

[54] **CONTROL AND METERING SYSTEM FOR PAY TELEVISION OVER A CABLE NETWORK**

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[76] **Inventors:** **Graham C. Bradley**, 3200 College Avenue, Regina, Saskatchewan, Canada, S4T 1V9; **Alton O. Stretten**, 3615 McCallum Avenue, Regina, Saskatchewan, Canada, S4S 0S6; **John P. Stretten**, 14 Susses Crescent, Regina, Saskatchewan, Canada, S4T6A2; **Rex B. Wentzel**, #2 Rheims Ct., Lake St., St. Louis, Mo. 63367

Primary Examiner—Thomas H. Tarcza
Assistant Examiner—Linda J. Wallace
Attorney, Agent, or Firm—Larson & Taylor

[21] **Appl. No.:** 5,979

[57] **ABSTRACT**

[22] **Filed:** Jan. 22, 1987

An improved control and metering system for pay television distribution over a cable network. A control unit is located near each receiver on a subscribers premises and a secure filter, switching and metering unit is located external to the subscribers home. For the basic apparatus power and control signals needed to operate the external unit require no separate wiring as these signals are multiplexed over the coaxial cable that carries the TV signal into the home. An improved switch in the external unit activates a temperature compensated digital metering unit that displays either (or both) the time that the premium programming has been accessed or the totalized cost of the pay programming accessed. When implemented in high density housing districts common equipment is centralized and the apparatus is known as a switched star configuration. Also included is apparatus that permits metering to be accomplished at a central location for a community. The apparatus allows for tiering of pay programming utilizing different rates. The system is secure without scrambling or jamming. Another version of the apparatus permits Cable TV Operators to sell common carrier services to independent programmers according to utilization. The apparatus also allows for interfacing the cable TV network with a fibre optic television distribution network, for subscribed switching between the two systems and the metering of the utilization of such an apparatus. The system introduces the idea of a fibre optic video party-line to reduce implementation costs.

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 823,759, Jan. 29, 1986, abandoned.

[51] **Int. Cl.⁴** H04N 7/16; H04N 7/10; H04H 1/00

[52] **U.S. Cl.** 380/10; 380/7; 358/86; 358/349; 455/4

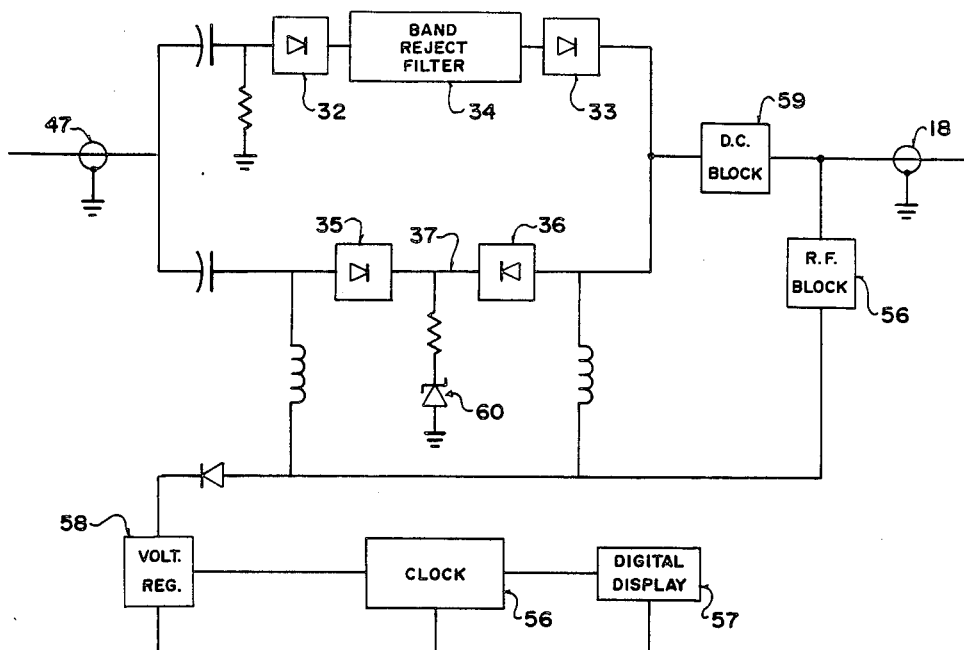
[58] **Field of Search** 380/7, 10, 20; 358/349, 358/84, 86; 307/256, 259; 333/103, 104, 262; 455/1-4

