

# United States Patent [19]

[11] Patent Number: 4,485,400

Lemelson et al.

[45] Date of Patent: Nov. 27, 1984

[54] VIDEO TELEPHONE

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[21] Appl. No.: 379,963

[22] Filed: May 19, 1982

### Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 224,503, Jan. 13, 1981, abandoned.

[51] Int. Cl.<sup>3</sup> ..... H04N 7/18

[52] U.S. Cl. .... 358/85; 179/2 C; 179/2 DP; 179/2 TV; 179/6.2; 358/140; 358/229; 358/254; 360/9.1; 360/33.1; D14/54; D14/57; D14/78; D14/79

[58] Field of Search ..... 358/85, 229, 254, 140; 360/9.1, 33.1; 179/2 C, 2 TV, 2 DP, 1 C, 1 HF, 6.2; D14/54, 57, 78, 79

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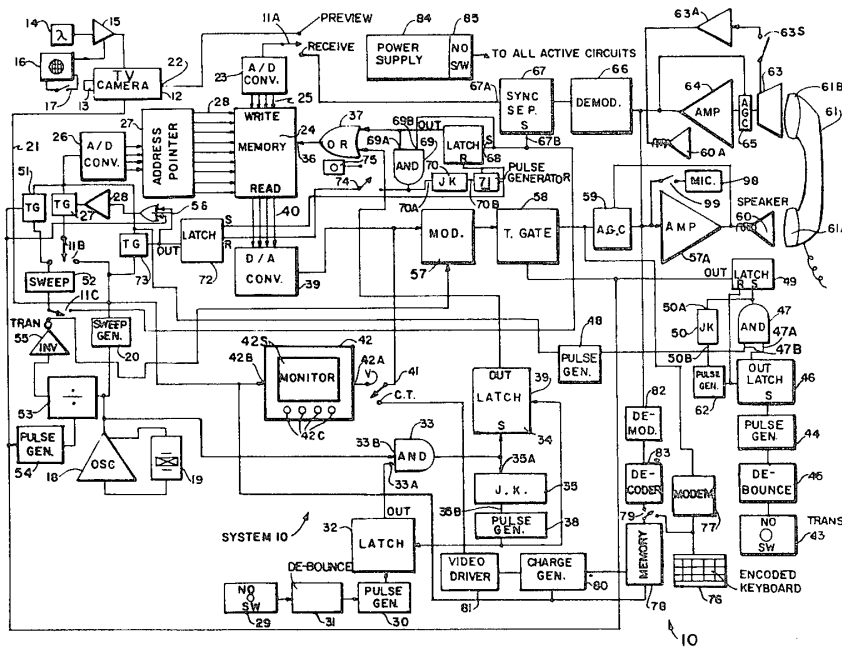
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Primary Examiner—Howard W. Britton

### [57] ABSTRACT

An apparatus and method are provided for transmitting video data over telephone lines. The apparatus is particularly applicable for transmitting and receiving images of persons speaking to each other. In one form, a portable self-contained unit is provided at each end of a conventional telephone circuit wherein the transducers of the mouthpiece and earpiece of each telephone are respectively acoustically coupled to respective acoustic output and input electrical-to-sound and sound-to-electrical transducers of each self-contained unit for two-way audio and video communication therebetween. Each unit, which may be contained in a single housing, has a television camera directed and operative for slow scanning the face of a person making the telephone call, a television display screen and image retaining means for displaying the image of a person having a similar unit at the other end of the line, and a speaker and microphone which may be contained within the housing or in a telephone hand set for receiving speech and generating sounds of speech transmitted from the other terminal circuits. Hard copy generating means, such as a picture printer, may also be provided to print pictures of the images on the television display screen when controlled to do so.

