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71 Applicant: **KABUSHIKI KAISHA TAKAHASHI ENGINEERING**  
**21-13, Higashigotanda 5-chome**  
**Shinagawa-ku Tokyo(JP)**

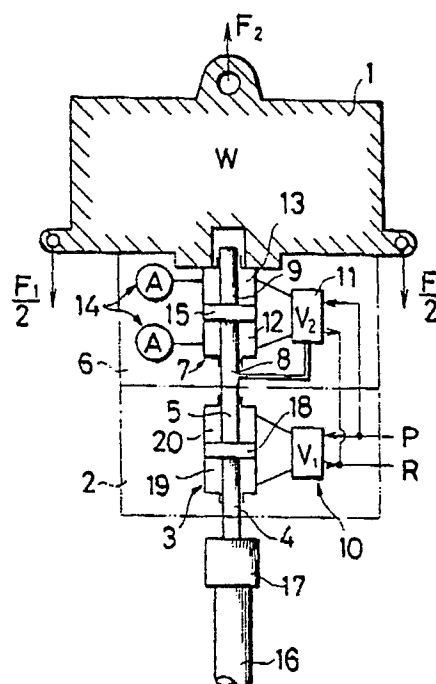
72 Inventor: **Tasaki, Yasuo**  
**1-19 Matsue 1-chome**  
**Edogawa-ku, Tokyo(JP)**  
Inventor: **Kumai, Seizo**  
**6-4, Akabanenishi 3-chome**  
**Kita-ku, Tokyo(JP)**

74 Representative: **Huss, Carl-Hans, Dipl.-Ing.**  
**Patentanwalt Griesstrasse 3 a Postfach 14 54**  
**D-8100 Garmisch-Partenkirchen(DE)**

54 **Pile driver.**

57 The present invention provides a pile driver comprising a vibration cylinder (3) and a self-equilibration cylinder (7) so provided vertically in series with each other that the axes of their respective rods lie on the center line passing through the center of gravity of an inertial weight (1), the rods of the vibration and self-equilibration cylinders being coupled to each other, the vibration cylinder having provided therein a changeover valve (10) to supply and discharge a pressurized fluid to and from the vibration cylinder, the self-equilibration cylinder having provided therein a control valve (11) responsive to the rod of either the self-equilibration cylinder or vibration cylinder to supply and discharge the pressurized fluid to and from a control chamber in the self-equilibration cylinder. The piston of the self-equilibration cylinder is supported with a low rigidity to the inertial weight by means of accumulators (14) provided as communicating with the control chambers in the self-equilibration cylinder, and also the self-equilibration cylinder or vibration cylinder has provided at the lower end of the rod thereof a chuck (17) which grasps the pile.

**FIG. 2**





DOCUMENTS CONSIDERED TO BE RELEVANT			EP 88101219.9
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. <sup>4</sup> )
A	<u>DE - B - 1 634 303</u> (CORDES) * Ansprüche 1-2; Fig. 1-5 *	1	E 02 D 7/18
A	<u>DE - A - 2 250 848</u> (LUDVIGSON) * Fig. 1-7 *	1	
A	<u>DE - A - 2 240 385</u> (BOLT) * Fig. 1-4 *	1, 2	
D, A	<u>DE - A1 - 2 821 339</u> (K.K. TAKAHASHI) * Fig. 1-7 *	1	
D, A	<u>US - A - 4 317 406</u> (TAKAHASHI) * Fig. 1-7 *	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl. <sup>4</sup> )
			E 02 D F 15 B
The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 21-07-1989	Examiner CZASTKA
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	