United States Patent [19]

Anderson

[11] **4,307,768**

[45] **Dec. 29, 1981**

[54] **ENERGY CONSERVING INSULATIVE WINDOW SHADE**

[75] Inventor: **John J. Anderson**, Ramsey, N.J.

[73] Assignee: **Anmar Industries, Inc.**, Hackensack, N.J.

[21] Appl. No.: **215,710**

[22] Filed: **Dec. 12, 1980**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 879,356, Feb. 21, 1978.

[51] **Int. Cl.**[3] **A47H 5/00**

[52] **U.S. Cl.** ..... **160/84 R;** 428/116; 160/5

[58] **Field of Search** ..... 160/84 R, 168, 172, 160/238, 266, 269, 271, 273, 5; 24/122.3, 122.6, 129 D, 143 R, 143 A; 428/73, 116, 117, 118

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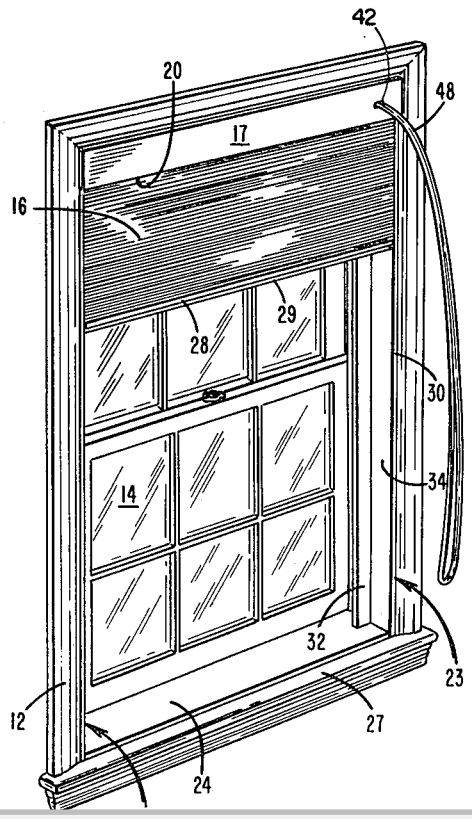
Primary Examiner—Philip C. Kannan

[57] **ABSTRACT**

Window shade structure for reducing heat loss or heat gain through a window or other "thermal opening" wherein the shade body is drawable over the window and is collapsible into a reduced storage volume. The shade body comprises opposed walls of thin, sheet-like layers of flexible and resilient material joined together along spaced parallel adhesion lines to form a plurality of contiguous and parallel channels in the shade body. A strip-like sealing slat on the surfaces of the window frame which oppose the edge portions of the shade body, and a slot-like recess formed in the opposite edges of the shade body and extending the full length thereof receive the edge portions and portions of the lateral surfaces of the sealing slat, with the free edges of the sheet-like layers being flexed against the lateral surfaces of the sealing slat to insure against convective air flow and provide an effective convective seal.

