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(71) Applicant: **HOLLANDSCHE BETON GROEP N.V.**
489, Generaal Spoorlaan
NL-2285 TA Rijswijk(NL)

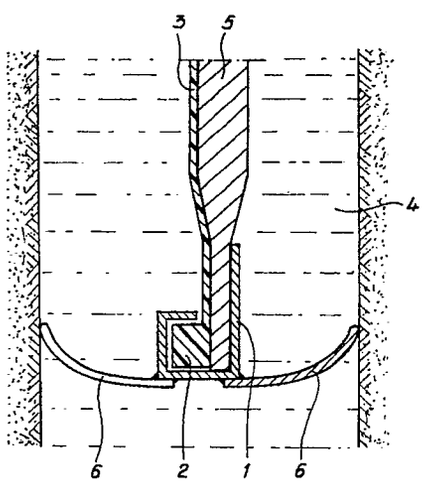
(72) Inventor: **Bus, Leonardus Theodorus Jacobus**
Echtpaar Curiedreef 3
NL-3146 BC Maassluis(NL)
Inventor: **Van Den Berg, Arie Willem**
Van der Palm 68
NL-2802 VH Gouda(NL)

(74) Representative: **de Bruijn, Leendert C. et al**
Nederlandsch Octrooibureau
Scheveningseweg 82 P.O. Box 29720
NL-2502 LS 's-Gravenhage(NL)

(54) Anchor.

(57) A U-shaped anchor (1) is intended for fitting at the bottom edge (2) of a sheeting panel (3) which has to be pressed by means of a steel insertion sheet (5) into a ground trench as part of a wall comprising sheeting walls interconnected by sheeting connections. In order to be able to produce a connection rapidly between anchor and sheeting panel without there being any risk of too great wedging of the insertion sheet in the anchor, the top part of one of the legs of the U is bent in the direction of the other leg for the formation of a separate accommodation chamber for a thickened part present at the bottom edge of the sheeting panel, and a space exists between the free edge of the inward bent leg part and the above-mentioned other leg for the purpose of allowing through the bottom edge of the steel insertion sheet (5), while a number of recesses are provided in the anchor section for the purpose of reducing the longitudinal rigidity of the anchor.

Fig - 1



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The invention relates to an anchor intended for fitting at the bottom edge of a sheeting panel which has to be pressed by means of a steel insertion sheet into a ground trench as part of a wall comprising sheeting panels interconnected by section connections, which anchor is U-shaped.

Such an anchor is known from DE-A-3540270 (Figure 9).

For the isolation of polluted ground and groundwater and in the case of well drainage it is known to make use of vertical screens formed in the ground, made of a bentonite-containing mixture in which a liquid-tight panel wall of thick HDPE sheeting is provided in order to increase the water impermeability. The flexible panels of these walls are, for example, 2 to 3 metres wide and are interconnected by means of locking sections. The insertion of the panels by means of the steel insertion sheet takes place in such a way that the locks are placed under little or no load. At the bottom side the bentonite sheeting screen must be connected to a watertight layer, for example a natural clay or an injected synthetic layer. In order to anchor a panel after it has been pushed into the ground trench, use is made of an anchor of the type mentioned in the preamble. The known anchor is fixed to the bottom edge of a sheeting panel by means of a separate strip and screws. Rib-shaped spacers which prevent the insertion sheet from sticking to the sheeting panel are fitted between the insertion sheet and the sheeting panel. Fixing of the anchor to a sheeting panel is time-consuming.

The object of the invention is to produce the connection between anchor and sheeting panel considerably more quickly without there being any risk of wedging occurring between insertion sheet and anchor as a result of which the sheeting panel would be pulled up with the insertion sheet during the raising of said sheet after the insertion of said sheeting panel and the locks between the panels could consequently spring apart.

According to the invention the anchor is to this end characterized in that the top piece of one of the legs of the U is bent in the direction of the other leg for the formation of a separate accommodation chamber for a thickened part present at the bottom edge of the sheeting panel, while a space exists between the free edge of the inward bent leg part and the above-mentioned other leg for the purpose of allowing through the bottom edge of the steel insertion sheet, and in that a number of recesses are provided in the anchor section for the purpose of reducing the longitudinal rigidity of the anchor.

