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United States Patent [19]

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Cason et al.

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[54] **METHOD AND APPARATUS FOR GENERATING A USER INTERFACE FROM THE ENTITY/ATTRIBUTE/RELATIONSHIP MODEL OF A DATABASE**

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[75] Inventors: **Stanley Phillip Cason**, Johnson City, N.Y.; **Mark Anthony Musa**, Williston, Vt.

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[73] Assignee: **International Business Machines Corporation**, Armonk, N.Y.

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Primary Examiner—Paul V. Kulik

Attorney, Agent, or Firm—Ratner & Prestia; Arthur J. Samodovitz

[21] Appl. No.: **08/572,988**

[22] Filed: **Dec. 15, 1995**

[51] **Int. Cl.**⁷ **G06F 17/00**

[52] **U.S. Cl.** **707/102; 707/104; 345/333**

[58] **Field of Search** **707/1, 2, 103, 707/104, 102, 100; 345/333-335**

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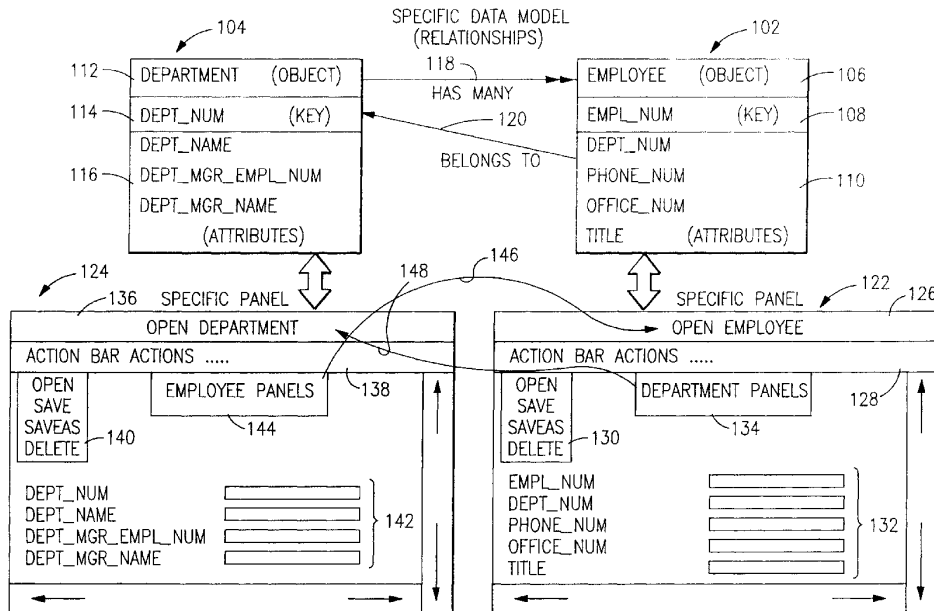
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[57] **ABSTRACT**

A computer system modeling tool generates a working user interface from the entities, attributes and relationships of a data model while assuring referential data integrity and enforcing cardinality.

