Abstract: A suspended working scaffold is mounted along the eaves (12) of a roof by mounting and fastening a number of separate scaffolds on the roof with hinge joints (21) and swinging them past the eaves. Then, catwalks (37) are coupled between the catwalks (13) of the scaffolds in such a manner that a continuous catwalk is obtained along the eaves.

Title: A METHOD OF MOUNTING A SUSPENDED SCAFFOLD
A METHOD OF MOUNTING A SUSPENDED SCAFFOLD

Area of the invention
The invention relates to a method for mounting a suspended working scaffold along the eaves (12) of a roof.

Background of the invention
When repairing roofs, a scaffold is constructed today along the entire facade from the ground also for city buildings which are many stories high. The scaffold must remain during the entire roof repair for safety reasons.

AT 167012 and US 1442697 show pivotable suspended scaffolds which are mounted on the roof for work on a short part of the eaves.

Object of the invention
A goal of the invention is to rapidly and economically mount a scaffold along the eaves in order to simplify and render more economical repair work on the eaves and/or on the entire roof.

Short description of the invention
A suspended working scaffold is mounted along the eaves of a roof by mounting and fastening a number of separate scaffolds to the roof with hinge joints and to swing them past the eaves. Then, catwalks are coupled between the catwalks of the scaffolds so that a continuous catwalk is obtained alongside the eaves. Even if the building is long, it is possible to readily obtain a scaffold along the entire eaves. The invention is defined by the claims.

Short description of the drawings, which show an example of the invention
Figure 1 shows a mounted, individual, suspended scaffold.

Figure 2 shows a roof fastener for the suspended scaffold according to figure 1.

Figure 3 shows the suspended scaffold according to figure 1 while being mounted.

Figure 4 is a side view of the mounted suspended scaffold according to figure 1.

Figure 5 shows a finished suspended scaffold mounted according to the invention.
Description of the example shown

Figure 1 schematically shows a part of a building with wall 10 and roof 11 with eaves 12. A suspended building scaffold comprises two fasteners 14, 15 fastened to the roof and each one supports the same kind of support unit 16, 17 which comprises stands 18, 19 in which a catwalk 13 rests and is fixed by screws, that is, the catwalk is fastened to and coupled between the support units.

The support units 16, 17 are identical and the support unit 16 is shown in a side view in figure 4. A bar 20 is fastened by a hinge joint 21 in fastener 14 and it has a vertical part 22 which supports the stand 18. The stand 18 comprises a vertical square tube 25 into which the vertical part 22 of the bar is telescopically inserted and fixed with screws. The stand 18 comprises a horizontal part 26 which extends out from the eaves and carries a vertically upright part 27 which supports a protective railing carrier 28 with fasteners 29 for a protective rail which is not shown. The angle between the bar 20 and its vertical part 22 can be adjusted with a link 30 fastened in a movable sleeve 31 on the the bar. The stand 18 therefore has a U-shaped form with an inner shank 25 and an outer shank 27. The inner shank 25 of the stand 18 has an extension 32 with a fastener 33 with which the stand can be screwed to the eaves, and the horizontal part 26 of the stand has a telescopically mounted and fixed support 24 which is supported against the house wall. The stand can of course be supported and fixed in a different manner than the one shown. The catwalk 13 advantageously consists of folded sheet metal with a U-shaped cross section and fits in the stands 18, 19 and it is stable in spite of being light. The stands 18, 19 comprise protective rail supports 28 with fasteners 29 for rails, such as two-by-four, making up the protective rail.

The building scaffold shown in figure 1 is made ready on the roof with fasteners 14, 15 mounted in the roof and the bars extending upward along the roof as shown in figure 3. The scaffold is then swung down to its working position shown in figure 1. It can be advantageous to use lines or possibly a winch in order to control the swinging. This is repeated so that individual scaffolds are obtained at an interval from one another all along the eaves. Then, the catwalks 13 of the separate scaffolds are coupled together with intermediate catwalks 37 which advantageously
consist of folded sheet metal and have a U-shaped section that fits with an overlap into the catwalks 13, and the protective rail is mounted along the entire scaffold by placing two-by fours in the fasteners 29 of the protective rail supports. In this way a continuous building scaffold can be obtained in a simple manner all along the entire eaves, as is shown in figure 5. The protective rails are not shown in the figures. When the eaves is being repaired, a protective rail can be mounted on the eaves, e.g. on a newly mounted on-roof gutter 40 if the remainder of the roof is to be repaired. Then, the entire scaffold can be dismounted in reverse order before the work begins on the rest of the roof.

