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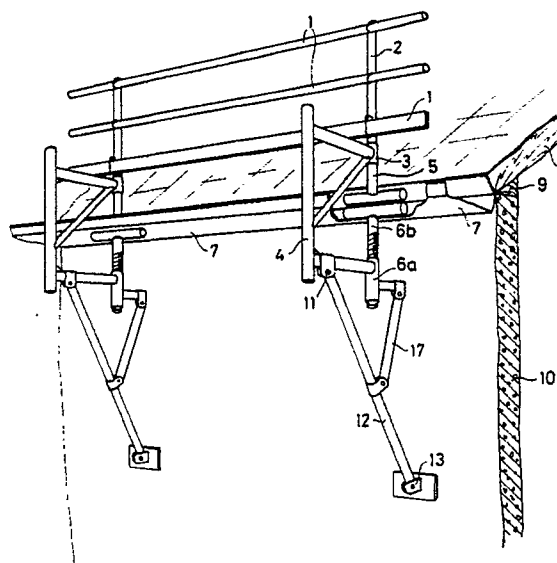
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54 **Fall guard for a roof.**

57 A fall guard for a roof, comprising a number of clamping constructions which are to be clamped on the roof gutter and which each consist of an upper clamping member (5) and a lower clamping member (6). At least one of these clamping members is adjustable in the vertical direction. An upright (2) for attaching restraining means (1) is connected to each clamping construction. A very rugged attachment of the fall guard to a roof gutter can be obtained if both clamping members (5, 6) of one clamping construction are fitted to a bracket (4) which is intended to engage around the roof gutter in such a way that the clamping members grip on the bottom of the gutter.

fig-1



EP 0 417 355 A1

FALL GUARD FOR A ROOF.

The invention relates to a fall guard for a roof, provided with a number of clamping constructions which are to be clamped on the roof gutter and consist of an upper clamping member and a lower clamping member, at least one of which clamping members is adjustable in the vertical direction, and an upright connected to each clamping construction for attaching restraining means.

A fall guard of this type is known from BE-A-885504.

In everyday practice of laying and repairing roofs there is a need for a fall guard which is easy and quick to fit and dismantle and which restrains the people working on the roof should they be in danger of falling from the roof.

It is true that the construction according to the said Belgian patent specification can be fitted and dismantled rapidly, but this construction leaves something to be desired with regard to the required ruggedness. The upper clamping member of each clamping construction consists of a hook which engages over a raised edge of the roof gutter and the lower clamping member is constructed in the form of a clamping arm which is adjustable along the upright and can be clamped by means of a bolt with a butterfly nut. Under heavy load, for example because a person falls against the restraining means at fairly high speed, there is a risk that the raised gutter edge will tear away. Moreover, this construction is suitable only for a specific shape of roof gutter (with a vertical raised edge).

The aim of the invention is to avoid these disadvantages and for this purpose the fall guard mentioned in the preamble is characterized according to the invention in that both clamping members of each clamping construction are fitted to a bracket which is intended to engage around the roof gutter in such a way that the clamping members grip on the bottom of the gutter.

Preferably, each upright is fixed to the upper part of a bracket.

It would be possible for the adjustable clamping member to consist of a hydraulic cylinder or a lever construction. However, it is simpler to construct the adjustable clamping member in the form of a screwed bush attached to the bracket and a screwed spindle screwed therein.

It is known to provide the fall guard with a supporting leg which is fitted under the clamping construction and can be made to grip on the wall beneath the roof gutter. According to the invention this supporting leg is connected at its top end to the bracket in a hinged manner, while an intermediate leg is connected in a hinged manner both to the supporting leg and to a spacer attached to the

bracket.

The invention will now be explained with the aid of the figures, in which an illustrative embodiment is drawn.

5 Figure 1 shows a perspective view of a roof balustrade according to the invention.

Figure 2 shows a side view of the balustrade shown in Figure 1, partially in cross section.

10 The balustrade shown comprises girders 1 which are attached or coupled to two uprights 2. Each upright is attached at 3 to a bracket 4. This bracket 4 connects two clamping members 5 and 6 and extends around a roof gutter 7 of a sloping roof 8. This roof rests via a wall plate 9 on a wall 10. The upper clamping member 5 is not adjustable but, on the other hand, the lower clamping member is provided with a screwed spindle 6a which is screwed into a screwed bush 6b firmly connected to the bracket 4.

20 At 11, the bracket 4 has a hinged connection to a supporting leg 12, the lower end of which is supported against the wall 10 via a hinged foot 13. The screwed bush 6a is also connected to a horizontal spacer 14, which is supported against the wall 10. This spacer 14 is connected via two hinged couplings 15, 16 and an intermediate leg 17 to the supporting leg 12. In certain cases the spacer 14 can be omitted.