8 Claims, 27 Drawing Sheets



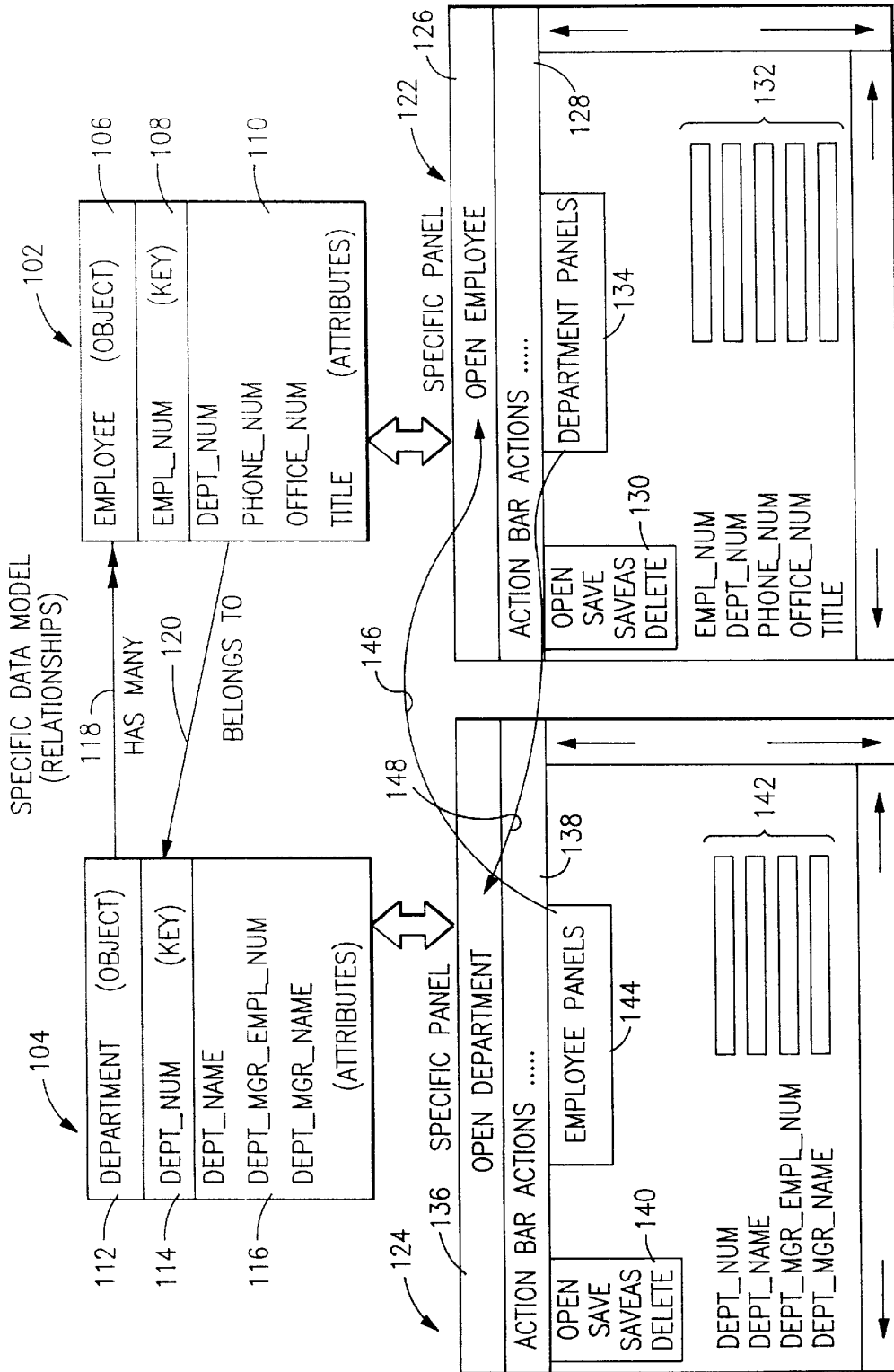


FIG.1

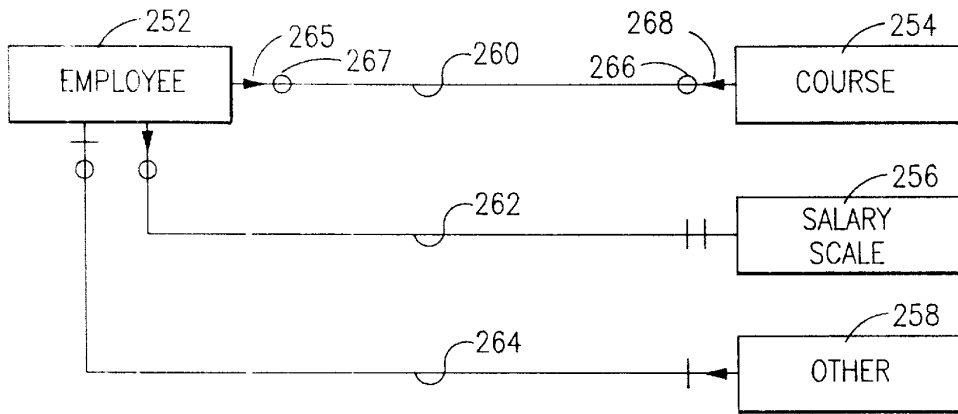


FIG. 2

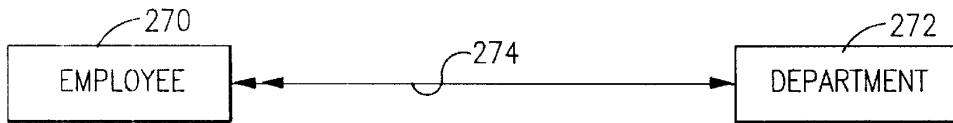


FIG. 3

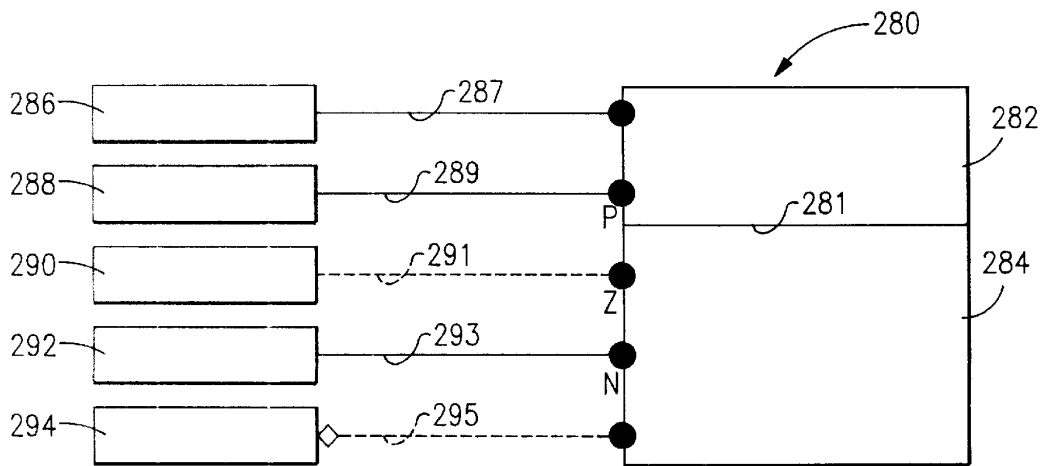