22 Claims, 32 Drawing Figures



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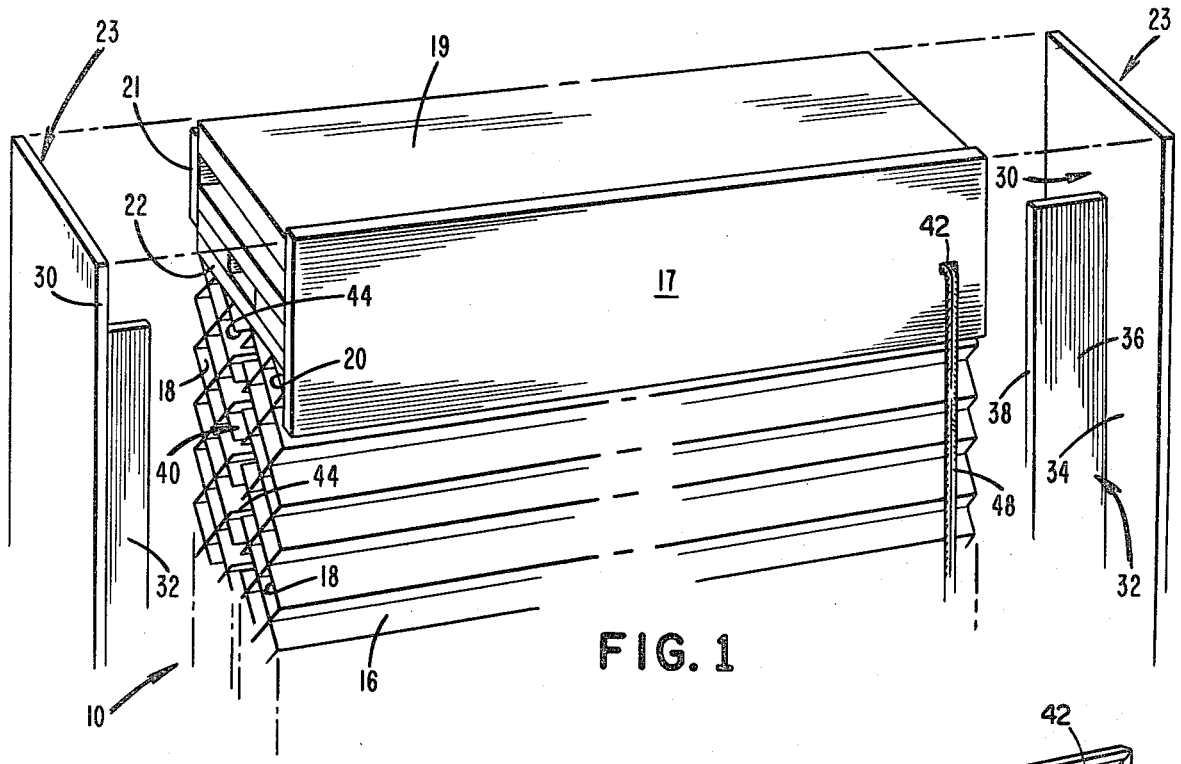
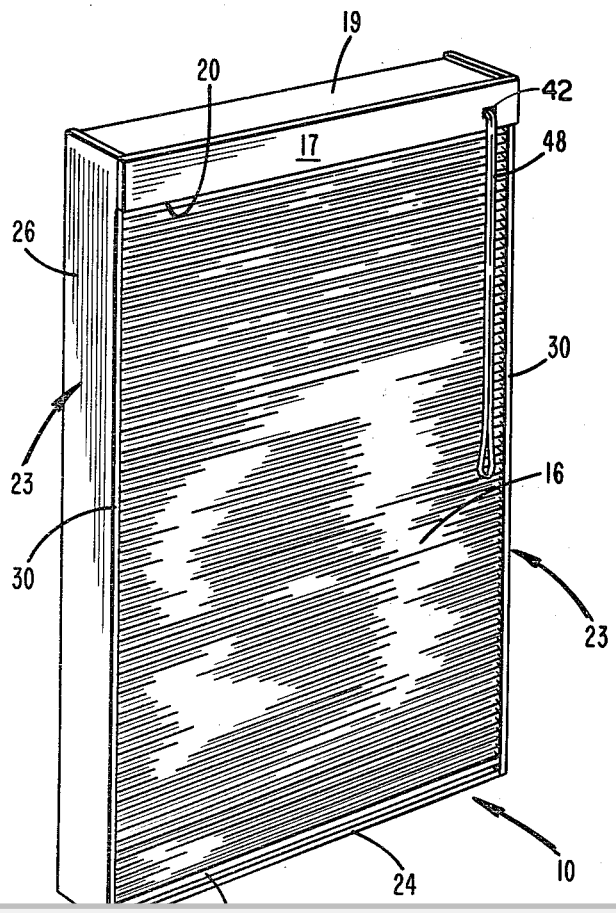


