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(12) **United States Patent**  
**Lehmann et al.**

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(45) **Date of Patent:** **Jun. 10, 2003**

- (54) **INTERACTIVE DENTAL RESTORATIVE NETWORK**
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- (\* ) Notice: Subject to any disclaimer, the term of this  
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U.S.C. 154(b) by 0 days.
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19, 1999, now abandoned, which is a continuation of applica-  
tion No. 09/411,920, filed on Oct. 4, 1999, now aban-  
doned.
- (60) Provisional application No. 60/106,920, filed on Nov. 3,  
1998.
- (51) **Int. Cl.**<sup>7</sup> ..... **A61C 5/10**
- (52) **U.S. Cl.** ..... **433/223**
- (58) **Field of Search** ..... 433/215, 218,  
433/223; 356/419; 705/1; 707/102, 10;  
700/106, 117, 118

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(57) **ABSTRACT**

An interactive dental restoration method and system for use between a dentist and a dental restoration laboratory. The method includes identifying a dental restoration need in a patient; designing a preliminary treatment plan that includes design criteria for preparation of a dental prosthesis to be placed in the patient to satisfy the dental restoration need; transmitting the preliminary treatment plan via a communications network to a dental restoration laboratory; and communicating a final treatment plan, including modifications to the preliminary treatment plan where necessary, to the dentist. The system includes a computer-based dental restoration system of a network server having a database storing information about materials, procedures and preparations concerning dental restoration prostheses; a communications network providing access to the network server; and one or more computers at a dental office accessing information stored at the database over the communications network and displaying the information in a humanly readable format. Preferably, the communications network is the Internet, and the information stored in the database comprises preparation diagrams, reduction dimensions, margin design and burs for specific dental restoration prostheses. Typically, the final treatment plan includes information about materials for preparing a dental prosthesis that satisfies the design criteria, and the dental prosthesis is then prepared for placement in the patient. This enables optimization of the dental restoration with significant savings in time and effort for the dentist, dental technician and the patient.