FIG. 4

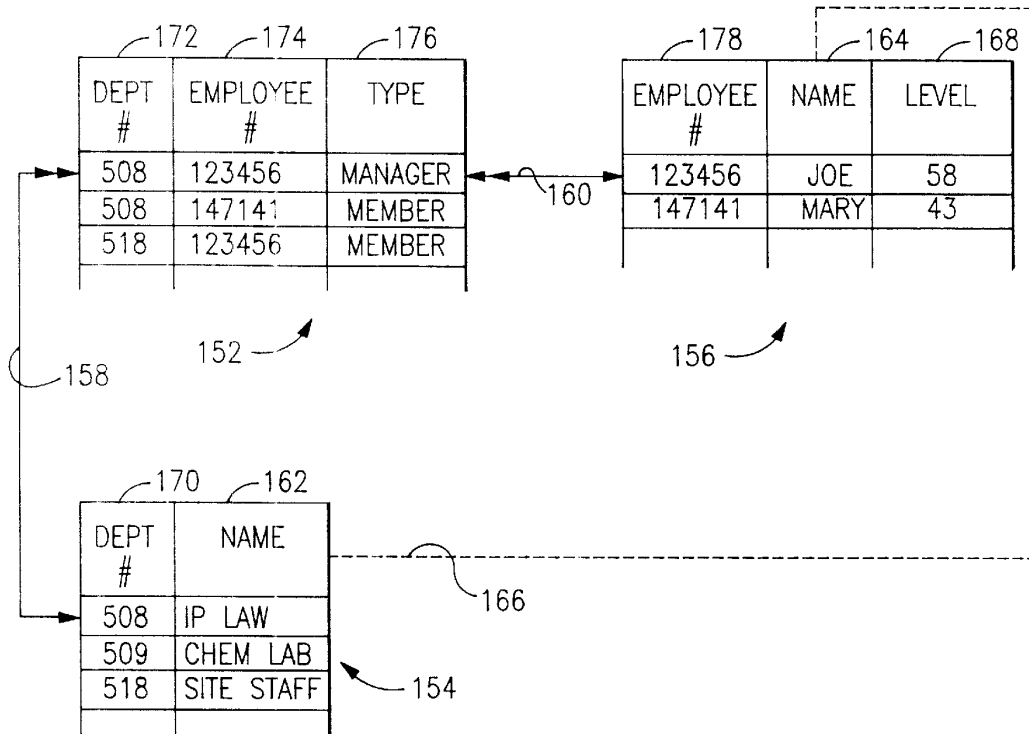


FIG.5

180

DEPT #	DEPT NAME	EMPLOYEE #	EMPLOYEE NAME	EMPLOYEE TYPE	EMPL LEVEL
508	IP LAW	123456	JOE	MANAGER	58
508	IP LAW	147141	MARY	MEMBER	43
518	SITE STAFF	123456	JOE	MEMBER	58

