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INSULATING BLANKET

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4 Claims. (Cl. 154—44)

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This invention relates to insulating lining and more particularly to insulating blankets for use in lining walls, ducts, furnace walls, flues, and the like.

The invention provides an insulating blanket of high insulating value and capable of bearing a substantial load without becoming compressed or distorted. Application of a covering to the blanket of the present invention may be made without affecting the insulating qualities thereof and without distorting or compressing the blanket.

The invention will be understood from the following description when considered in connection with the accompanying drawing forming a part thereof and in which:

Fig. 1 is a fragmentary perspective view of an insulating blanket embodying the invention, parts thereof being broken away;

Fig. 2 is a transverse sectional view taken on the line 2—2 of Fig. 1;

Fig. 3 is a longitudinal sectional view taken on the line 3—3 of Fig. 1, and

Fig. 4 is a perspective view of a form of spacer block other than that used in the embodiment of the invention shown in Figs. 1 to 3.

Like characters of reference refer to the same parts throughout the several views.

Referring to the drawing, the invention, as shown, comprises a layer of compressible insulating material 10 such as asbestos, rock wool, mineral wool, or the like. The layer of material 10 is positioned between retaining sheets 11 and 12 which sheets, as shown, comprise expanded metal screens. The sheets 11 and 12 may be of other flexible material such as wire, metal, or cloth which material preferably extends over the ends and side edges of the layer of material 10 as well as over the top and bottom surfaces.

Spacing blocks 13 are positioned in the space between the sheets 11 and 12 in which the layer of insulating material 10 is disposed. The blocks 13 are of a solid non-conducting insulating material and, as shown, are substantially cubically shaped and of a thickness substantially equal to the thickness of the layer of insulating material 10. Surface 14 of one of the sides of the blocks, as shown, is adjacent the inner side of the sheet 11, while the surface 15 of the side of the block opposite the surface 14 is adjacent the inner side

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of the present invention is subjected to a weight bearing on the screen sheets 11 and 12. Other than cubically shaped blocks may be used, it merely being required that the blocks used be so shaped as to have two surfaces spaced apart a predetermined distance, similar to surfaces 14 and 15 of the blocks 13. The blocks 13 are disposed in spaced rows, as shown, and are spaced from one another in said rows. The number of blocks used and the arrangement thereof should be such as to hold the sheets 11 and 12 a predetermined distance apart and prevent the layer of insulating material 10 from being compressed.

Insulating material 10, which is packed closely around the blocks 13, holds said blocks in position but the blocks, to prevent movement thereof, may be secured to the screen sheets 11 and 12.

Tie wires 16 extend through the layer of insulating material 10 and are threaded through the sheets 11 and 12 to firmly secure said sheets and layer of insulating material in relationship to each other and the blocks 13.

The spacing block 13' illustrated in Figs. 1 and 4 of the drawing is somewhat similar to the blocks 13 shown in Figs. 1 to 3. The block 13' has a passage 17 therethrough to receive a bolt, nail or other fastening means 18 so that the insulating blanket of the present invention may be secured to a wall, a duct, flue or other structure to which it is to be fastened and thereby set in relationship to said structure. It will be understood that the blanket may be secured by means other than the apertured block adapted to receive a bolt, nail or other fastening means 18.

The structure of the present invention provides a flexible insulating blanket having high insulating properties which may be applied to walls of various shapes and contours and which may be subjected to a load, such as the weight of a refractory material applied to the retaining sheets of the blanket, without becoming compressed or distorted. Since the spacer blocks are of a solid non-conductive or insulating material, the insulating qualities of the blanket are not decreased by said blocks.

It will be understood that changes may be made in the form, location and relative arrangement of the several parts of the insulating blanket disclosed without departing from the principles of the invention. Consequently the [illegible]

tween said screens, means extending between the screens and through the insulation for securing the insulation and the screens together to form a blanket, and a plurality of blocks of solid insulating material, said blocks being arranged between the screens in spaced rows and spaced from one another in said rows, the blocks having a substantially flat surface at opposite sides thereof, one of said surfaces engaging one of the screens and the opposite of said surfaces engaging the other screen thereby limiting movement of the screens toward one another and insulating said screens from one another.

2. An insulating lining comprising spaced metallic screens, a layer of fibrous insulation between said screens, means extending between the screens and through the insulation for securing the insulation and the screens together to form a blanket, and a plurality of cubically-shaped blocks of solid insulating material, said blocks being arranged between the screens in spaced rows and spaced from one another in said rows, the surface of one of the sides of the blocks engaging one of the screens and the surface of the side of the blocks opposite said one side engaging the other screen thereby limiting movement of the screens toward one another and insulating said screens from one another.

