

(19)



(11)

EP 2 649 380 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention
of the grant of the patent:

27.06.2018 Bulletin 2018/26

(51) Int Cl.:

F24F 7/06 (2006.01)

(21) Application number: **11847058.2**

(86) International application number:

PCT/FI2011/051045

(22) Date of filing: **25.11.2011**

(87) International publication number:

WO 2012/076748 (14.06.2012 Gazette 2012/24)

(54) **ACCESSORY FOR AN EXHAUST VENTILATION PIPE**

ZUBEHÖR FÜR EIN ABGASLÜFTUNGSROHR

ACCESSOIRE POUR SORTIE DE TUBE D'ÉCHAPPEMENT DE VENTILATION

(84) Designated Contracting States:

**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR**

(72) Inventor: **SAIKKONEN, Eero**

FI-65370 Vaasa (FI)

(30) Priority: **09.12.2010 FI 20106307**

(74) Representative: **Seppo Laine Oy**

Itämerenkatu 3 B

00180 Helsinki (FI)

(43) Date of publication of application:

16.10.2013 Bulletin 2013/42

(56) References cited:

DE-A1- 2 431 064 DE-C1- 10 118 226

US-B2- 7 682 231

(73) Proprietor: **SK Tuote Oy**

65610 Mustasaari (FI)

EP 2 649 380 B1

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

Description

[0001] This invention concerns an exhaust ventilation pipe, which exhaust ventilation pipe comprises an exhaust pipe of a ventilation channel, provided with a hat and extending through an outer roof of a building, the upper part of the hat being provided with a conical cup preventing rain water from entering the ventilation channel.

[0002] Installation of such an exhaust pipe provided with a hat into a vertical position at an inclined roof causes often problems, resulting in that the installed exhaust pipe often leans in some direction.

[0003] Document DE 10118226 C1 discloses a ventilator having a casing with an upper conical cover. The lower part of the casing contains a radial rotatable running wheel. The casing has a vertical flow channel with a flow-operated closing device in the form of an annular closing cap round the upper cover of the casing.

[0004] The object of the present invention is to eliminate such a problem, which is achieved by the features as claimed in claim 1. Due to this an installer sees immediately without any other accessories, when the exhaust pipe is vertical, which considerably facilitates and fastens the installation.

[0005] The exhaust pipe provided with a hat comprises preferably an extractor, the electric motor and propeller of which are positioned in the hat of the exhaust pipe below the conical cup. The exhaust pipe is preferably thermally insulated.

[0006] In the following the invention will be described in more detail with reference to the drawing, wherein

Fig. 1 shows a perspective view of an example of an exhaust ventilation pipe being provided with an accessory according to the invention.

Fig. 2 an enlargement of region A of Fig. 1, and

Fig. 3 shows a top view of an exhaust ventilation pipe according to Fig. 1.

[0007] The exhaust ventilation pipe according to the drawing is a roof extractor having a hat 2 mounted onto the end of an exhaust pipe 1, in which hat 2 below a conical cup 3 an electric motor and a propeller (not shown) of the extractor is mounted. An inner pipe 4 of the exhaust pipe 1 is intended to protrude through an outer roof of a building and it is intended to be attached to a ventilation channel under the roof. By means of a pass-through device matching with the shape of the roofing of the outer roof and having a ball shaped collar part, the inner pipe 4 of the exhaust pipe will tightly be led through the roof, when the bottom end of the outer mantle of the exhaust pipe 1 is provided with a ball shaped enlargement piece 5 adaptable onto said collar part.

[0008] A circular spirit lever 6 is integrated on the top of the conical cup 3 in the hat 2, by means of which an installer easily sees, when said exhaust ventilation pipe is in quite a vertical position, i.e. when the glass pearl of

the spirit level is in the middle of the spirit level.

