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Eaton et al.

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(54) **COMPOSITE WEBS WITH REINFORCING POLYMERIC REGIONS AND ELASTIC POLYMERIC REGIONS**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 320 days.

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(21) Appl. No.: **10/012,698**

Primary Examiner—Terrel Morris

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Assistant Examiner—Lynda Salvatore

(65) **Prior Publication Data**

(74) *Attorney, Agent, or Firm*—Gary L. Griswold; Kevin W. Raasch; William J. Bond

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(51) **Int. Cl.**⁷ **B32B 27/04**; B32B 27/12; B32B 3/06; B32B 3/10; B32B 3/28

(57) **ABSTRACT**

(52) **U.S. Cl.** **442/66**; 428/134; 428/136; 428/137; 428/100; 428/141; 428/167

Methods of manufacturing composite webs including a substrate with one or more reinforcing discrete polymeric regions located on or within the composite web are disclosed. Molten nonelastomeric thermoplastic material of the discrete polymeric region is forced against the substrate by a transfer roll. If the substrate is porous, fibrous, etc., a portion of the nonelastomeric thermoplastic composition may infiltrate the substrate and/or encapsulate fibers of the substrate. The composite webs also include elastomeric thermoplastic material in discrete polymeric regions on or within the composite web.

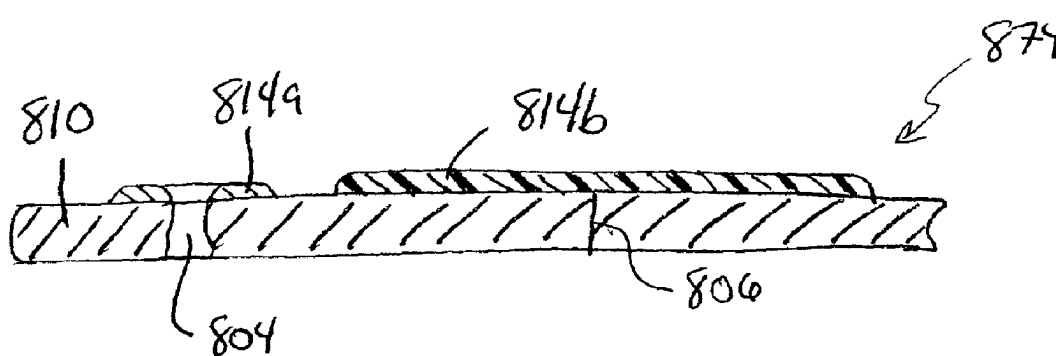
(58) **Field of Search** 442/66; 428/134, 428/136, 137, 141, 100, 167

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16 Claims, 14 Drawing Sheets



