

United States Patent [19]
Maclean et al.

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 [45] **Date of Patent:** Dec. 20, 1988

- [54] **STORAGE CONTROLLER EMULATOR PROVIDING TRANSPARENT RESOURCE SHARING IN A COMPUTER SYSTEM**
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- [73] **Assignee:** 516277 Ontario Limited, Ontario, Canada
- [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

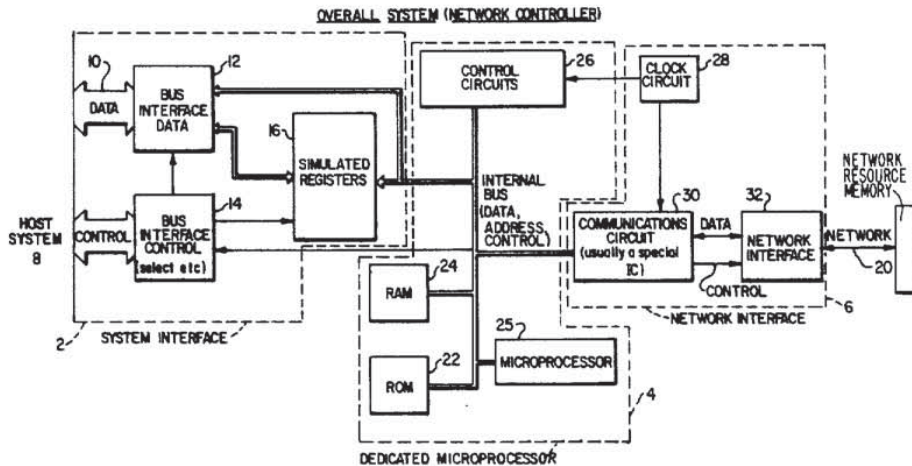
Primary Examiner—Archie E. Williams, Jr.
Assistant Examiner—Florin Munteanu
Attorney, Agent, or Firm—Kenyon & Kenyon

