

(19) DANMARK

(10) DK 2000 00250 L



(12) PATENTANSØGNING

Patent- og
Varemærkestyrelsen

(51) Int.Cl⁷: E 04 B 1/86

(21) Patentansøgning nr: PA 2000 00250

(22) Indleveringsdag: 2000-02-17

(24) Løbedag: 2000-02-17

(41) Alm. tilgængelig: 2001-01-25

(71) Ansøger: Rockwool International A/S, Hovedgaden 584, 2640 Hedehusene, Danmark

(72) Opfinder: Ian Cridland, Lindenborgvej 8, 2720 Vanløse, Danmark
John Christian Asmussen, Tranevej 4, 2.th., 2400 København NV, Danmark

(74) Fuldmægtig: Hofman-Bang A/S, Hans Bekkevolds Allé 7, 2900 Hellerup, Danmark

(54) Benævnelse: En fremgangsmåde til lydisolering af en væg

(57) Sammendrag:

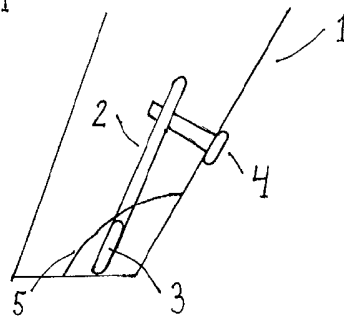
1. A method for sound insulating a wall with sound insulating boards having a first side adapted to face the wall to be insulated comprising the steps of:

i) Preparing the board to be glued on the wall by adding glue in a pattern to the first side of the board, said glue being applied with a height of at least 0,5 cm, the proportion of the area of the first side of the board covered with said glue compared to the total area of the first side of the board is 1:30 to 1:120 preferably 1:40 to 1:80 more preferably 1:60 or preparing the wall to be sound insulated by adding glue in a pattern on a sub-wall area of the wall corresponding to the board to be applied onto said wall, said sub-wall area having a size equal to the size of the first side of the board to be applied, said glue being applied with a height of at least 0,5 cm, the proportion of the sub-wall area covered with said glue compared to the total area of the sub-wall area is 1:30 to 1:120 preferably 1:40 to 1:80 more preferably 1:60

fortsættes

ii) applying the first side of the board to the wall to be sound insulated, by bringing the glue on the first side of the board into contact with the wall or bringing the glue on the sub-wall area into contact with the first side of the board, thereby fixating the board to the wall by said glue, while substantially maintaining the height of said glue whereby the distance between the first side of the board not covered with glue and the wall is at least 0,5 cm.

FIG 1



CLAIMS

1. A method for sound insulating a wall with sound
5 insulating boards having a first side adapted to face the
wall to be insulated comprising the steps of:

i) Preparing the board to be glued on the wall by adding
glue in a pattern to the first side of the board, said
10 glue being applied with a height of at least 0,5 cm, the
proportion of the area of the first side of the board
covered with said glue compared to the total area of the
first side of the board is 1:30 to 1:120 preferably 1:40
to 1:80 more preferably 1:60 or preparing the wall to be
15 sound insulated by adding glue in a pattern on a sub-wall
area of the wall corresponding to the board to be applied
onto said wall, said sub-wall area having a size equal to
the size of the first side of the board to be applied,
said glue being applied with a height of at least 0,5 cm,
20 the proportion of the sub-wall area covered with said
glue compared to the total area of the sub-wall area is
1:30 to 1:120 preferably 1:40 to 1:80 more preferably
1:60

25 ii) applying the first side of the board to the wall to
be sound insulated, by bringing the glue on the first
side of the board into contact with the wall or bringing
the glue on the sub-wall area into contact with the first
side of the board, thereby fixating the board to the wall
30 by said glue, while substantially maintaining the height
of said glue whereby the distance between the first side
of the board not covered with glue and the wall is at
least 0,5 cm.

35 2. A method according to claim 1 **characterised** in that
said glue is applied with a height of at least 0,5 to 3,0

cm preferably 1,0 to 2,5 cm, and preferably the distance between the wall and said first side of the board not covered with glue is 0,5 to 1,5 cm preferably 0,8 to 1,2 cm.

