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Yagi et al.

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(54) **METHOD OF MANUFACTURING WIRELESS SUSPENSION BLANK**

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(57) **ABSTRACT**

A wireless suspension blank is made using a two-layer laminate composed of a metallic layer with the spring property and an electrically insulating layer. The first method includes a first step for working the metallic layer by the photo etching method, a second step for forming a wiring part on the insulating layer by the semi-additive method and a third step for working the insulating layer by the wet-etching method. The second method includes a first step for working the metallic layer by the photo etching method, a second step for forming a wiring part on the insulating layer by the semi-additive method and a third step for working the insulating layer by the plasma etching method. The third method includes a first step for forming a wiring part on the metallic layer by the semi-additive method, a second step for working the metallic layer by the wet-etching method and a third step for working the insulating layer by the dry-etching method or the wet-etching method. The use of a two-layer laminate makes possible a low cost production. Further, the forming of a wiring part by the semi-additive method makes possible to working very accurately a fine wiring part.

(21) Appl. No.: **09/813,759**

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(30) **Foreign Application Priority Data**

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Jul. 7, 2000 (JP) 2000-206196

(51) **Int. Cl.**⁷ **B44C 1/22**; C03C 15/00; C03C 25/68; C23F 1/00; G11B 21/16

(52) **U.S. Cl.** **216/57**; 216/13; 118/723 E; 438/108; 360/244.3; 360/245.9; 360/245.4; 360/294.7

(58) **Field of Search** 216/57, 13; 118/723 E; 438/108; 360/244.3, 245.9, 245.4, 294.7

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17 Claims, 9 Drawing Sheets

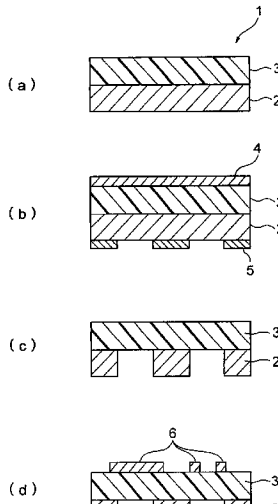
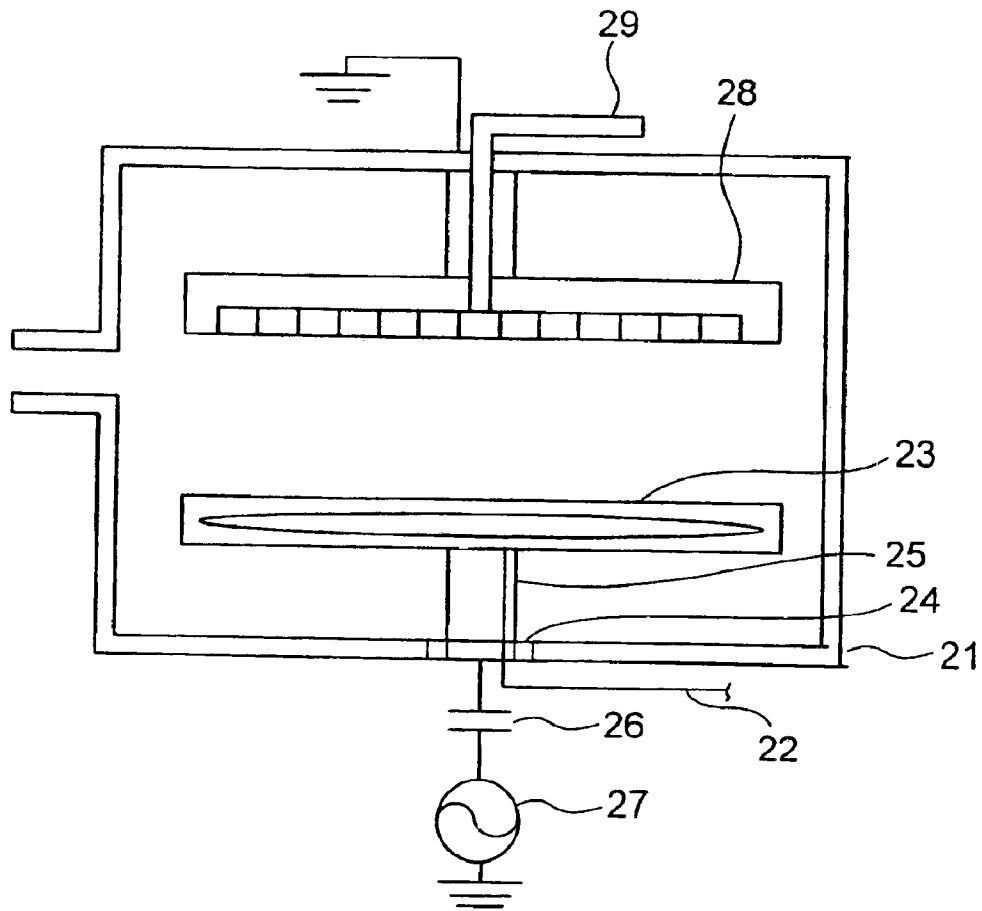
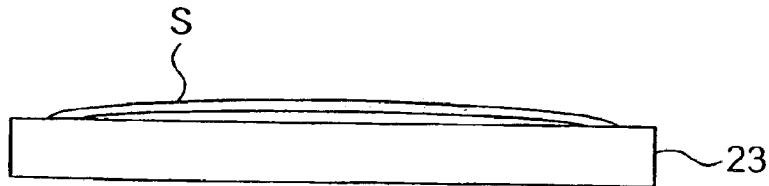