30 It will be clear that the clamping constructions described can be brought into the desired position quickly and easily by moving the clamping construction over the outer edge of the roof gutter 7, starting from the position of the screwed spindle 6b, there being sufficient gap between this spindle and the clamping member 5. The screwed spindle can then be screwed into its bush in such a way that the clamping position shown is produced. After positioning of the clamping constructions, uprights 2 and girders 1 are fitted. Various modifications are possible within the framework of the invention.

Claims

45 1. Fall guard for a roof, provided with a number of clamping constructions which are to be clamped on the roof gutter and consist of an upper clamping member (5) and a lower clamping member (6), at least one of which clamping members is adjustable in the vertical direction, and an upright (2) connected to each clamping construction for attaching restraining means (1), characterized in that both clamping members (5, 6) of each clamping construction are fitted to a bracket (4) which is intended to engage around the roof gutter in such a

way that the clamping members grip on the bottom of the gutter.

2. Fall guard according to Claim 1, characterized in that each upright (2) is fixed to the upper part of a bracket (4).

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3. Fall guard according to Claim 1 or 2, characterized in that the adjustable clamping member comprises a screwed bush (6a) attached to the bracket (4) and a screwed spindle (6b) screwed into said bush.

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4. Fall guard according to one of the preceding claims, with a supporting leg which is fitted under the clamping construction and can be made to grip on the wall beneath the roof gutter, characterized in that the supporting leg (12) is connected at its top end to the bracket (4) in a hinged manner, while an intermediate leg (17) is connected in a hinged manner both to the supporting leg (12) and to a spacer (14) attached to the bracket.