**20 Claims, 9 Drawing Sheets**



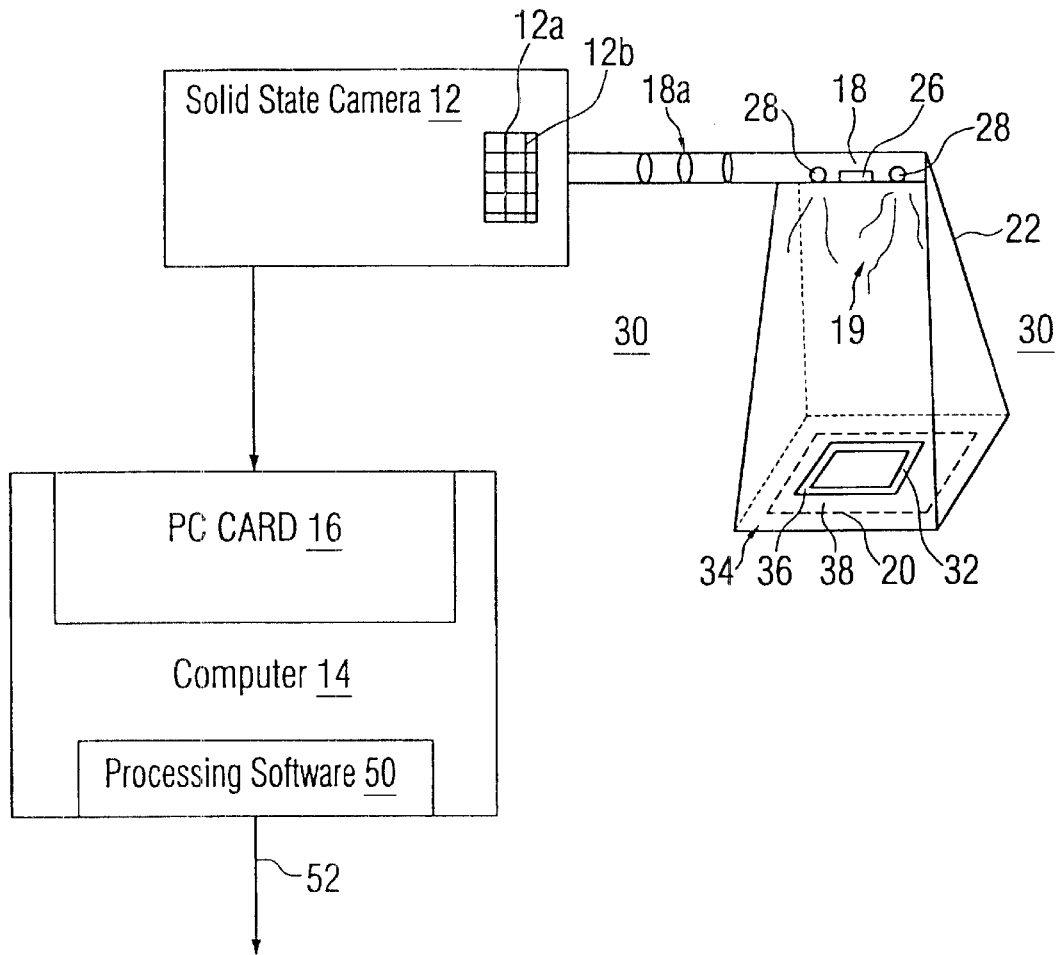


FIG. 1

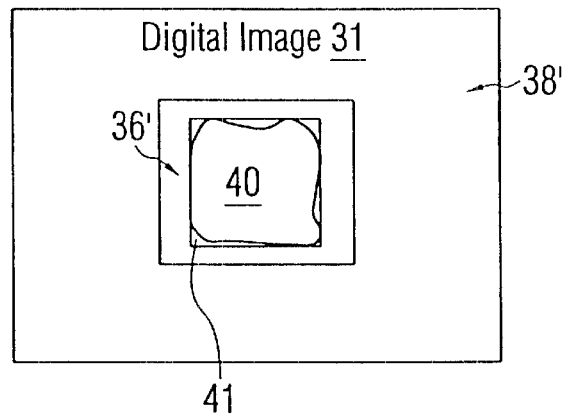


FIG. 2

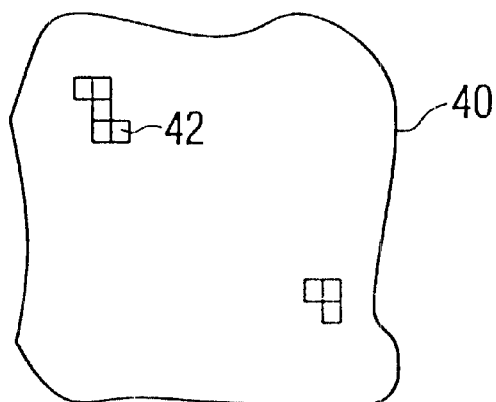


