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**McIntosh et al.**

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(54) **VEHICLE FLOOR COVERING WITH INTEGRAL THREADED DRAIN TUBE AND METHOD OF MAKING SAME**

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(51) **Int. Cl.**<sup>7</sup> ..... **B62D 25/20**

(52) **U.S. Cl.** ..... **296/97.23; 220/235; 52/302.7; 470/906**

(58) **Field of Search** ..... 296/38, 39.1, 39.3, 296/97.23, 208; 220/235, 288; 52/302.1, 302.7; 470/906

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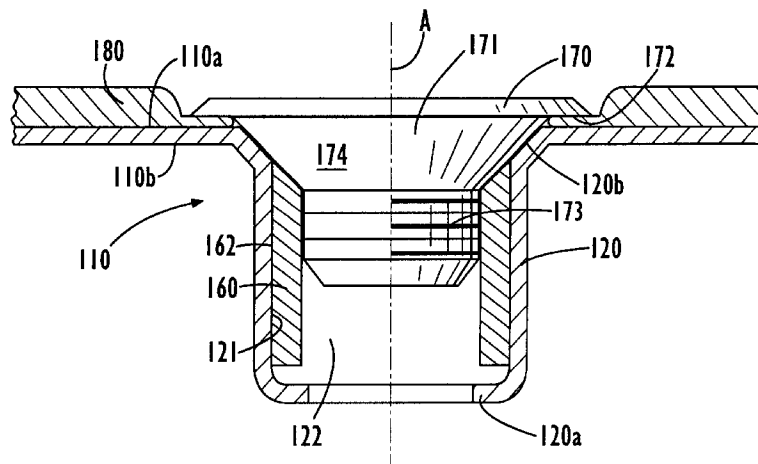
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(57) **ABSTRACT**

A molded floor covering for a vehicle floor includes a thermoplastic polymer layer with an integral, threaded drain tube extending therefrom. The drain tube is configured such that a distal end thereof can extend through a drain hole in a vehicle floor when the floor covering is installed within a vehicle. The drain tube includes a threaded bore that is configured to receive a correspondingly-threaded drain plug therein. A method of producing a molded floor covering having an integrally formed, threaded drain tube includes providing a mold having a contour of a vehicle floor with an outwardly projecting threaded member. A layer of thermoplastic polymer is vacuum formed over the mold and around the threaded member such that the layer follows the contours of the mold and threaded member to form an elongate tube extending therefrom.

**5 Claims, 4 Drawing Sheets**



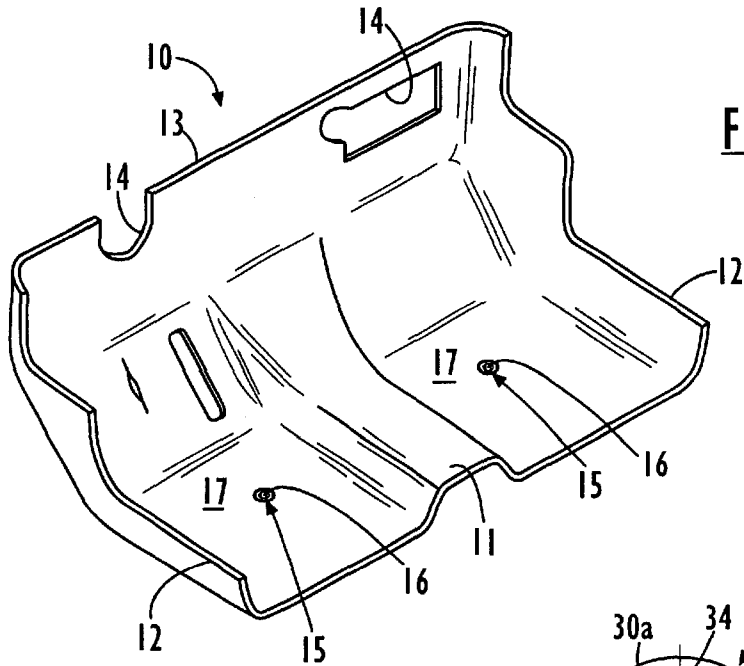


FIG. 1.