5

3. A method according to claim 1-2 **characterised** in that the glue is applied to the first side of the board in a pattern of one or more spots wherein each spot has a minimum width preferably between 0,5 to 3 cm.

10

4. A method according to claim 1-2 **characterised** in that the glue is applied to the first side of the board in a pattern of one ore more strips having a length substantially corresponding to the width or the length of the sound insulating board, said strips of glue having a width of 0,5 to 3 cm preferably 0,8 to 1,5 cm and more preferably 0,9 to 1,2 cm, and preferably strips of glue is applied in substantially parallel strips, preferably substantially parallel to one edge of the board, said substantially parallel strips of glue having a mutual distance of preferably 20 to 80 cm.

15

20

5. A method according to claim 1-4 **characterised** in that the said glue preferably is chosen among glues containing polyacrylate latex, polyacrylate resin, polysulfide, polyisocyanate, polyisocanate prepolymer, silane modified polyether or polysiloxane polymer.

25

6. A method according to anyone of the preceding claims **characterised** in that said sound insulating board comprises at least two layers, including a first layer constituting the first side and a second layer constituting the second side.

30

7. A method according to claim 6 **characterised** in that said second layer has a density, which is higher than the density of said first layer.
- 5 8. A method according to anyone of the preceding claims **characterised** in that one or more distance means are placed between the non-glued part of the first side of the insulation board and the wall during the application of the board onto the wall, and said one or more distance
10 means preferably are screws, nails, distance pieces of metal, wood, plastic, rubber or similar materials.
9. A method according to claim 8 **characterised** in that said distance means can be removed from the sound
15 insulation board or the wall after said sound insulation board has been fixed to the wall.
10. A method according to anyone of the preceding claims **characterised** in that the surface of said first side of
20 the board is totally or partly covered with a primer prior to the application of the glue.
11. A method according to claim 10 **characterised** in that the surface of said first side of the board is covered
25 with a primer in one or more spots defining a pattern on to which the glue is applied.
12. A method according to claim 10 to 12 **characterised** in that said primer covers one or more track-formed areas on
30 the surface of said first side of the board, and preferably said one or more track-formed areas are substantially parallel to one edge of the board, and that each track-formed area preferably has a width of 5 to 15 cm and that said areas preferably has a mutual distance
35 of 20 to 80 cm.

13. A method according to anyone of the claims 10 to 12 **characterised** in that the glue is applied substantially in the middle of said spots or track-formed areas of primer.

5

14. A method according to anyone of the claims 10 to 13 **characterised** in that said primer is polyvinyl acetate.

15. A method according to anyone of the preceding claims **characterised** in that the wall to be sound insulated is pre-treated with glue in a pattern substantially corresponding to the pattern of glue on the first side of the sound insulation board prior to the application of the board onto the wall.

15

16. Sound insulated walls comprising at least one sound insulation board having a first side facing the wall, said first side is in contact with the wall through a pattern of glue in contact with both the first side of the board and the wall, where the area of contact between the board and the wall through said glue compared to the total area of the first side is 1:30 to 1:120 preferably 1:40 to 1:80 more preferably 1:60, said glue having a height of preferably 0,5 to 1,5 cm and thereby distancing the wall and the board from each other in the non-contacting areas.

