

United States Patent [19]

Maclean et al.

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- [54] **STORAGE CONTROLLER EMULATOR PROVIDING TRANSPARENT RESOURCE SHARING IN A COMPUTER SYSTEM**
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- [21] **Appl. No.:** 556,130
- [22] **Filed:** Nov. 29, 1983
- [51] **Int. Cl.⁴** G06F 13/12
- [52] **U.S. Cl.** 364/200
- [58] **Field of Search** ... 364/200 MS File, 900 MS File

4,511,963	4/1985	Kantner	364/200
4,516,199	5/1985	Frieder	364/900
4,641,263	2/1987	Perlman et al.	364/900
4,642,759	2/1987	Foster	364/200

FOREIGN PATENT DOCUMENTS

1106073	7/1981	Canada
1124883	6/1982	Canada
1124878	6/1982	Canada
1145854	5/1983	Canada

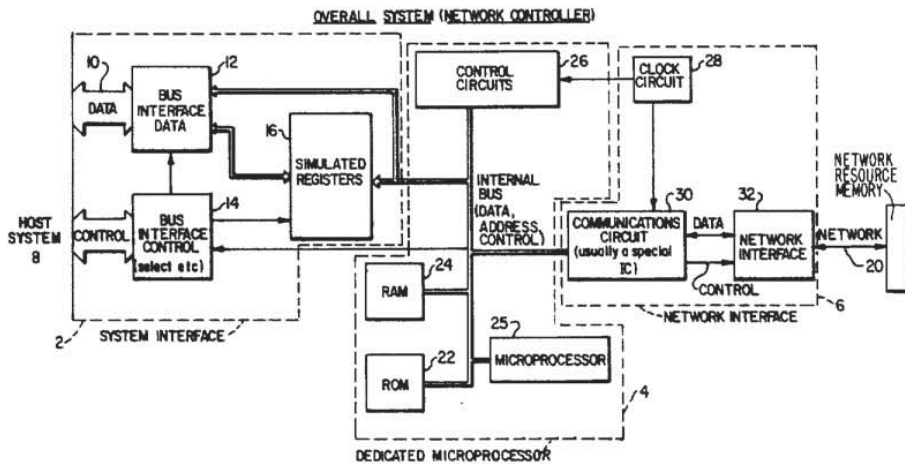
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[57] **ABSTRACT**

A microprocessor controlled mass storage controller is used as an interface for mass storage devices which are shared by a plurality of stand-alone microcomputer systems. The microprocessor controlled mass storage controller has a system interface which maintains communications with a host microcomputer; a dedicated microprocessor which maintains the internal control of the controller and a network interface which maintains an access to the external network. Data transparency and integrity are achieved through the simulation by the controller of the mass storage device characteristics and responses.

6 Claims, 7 Drawing Sheets

- [56] **References Cited**
- U.S. PATENT DOCUMENTS**
- 3,975,712 8/1976 Hepworth 364/200
- 4,127,896 11/1978 Raslavsky 364/200
- 4,204,251 5/1980 Brudevold 364/200
- 4,295,205 10/1981 Kunstadt 364/900
- 4,303,990 12/1981 Seipp 364/900
- 4,399,503 8/1983 Hawley 364/200
- 4,399,504 8/1983 Obermarck 364/200
- 4,410,962 10/1983 Daniels 364/900
- 4,453,211 6/1984 Askinazi 364/200
- 4,456,971 6/1984 Fukuda 364/900
- 4,509,122 4/1985 Agnew 364/200



