



## United States Patent [19]

Hendricks et al.

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- [54] METHOD AND APPARATUS FOR  
TRANSLUCENT FILE SYSTEM**
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- [21] Appl. No.: 714,312**
- [22] Filed: Jun. 10, 1991**

### Related U.S. Application Data

- [63] Continuation of Ser. No. 315,287, Jun. 10, 1989, abandoned.
- [51] Int. Cl.<sup>5</sup> ..... G06F 15/40
- [52] U.S. Cl. .... 395/600; 395/435;  
395/160; 364/DIG. 1; 364/222.81; 364/282.1;  
364/283.1; 364/286
- [58] Field of Search ..... 395/600, 425, 146, 160

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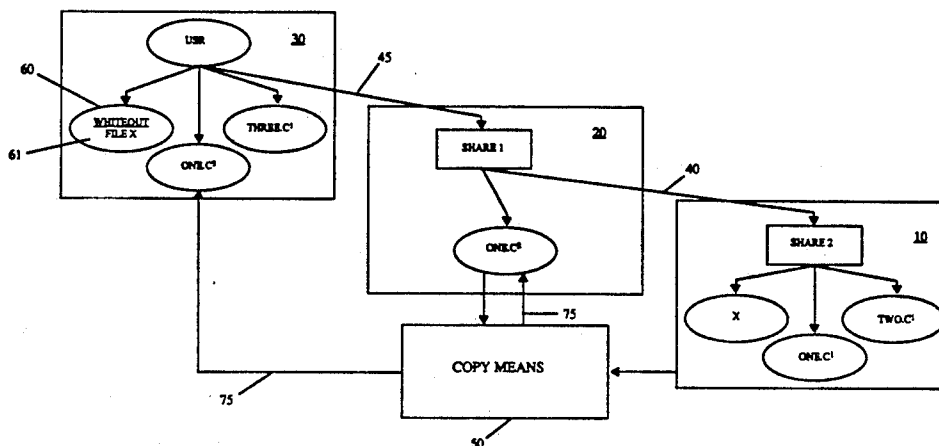
*Primary Examiner—Paul V. Kulik*

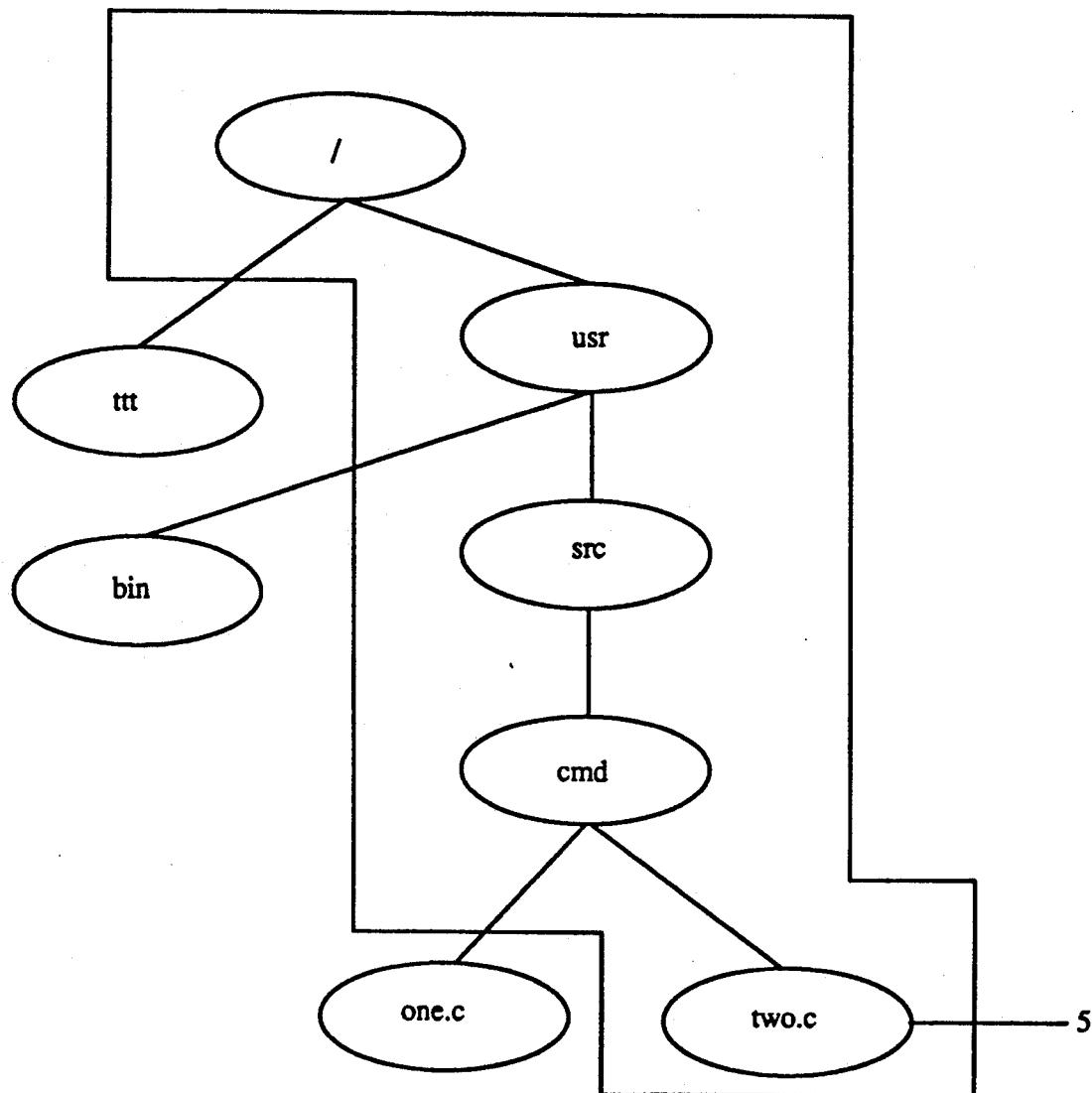
Attorney, Agent, or Firm—Erwin J. Basinski