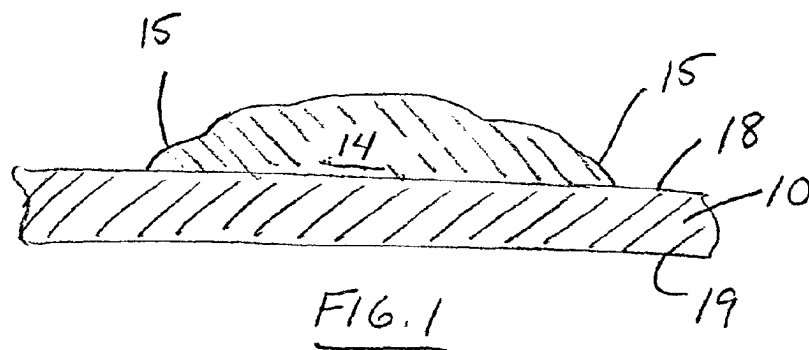


FIG. 1

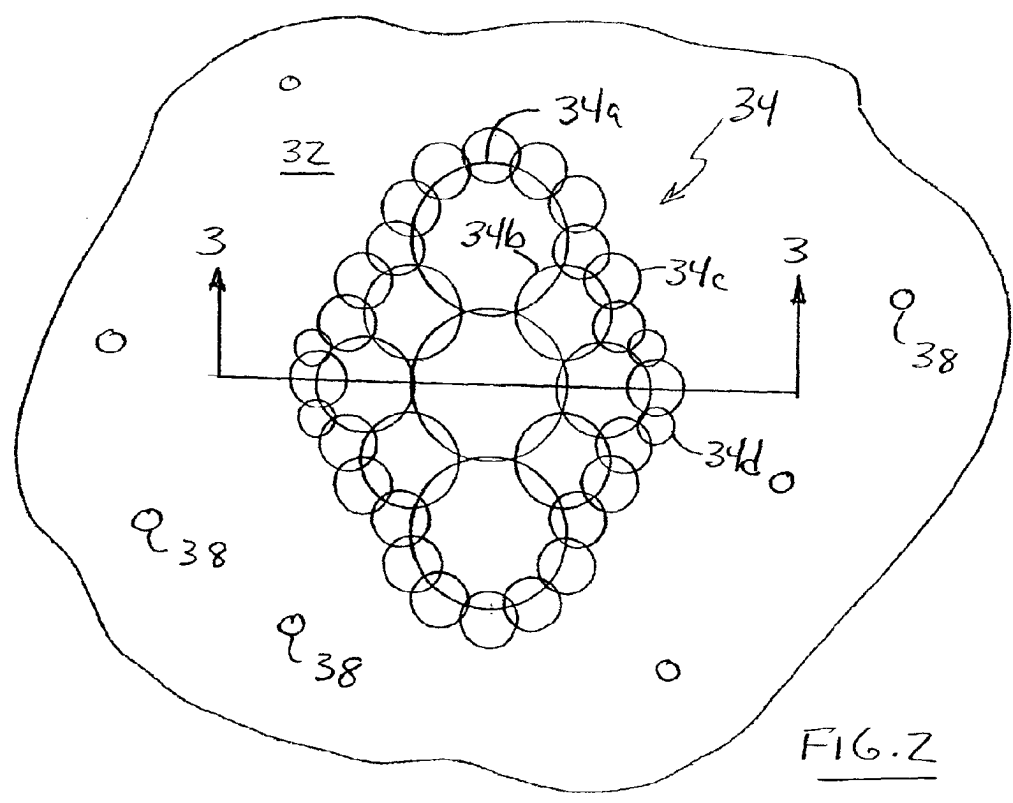


FIG. 2

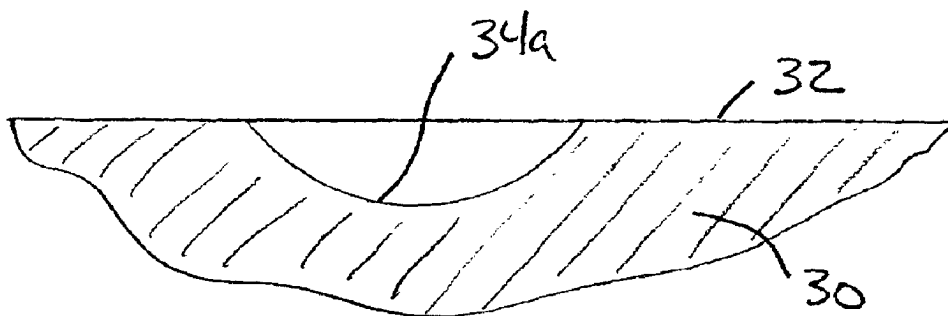


FIG. 3A

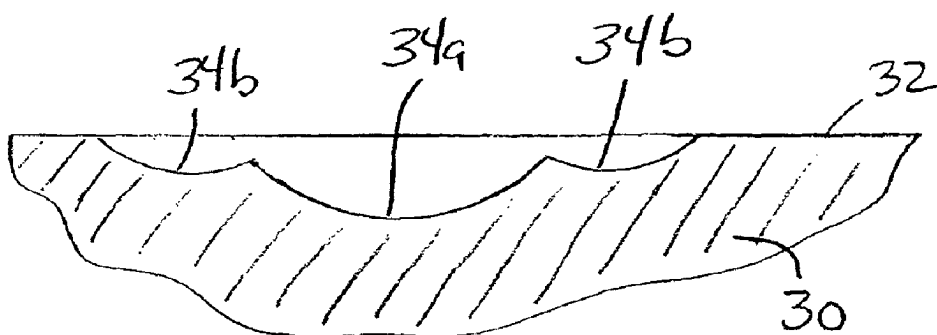


FIG. 3B