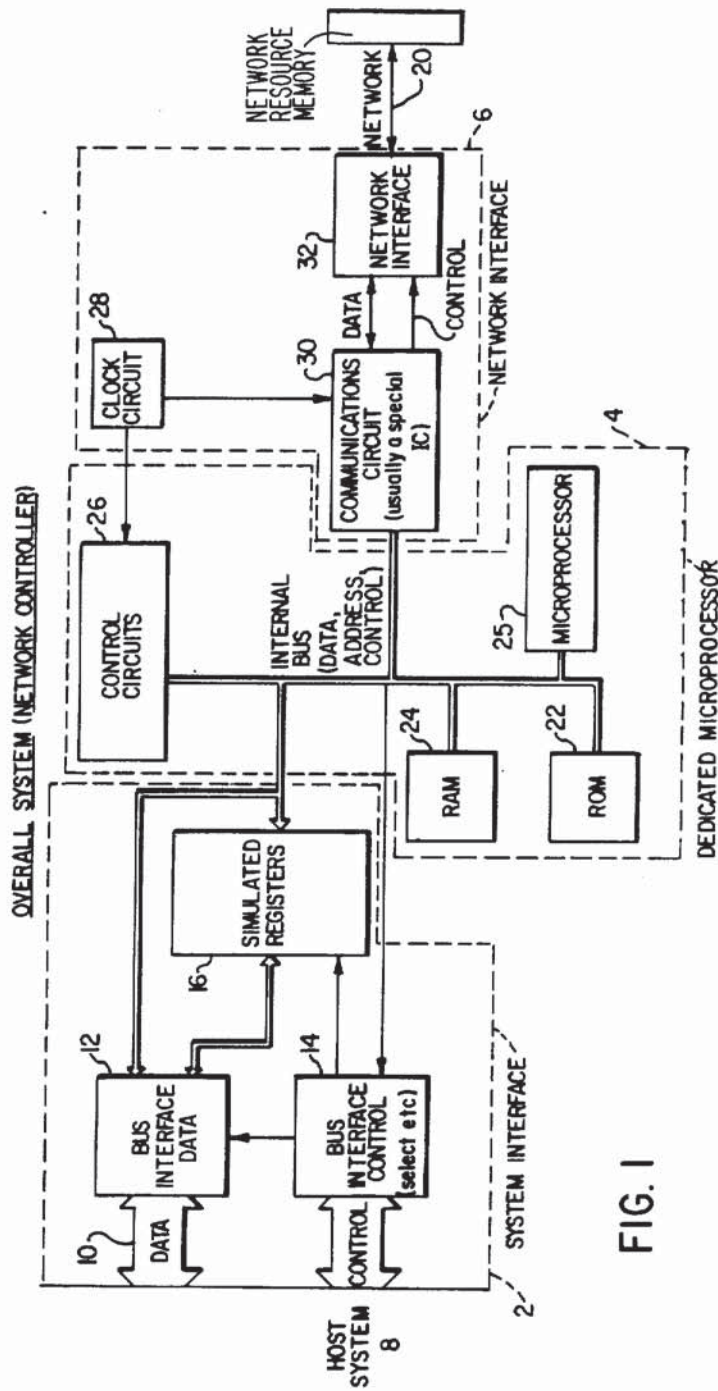
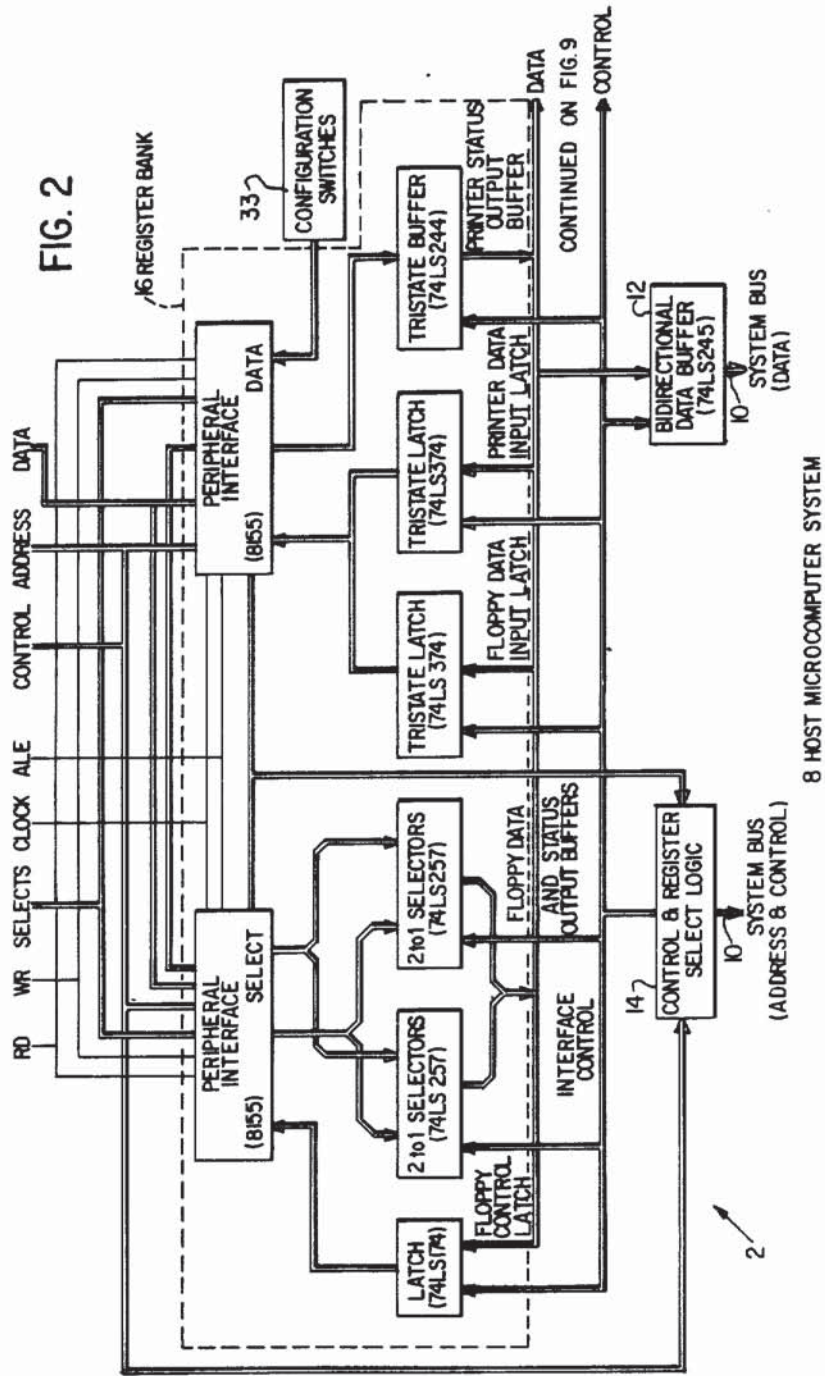
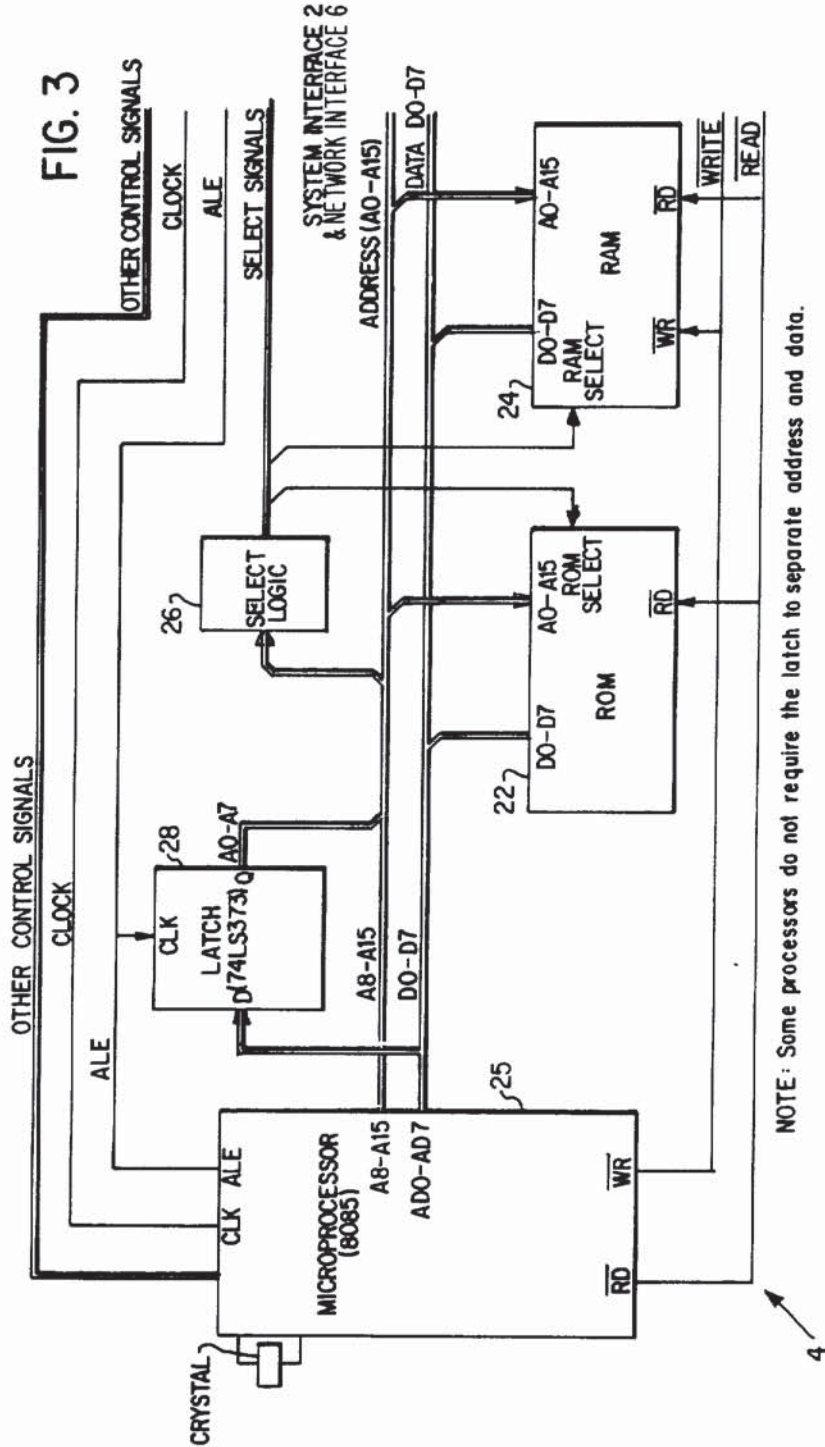