FIG. 1



PRIOR ART

FIG. 2



PRIOR ART

FIG. 3

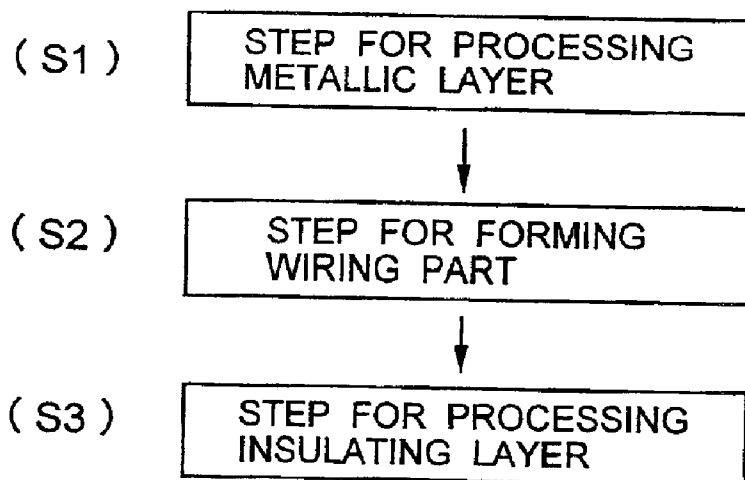


FIG. 4

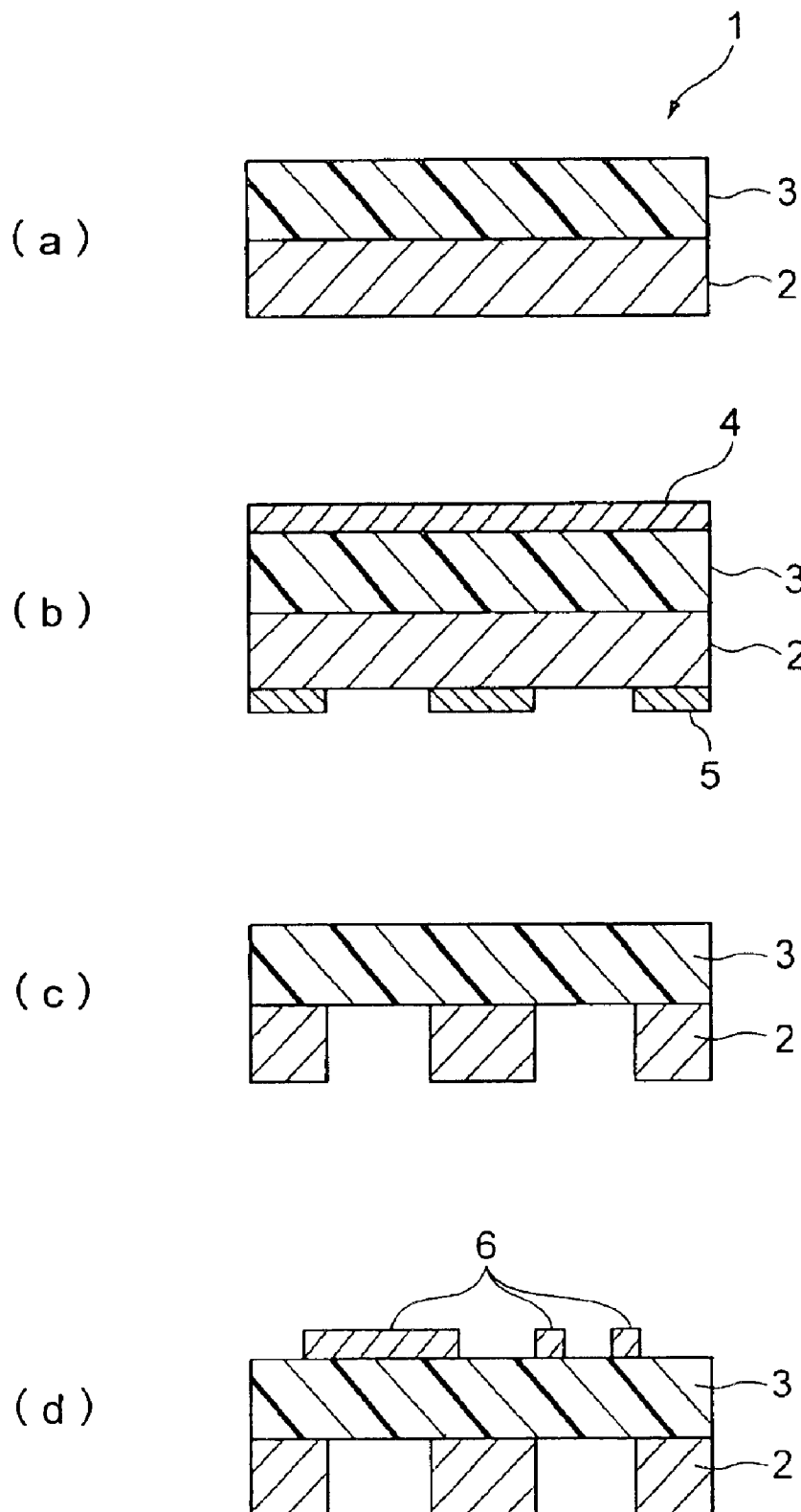
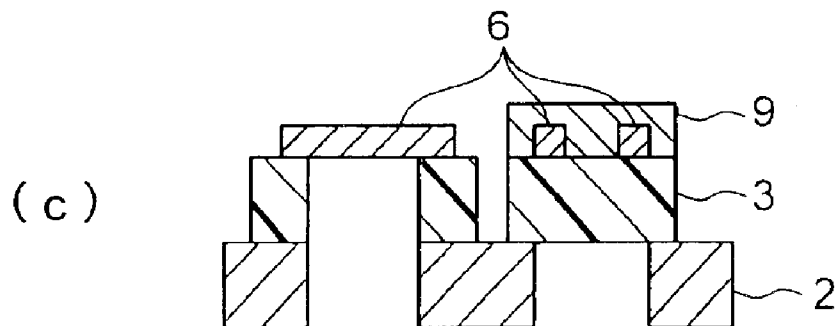
