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Carmel et al.

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(54) **NETWORK MEDIA STREAMING**

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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 0 days.

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(30) **Foreign Application Priority Data**

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(51) **Int. Cl.**⁷ **G06F 13/00**

(52) **U.S. Cl.** **709/231**

(58) **Field of Search** 707/500.1; 709/200, 709/231, 236, 246, 247; 382/236, 239; 375/240.12

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,267,334 A 11/1993 Normille et al. 382/236

5,404,446 A 4/1995 Bowater et al. 345/537

5,841,432 A 11/1998 Carmel et al. 707/500.1

Primary Examiner—Robert B. Harrell

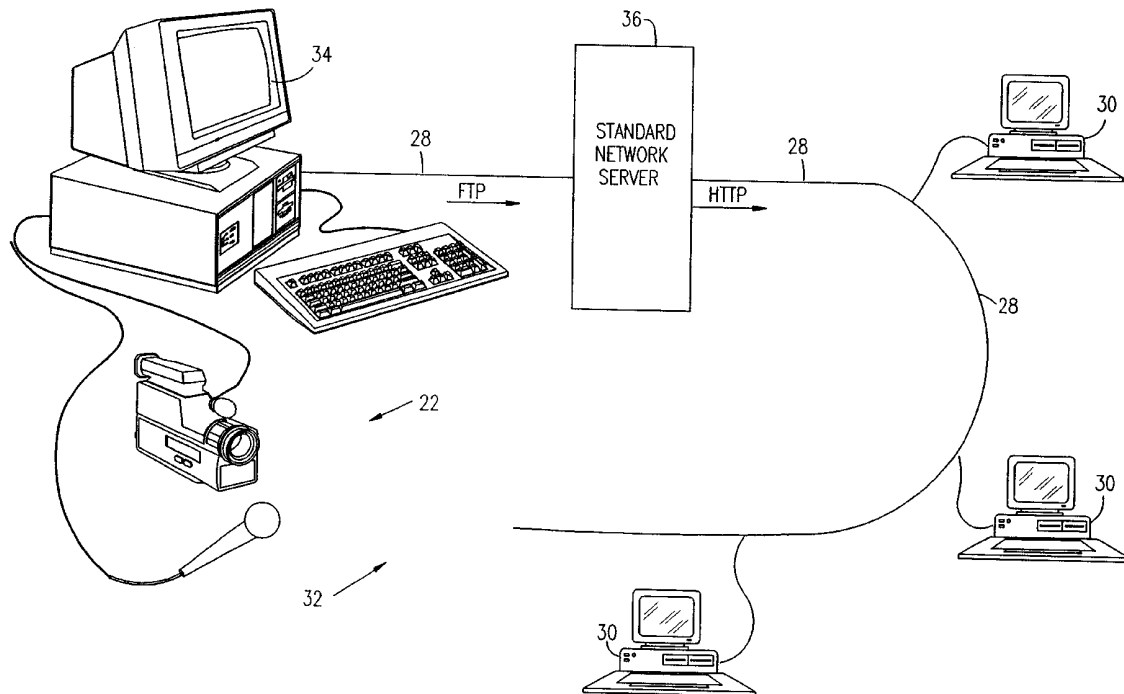
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(57) **ABSTRACT**

A method for real-time broadcasting from a transmitting computer to one or more client computers over a network, including providing at the transmitting computer a data stream having a given data rate, and dividing the stream into a sequence of slices, each slice having a predetermined data size associated therewith. The slices are encoded in a corresponding sequence of files, each file having a respective index, and the sequence is uploaded to a server at an upload rate generally equal to the data rate of the stream, such that the one or more client computers can download the sequence over the network from the server at a download rate generally equal to the data rate.

