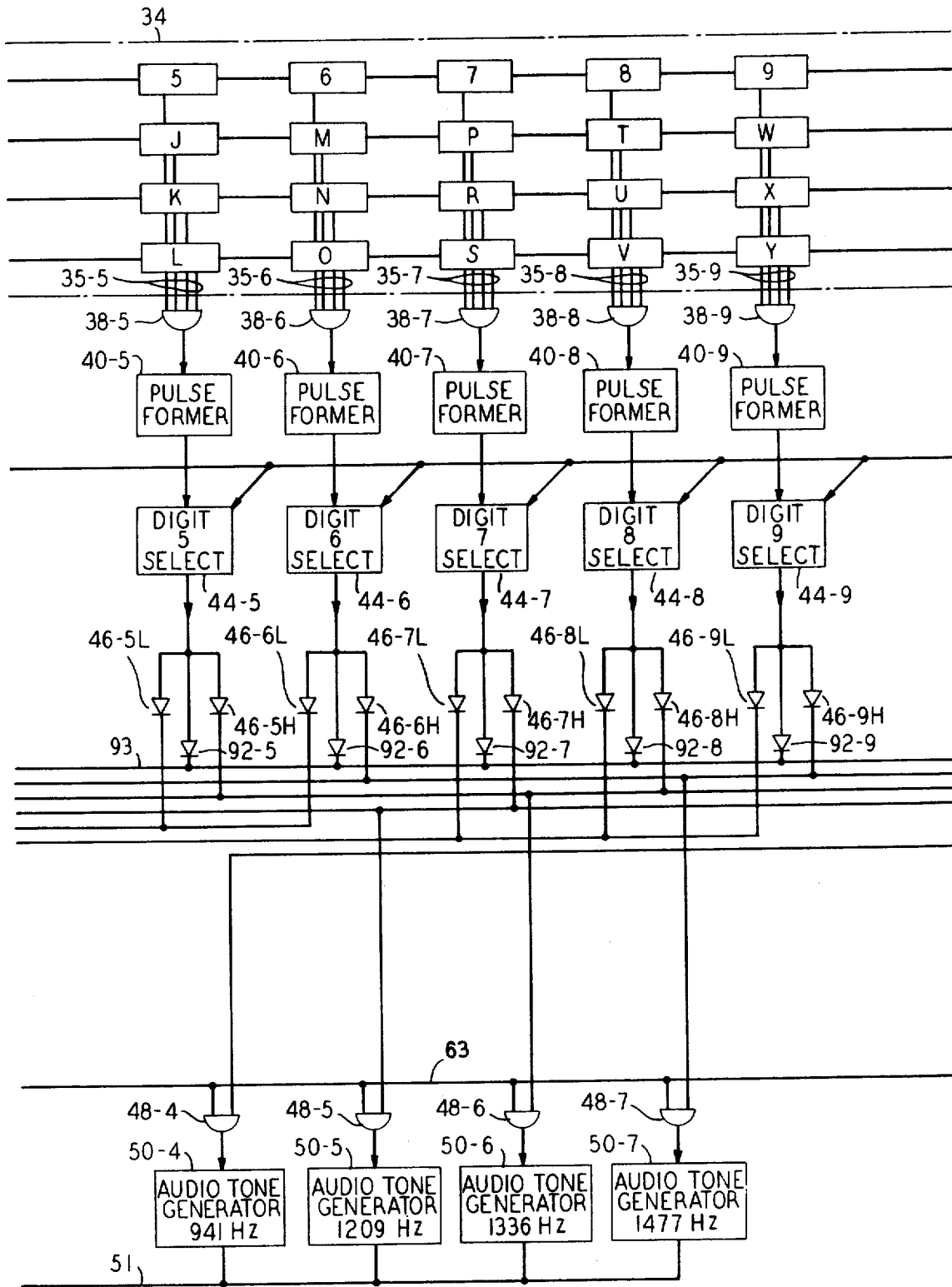


FIG. 3B



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.