4 Claims, 9 Drawing Figures



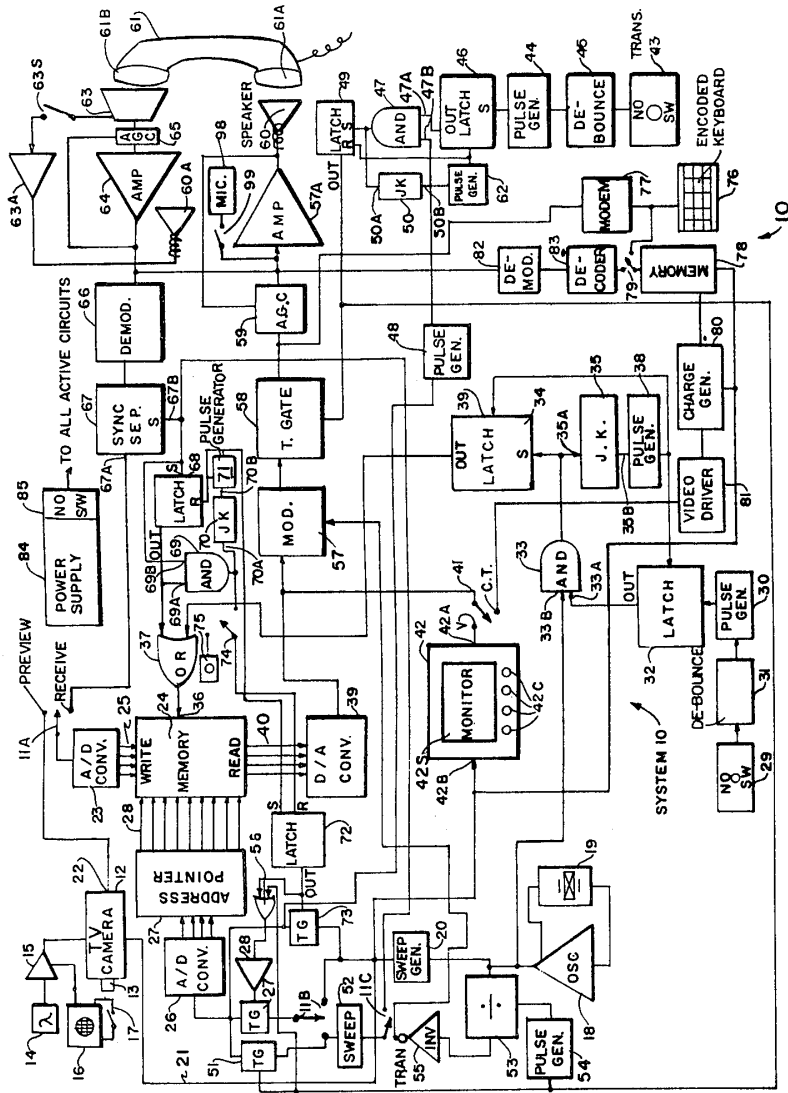
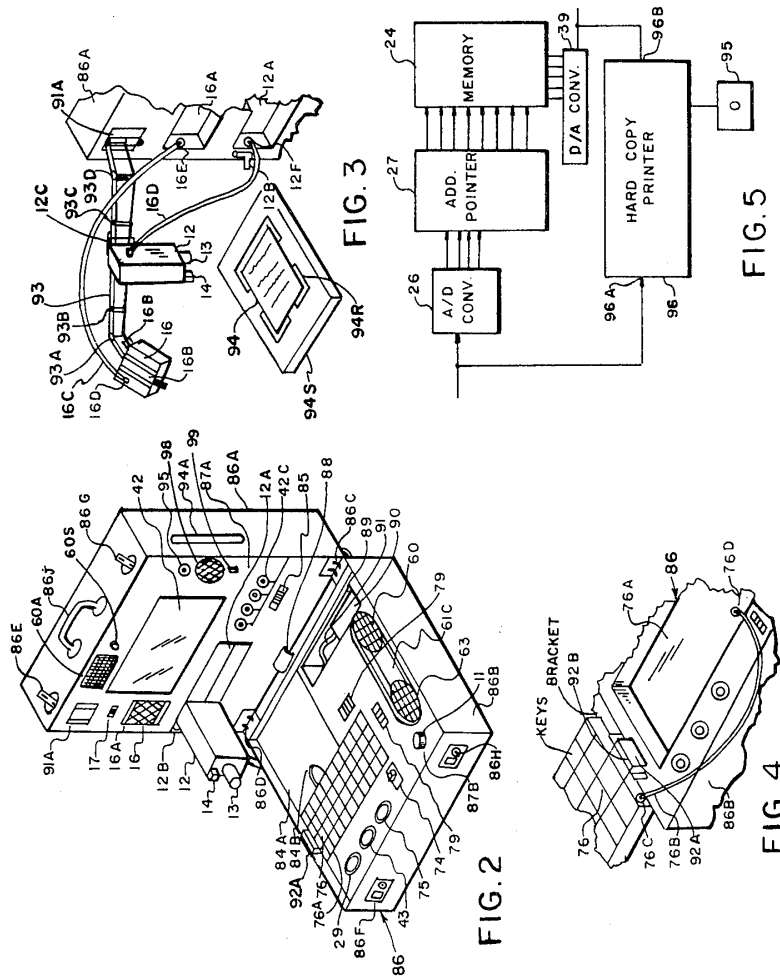