[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 |



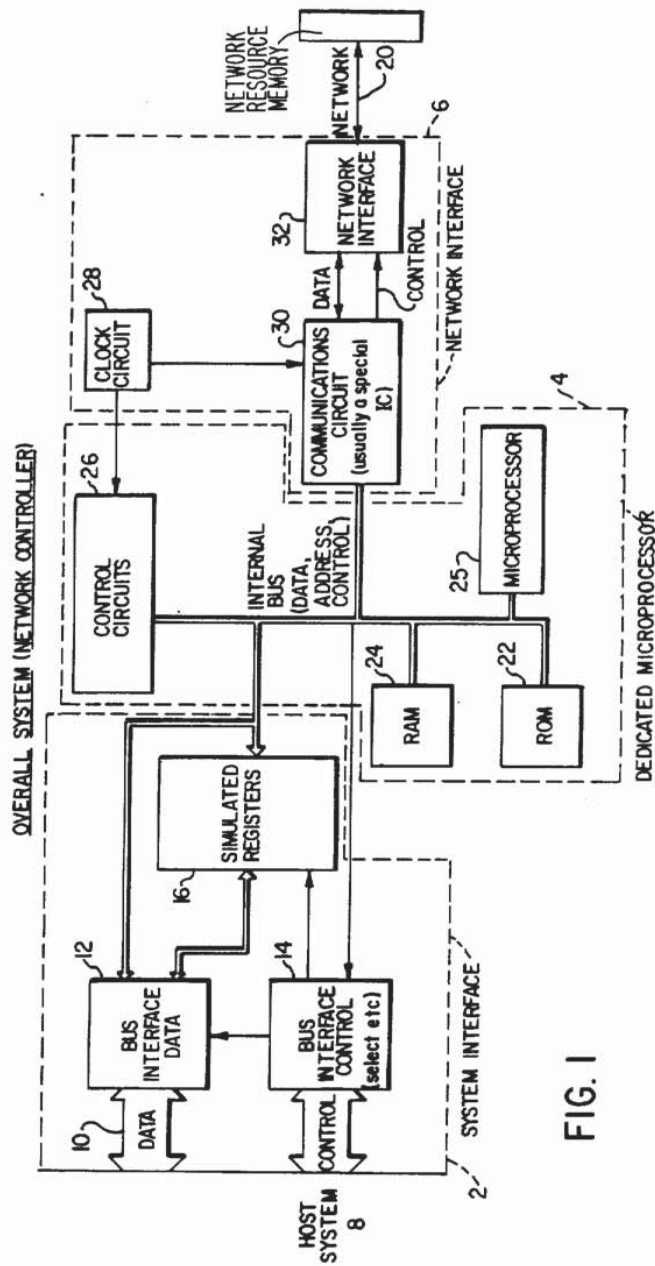
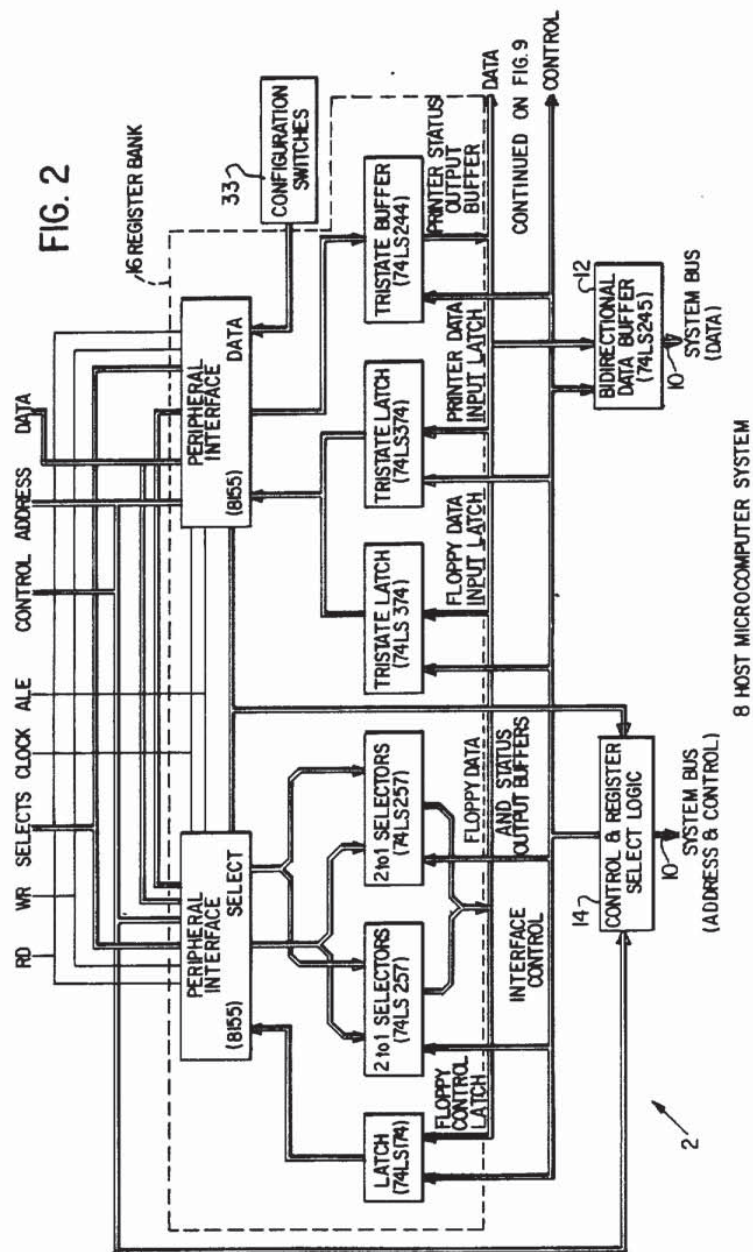


