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(54) **FAÇADE SLAT FOR DEFLECTING AN AIR FLOW**

FASSADENLAMELLE ZUR ABLENKUNG EINES LUFTSTROMS

LAME DE FAÇADE POUR DÉVIER UN FLUX D'AIR

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Description

Technical field of the invention

[0001] The invention relates to a façade slat for deflecting an air flow comprising two main walls of a dense plate which during use are vertically oriented and are each provided with a lower edge, an upper edge and a first and second side edge, which main walls are connected to each other at the first side edge.

Background of the invention

[0002] Such a façade slat is known from NL1031193A and is intended in particular for deflecting an air flow, such as for example wind, which flows parallel to the façade of a building. Such wind is particularly annoying with door openings in this façade and causes unwanted drafts here. With the known façade slat, one of the main walls is bent and faces the wind side with the hollow side of the opening. The wind flowing along the façade is led away from the façade by the façade slat to reduce annoying air flows at the doorway.

Summary of the invention

[0003] An object of the invention is to improve the known façade slat such that it has a better effect and keeps a door opening substantially free from undesired draft phenomena. To this end, the façade slat according to the invention is characterized in that the second side edges of the main walls are present at a greater distance from each other than the first side edges and between these second side edges a side wall is present formed by wind-leveling mesh, wherein the façade slat has the shape of a wing profile with two curved main walls, the outward facing side of one of the main walls being convex and the outward facing side of the other main wall being hollow, and wherein the façade slat is provided on the first side edges of the main walls with fixing means for fixing the façade slat to a façade. Wind-leveling mesh is here understood to mean mesh with such small grid openings that the wind passing through is slowed down. The façade slat according to the invention is attached to a façade with the first edges next to a door opening. Due to this façade slat, a wind flowing along the façade is guided off the façade by the hollow main wall, whereby the wind is guided through the side wall into the space between the two main walls, thereby preventing annoying air flows at the door opening. Because the wind disappears through the side wall into the façade slat, the pressure on both sides of the façade slat is balanced so that there is no wind demand at the entrance door. The consequence of this is that an entrance door is kept wind-free. Research has shown that placing façade slats according to the invention has a positive effect on the performance of an air curtain in the doorway. Where the air curtain ensures the heating of the air that pene-

trates, the façade slat ensures that the wind does not disturb the operation of the air curtain. This reduces the heating requirement of the building.

[0004] To effectively guide air into the space between the main walls, the side wall in horizontal cross-section preferably has a curved shape, the convex side of which is directed outwards.

[0005] The fastening means preferably comprise a hinge so that the façade slat can be mounted rotatably on a façade and can be turned in a desired angle relative to the façade, depending on the wind direction.

[0006] In order to get the air flowing in the space between the main walls out of the façade slat with minimal resistance, the top and bottom of the façade slat are open.

[0007] For the sake of the stability and sturdiness of the façade slat, transverse links are preferably present between the main walls in the vertical direction at a distance from one another, for example in the form of plates provided with recesses.

Brief description of the drawings

[0008] The invention will be further elucidated below on the basis of drawings. These drawings show an embodiment of the façade slat according to the present invention. In the drawings:

Figure 1 shows an embodiment of the façade slat according to the invention;

Figure 2 shows the façade slat in figure 1 in top view; Figure 3 the façade slat fixed next to a door opening on a façade; and

Figure 4 shows a door opening with a façade slat on either side in top view.

Detailed description of the drawings

[0009] Figures 1 and 2 show an embodiment of the façade slat according to the invention in perspective and top view, respectively. The façade slat 1 has two vertically oriented windproof main walls 3 and 5 which are provided with a lower edge 7, an upper edge 9 and a first and second side edge 11 and 13. These main walls are formed by closed plastic plates and are attached to each other at the first side edge 11. The second side edges 13 of the main walls are spaced apart and between these side edges there is a curved side wall 15 with an air-flow permeable structure formed by a wind-leveling mesh. The convex side of the side wall 15 is oriented outwards. In horizontal cross-section (see figure 2), the façade slat 1 has the shape of a wing profile. The outward facing side of the first main wall 3 being hollow and that of the second main wall 5 is convex. The top side 17 and the bottom side 19 of the façade slat 1 are open to allow the air, that has flown through the side wall 15 into the space 21 between the main walls, to flow out of this space. In the space 21 between the main walls there are reinforcing plates 23

provided with continuous recesses, these plates form transverse connections.

[0010] On the first side edges 11 of the main walls 3 and 5, the façade slat 1 is provided with fixing means for fixing to a façade. These fixing means are formed by a hinge 25 and a fixing strip 27. In figures 3 and 4, the façade slat 1 is attached to a façade 31 next to a door opening 33, shown in perspective and top view, respectively. By means of the hinge 25, the angle of the façade slat 1 with respect to the wall 31 and with respect to the wind direction can easily be adjusted to optimally deflect the wind so that it does not cause any unwanted air movements in the door opening.