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fig-1

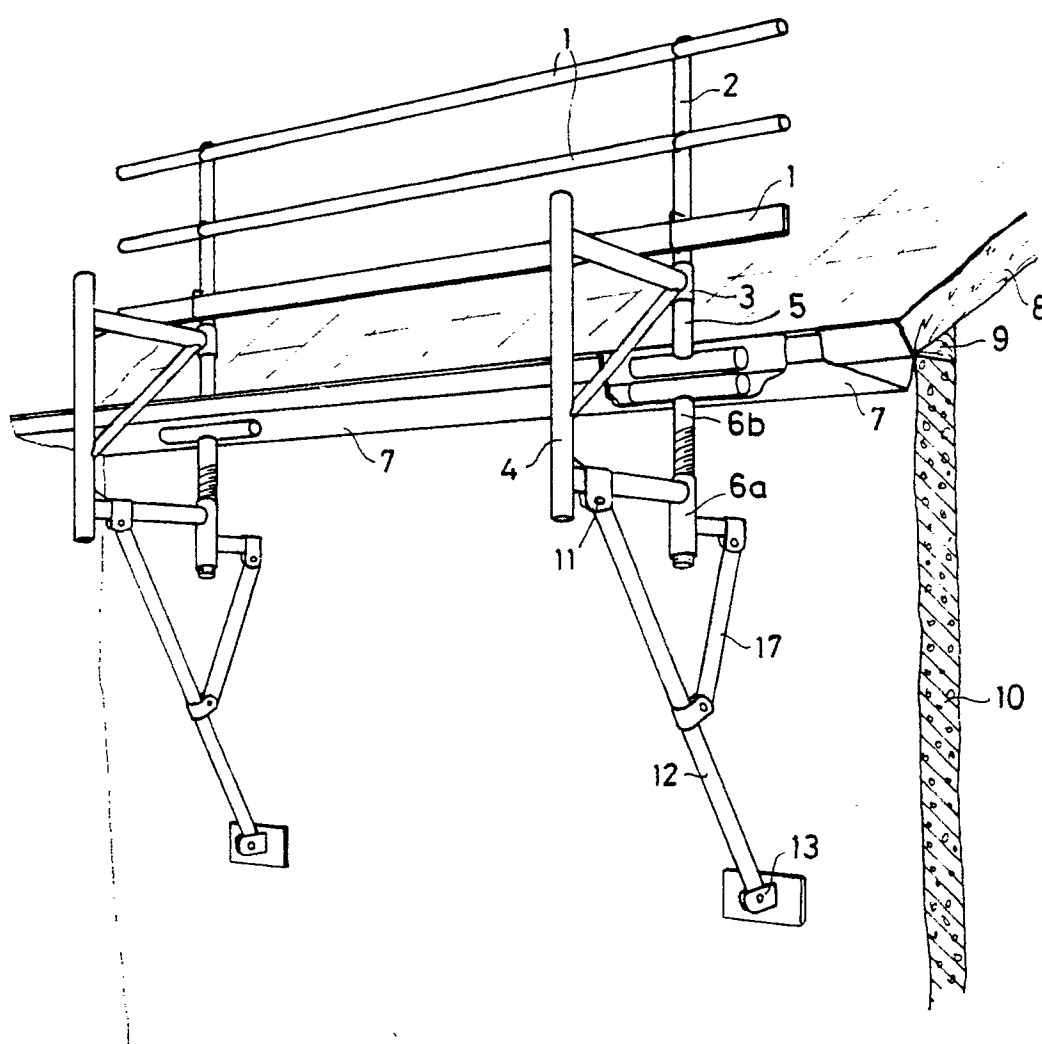
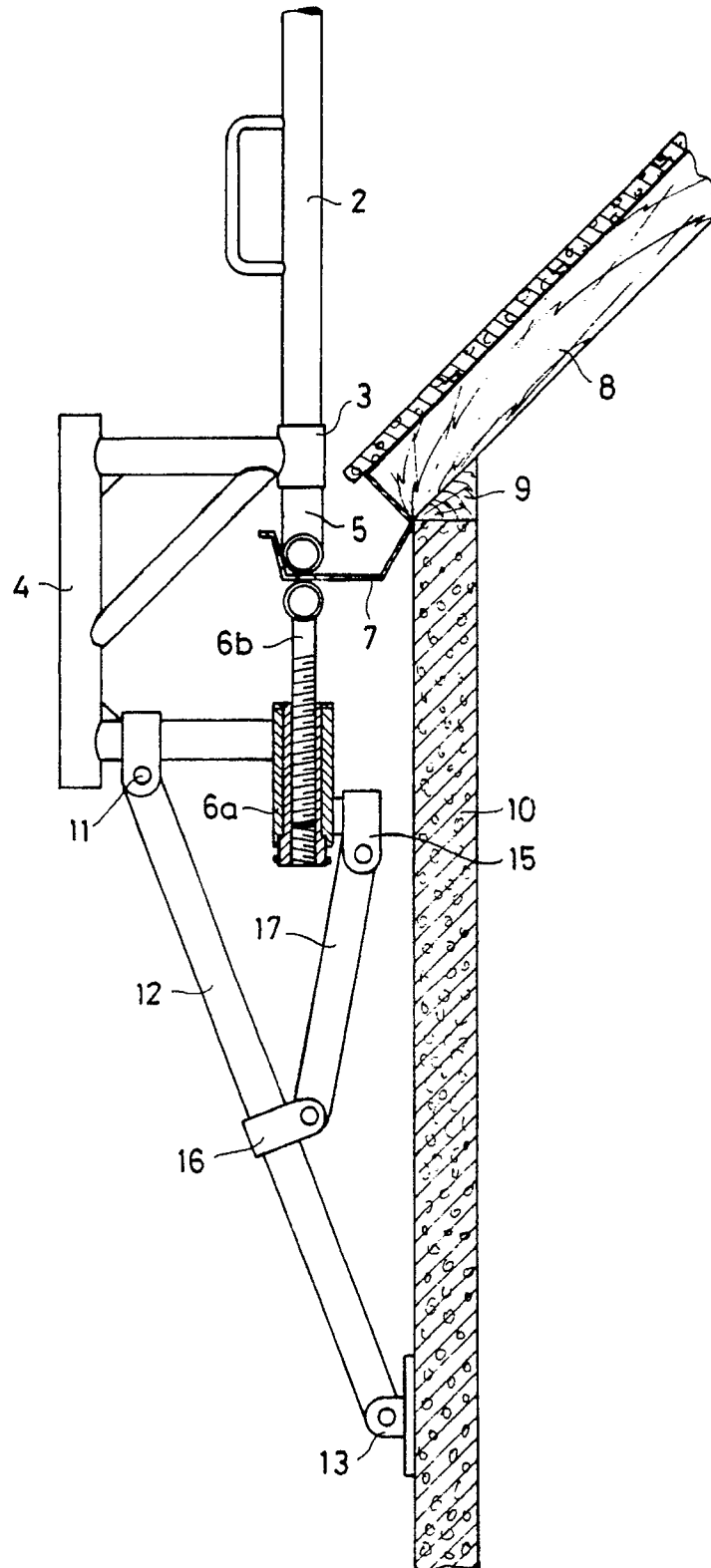


fig - 2





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EUROPEAN SEARCH REPORT

Application Number

EP 89 20 2330

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)
D, A	BE-A- 855 504 (DEMEYERE) ----		E 04 G 21/32
A	DE-C- 392 391 (MILLER) ----		
A	US-A-4 143 743 (LARSON) ----		
A	US-A-3 910 380 (NAMECHE) -----		
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			E 04 G E 06 C
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 11-05-1990	Examiner VIJVERMAN W.C.
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			