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(12) # EUROPEAN PATENT APPLICATION

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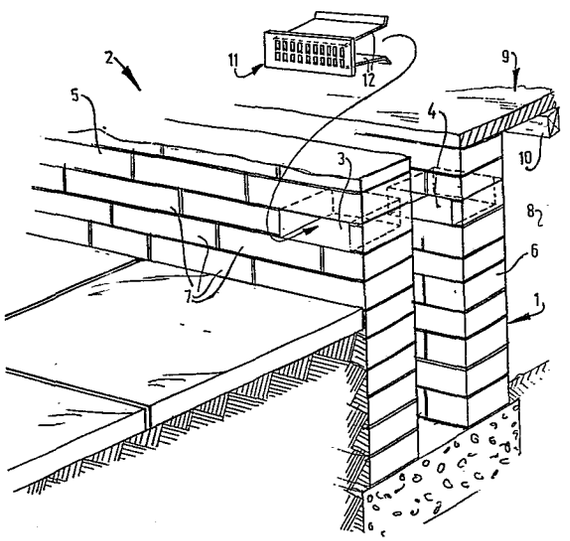
(54) **Ventilator for masonry of a building structure.**

(57) An air grating which can easily be put in the masonry of a building structure consists of a flat grate plate and resilient limbs in opposite positions, the free ends of said limbs resiliently grip on the nearby bricks in a one-brick opening of the masonry.



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Air grating for use in the masonry of a building.

The invention relates to an air grating for use in the masonry of a building.

Such a grating is known, it is built into the brick wall of a building and serves for the aeration of the excavated space beneath the floor of the building in order to avoid rotting of the floor, particularly of the layer of wooden girders carrying the floor. Particularly in the case of introduction of insulating material, for example, foam into a cavity wall it should be checked whether the passage of air between the outer and inner openings of the cavity wall has been left satisfactorily free.

The known air grating gets by resilient means into engagement with gripping means of a frame built into the wall opening or embedded in the concrete (see, for example, Swiss Patent Specification 437,706, French Patent Specification 1,100,659 or U.S. Patent Specification 2,722,170).

The invention has for its object to provide a simple air grating. According to the invention the air grating is characterized in that it mainly consists of a flat grate plate and resilient limbs in relatively opposite

arrangement, said limbs being rigidly secured at one end to the plate and resiliently engaging by the free ends the bricks surrounding the opening formed by omitting one brick. This air grating does not require a framework built into the masonry and can be readily arranged in the opening made by taking out a brick, for example, subsequent to the insertion of insulating material.

Additionally firm fastening is ensured when each limb has a hook-shaped free end gripping around an inner edge of a brick.

Particularly low costs of manufacture are attained when the air grating is made from a single piece of sheet material or when it is formed by a single spray-casting of synthetic resin.

The invention will be set out in the following description with reference to a drawing.

The drawing shows in

Figure 1 a perspective view of a fraction of a building having an air grating embodying the invention,

Figure 2 an enlarged, perspective view of the air grating of Figure 1,

Figure 3 and 4 the air grating of Figures 1 and 2 in the operational positions,

Figure 5 a different air grating embodying the invention, and

Figure 6 a sectional view of a cavity wall during the introduction of insulating material.

In a cavity wall 1 of a building 2 an outer opening 3 and an inner opening 4 are formed in an outer wall part 5 and an inner wall partition 6 respectively by locally omitting bricks 7. The openings 3 and 4 are in substantially opposite positions and provide an air passage from the outside to the excavated space 8 beneath the floor 9 carried by wooden girders 10. The outer opening 3 is screened against vermin and leaves by an air grating 11 embodying the invention, which comprises two limbs 12 fastened thereto and resiliently engaging the bricks 7 bounding the outer opening 3. The free ends 13 of the limbs 12 are preferably hook-shaped for grip-

ping behind the edges 14 of the bricks 7. For this purpose the length l between the grate plate 15 of the air grating 11 and the hook-shaped end 13 is adapted to the brick width b and is preferably slightly shorter.

In the absence of such adaption as shown in Figure 4 or in the absence of hook-shaped ends (Figure 5) fastening is somewhat less solid.

The air grating 11 may be formed by a spray-casting of synthetic resin or a metal object which may be zinked.

When afterwards the cavity wall 2 is insulated by means of insulating material 18, the air passage 20 may be guarded by inserting a piece of wood 19 through the outer opening 3 as far as into the cavity, by subsequently introducing the material and by subsequently removing the piece of wood 19. After an inspection of the work the air grating 11 embodying the invention is arranged in the outer opening 3.