[0011] Although the present invention is elucidated above on the basis of the given drawings, it should be noted that this invention is not limited whatsoever to the embodiments shown in the drawings. The invention also extends to all embodiments deviating from the embodiments shown in the drawings within the scope of the invention defined by the appended claims.

Claims

1. Façade slat (1) for deflecting an air flow comprising two main walls (3, 5) of a dense plate which during use are vertically oriented and are each provided with a lower edge (7), an upper edge (9) and a first and second side edge (11, 13), which main walls are connected to each other at the first side edge (11), **characterized in that** the second side edges (13) of the main walls (3, 5) are present at a greater distance from each other than the first side edges (11) and between these second side edges a side wall (15) is present formed by wind-leveling mesh, wherein the façade slat (1) has the shape of a wing profile with two curved main walls (3, 5), the outward facing side of one of the main walls (5) being convex and the outward facing side of the other main wall (3) being hollow, and wherein the façade slat (1) is provided on the first side edges (11) of the main walls (3, 5) with fixing means for fixing the façade slat to a façade (31).
2. Façade slat according to claim 1, **characterized in that** the side wall (15) in horizontal cross-section has a curved shape, the convex side of which is directed outwards.
3. Façade slat according to claim 1 or 2, **characterized in that** the fixing means comprise a hinge (25) so that the façade slat (1) can be rotatably attached to a façade (31).
4. Façade slat according to one of the preceding claims, **characterized in that** the main walls (3, 5) are closed.
5. Façade slat according to one of the preceding

claims, **characterized in that** the side wall (15) is grid-shaped.

6. Façade slat according to one of the preceding claims, **characterized in that** the top side (17) and the bottom side (19) of the façade slat (1) are open.
7. Façade slat according to one of the preceding claims, **characterized in that** transverse links (23) are present between the main walls (3, 5) in the vertical direction at a distance from one another.

15 Patentansprüche

1. Fassadenlamelle (1) zur Ablenkung eines Luftstroms, umfassend zwei Hauptwänden (3, 5) aus dichter Platte, die im Gebrauch vertikal ausgerichtet sind und jeweils eine Unterkante (7), eine Oberkante (9) sowie eine erste und eine zweite Seitenkante (11, 13) aufweisen, wobei die Hauptwände an der ersten Seitenkante (11) miteinander verbunden sind, **dadurch gekennzeichnet, dass** die zweiten Seitenkanten (13) der Hauptwände (3, 5) einen größeren Abstand voneinander aufweisen als die ersten Seitenkanten (11) und zwischen diesen zweiten Seitenkanten eine Seitenwand (15) aus einem Windausgleichsnetz vorhanden ist, wobei die Fassadenlamelle (1) die Form eines Flügelprofils hat mit zwei gekrümmten Hauptwänden (3, 5), wobei die nach außen gerichtete Seite einer der Hauptwände (5) konvex und die nach außen gerichtete Seite der anderen Hauptwand (3) hohl ist, und wobei die Fassadenlamelle (1) an den ersten Seitenkanten (11) der Hauptwände (3, 5) mit Befestigungsmitteln zur Befestigung der Fassadenlamelle an einer Fassade (31) versehen ist.
2. Fassadenlamelle nach Anspruch 1, **dadurch gekennzeichnet, dass** die Seitenwand (15) im horizontalen Querschnitt eine gekrümmte Form aufweist, deren konvexe Seite nach außen weist.
3. Fassadenlamelle nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** die Befestigungsmittel ein Scharnier (25) umfassen, sodass die Fassadenlamelle (1) drehbar an einer Fassade (31) befestigt werden kann.
4. Fassadenlamelle nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Hauptwände (3, 5) geschlossen sind.
5. Fassadenlamelle nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Seitenwand (15) gitterförmig ist.

6. Fassadenlamelle nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Oberseite (17) und die Unterseite (19) der Fassadenlamelle (1) offen sind.
7. Fassadenlamelle nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** zwischen den Hauptwänden (3, 5) in vertikaler Richtung im Abstand voneinander Querverbindungen (23) vorhanden sind.

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7. Lamelle de façade selon l'une des revendications précédentes, **caractérisée en ce que** des liaisons transversales (23) sont présentes entre les parois principales (3, 5) dans le sens vertical, à distance les unes des autres.