41 Claims, 11 Drawing Sheets

Microfiche Appendix Included
(2 Microfiche, 138 Pages)



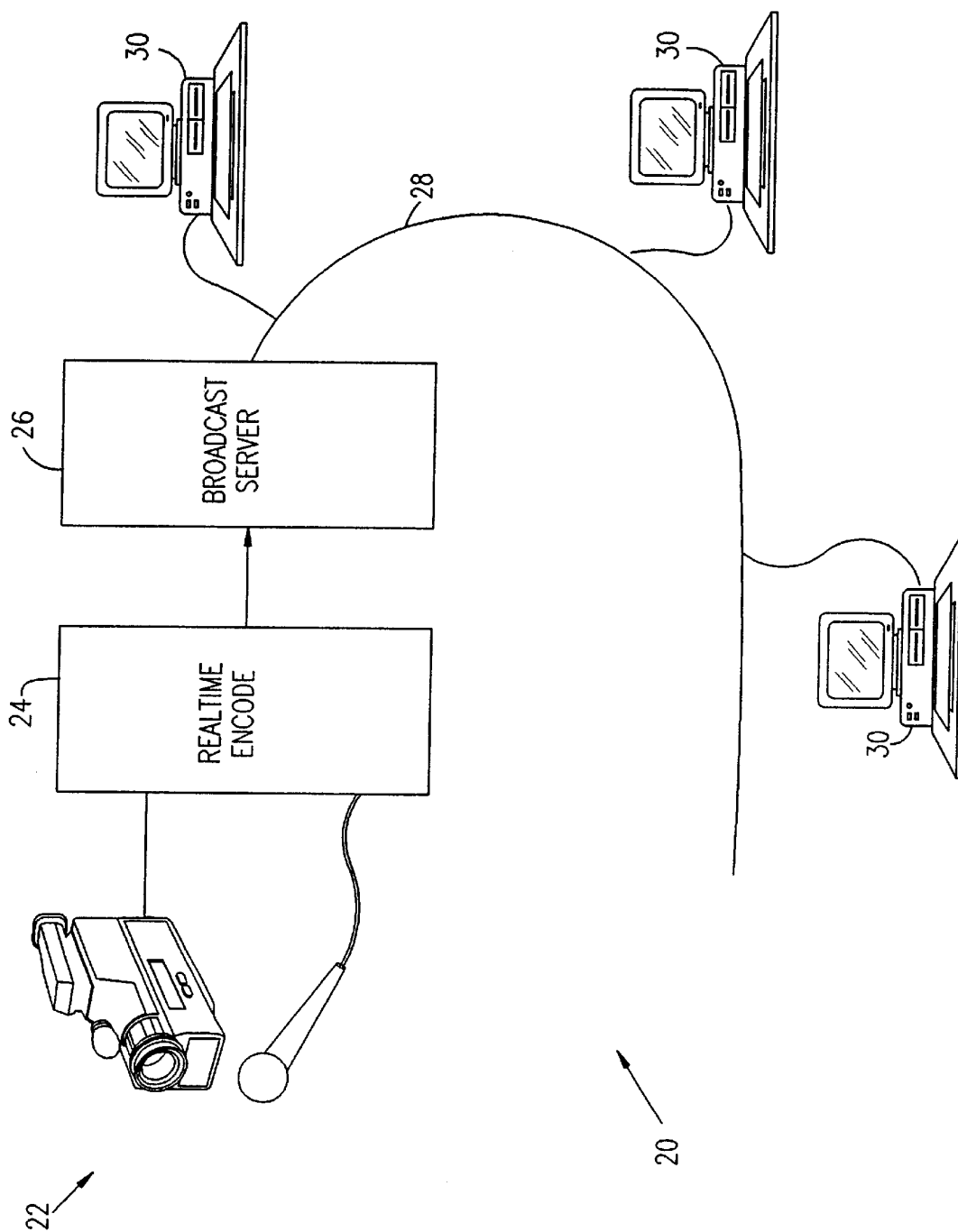


FIG. 1
PRIOR ART

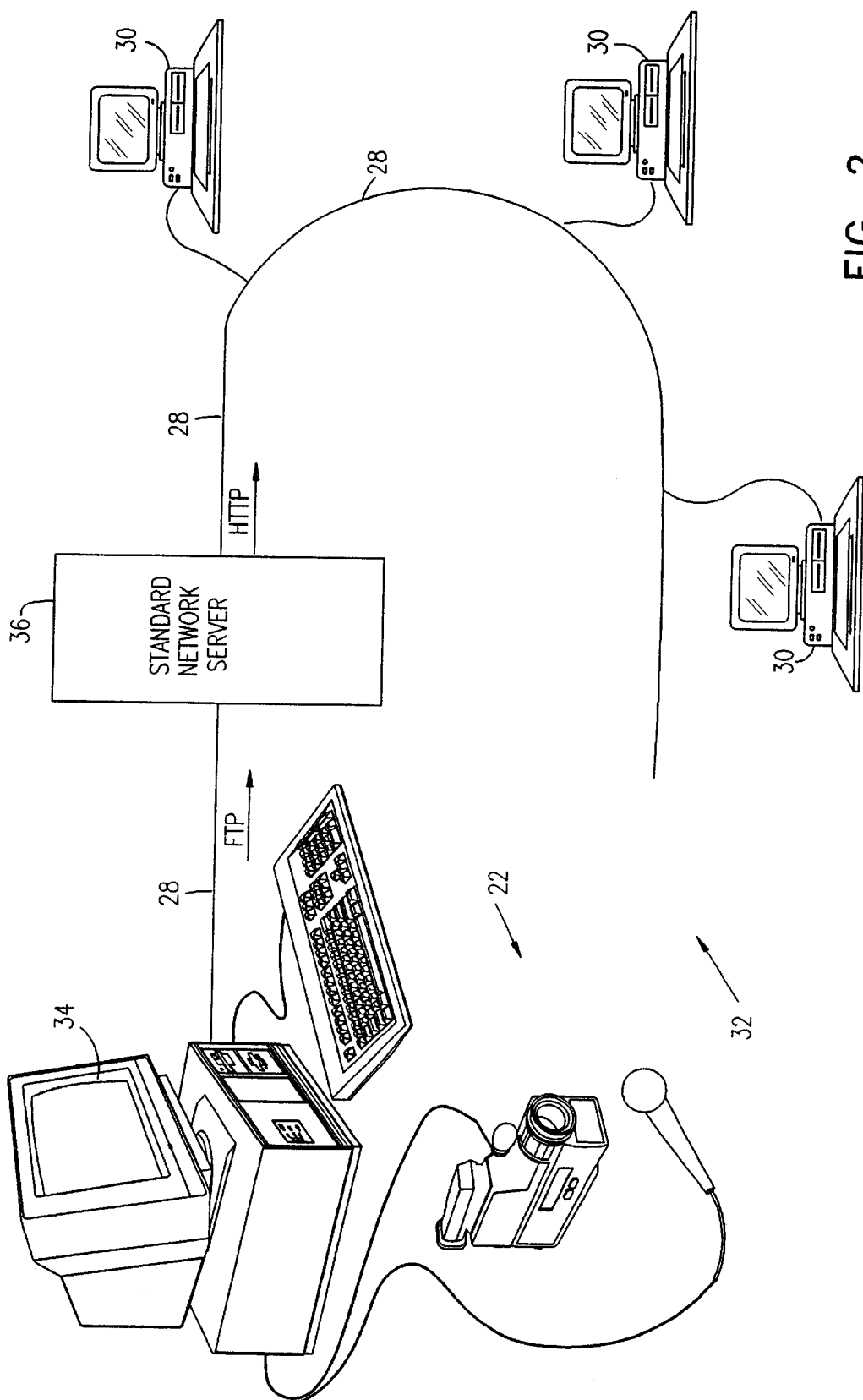


FIG. 2