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14 Claims, 14 Drawing Sheets



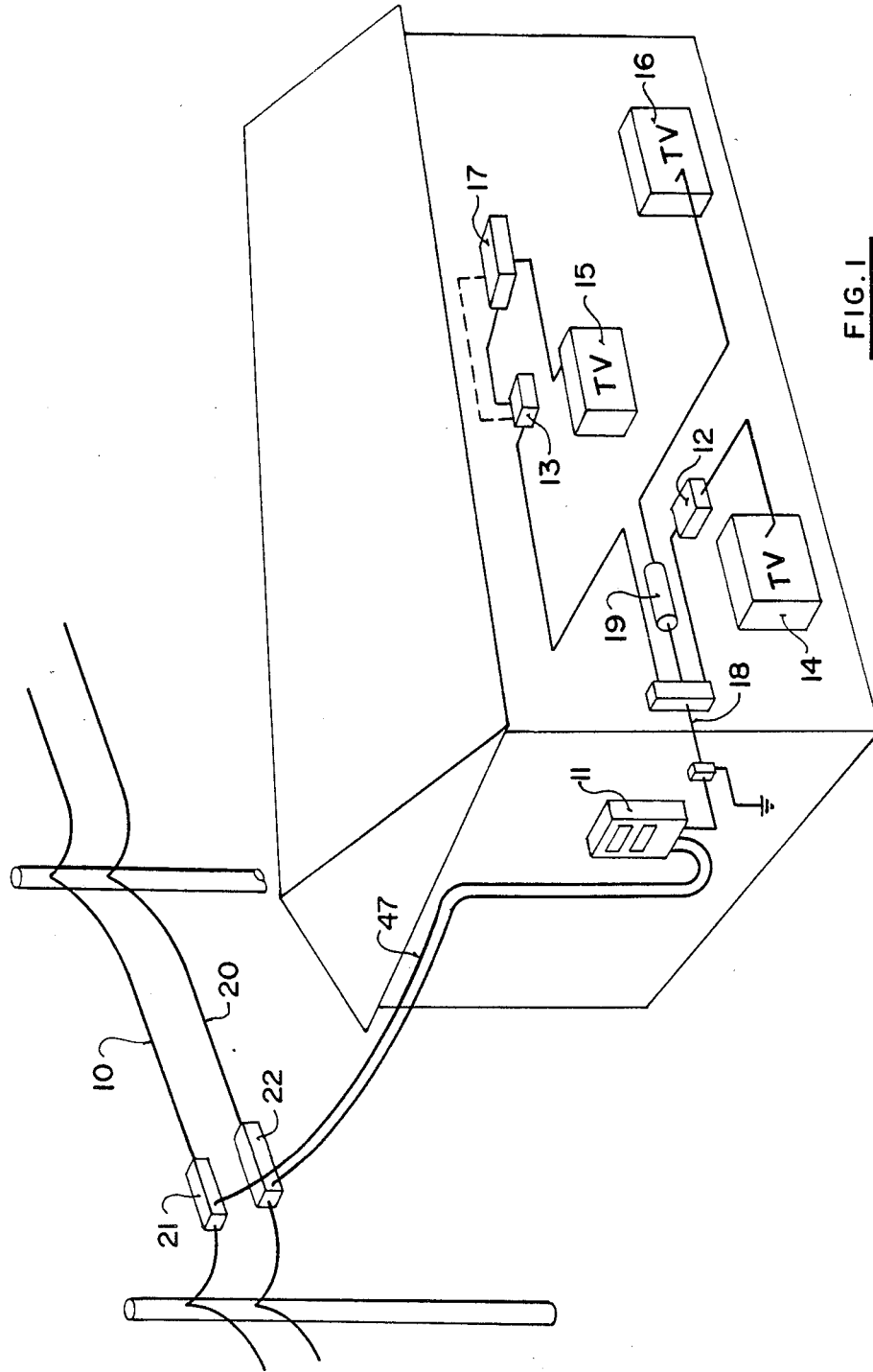


FIG. 1

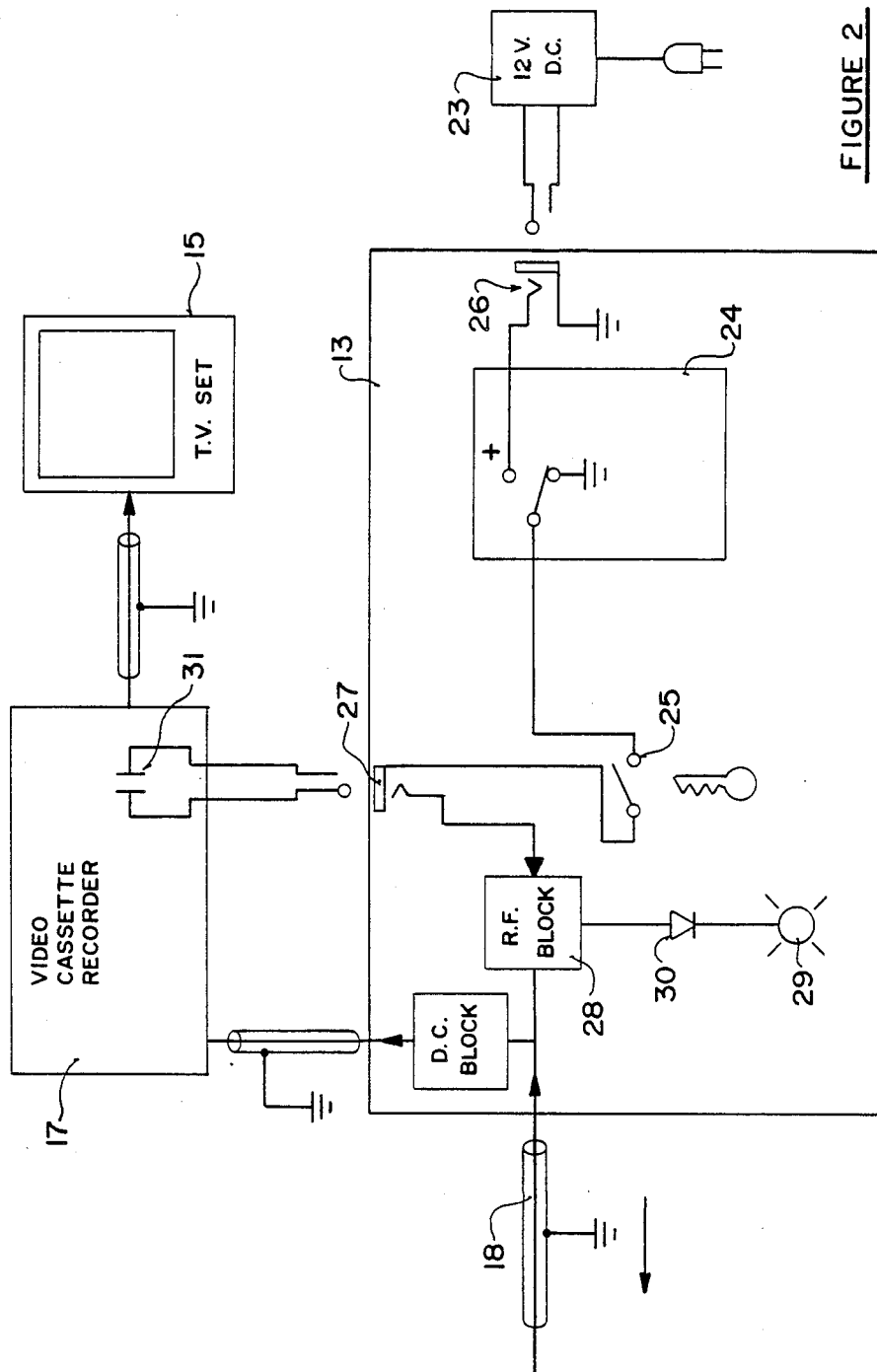