Revendications

1. Lamelle de façade (1) destinée à dévier un flux d'air, comprenant deux parois principales (3, 5) constituées d'une plaque dense, orientées verticalement en utilisation et dotées chacune d'un bord inférieur (7), d'un bord supérieur (9) et de deux bords latéraux (11, 13), ces parois étant reliées entre elles par le premier bord latéral (11), **caractérisée en ce que** les deuxièmes bords latéraux (13) des parois principales (3, 5) sont plus éloignés l'un de l'autre que les premiers bords latéraux (11), et entre ces derniers se trouve une paroi latérale (15) formée d'un treillis niveleur, par lequel la lamelle de façade (1) présente la forme d'une aile avec deux parois principales (3, 5) incurvées, le côté extérieur de l'une des parois principales (5) étant convexe et le côté extérieur de l'autre paroi principale (3) étant creux, et par lequel la lamelle de façade (1) est disposée sur les premiers bords latéraux (11) des parois principales (3, 5) avec moyens de fixation pour fixer la lamelle de façade à une façade (31).
2. Lamelle de façade selon la revendication 1, **caractérisée en ce que** la paroi latérale (15) en section horizontale présente une forme incurvée, dont le côté convexe est dirigé vers l'extérieur.
3. Lamelle de façade selon la revendication 1 ou 2, **caractérisée en ce que** les moyens de fixation comprennent une charnière (25) permettant de fixer la lamelle de façade (1) de manière rotative à une façade (31).
4. Lamelle de façade selon l'une des revendications précédentes, **caractérisée en ce que** les parois principales (3, 5) sont fermées.
5. Lamelle de façade selon l'une des revendications précédentes, **caractérisée en ce que** la paroi latérale (15) est en forme de grille.
6. Lamelle de façade selon l'une des revendications précédentes, **caractérisée en ce que** les faces supérieure (17) et inférieure (19) de la lamelle de façade (1) sont ouvertes.

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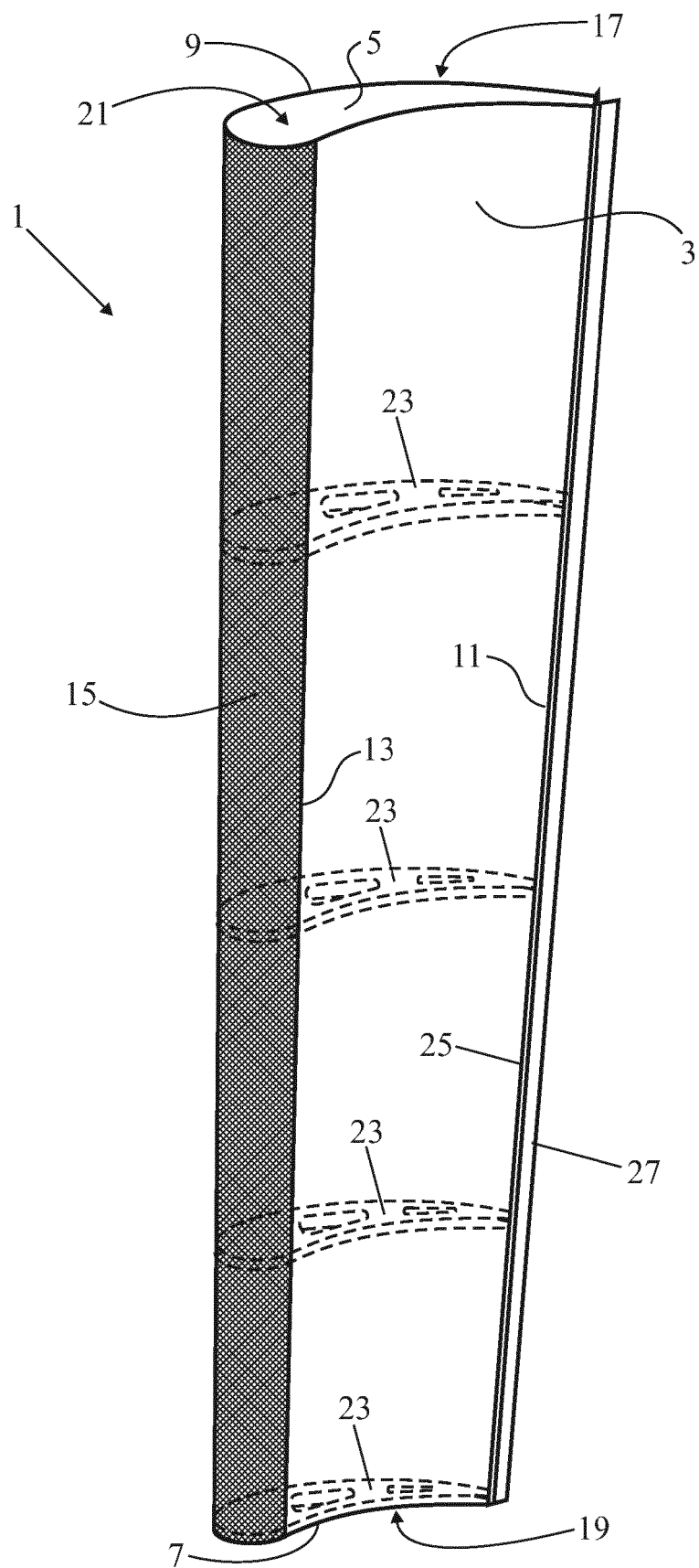