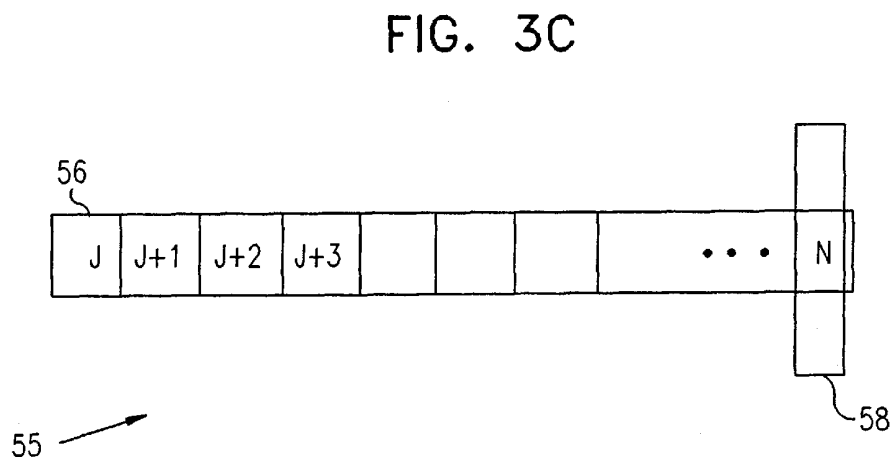
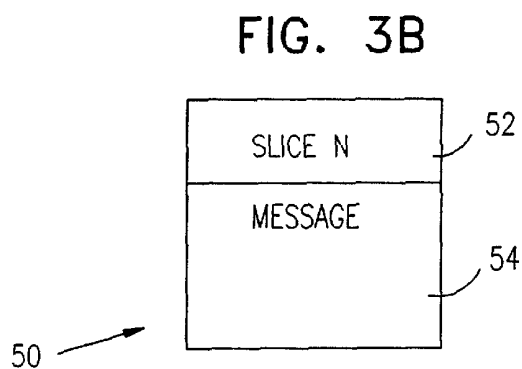
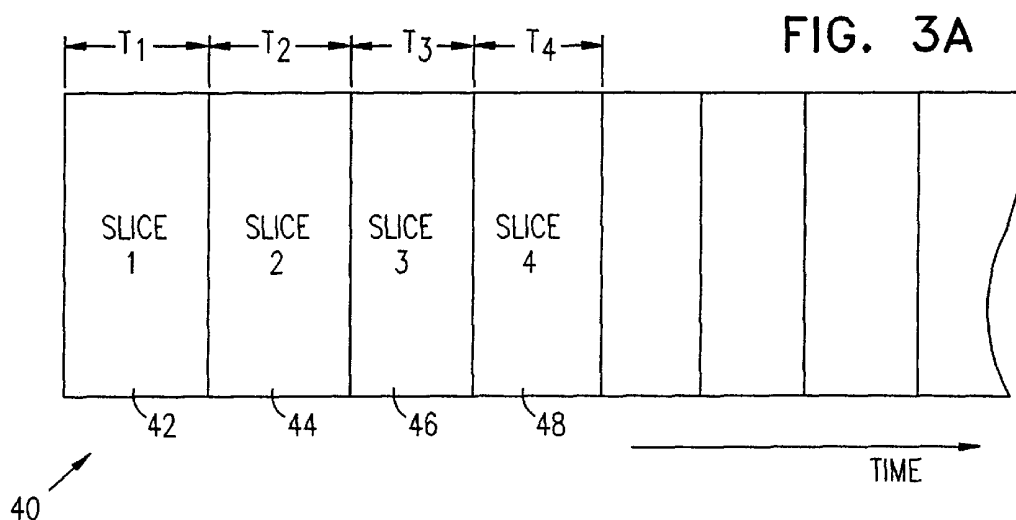