The virtually vertical-running recesses in the vertical leg of the U of the anchor section, which can lie against the insertion sheet during the insertion of the sheeting panel, reduce the local rigidity of the anchor section. The correct wedging between anchor section and insertion sheet can be achieved by providing the correct number of such recesses over the length of the anchor section and/or adapting the length and/or the breadth of said recesses, depending on the shape of anchor section and/or bottom part of the insertion sheet, as a result of which the insertion sheet can be removed from the anchor without too much force after the sheeting panel has been pressed into the lowest position and, in addition, the sheeting panel with its locks is not placed under unnecessary stress.

In order to be able to reduce the rigidity of the anchor even more in its lengthwise direction, the recesses can continue into a part of the bottom of the U.

The breadth of the recesses preferably lies between 0.5 and 300 mm.

In order to centre a sheeting panel when it is being pressed into the ground and thereby take the load off the locking connections between panels, projecting centring wings can be fixed on the anchor on both sides.

The invention will now be explained in greater detail with reference to the figures.

Figure 1 shows a cross-section through the bottom part of an anchor according to the invention with insertion sheet and sheeting panel.

Figure 2 shows a perspective view of the anchor.

The steel anchor 1 shown in the figures is in the shape of a U of which one of the flanges is bent inwards at its top part for the purpose of forming a channel into which the thickened bottom edge 2 of a sheeting panel 3 is pushed. This sheeting panel is made of plastic, for example HDPE, and is connected in a manner which is known per se by edge locking sections to a sheeting panel already placed in the trenches.

A steel insertion sheet for pressing the sheeting panel with anchor into a ground trench 4 filled with bentonite mixture is indicated by 5 and projects with its bottom edge into the anchor.

In order to centre the sheeting panel when it is being pressed into the ground trench, centring wings 6 are fixed to the anchor 1, projecting on either side. These wings end in an upward-sloping part, so that during the downward movement of the anchor they cannot become jammed in the trench wall when they come into contact with said wall.

The wings are welded to the bottom of the anchor section, but they can also be connected to the anchor section at other places.

The wings 6 at both sides of the anchor section can also be fixed as a continuous unit to the bottom side of the anchor section.

Vertical-running recesses 7 are provided in order to be able to adjust the local wedging between anchor section 1 and the insertion sheet 5. These recesses are preferably of a minimum breadth of 0.5 mm and a maximum breadth of 300 mm. They can continue into the bottom of the U.

Claims

1. Anchor intended for fitting at the bottom edge of a sheeting panel which has to be pressed by means of a steel insertion sheet into a ground trench as part of a wall comprising sheeting panels interconnected by section connections, which anchor is U-shaped, characterized in that the top piece of one of the legs of the U is bent in the direction of the other leg for the formation of a separate accommodation chamber for a thickened part present at the bottom edge of the sheeting panel, while a space exists between the free edge of the inward bent leg part and the above-mentioned other leg for the purpose of allowing through the bottom edge of the steel insertion sheet, and in that a number of recesses are provided in the anchor section for the purpose of reducing the longitudinal rigidity of an anchor.

2. Anchor according to Claim 1, characterized in that said recesses are provided in the above-mentioned other leg and can continue into a part of the bottom of the U.

3. Anchor according to Claim 1 or 2, characterized in that the breadth of the recesses measures between 0.5 and 300 mm.

4. Anchor according to any of the preceding claims, characterized in that centring wings are fixed to the anchor, projecting on either side.

