

(12) **EUROPEAN PATENT APPLICATION**

(21) Application number: **90200184.1**

(51) Int. Cl.⁵: **E04D 13/04, E04D 13/15**

(22) Date of filing: **25.01.90**

(30) Priority: **26.01.89 NL 8900186**

(43) Date of publication of application:
01.08.90 Bulletin 90/31

(84) Designated Contracting States:
AT BE CH DE FR GB LI LU NL

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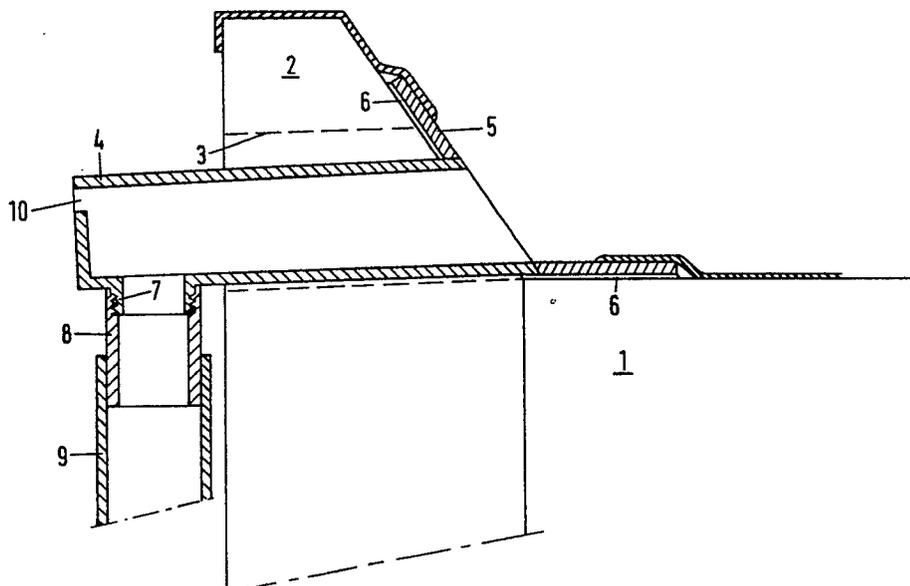
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(54) **A device for providing a substantially flat roof with rainwater drainage.**

(57) The roof (1) has a cantboard (2) or the like, using a metal mounting plate (5) with a discharge stub (7), and with a spout (4) connected to said plate

(5). The underside of the spout (4) is provided at its end remote from the plate with an opening to which a drain, e.g. a rainwater pipe (9), can connect.



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A device for providing a substantially flat roof with rainwater drainage

The invention relates to a device for providing a substantially flat roof with rainwater drainage, said roof having a cantboard or the like, using a metal mounting plate with a discharge stub, and with a spout connected to said plate.

In the hitherto known method of providing drain, an obstacle, such as a cantboard or the like, passed by first piercing the obstacle, then inserting a drain pipe through the hole, after which the respective end is soldered to a mounting plate, which is subsequently secured to the roofing of lead or like material by means of a bituminous product. This known method, described for example in Bouwwereld, Vol. 77 (1981), Jan., No. 3, p. 377, Doetinchem, the Netherlands, has the drawback of requiring a plumber, who carries out the required soldering work in situ.

It is an object of the present invention to remove this drawback.

To that end, a device of the above described type is characterized in that the spout, at the end remote from the plate, is provided with an opening to which a drain, e.g. a rainwater pipe, can connect.

In the construction according to the present invention, use is made of an industrially manufactured, and hence reliable, drain, which for the rest can be connected to the roofing in known manner by adhesion by means of a bituminous product, e.g. mastic.

In a further elaboration of the present invention, the end of the spout opposite the mounting plate can be provided on its underside with a discharge stub to which a connecting tube can be coupled by means of a bayonet fit.

