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54 **Rock drilling rig.**

57 Rock drilling rig provided with a two part feed beam (4,6). The rig is provided with a drill guide (12) formed as gripping tongs for a drill rod (10) on one of the feed beams (6) whereas the other feed beam (4) is provided with a pad (17) to be applied against a rock face (15).

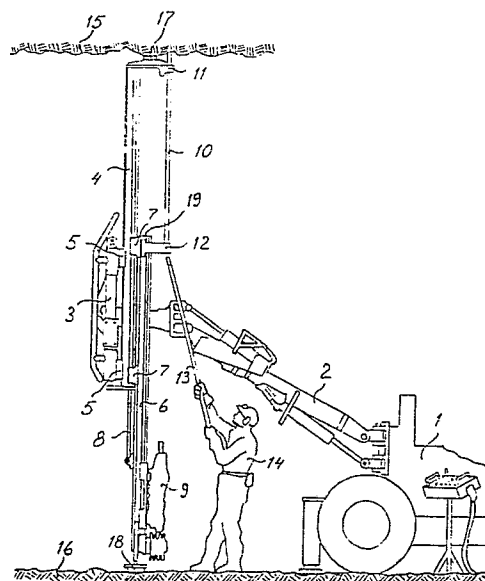


Fig. 1

Description

The present invention relates to a rock drilling rig which is suitable both for tunneling and/or drifting with long advances per round and for production drilling perpendicularly to a mine drift.

In order to achieve both drifting with long advances per round and production drilling perpendicularly to the drift one has used two different drill rigs. This has caused large costs through the investment in two rigs and also meant that drifting and production drilling must occur separate from each other so that none of the two rigs hinders the movement of the other rig. In order to be able to drill both with a long and a short feed beam on the same drill rig without changing feed beam one has used a feed beam comprising two parts which are movable relative to each other. A drawback with these devices has been that one has not been able to achieve production drilling, i.e. extension rod drilling, since these divided feed beams have not had suitable devices for holding the rod already drilled into the rock during the extension process.

The present invention, which is defined in the subsequent claims, aims at achieving a rock drilling rig which is suitable both for tunneling and for long hole drilling with extension rods.

An embodiment of the invention is described below with reference to the accompanying drawing in which fig 1 shows a rock drilling rig according to the invention. Fig 2 shows a drill guide used on the drill rig.

The rock drilling rig shown in the drawing comprises a carrier 1, a to the carrier connected drill boom 2 whose boom head 3 by means of clamping means 5 carries a first feed beam 4. The first feed beam is at its towards the rock face 15 directed end provided with a collaring guide 11 and a support pad 17. The feed beam 4 carries by means of guides 7 a second feed beam 6. The two feed beams are longitudinally movable relative to each other by means of a hydraulic cylinder whose piston rod 8 is shown in the drawing. A rock drilling machine 9 is in the usual way movable along the feed beam 6. In order to, at production drilling, be able to clamp the feeding device between the rock face 15 and the floor 16 the second feed beam 6 is provided with a hydraulically manoeuvrable pad 18. The second feed beam 6 is at its towards the rock face 15 directed end 19 provided with a drill guide 12 made as gripping tongs for the drill rod 10. An advantage with the arrangement is made visible in fig 1. When extending the rods the operator 14 can work at a suitable height. The principle for the gripping function of the drill guide 12 is shown in fig 2. The drill guide 12 comprises two pistons 21 which are loaded in a direction away from the drill rod 10 by springs 23. Through pressurization of chambers 22 pistons 21 are moved so that the drill rod 10 is gripped.

With the drill rig according to the present invention it is possible to achieve, with the same rig, long advances per round, e.g. for drifting or tunneling, short advances per round perpendicularly to the

tunnel, e.g for bolting, when there is little space or to clamp the rig for production drilling of long accurately directed holes by means of extension rod drilling.

Claims

Rock drilling rig comprising a carrier (1), a first feed beam (4) carried by said carrier, a second feed beam (6) movably arranged along said first feed beam and a rock drilling machine (9) movably arranged along said second feed beam, characterized in that said first feed beam (4) is provided with a pad (17) to be applied against a rock face (15) and that said second feed beam (6) comprises a drill guide (12) at the end (19) directed towards the rock face, said drill guide being formed as gripping tongs for a drill rod (10).