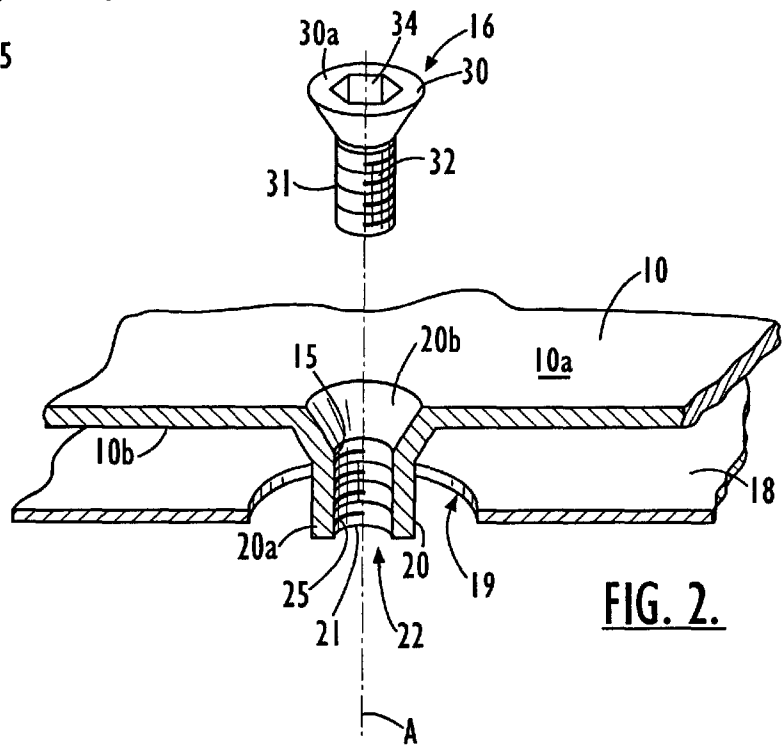


FIG. 2.

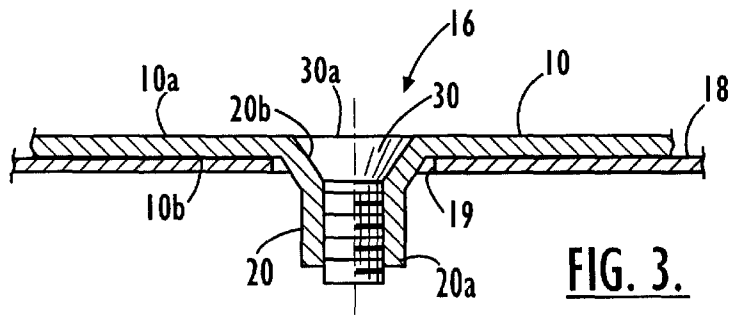


FIG. 3.

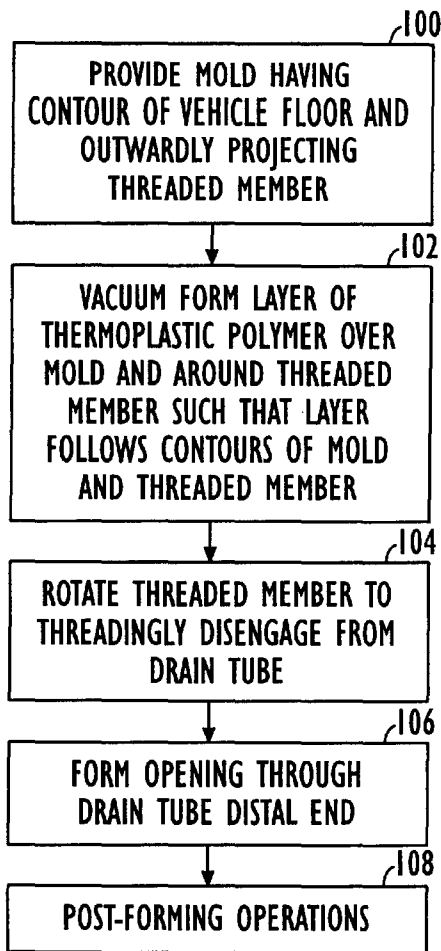


FIG. 4.