FIG. 1



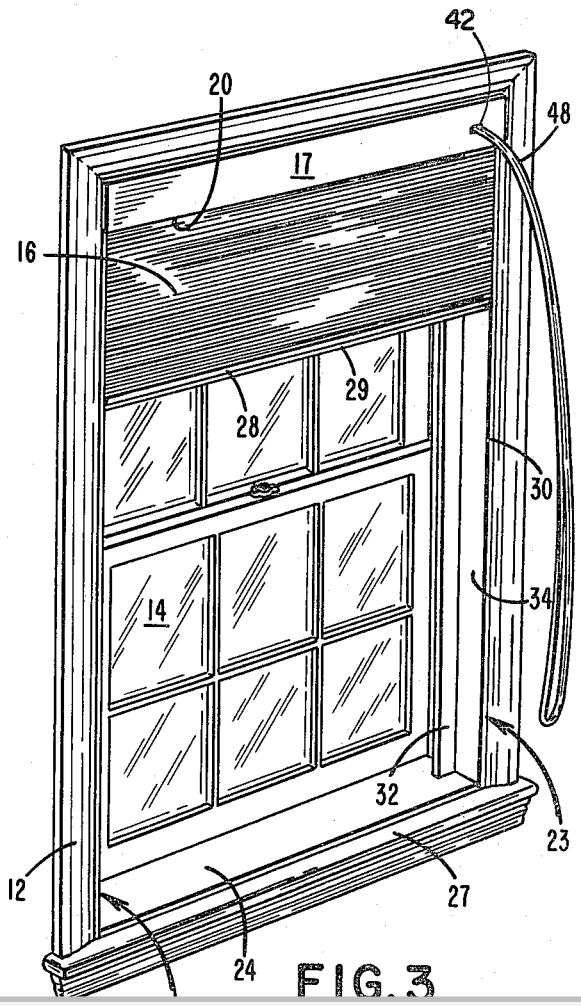


FIG. 3

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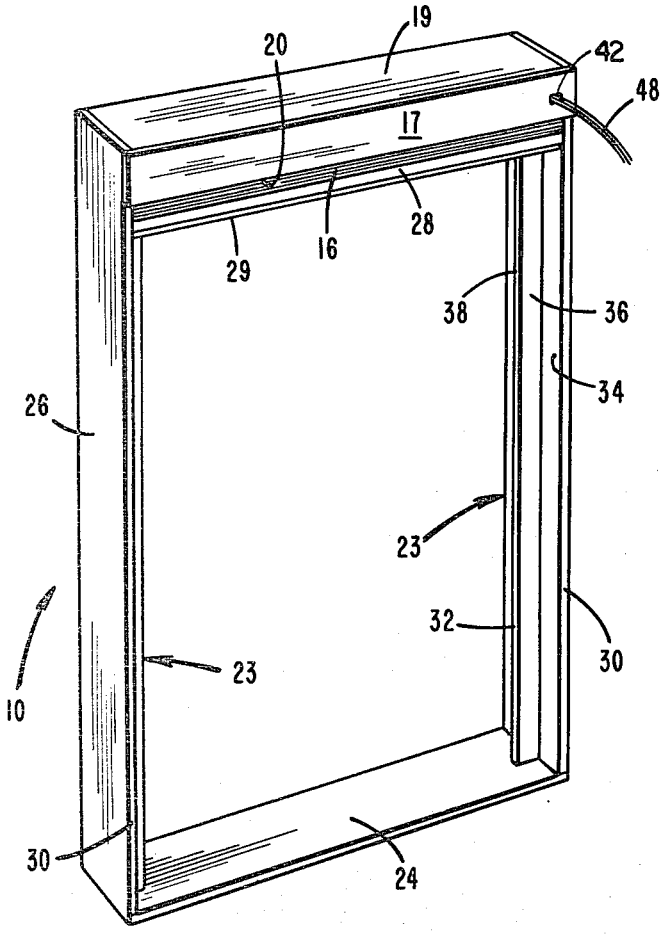