The device according to the present invention is further completed in that the end of the spout remote from the mounting plate is provided with an overflow, enabling one to establish immediately from the outside that the spout is clogged or threatens to be clogged.

It is observed, for that matter, that French patent 1,043,063 discloses per se a concrete structure adapted to discharge water from a substantially flat roof comprising a cantboard, said structure including a spout provided at its one end, on the underside, with a discharge stub. The latter, however, is so large that the spout cannot be fitted through the opening in the cantboard without more ado.

One embodiment of the present invention will now be described, by way of example, with reference to the accompanying drawing, showing a cross section of a spout construction.

As shown in the drawing, a spout construction is provided on a roof 1 having a cantboard or

upright rim 2. Cantboard 2 has a passage 3 therein, through which a spout has been inserted, which spout is fitted with a mounting plate 5. Plate 5 is attached to the roof 1, and to the cantboard (2), by means of mastic or like bituminous product 6, which for the sake of clarity is not cross-hatched in the figure.

At its outwardly projecting end, the spout is provided with a discharge stub 7, which is connected to the spout 4 by means of soldering. Stub 7 is provided at its outer end with a rim shaped to cooperate in the manner of a bayonet catch with a complementary end of a pipe member 8 connecting in known manner to a rainwater pipe or downcomer 9. The roof and a part of the mounting plate, as well as cantboard 2 are covered in known manner with rubberoid or like material 10.

At its outwardly projecting end, the spout 4 is further provided with an overflow, so that it may easily be seen when there is a stoppage.

The device described has the advantage that no soldering work is necessary on the roof, which not only results in a substantial saving in time but moreover in that the existing weld seams are not affected by any welding or soldering operation. It is observed in this respect that during the welding of lead, no use is made of an adhesive as an intermediary between the lead of the roof and the lead of the drain pipe, but that now lead is connected directly with lead by liquefying the rims to be connected.

The fitting of the discharge stub in the opening on the underside of the spout can be effected in a simple manner by providing lead pellets in the slit between the spout and the discharge stub and heating these, so that the slit to be welded is provided automatically, i.e. through hygroscopic action, with liquid lead, thereby producing an excellent "weld seam".

It has meanwhile been found that the construction according to the present invention provides a saving of about 60 guilders per drain.

Claims

1. A device for providing a substantially flat roof with rainwater drainage, said roof having a cantboard or the like, using a metal mounting plate with a discharge stub, and with a spout connected to said plate, characterized in that the underside of the spout is provided at its end remote from the mounting plate with an opening to which a drain, e.g. a rainwater pipe, can connect.

2. An apparatus as claimed in claim 1, char-

acterized in that the end of the spout opposite the mounting plate is provided on its underside with a discharge stub to which a connecting pipe can be coupled by means of a bayonet fit.

3. An apparatus as claimed in claim 2, characterized in that the end of the spout opposite the adhesive plate is provided with an indicator overflow.