The dimensions of the air grating 11 embodying the invention and in particular those of the resilient limbs 12 and their relative distance are adapted to the dimensions of a one-brick opening.

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C L A I M S

1. An air grating for use in the masonry of a building, characterized in that the grating mainly consists of a flat grate plate and resilient limbs in opposite positions, said limbs being rigidly secured at one end to the plate and resiliently engaging by their free ends the bricks surrounding an opening made by omitting one brick from the masonry.

2. An air grating as claimed in claim 1, characterized in that each limb has a hook-shaped free end gripping around an inner edge of a brick.

3. An air grating as claimed in claim 1 or 2, characterized in that the air grating is made from a single piece of sheet material.

4. An air grating as claimed in claim 1 or 2, characterized in that the air grating is formed by a single spray-casting of synthetic resin.

FIG.1 "1/2"

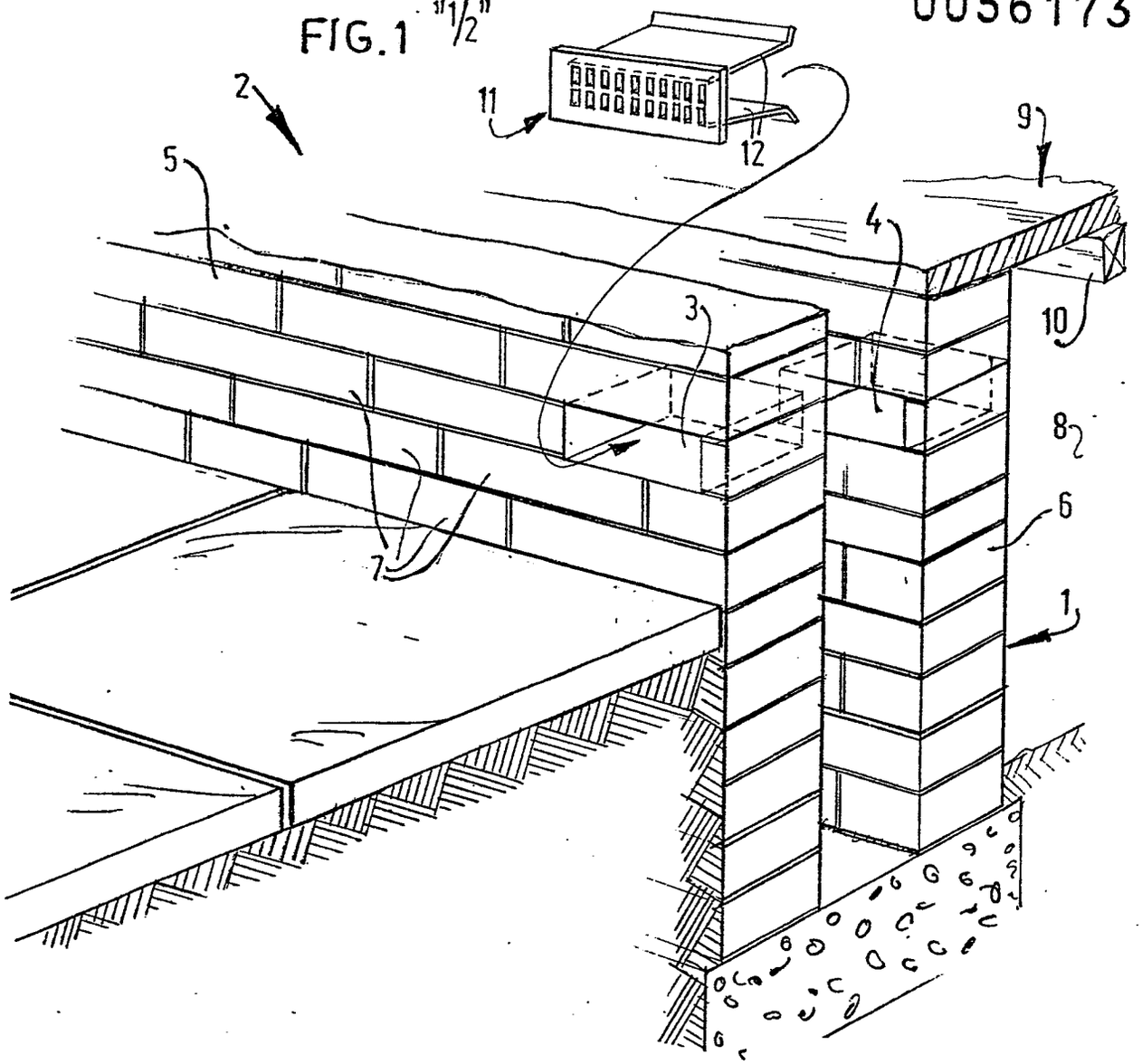


FIG.6

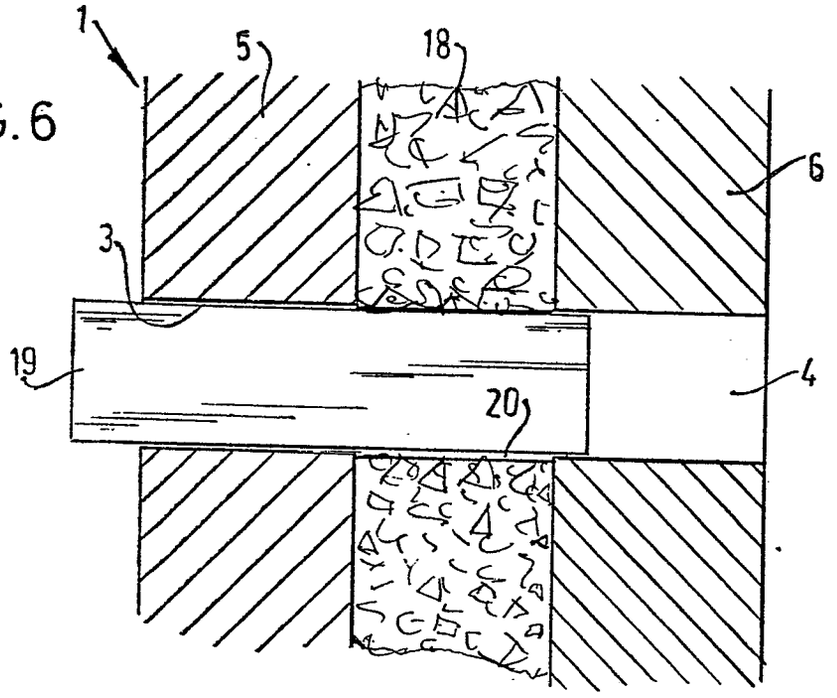


FIG.2

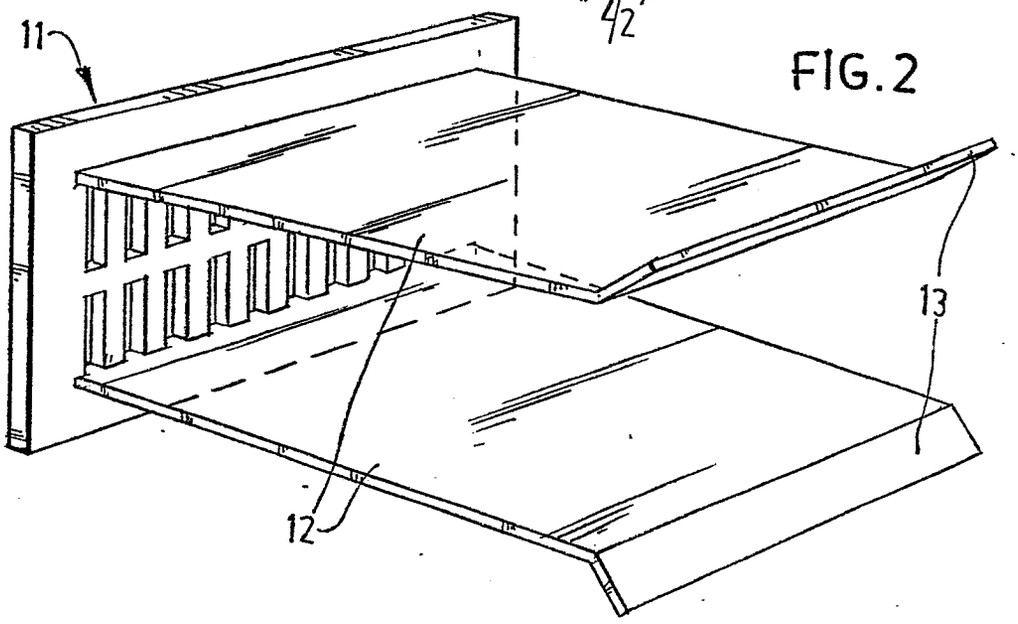
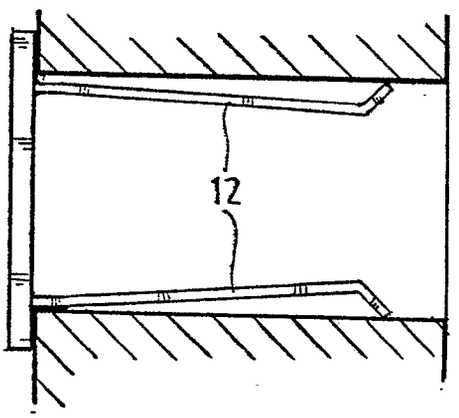