FIG. 4

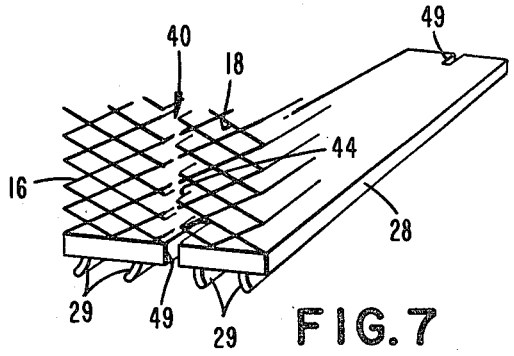

FIG. 7

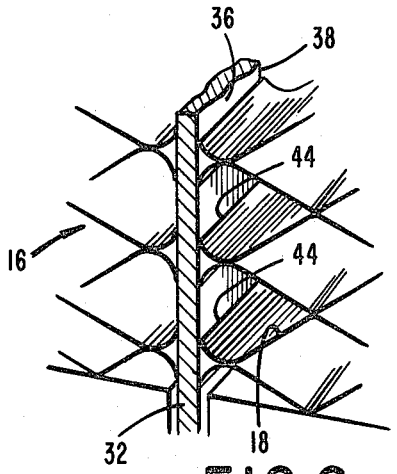

FIG. 6