The suspended individual scaffold shown in figures 1-4 with its catwalk is only an example which can be modified within the scope of the patent claims.

The bars 20 and their vertical parts 22 can be removed, as is apparent from figure 5, in order to facilitate the work on the roof and the eaves, e.g. when the on-roof gutter 40 is to be replaced. The fasteners 14, 15 are to be mounted above the sheet metal with the old on-roof gutter and the sheet metal with the old stand groove is first removed and angle-irons 41 are fastened in the roof in which angle-irons the fasteners 33 can be anchored against the eaves before the bars 20, 22 are removed. These angle-irons 41 can then remain under the new sheet metal as is shown in figure 4. Figure 2 shows the fastener 14, which is bent and has a hole in the shape of a keyhole 42 in order to be able to be fastened on a screw 43. This screw 43 can possibly permanently remain. In case a new sheet metal roof is mounted, a hood 44 can be made over the screw 43 and this hood then functions as a ventilation for the roof. In the case of a tile roof, the screw can remain under the tile. Once the screws 43 and the angle-irons 41 are permanently mounted, one can simply remount a building scaffold whenever required by introducing the key-hole 42 of the fasteners 14 in under the hood 44. In the case of a new production, screws 43 and angle-irons 41 can be mounted in order to obtain permanent fasteners for mounting a building scaffold.

In order to be able to remove the building scaffold, the bars 20, 22 are remounted, the intermediate catwalks 37 taken away and the fasteners 33 are loosened, and thereafter the individual scaffolds can be swung up on the roof and demounted.
Claims

1. Method for mounting a suspended working scaffold along the eaves (12) of a roof, characterized in that a number of separate working scaffolds are mounted and fastened on the roof which have catwalks (13) with hinge joints (21) and are swung past the eaves, and then catwalks (37) are coupled between the catwalks (13) of the scaffolds so that a continuous catwalk is obtained along the eaves.

2. Method according to Claim 1, characterized in that the separate scaffolds are made ready on the roof in such a manner that they comprise two support units (16, 17), each of which comprises a bar (20, 22) which supports a stand (18, 19) for a catwalk (13) coupled between the stands and extends up along the roof and is fastened with a hinge joint (21) to the roof.

3. Method according to Claim 2, characterized in that stands (18, 19) with a U-shape are used which couple the bars (20, 22) to the inner shanks (25) of the stands and protective rails to the outer shanks of the stands.

4. Method according to Claim 2 or 3, characterized in that catwalks (13) of folded sheet metal with a U-shaped cross section are used.

5. Method according to anyone of the preceding claims, characterized in that intermediate catwalks (37) are coupled to the catwalks (13) of the separate scaffolds by using intermediate catwalks which fit into the catwalks of the separate scaffolds and are placed into them with overlap.

6. Method according to Claim 2, characterized in that the stands (18, 19) are anchored in the eaves and the bars (20, 22) are demounted, and then the bars are remounted and the anchorings loosened when the scaffolds are to be swung back up on the roof.

7. Method according to Claim 6, characterized in that permanent fastenings (41) are mounted in the eaves in which the stands (18, 19) can be anchored.
8. Method according to Claim 7, characterized in that the permanent fasteners (41) in the eaves are anchored in the roof.

9. Method according to one of the previous claims for renovating an entire roof, characterized in that the eaves is repaired and a protective rail is mounted on it, and thereafter the entire working scaffold is demounted before the roof is renovated.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC: see extra sheet

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: E04G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE, DK, FI, NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, PAJ, WPI data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<td>US 5664391 A (BARTHOLOMEW PAUL F), 9 September 1997 (1997-09-09); abstract; column 1, line 8 - line 12; column 5, line 50 - column 7, line 62; figures 2A-6</td>
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Further documents are listed in the continuation of Box C.

See patent family annex.

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Date of the actual completion of the international search 30-03-2016

Date of mailing of the international search report 01-04-2016

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International Patent Classification (IPC)

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