FIG. 3

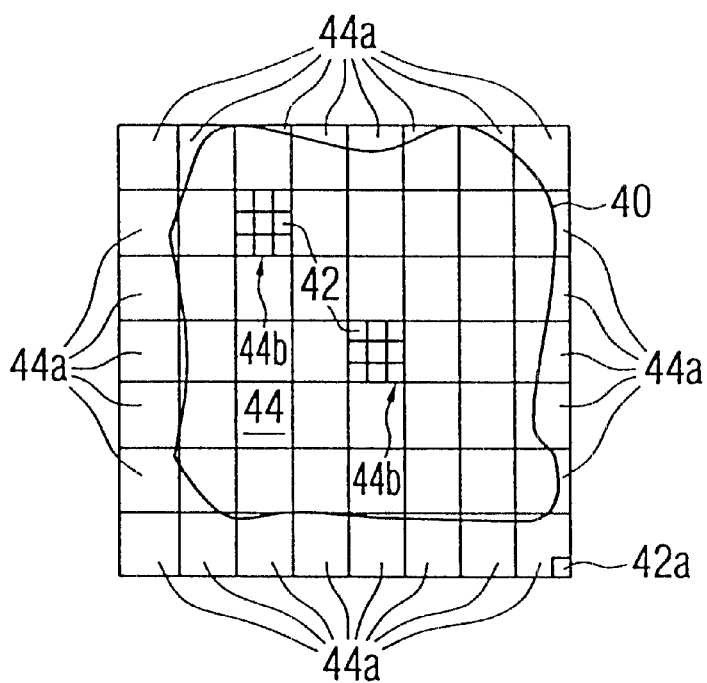


FIG. 4

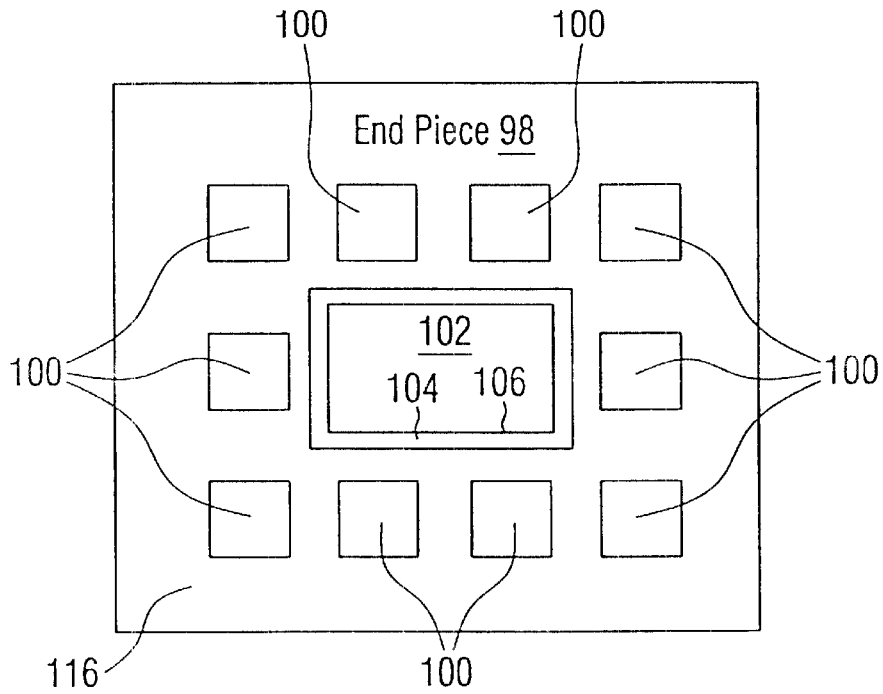


FIG. 5

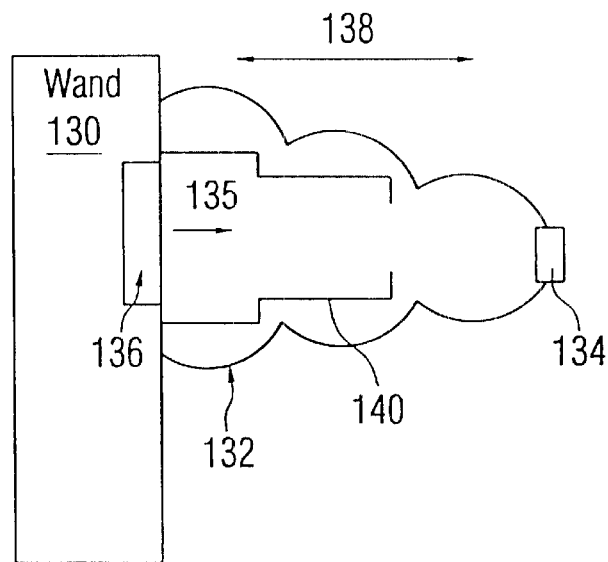