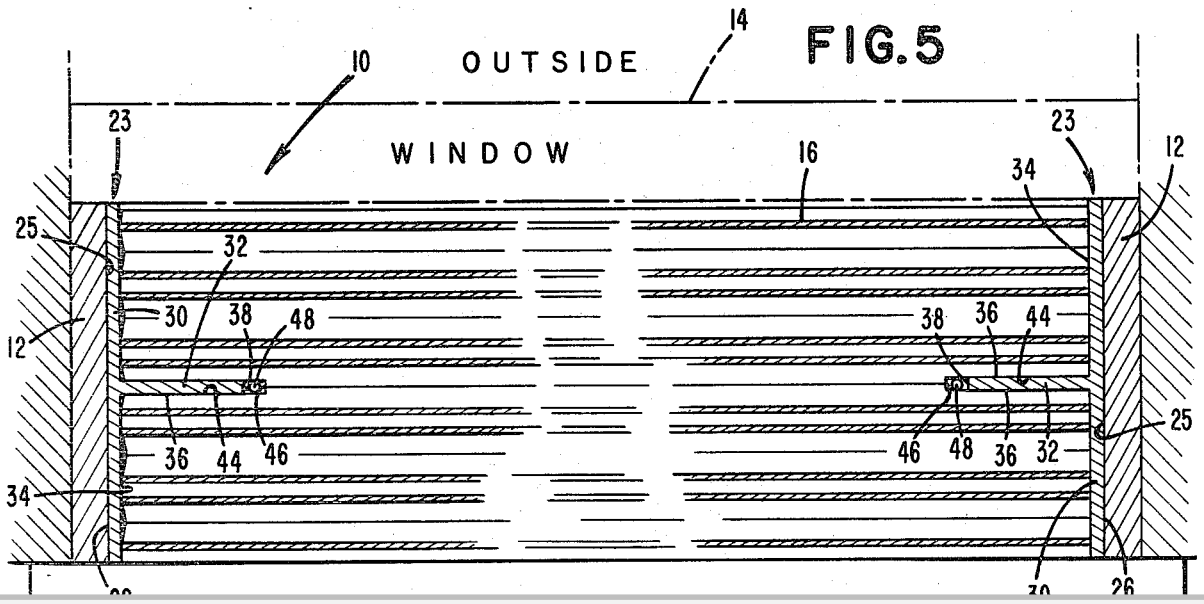

FIG. 5

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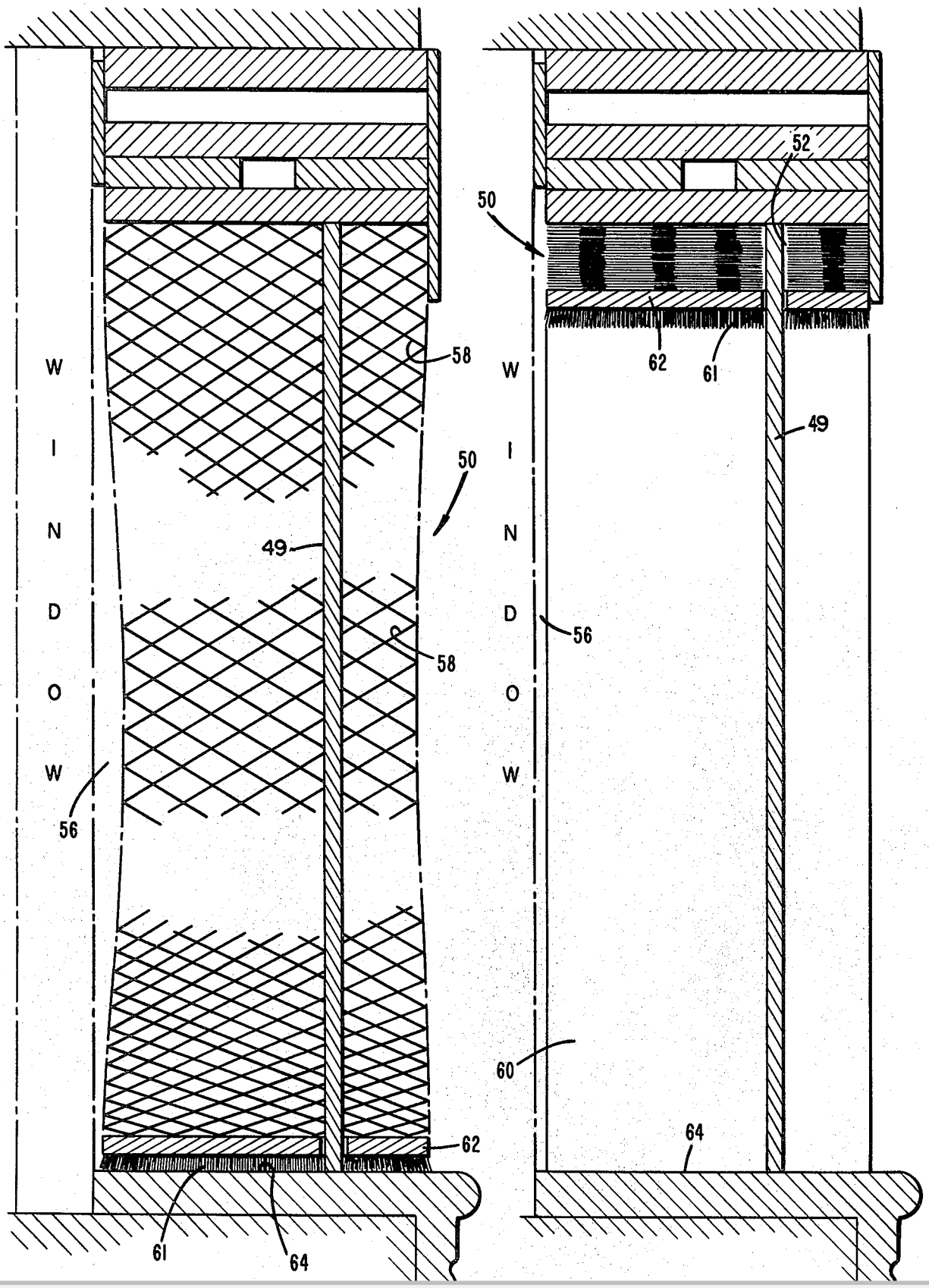