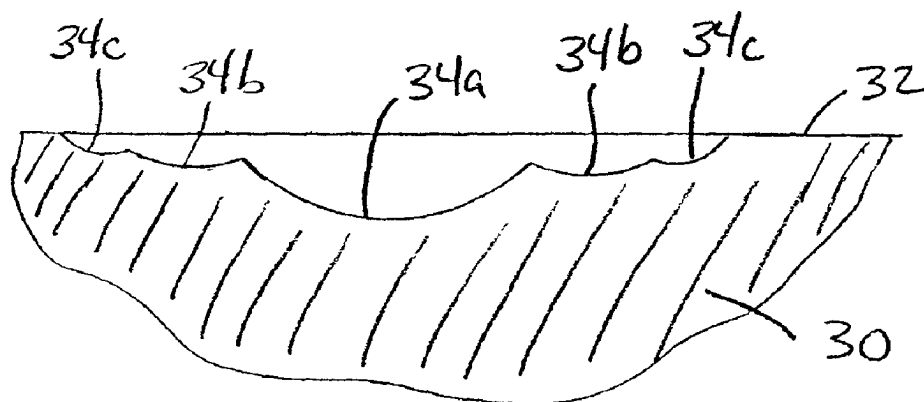


FIG. 3C

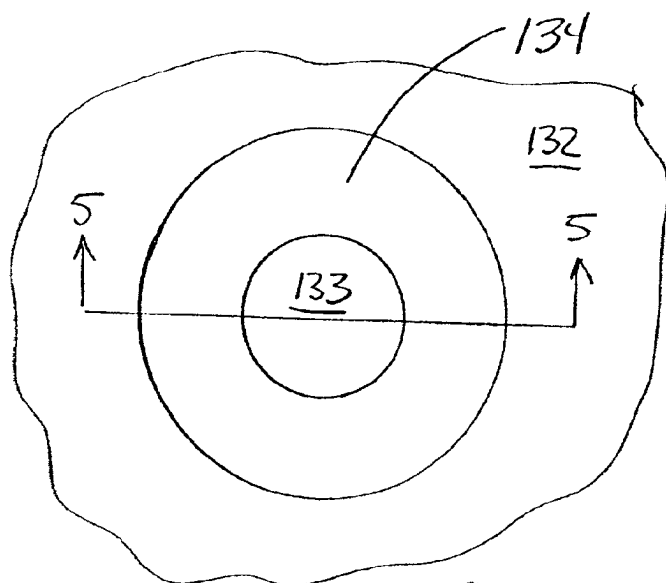


FIG. 4

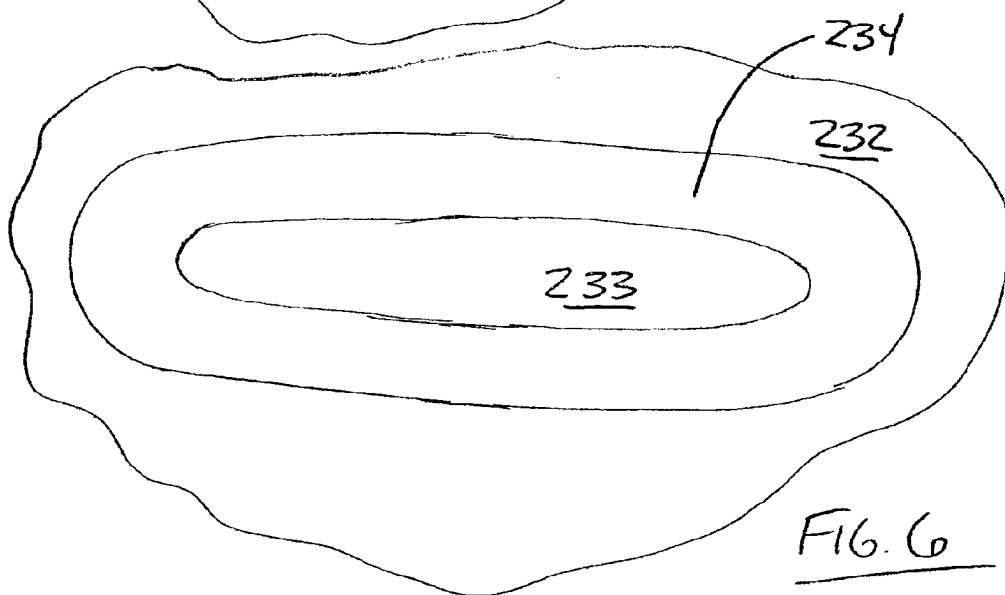


FIG. 6

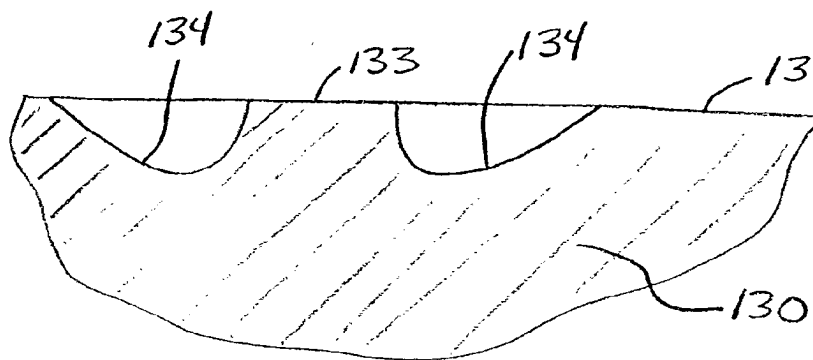


FIG. 5