FIGURE 2

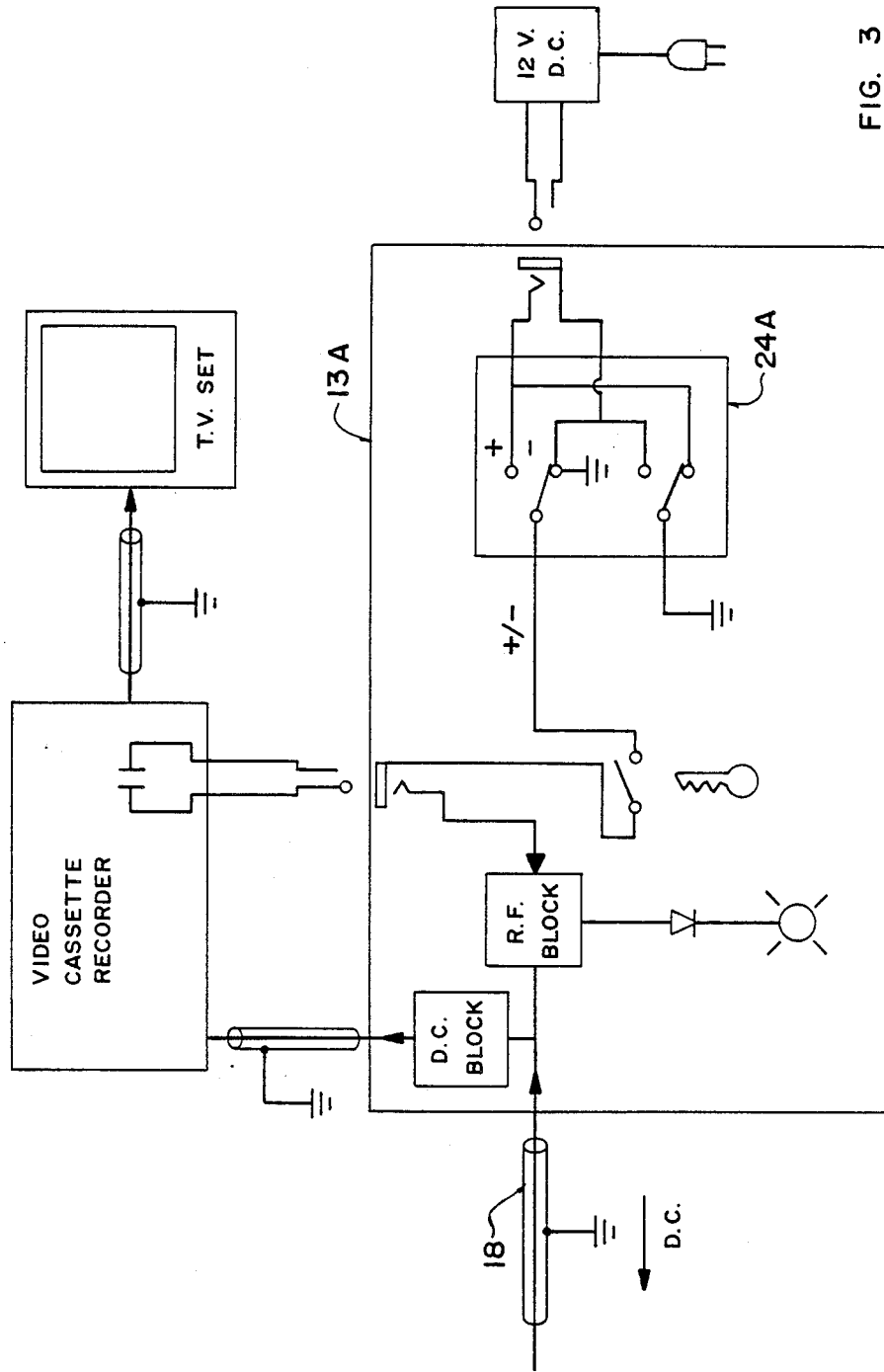


FIG. 3