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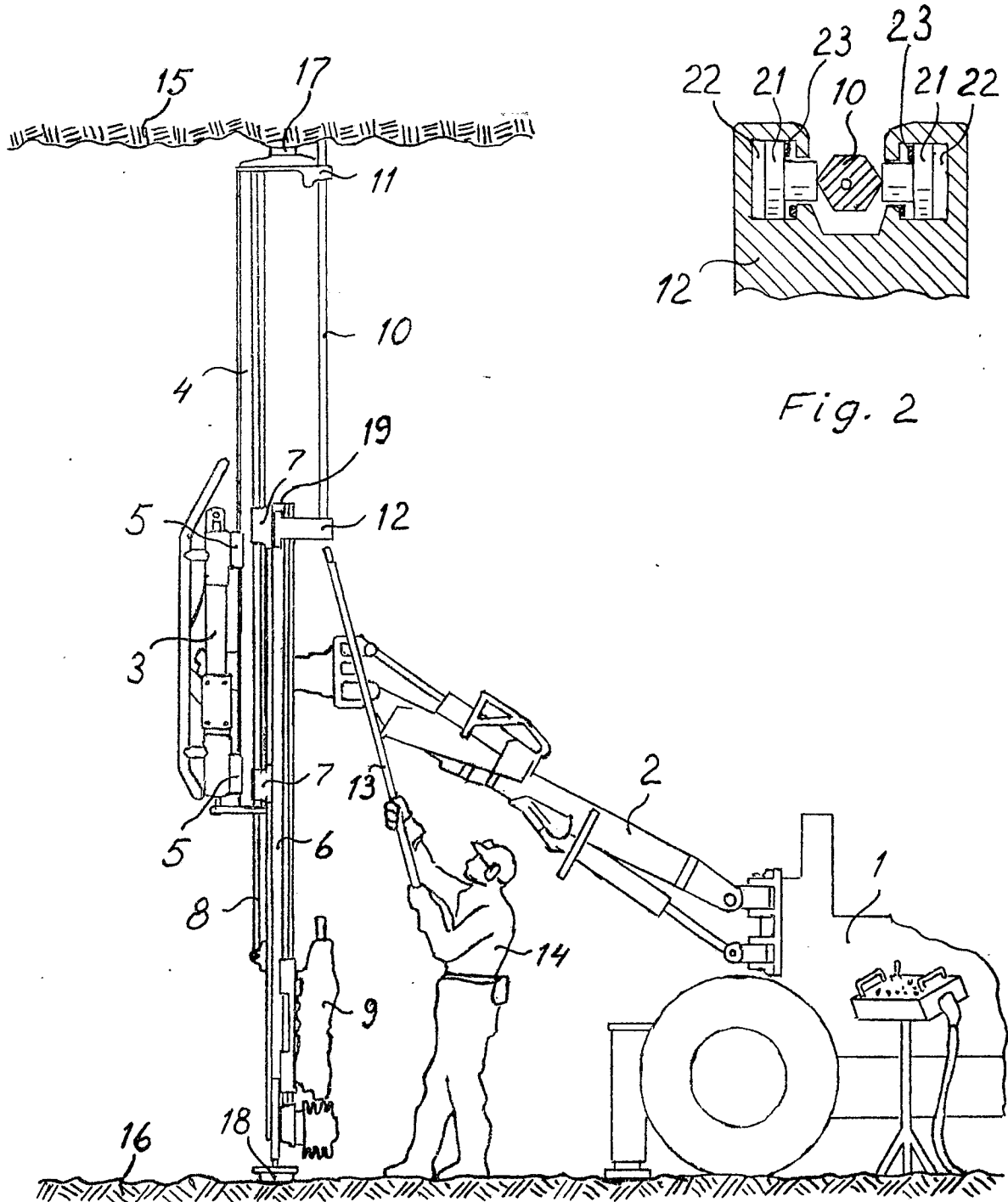


Fig. 2

Fig. 1



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. 4)
A	US-A-3 684 035 (WILLS) * Column 6, line 63 - column 7, line 30; column 10, line 58 - column 11, line 23; figures 7-9 * ---	1	E 21 C 11/02 E 21 B 7/02 E 21 C 9/00 E 21 B 19/16
A	US-A-3 441 323 (VINCENT et al.) * Abstract; figures * ---	1	
A	US-A-3 967 686 (FÖGELSTRÖM) * Abstract; figures 1,2,5,6 * ---	1	
A	US-A-2 734 723 (LARCEN) * Column 3, lines 29-63; figures 1,6,7 * ---	1	
A	BE-A- 510 409 (GRÄFER et al.) * Figure 1 * ---	1	
A	DE-B-1 230 738 (KORFMANN) * Column 4, lines 8-15; figure 2 * ---	1	
A	FR-A-2 097 697 (SECOMA) ---		TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A	DE-A-3 634 502 (SIG) -----		E 21 B E 21 C E 21 D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 13-10-1988	Examiner RAMPELMANN J.
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			