FIG.4



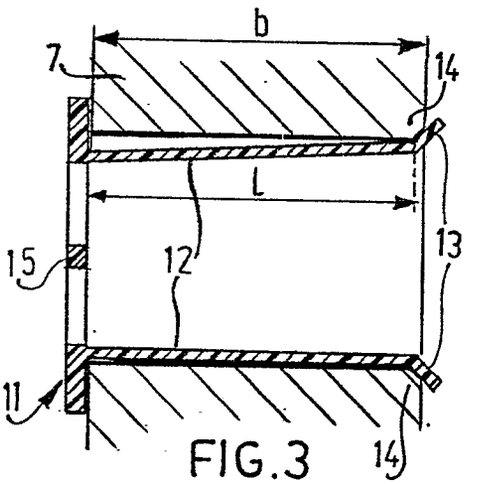


FIG.3

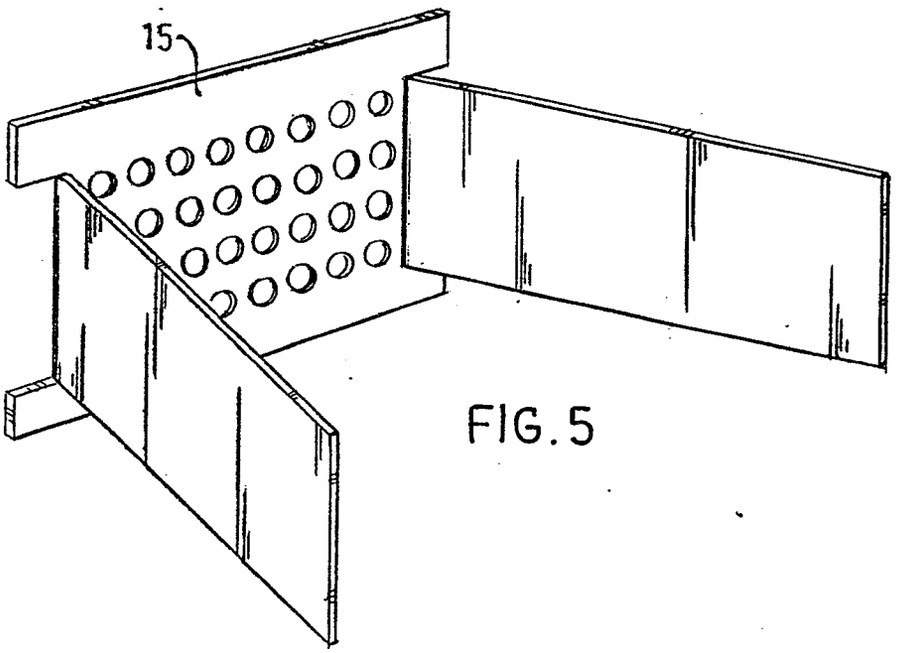


FIG.5

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EUROPEAN SEARCH REPORT

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Application number

EP 81 20 1398

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. ³)
Y	FR-A-1 587 476 (GLENT & CO.) *Page 4, line 30 - page 5, line 12; figures 5,6*	1	F 24 F 13/00 E 04 B 1/70
D,Y	CH-A- 437 706 (WEKA) *Column 3, lines 17-40; figures 1 to 3*	1	
A	BE-A- 718 623 (DIECKMANN) *Page 2 last paragraph - page 3 second paragraph, page 4 last line - page 5 first paragraph; figures 1,2*	3,4	
A	US-A-3 364 841 (UCHIYAMA) *Column 3, lines 33-56*	3,4	
P,A	US-A-4 274 330 (WITTEN) *Column 3, lines 25-31, column 4, lines 6-40; figures 1,2,4*	2	TECHNICAL FIELDS SEARCHED (Int. Cl. ³) F 24 F E 04 B
A	FR-A-2 407 435 (ALDES) *Page 3, lines 28-38; figures 1,2*	2	
D,A	US-A-2 722 170 (BROBERG) *Column 2, lines 23-58; figures 1,2*	1	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	22-04-1982	PHOA Y.E.

CATEGORY OF CITED DOCUMENTS

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DOCUMENTS CONSIDERED TO BE RELEVANT

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D,A	FR-A-1 100 659 (SVENSKA FLAKTFABRIKEN) *Page 2, abstract; figures 1-3*	1	
A	NL-A-6 602 909 (KNAAP)		

TECHNICAL FIELDS SEARCHED (Int. Cl. ³)

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CATEGORY OF CITED DOCUMENTS

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