FIG.6

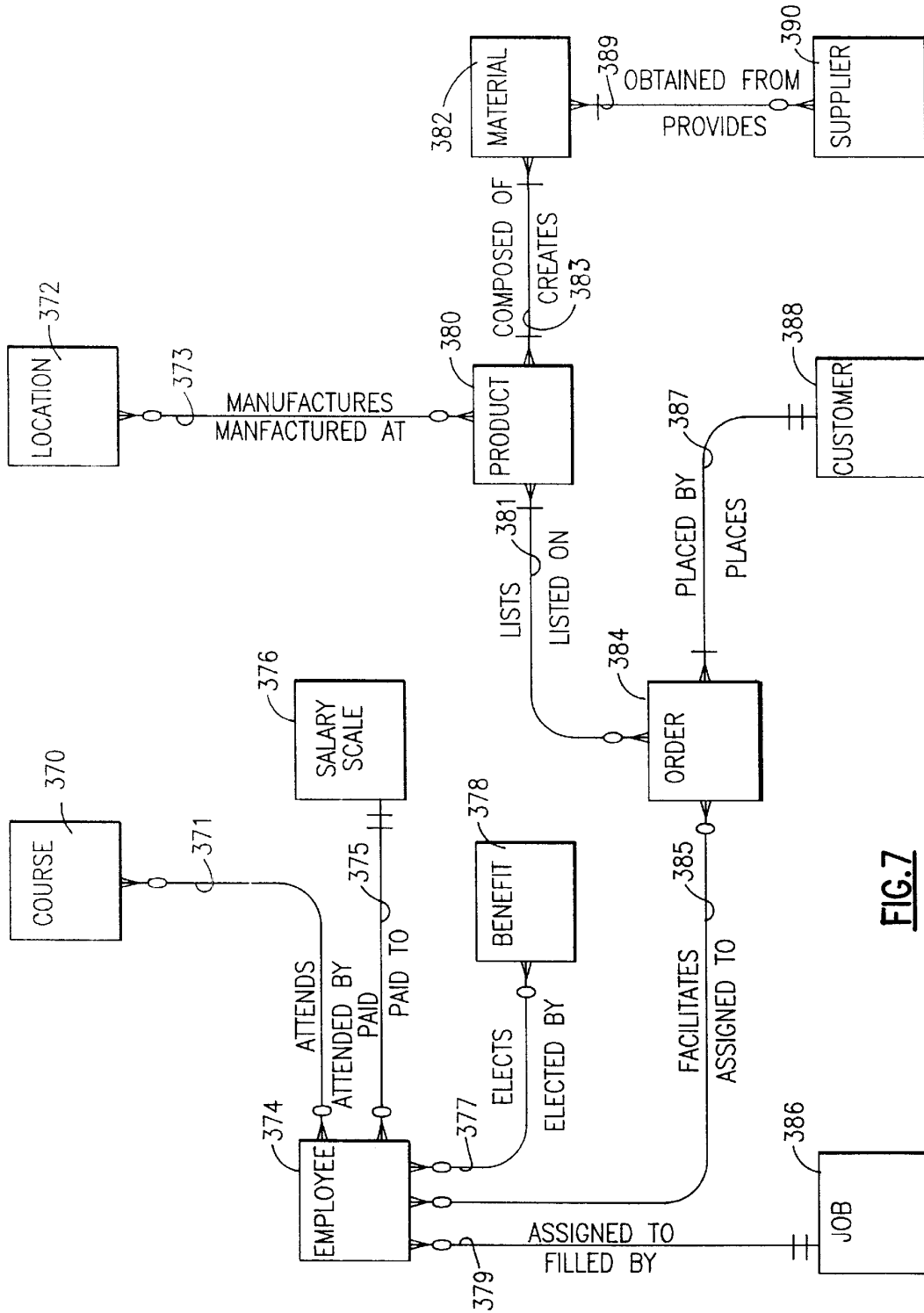


FIG. 7

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