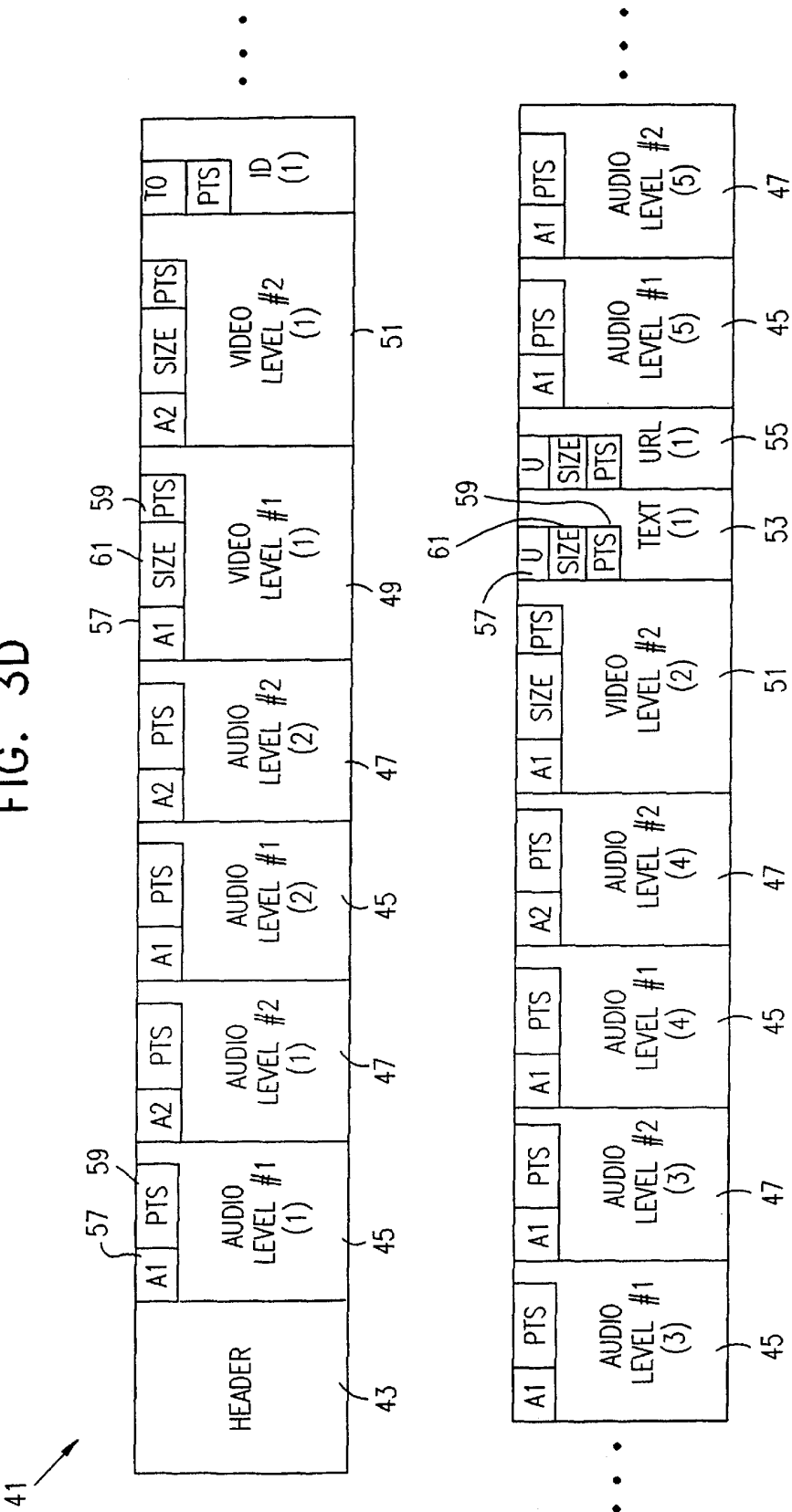


FIG. 3D



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