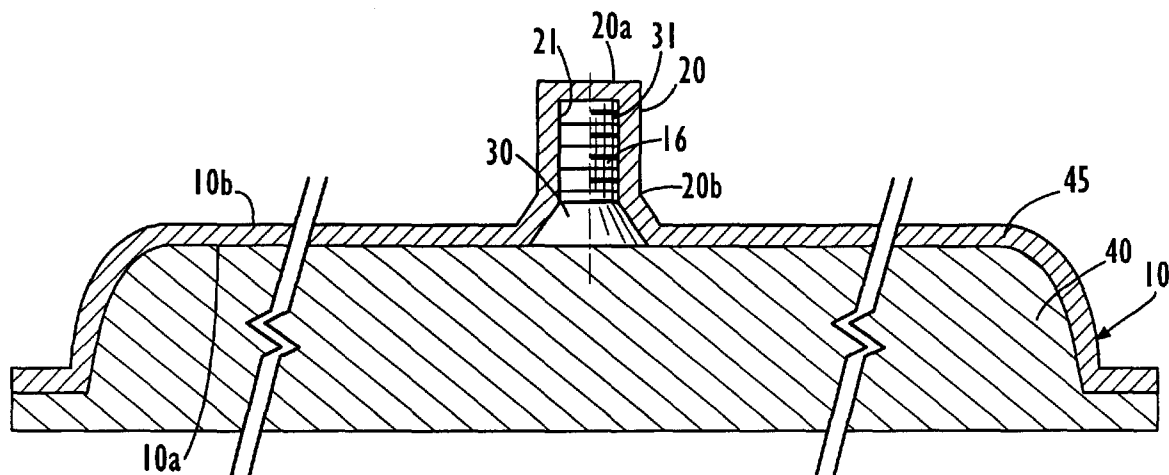


FIG. 5.

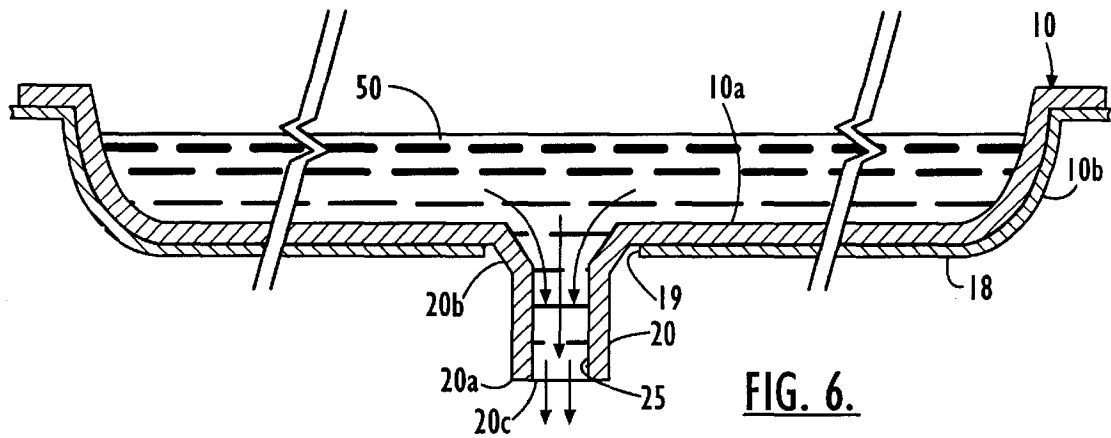


FIG. 6.

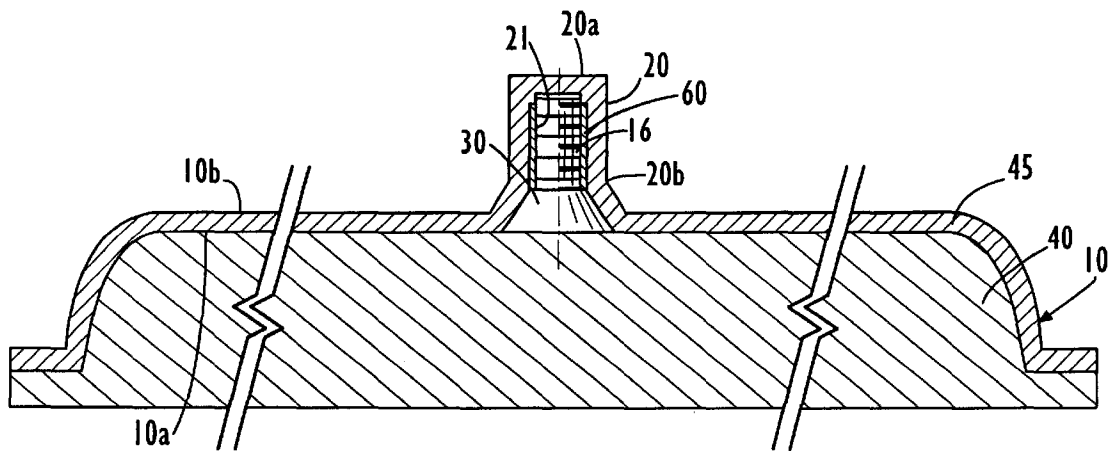


FIG. 7A.