[57] **ABSTRACT**

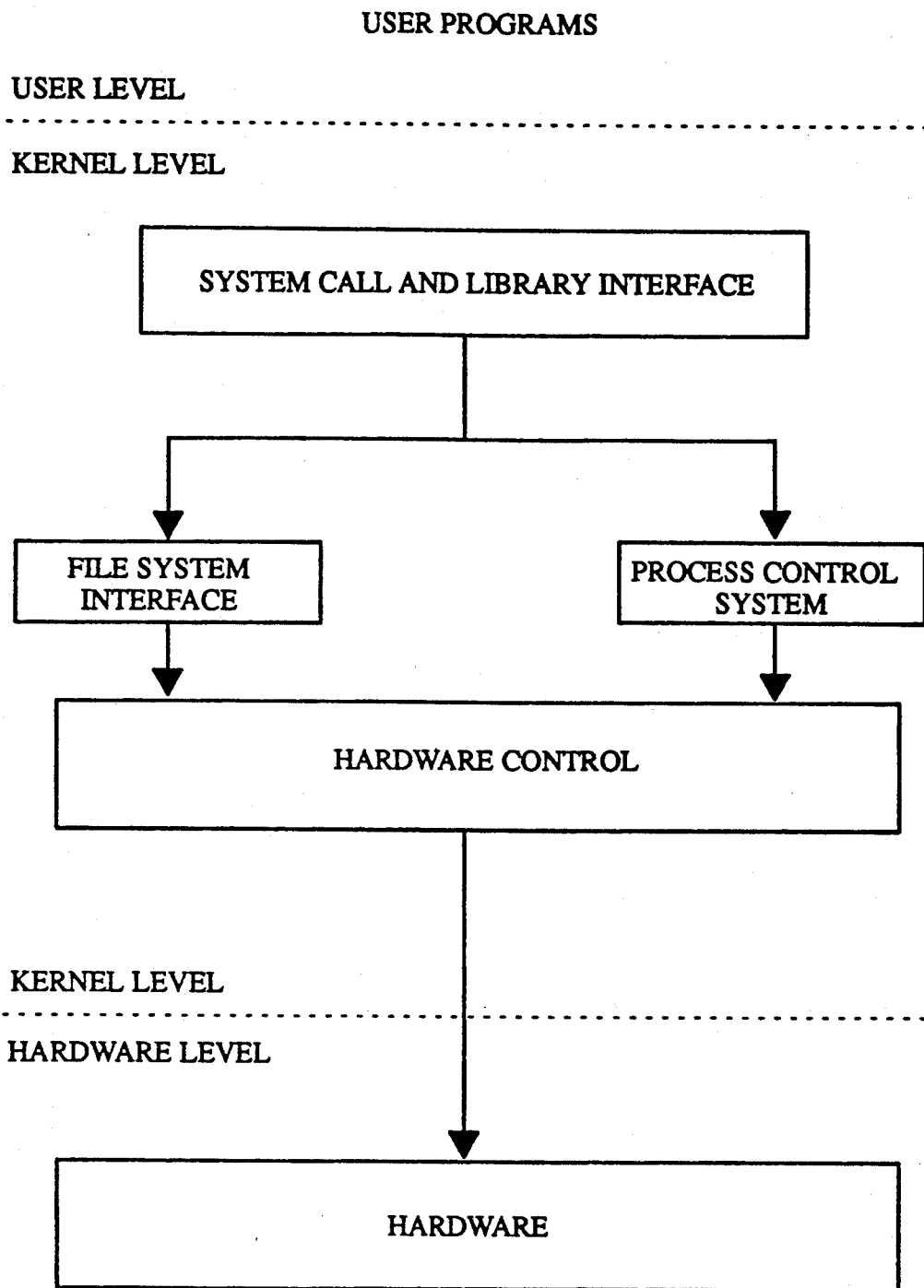
In a computer system having a hierarchical file structure, a file system is provided which permits users of the system to share a file hierarchy and also have a private hierarchy in which files are automatically copied to as they are modified. Through the system of the present invention, a directory appears to the user as a single directory but may actually comprise files originating from a number of directories which are connected to one another through search links. Each directory has a search link associated with it which contains the path name of the back layer or directory behind it. The first layer seen through the system of the present invention is the front layer, private to the user. The back layers behind the front layer and connected to the front layer through the search links are shared layers accessible to multiple users. Thus transparent to the user of the directory accessible comprises multiple layers comprising shared and private files. The system further provides a copy-on-write feature which protects the integrity of the shared files by automatically copying a shared file into the users private layer when the user attempts to modify a shared file in a back layer.