3. An insulating lining comprising spaced metallic screens, a layer of fibrous insulation between said screens, means extending between the screens and through the insulation for securing the insulation and the screens together to form a blanket, and a plurality of cubically-shaped blocks of solid insulating material, said blocks being arranged between the screens in spaced rows and spaced from one another in said rows, the surface of one of the sides of the blocks engaging

one of the screens and the surface of the side of the blocks opposite said one side engaging the other screen thereby limiting movement of the screens toward one another and insulating said screens from one another, at least some of said blocks having a passage therethrough adapted to receive fastening means for mounting the lining in position.

4. An insulating lining comprising spaced metallic screen sheets, a layer of fibrous insulation between the sheets, and a plurality of blocks of solid insulating material between the sheets arranged in spaced rows and spaced from one another in said rows, said blocks having opposite substantially flat surfaces adapted to engage the surface of said screens adjacent the insulation thereby limiting movement of said screen sheets toward one another and insulating said screens from one another.

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Fig. 1.

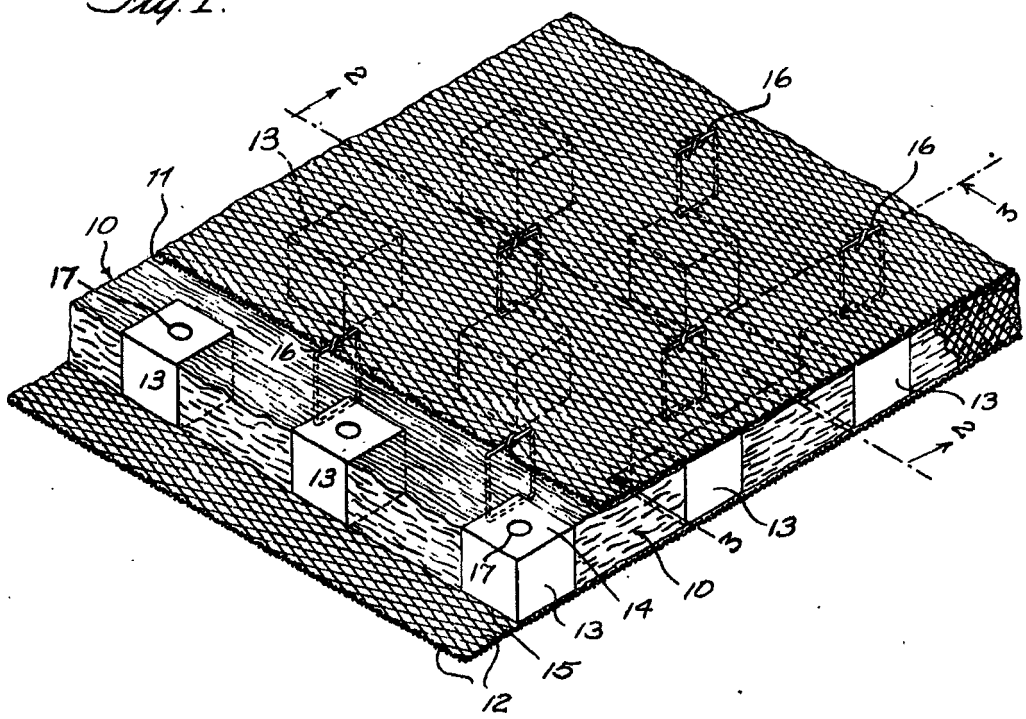
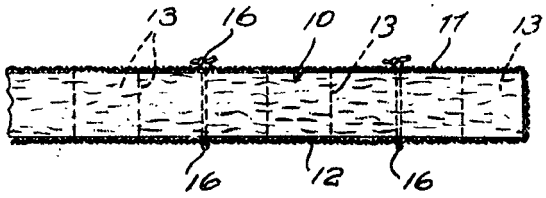


Fig. 2.



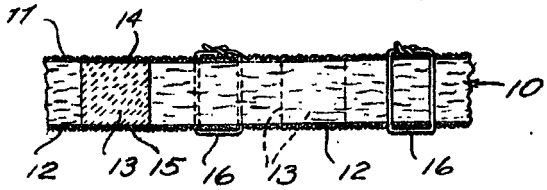
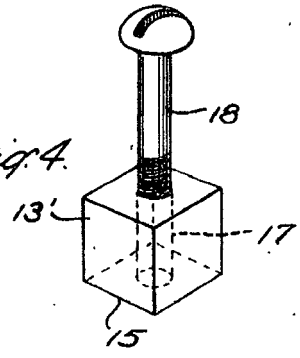


Fig. 3.

Fig. 4.



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