25

FIG 1

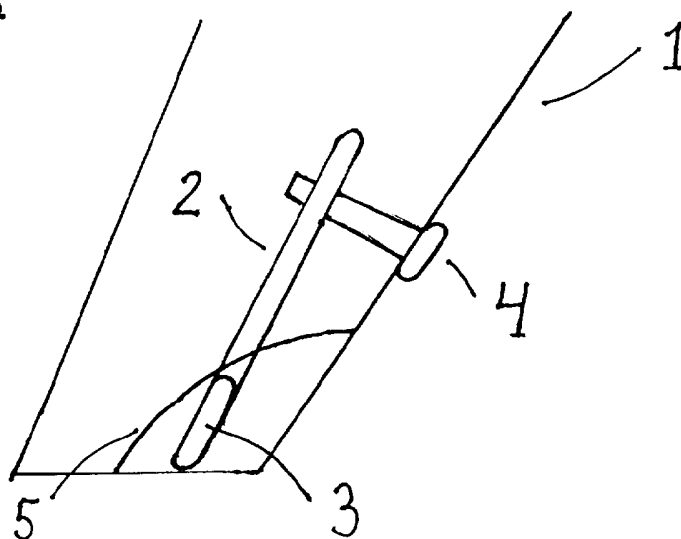


FIG 2

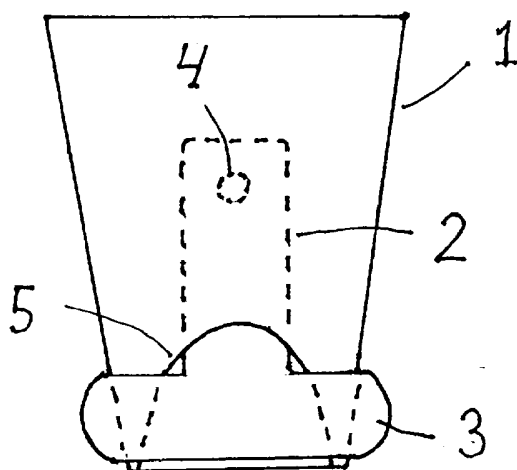


FIG 3

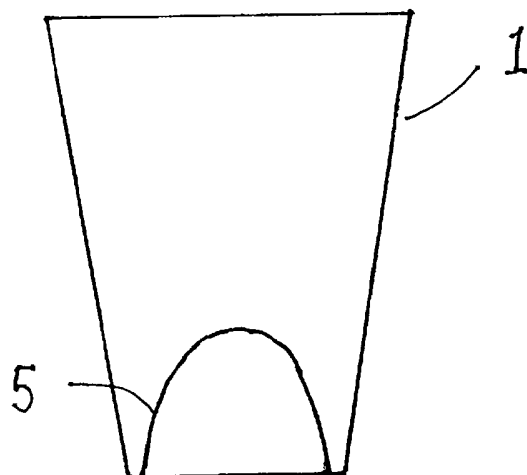


FIG 4