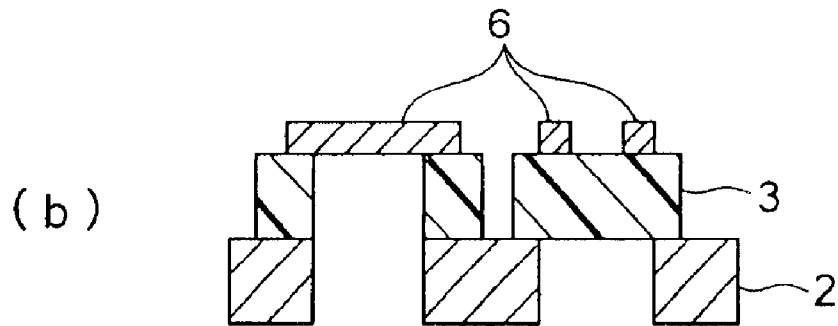
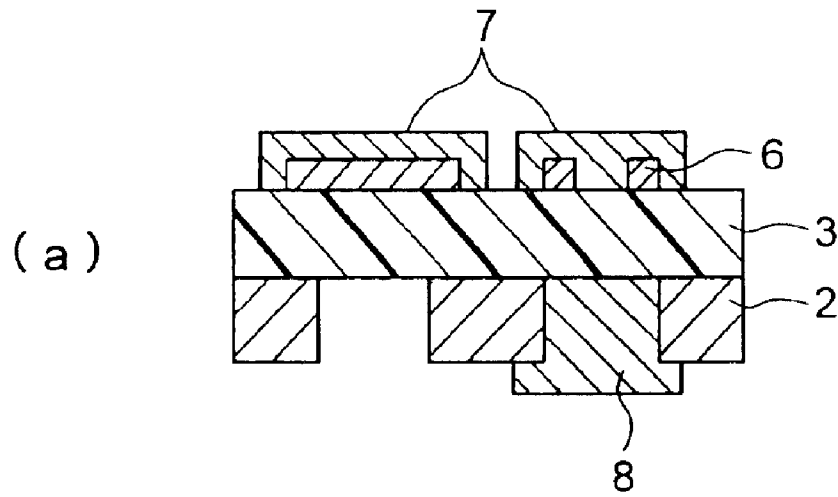


FIG. 5



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