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FIG.9a

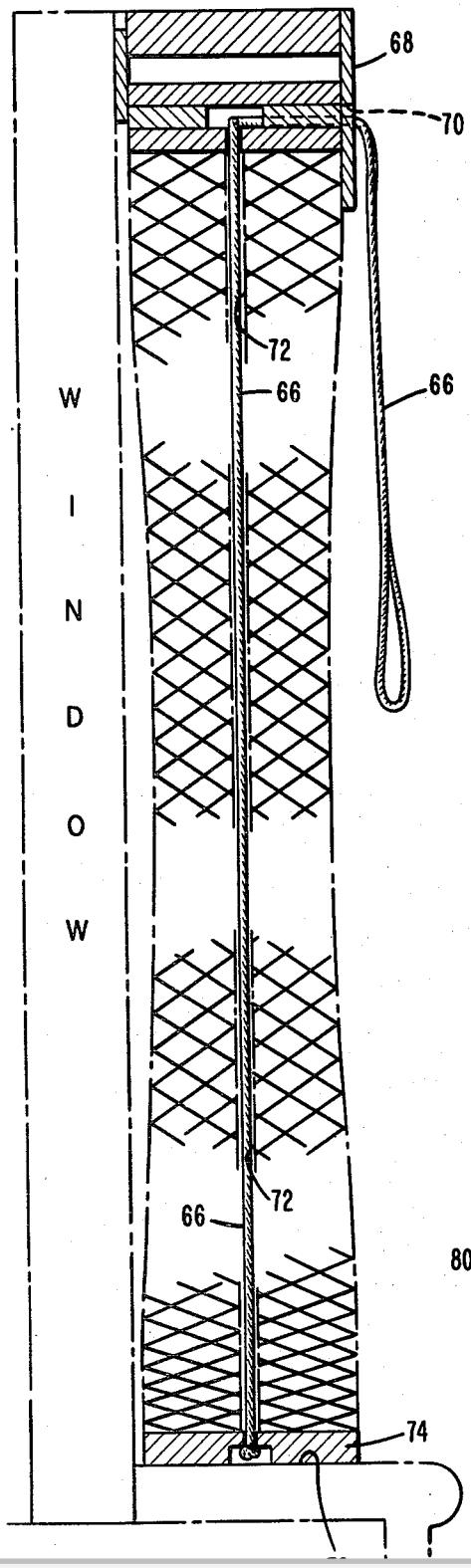
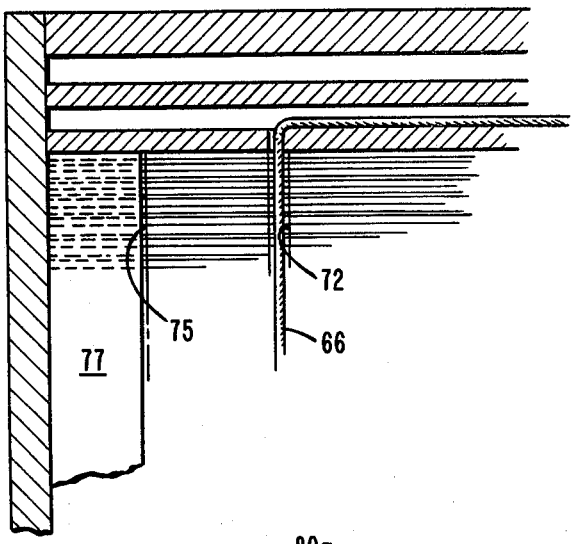


FIG.9b



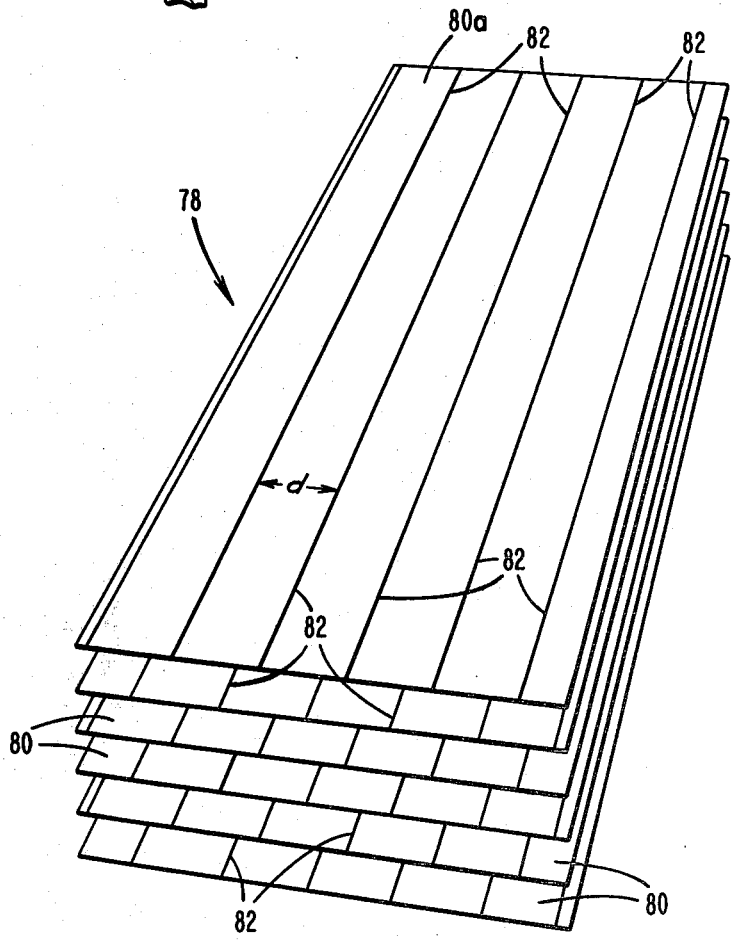


FIG. 10

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