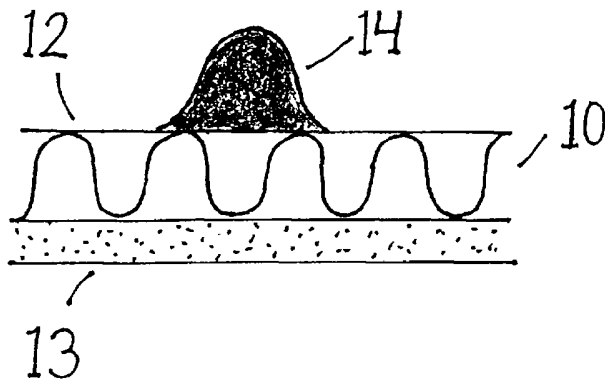


FIG 5

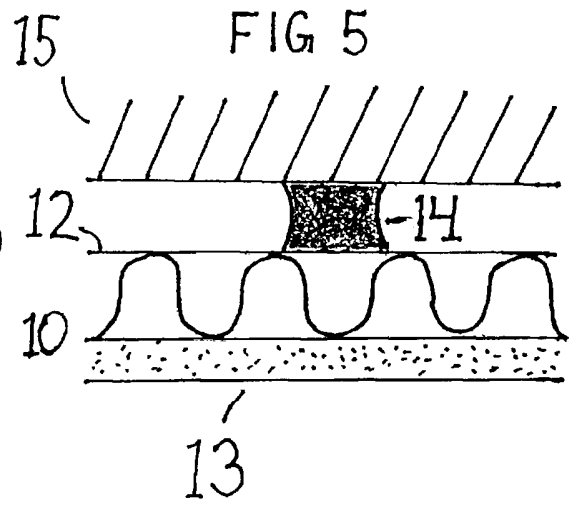


FIG 6

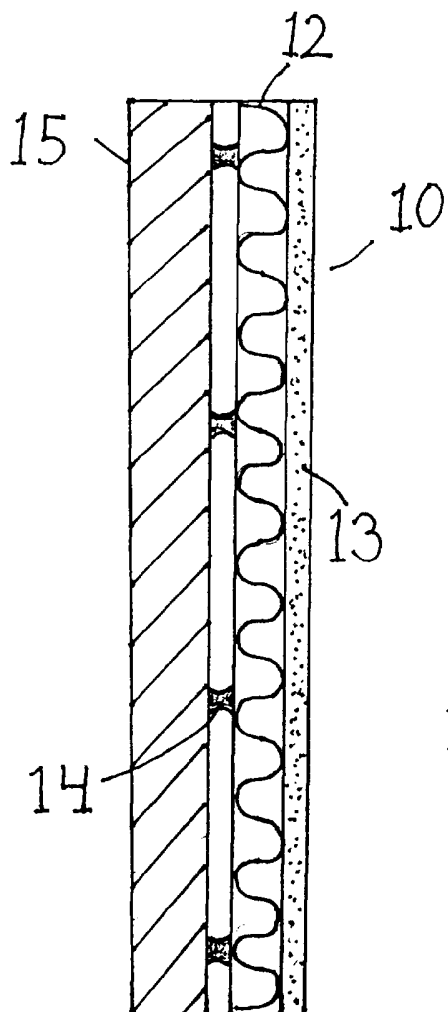


FIG 7

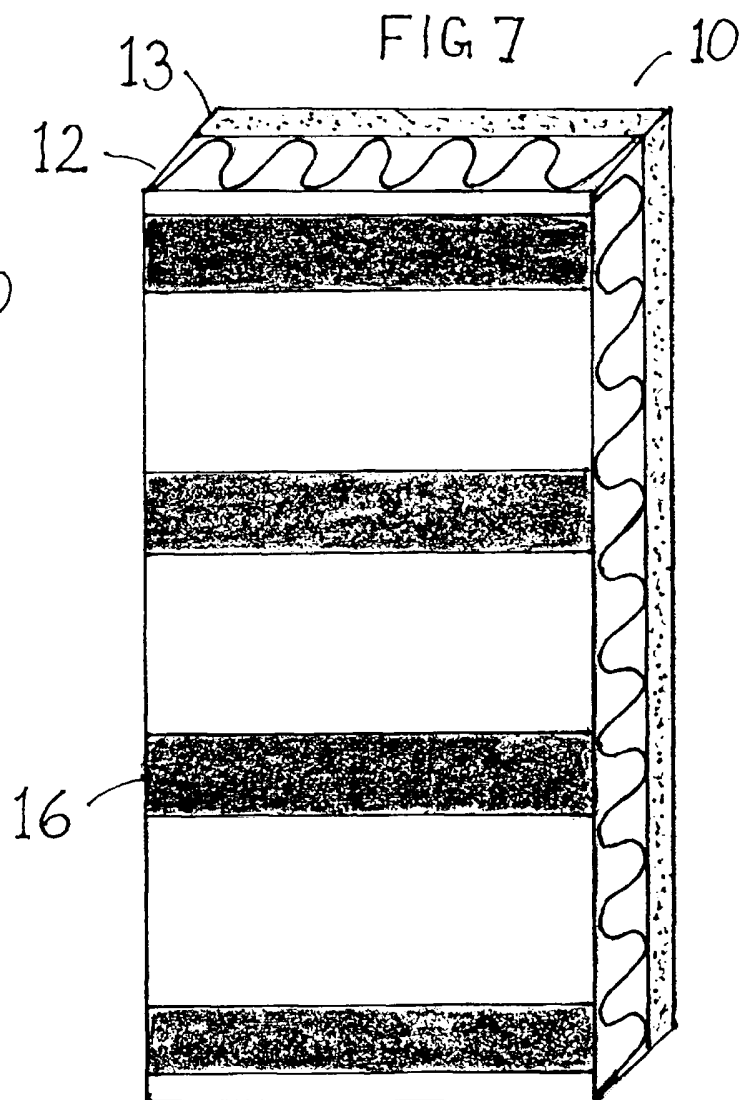


FIG. 8