FIG. 1



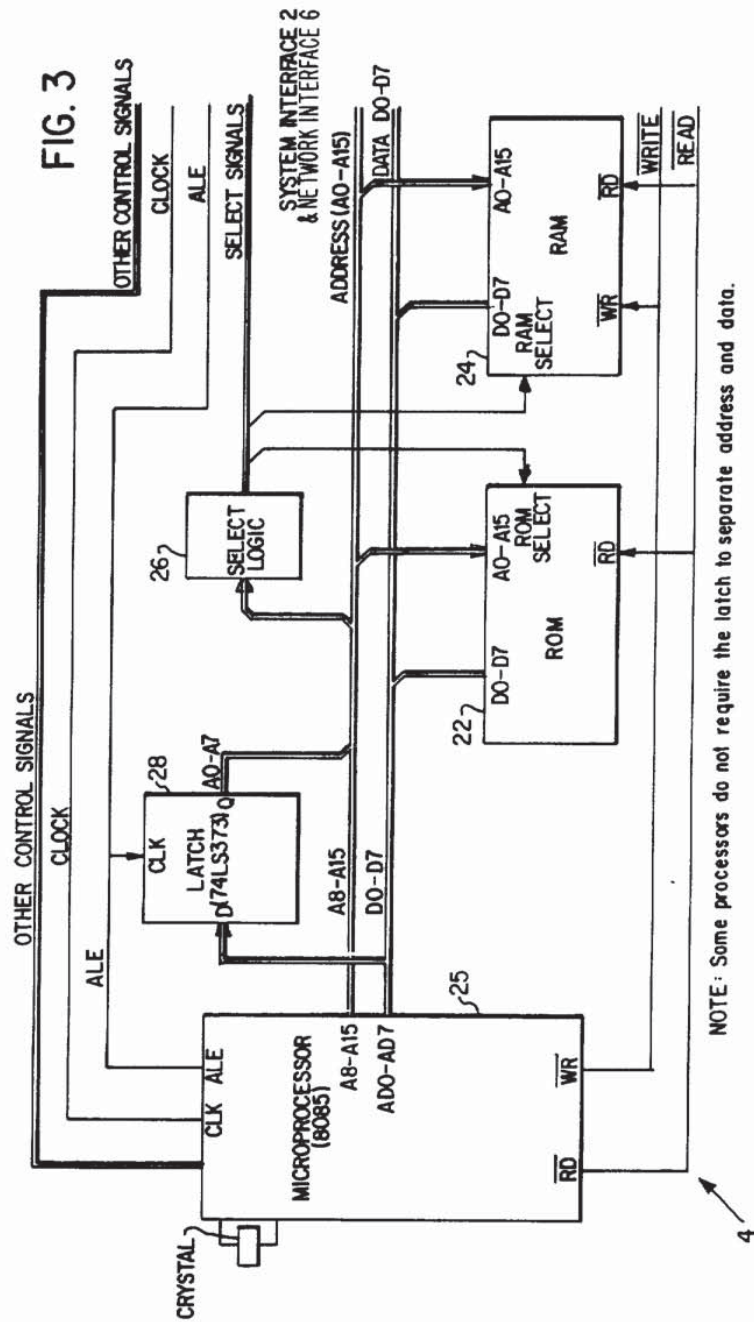
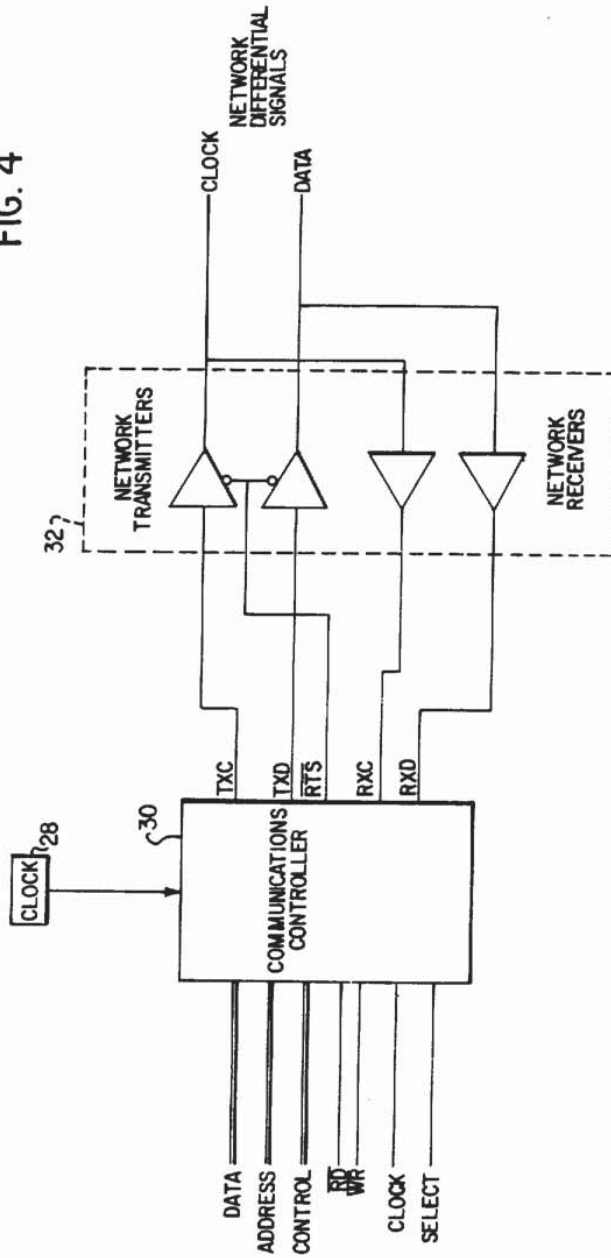


FIG. 4



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

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