fig-1

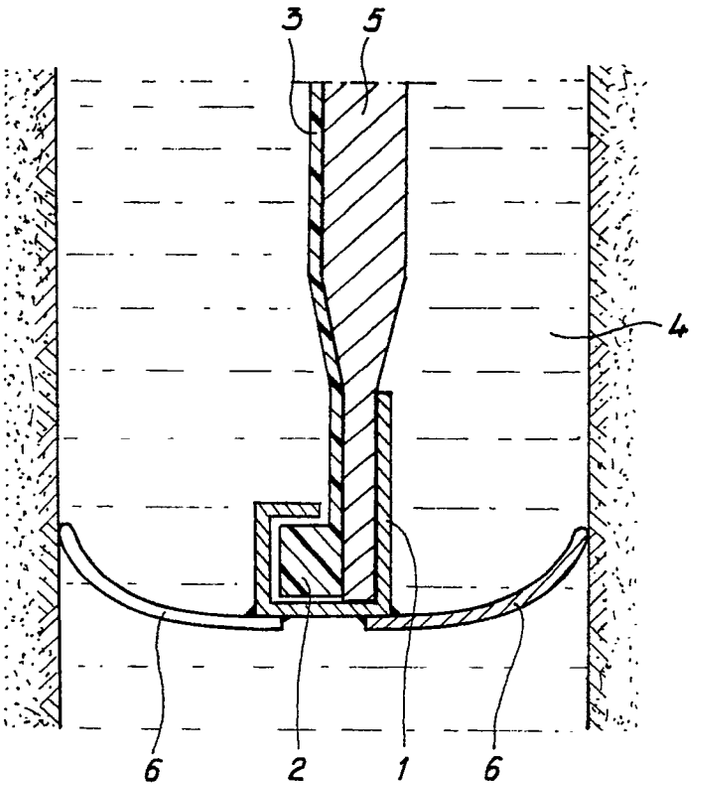
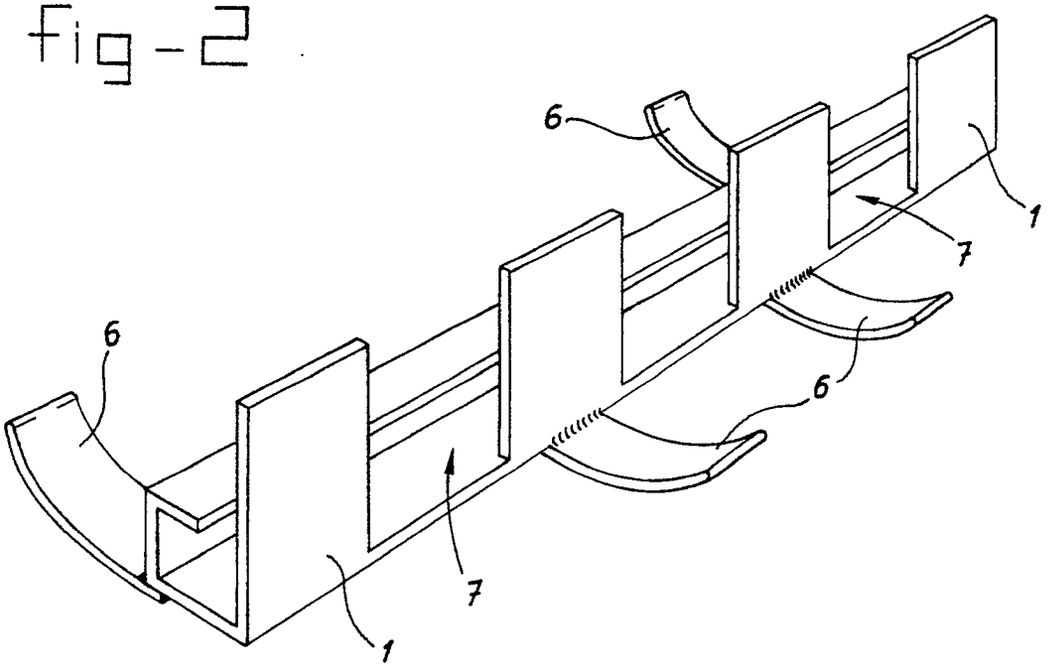


fig-2



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EUROPEAN SEARCH REPORT

Application Number

EP 91 20 0872

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	DE-A-3 540 270 (WAYSS&FREYTAG AG) * column 5, line 64 - column 6, line 21 * * column 6, line 68 - column 7, line 22 @ figures 1-4,10,11 *	1,4	E 02 D 19/18
Y	US-A-3 479 933 (HALL) * column 3, line 57 - column 4, line 12 * * figures 1,2 *	1,4	
A	EP-A-0 074 686 (VOLKER STEVIN BETON- EN WATER-BOUW) * page 6, line 3 - line 33 * * page 4, line 27 - line 32 * * figures 1-4,10,11 *	1,4	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			E 02 D

The present search report has been drawn up for all claims

Place of search	Date of completion of search	Examiner
The Hague	10 July 91	KERGUENO J.P.D.

CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone
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