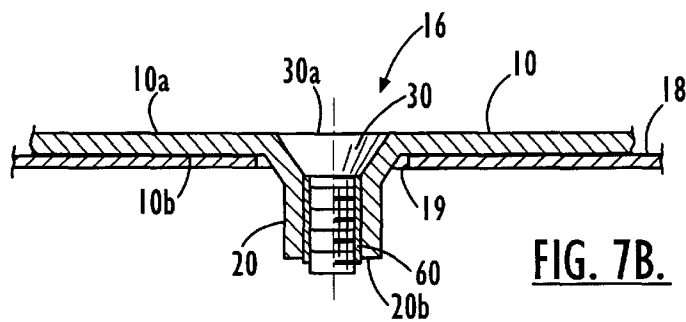
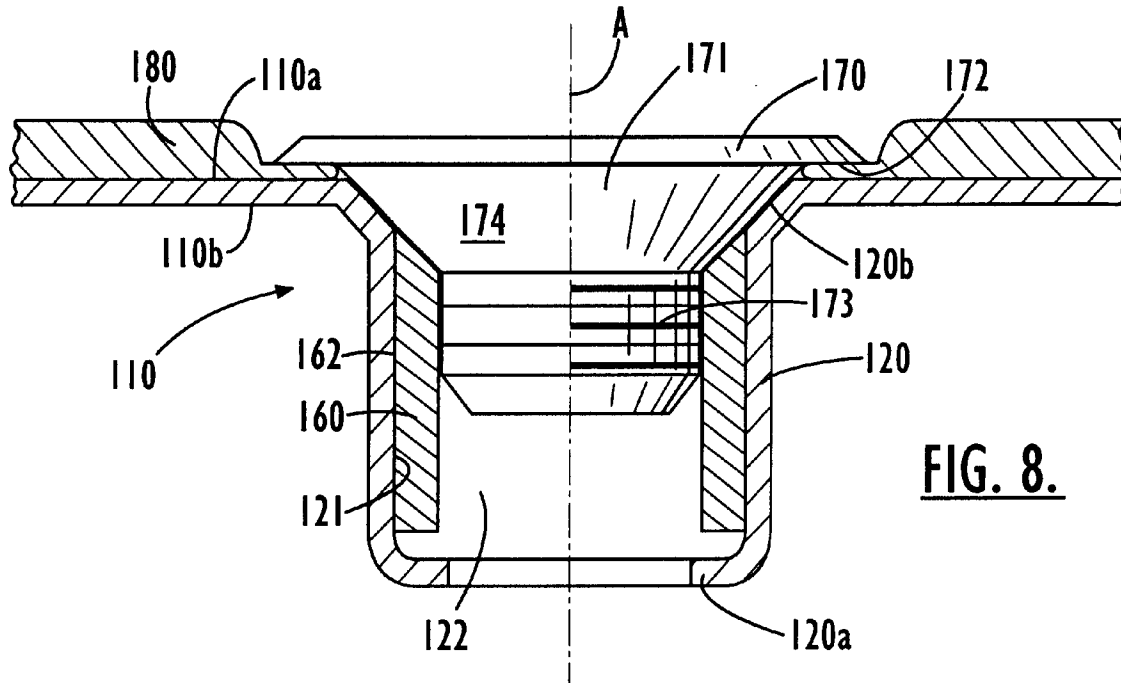
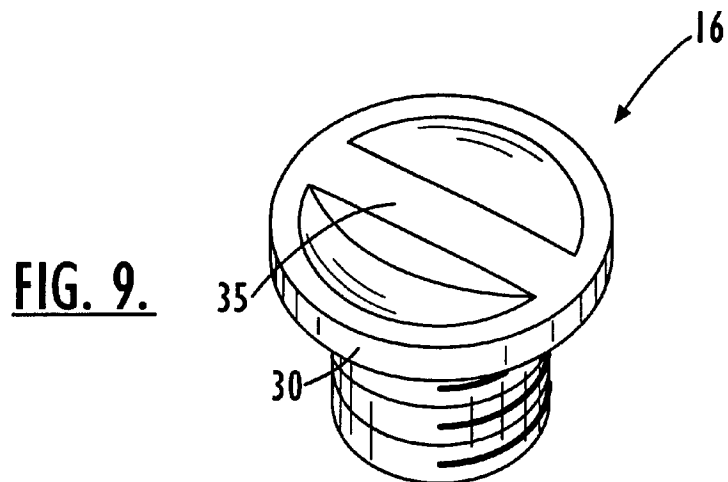


FIG. 7B.



**FIG. 8.**



**FIG. 9.**

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