FIG. 1

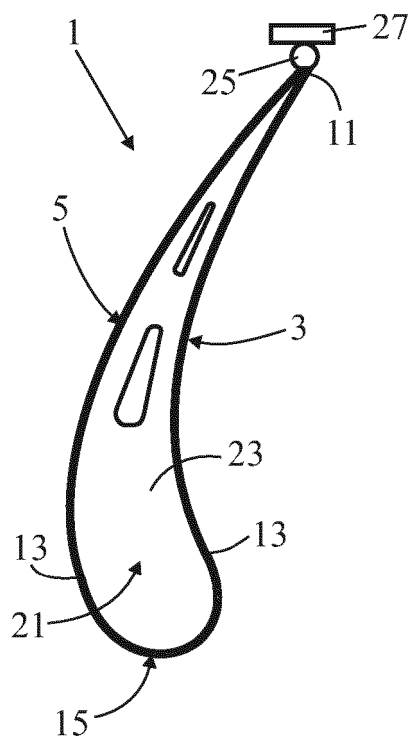


FIG. 2

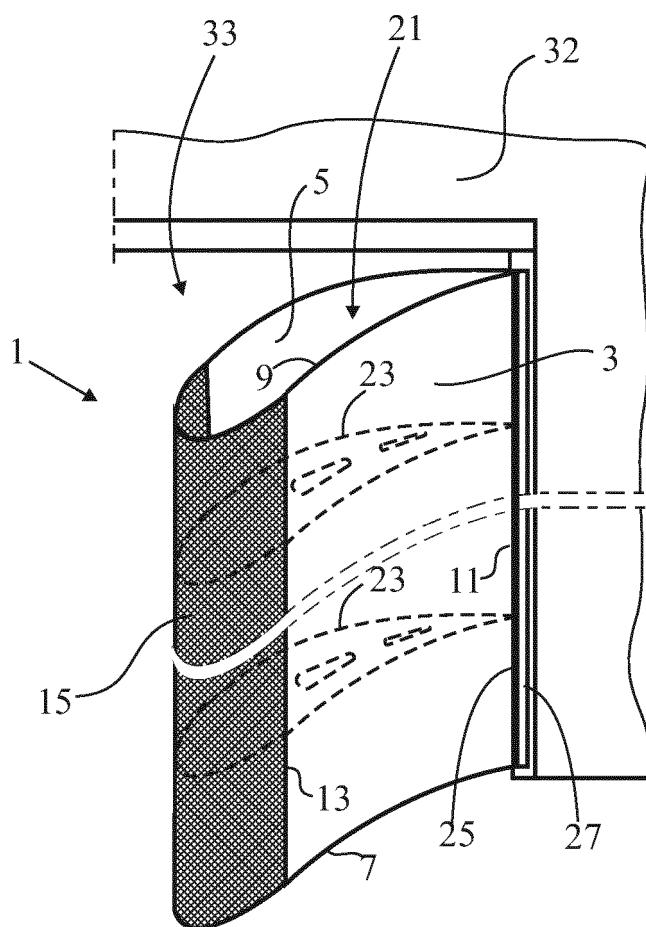


FIG. 3

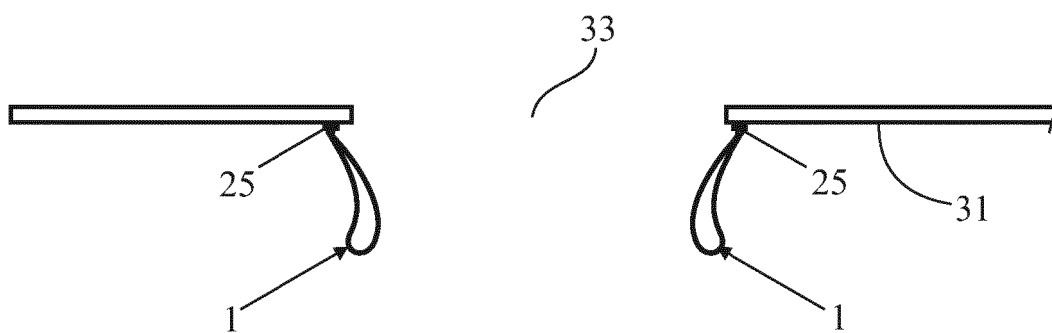


FIG. 4

REFERENCES CITED IN THE DESCRIPTION

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