[0009] The diameter of said conical cup 3 is smaller than the inner diameter of the hat 2, so that an annular slot is formed between the wall of the hat and the cup, through which rain water can flow down onto a conical collar 8 fastened by supporting arms 7 to the side wall of the hat 2, from which collar 8 the water flows out of the hat 2. The conical cup 3 is fastened to the side wall of the hat 2 by fastening ribs 9.

[0010] In the drawing also a cable 10 coupled to the electric motor of the extractor can be seen.

Claims

1. An exhaust ventilation pipe, which exhaust ventilation pipe comprises an exhaust pipe (1) of a ventilation channel, provided with a hat (2) and extending through an outer roof of a building, the upper part of the hat (2) being provided with a conical cup (3) preventing rain water from entering the ventilation channel, **characterized in that** it further comprises a circular spirit level (6) integrated on the top of the conical cup (3) in the hat (2).
2. The exhaust ventilation pipe according to claim 1, **characterized in that** the exhaust ventilation pipe is a roof extractor further comprising an electric motor and a propeller of the extractor, said electric motor and said propeller being mounted below the conical cup (3) of the hat (2).

Patentansprüche

1. Abgasentlüftungsrohr, wobei das Abgasentlüftungsrohr ein Abgasrohr (1) eines Entlüftungskanals umfasst, das mit einem Hut (2) versehen ist und sich durch ein Außendach eines Gebäudes erstreckt, wobei der obere Teil des Hutes (2) mit einer konischen Schale (3) versehen ist, die das Eindringen von Regenwasser in den Entlüftungskanal verhindert, **dadurch gekennzeichnet, dass** es ferner eine kreisförmige Wasserwaage (6) umfasst, die auf der Oberseite der konischen Schale (3) in den Hut (2) integriert ist.
2. Abgasentlüftungsrohr nach Anspruch 1, **dadurch gekennzeichnet, dass** das Abgasentlüftungsrohr ein Dachextractor ist, der ferner einen Elektromotor und einen Propeller des Extractors umfasst, wobei der Elektromotor und der Propeller unterhalb der konischen Schale (3) des Hutes (2) montiert sind.

Revendications

1. Tuyau de ventilation d'échappement, lequel tuyau

de ventilation d'échappement comprend un tuyau d'échappement (1) d'un canal de ventilation, pourvu d'un chapeau (2) et s'étendant à travers un toit extérieur d'un bâtiment, la partie supérieure du chapeau (2) étant pourvue d'une coupelle conique (3) empêchant l'eau de pluie d'entrer dans le canal de ventilation, **caractérisé en ce qu'il** comprend en outre un niveau à bulle circulaire (6) intégré sur le haut de la coupelle conique (3) dans le chapeau (2).

5

10

2. Tuyau de ventilation d'échappement selon la revendication 1, **caractérisé en ce que** le tuyau de ventilation d'échappement est un extracteur de toit comprenant en outre un moteur électrique et une hélice de l'extracteur, ledit moteur électrique et ladite hélice étant montés sous la coupelle conique (3) du chapeau (2).