FIG. 6

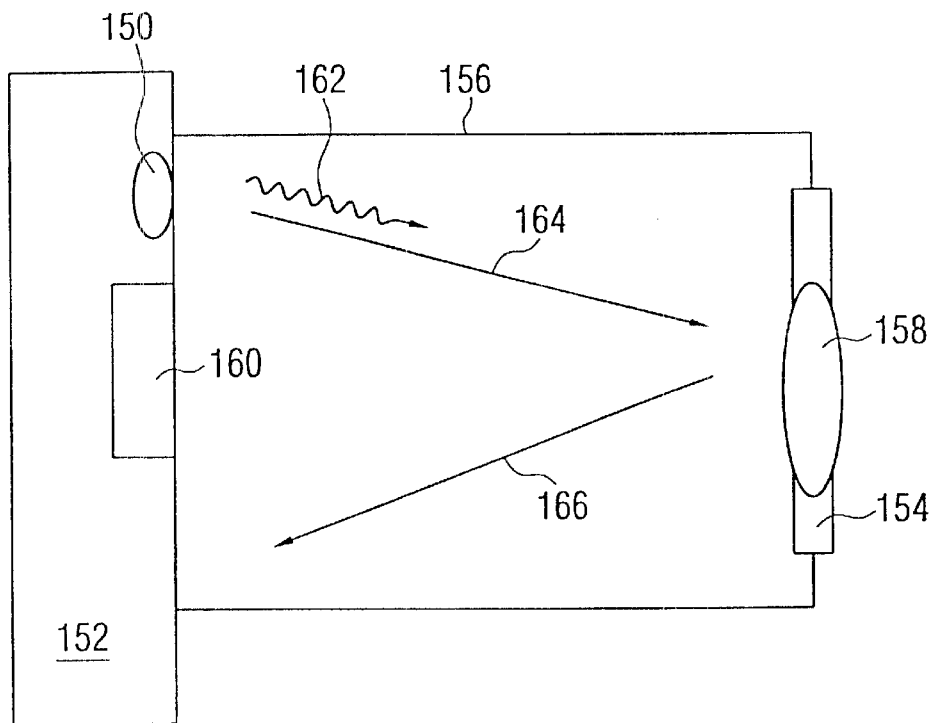


FIG. 7

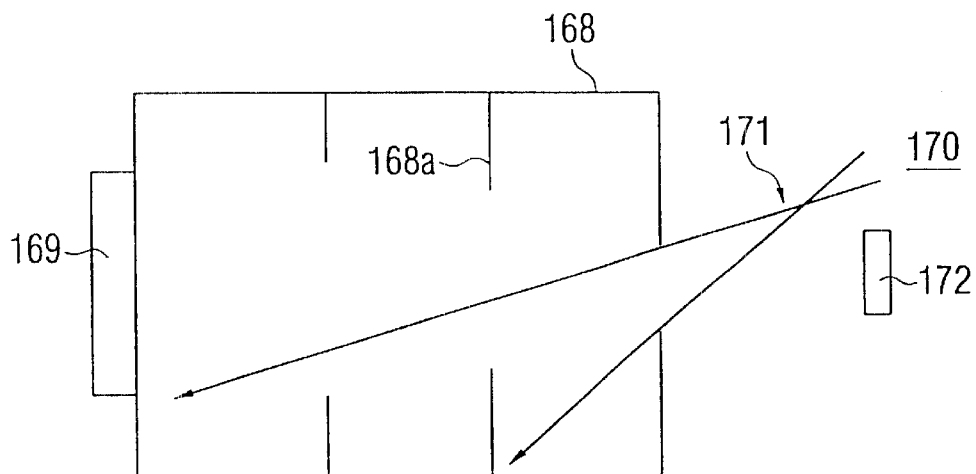


FIG. 8

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