**16 Claims, 8 Drawing Sheets**





**FIG. 1**  
**PRIOR ART**



**FIG. 2**  
**PRIOR ART**

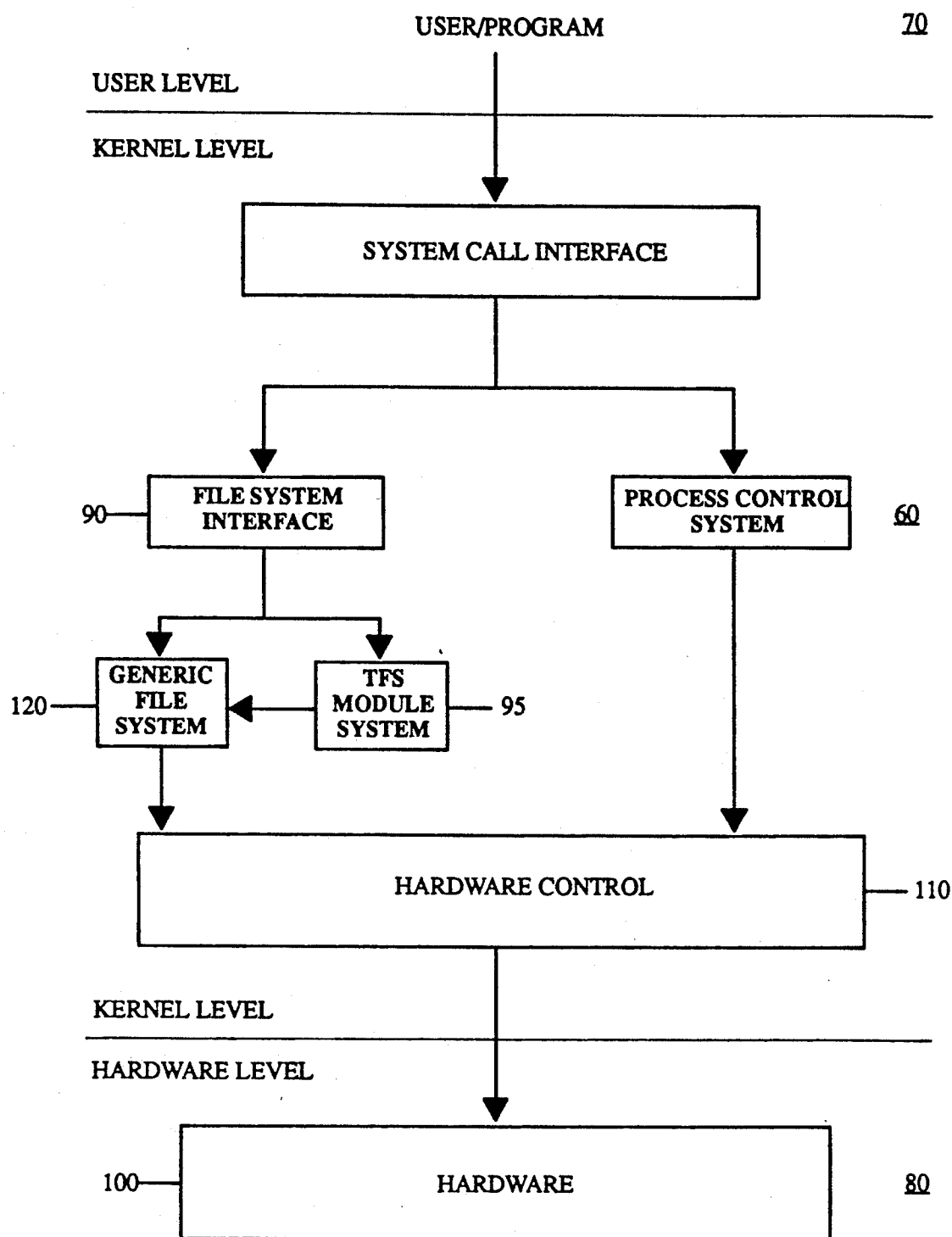