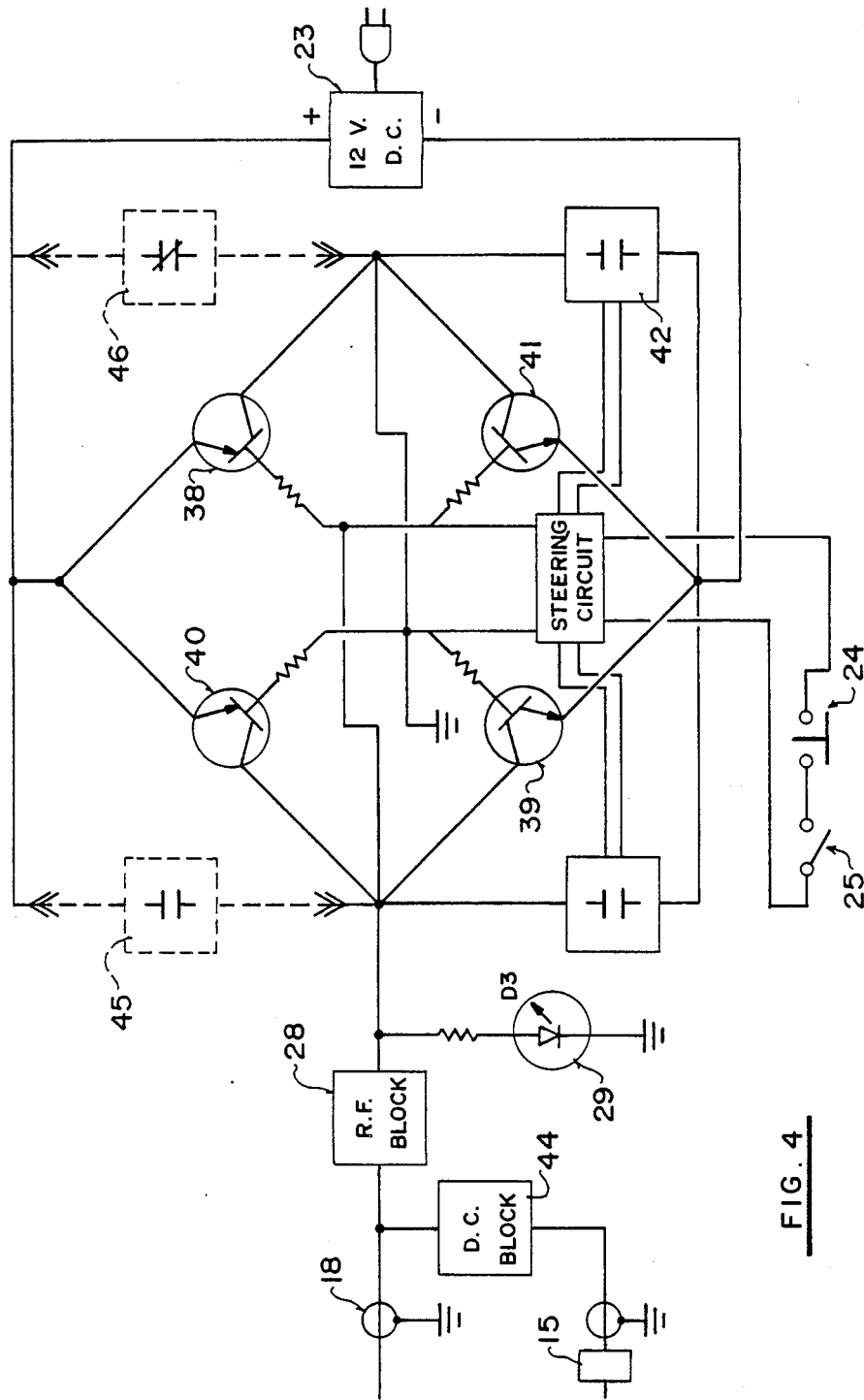


FIG. 4

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