15

20

25

30

35

40

45

50

55

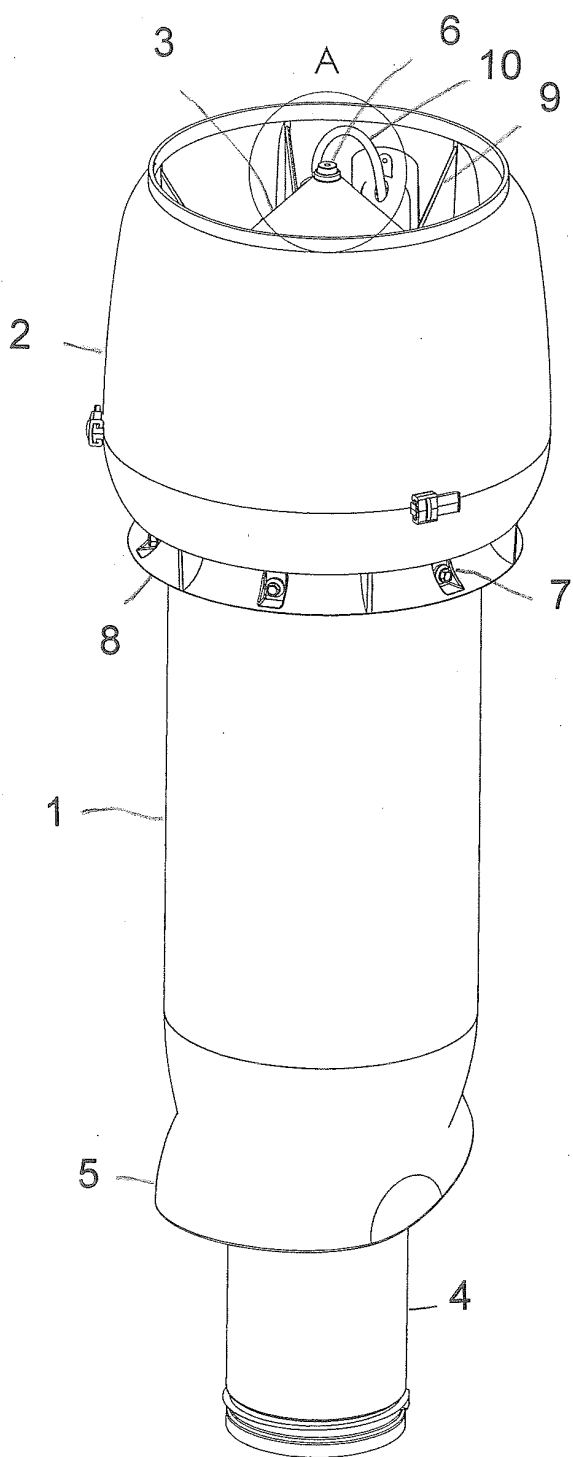


Fig. 1

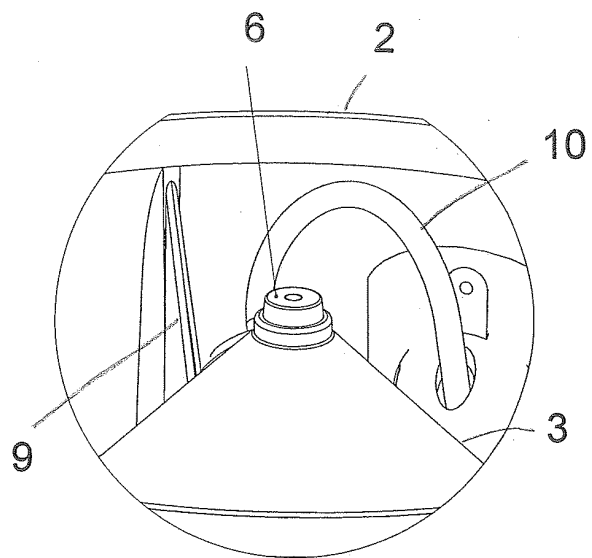


Fig. 2

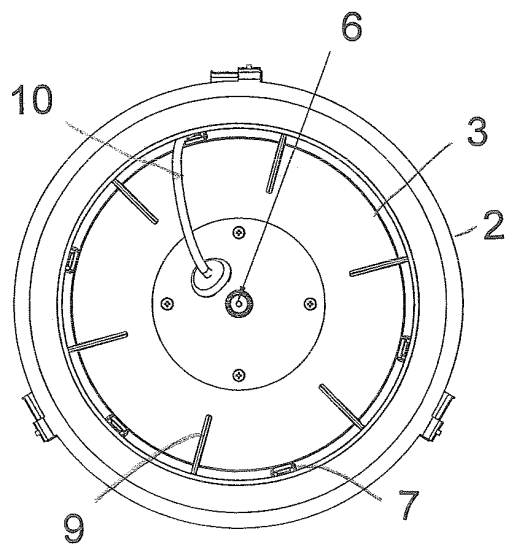


Fig. 3

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- DE 10118226 C1 [0003]