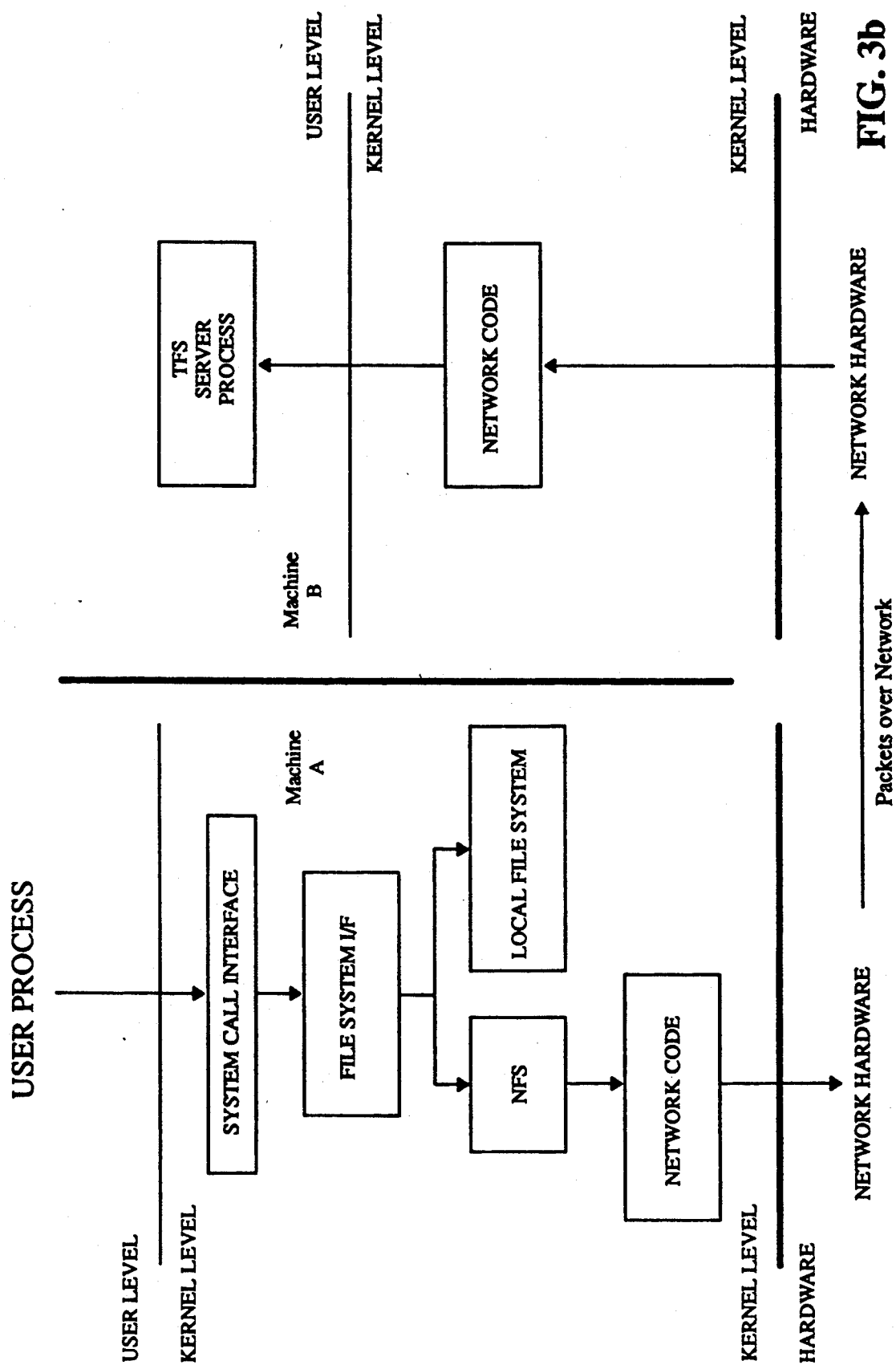


FIG. 3a



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