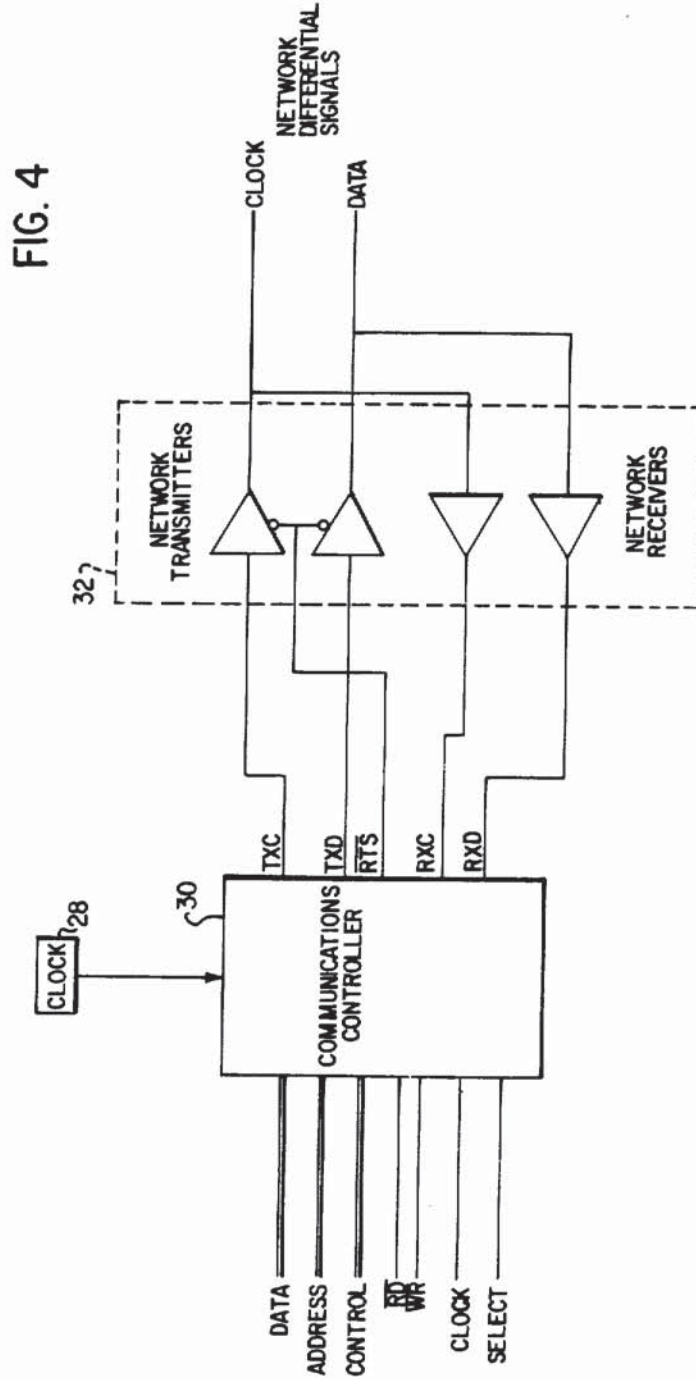


FIG. 1







NOTE: This part of the hardware is variable, and depends on the type of network being used.

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