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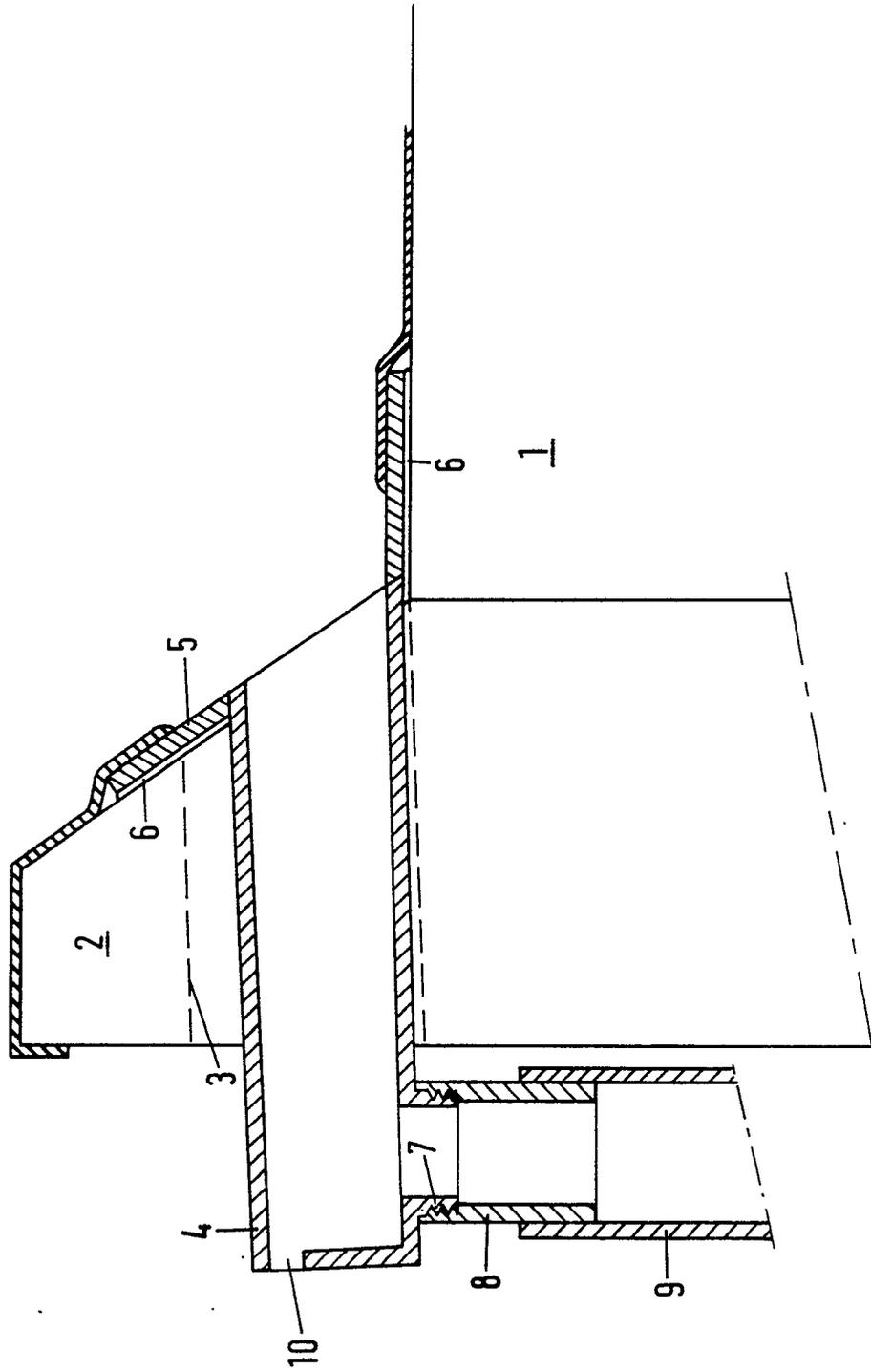
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y,D	FR-A-1 043 065 (MOURGEON) * Page 2, column 2, last paragraph; page 3, column 1, paragraph 1; figure 12 *	1	E 04 D 13/04 E 04 D 13/15
A	---	2,3	
Y,D	BOUWWERELD, vol. 77, no. 3, 30th January 1981, page 53, Groep Bouwnijverheid B.V., Doetinchem, NL; C. MISSET: "Produkt & Produkttoepassing", "Roestvrijstalen dakafvoeren"	1	
A	US-A-3 701 548 (McGUIRE) * Column 1, lines 5-35; figures 1-4 *	2	
A	DE-A-3 105 504 (PRIMUS) * Page 8, last paragraph; page 9, paragraphs 1,2; fiugres 1,2,3 *	1,2	
A	NL-A-6 809 733 (UBBINK) * Page 3, lines 21-26; figures 1,4 *	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			E 04 D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 02-05-1990	Examiner HENDRICKX X.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	