FIG. 1



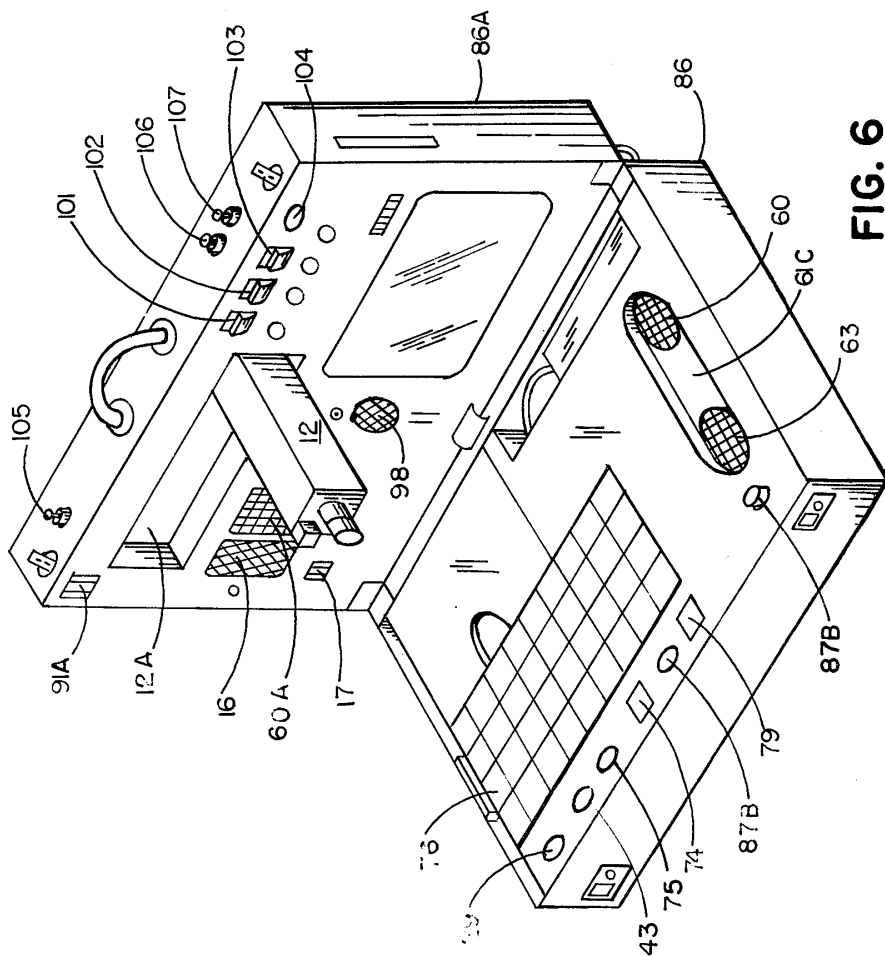


FIG. 6

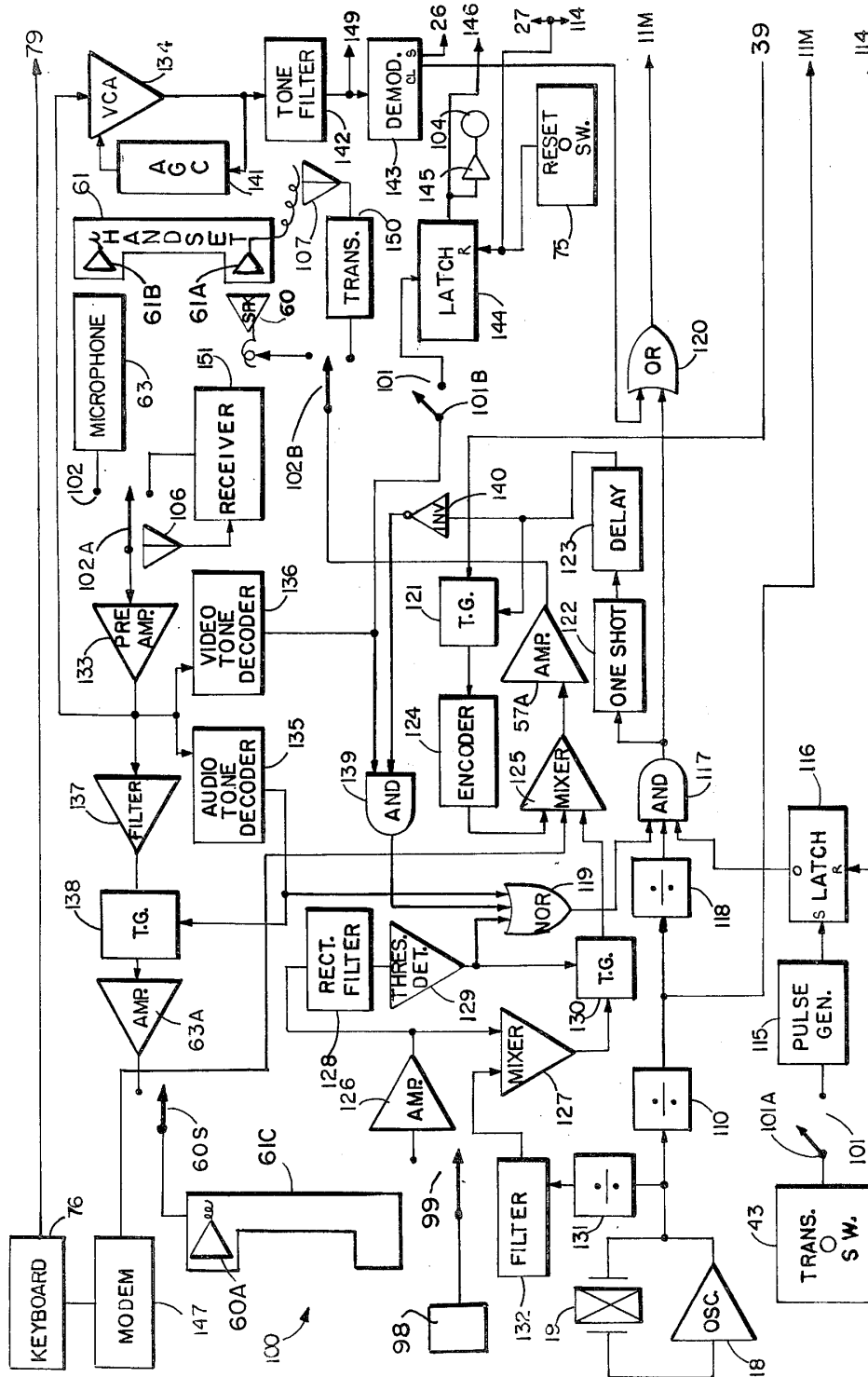


FIG. 7A

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