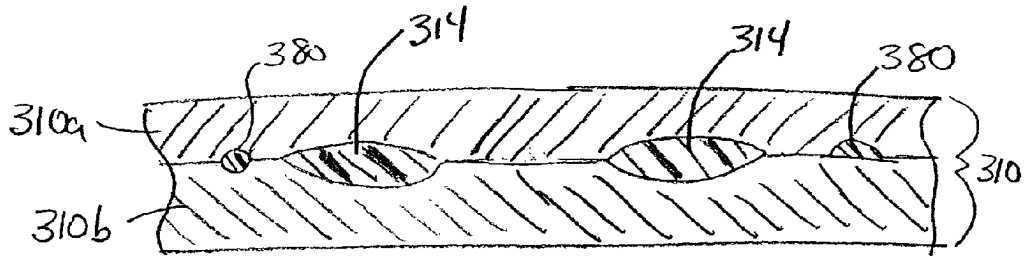


FIG. 7

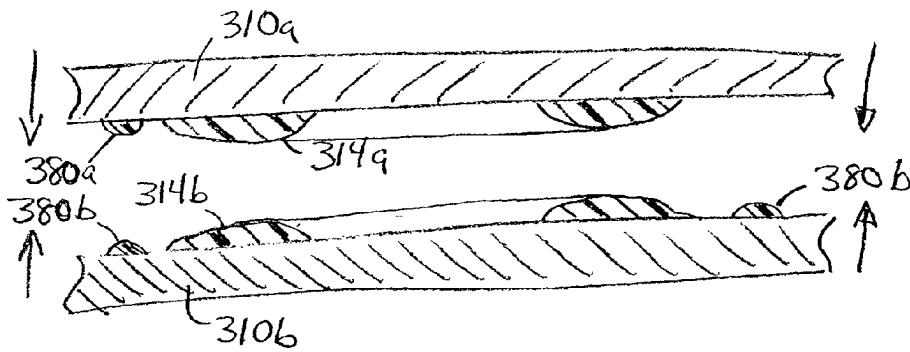


FIG. 8

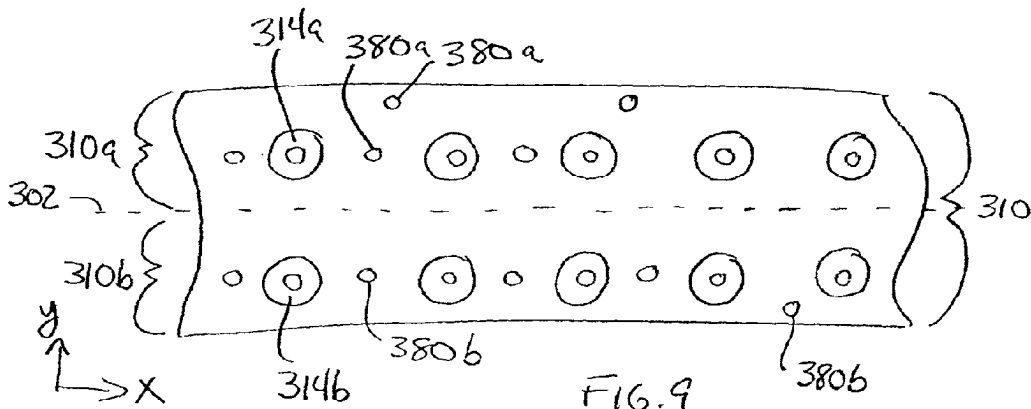


FIG. 9

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