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(54) **Variable-wheel-gage bogie for rolling stock**

(57) A variable-wheel-gage bogie has axles (24), journal box beams (29) bearing the body weight of a wheeled vehicle, journal boxes (50) axially slidably fitted in the journal box beams (29), respectively, axle sleeves (30) put on each axle (24) and supported in journal bearings (51) on the journal boxes (50), respectively, wheels (36) fixedly joined to the axle sleeves (30), respectively, and locking mechanisms (60) for locking the wheels (36) so as to be axially immovable. The locking mechanisms (60) are disengaged by unlocking rails (73) extended along body support rails (70) that bear the body weight

of a wheeled vehicle and are engaged by locking rails (74) extended along the body support rails (70). The locking mechanisms (60) can be operated in a state here the journal box beams (29) are supported on the body support rails (70) and the axle (24) is not loaded. Thus, the locking mechanisms (60) can be surely engaged to lock the wheels (36) so as to be axially immovable and can be surely disengaged to permit the axial movement of the wheels (36) for wheel-back-gage change.

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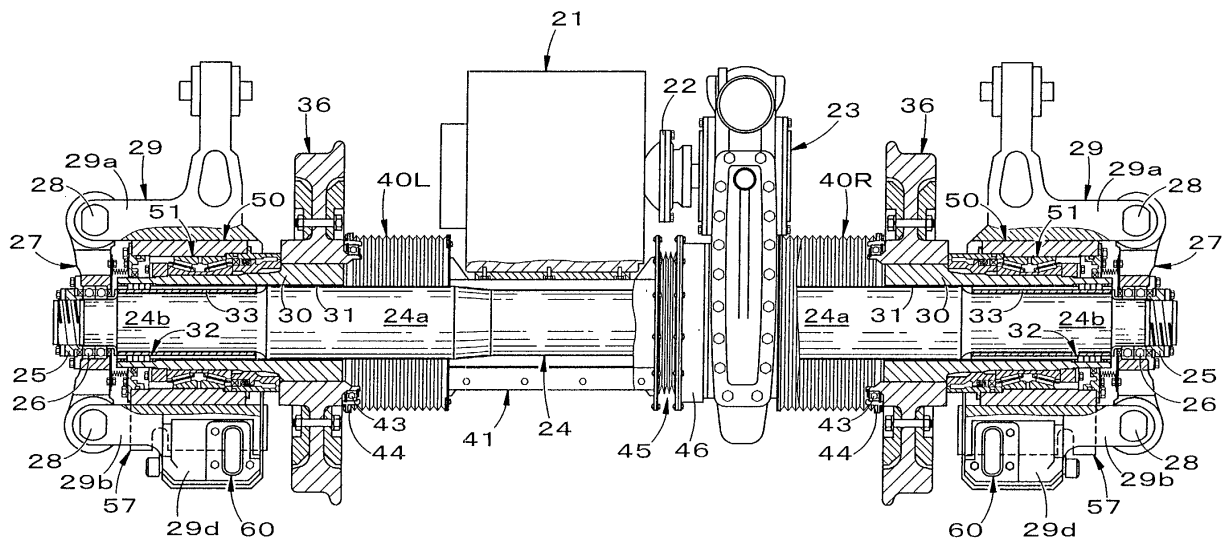


FIG. 1



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# EUROPEAN SEARCH REPORT

Application Number  
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 09, 30 July 1999 (1999-07-30) & JP 11 091562 A (RAILWAY TECHNICAL RES INST; FUJI HEAVY IND LTD), 6 April 1999 (1999-04-06)	1,3	B61F7/00
Y	* the whole document *	4,5	
Y	CH 458 427 A (INVENTIO AKTIENGESELLSCHAFT) 30 June 1968 (1968-06-30) * the whole document *	4,5	
A	EP 0 857 636 A (SUMITOMO METAL INDUSTRIES, LTD) 12 August 1998 (1998-08-12) * column 10, line 46 - column 11, line 19; figures 1-9 *	1,2	
			TECHNICAL FIELDS SEARCHED (IPC)
			B61F
The present search report has been drawn up for all claims			
Place of search <b>Munich</b>		Date of completion of the search <b>3 April 2006</b>	Examiner <b>Fuchs, A</b>
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			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

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The members are as contained in the European Patent Office EDP file on  
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03-04-2006

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 11091562	A	06-04-1999	JP 3335889 B2	21-10-2002
CH 458427	A	30-06-1968	NL 6716611 A	13-06-1968
EP 0857636	A	12-08-1998	DE 69820129 D1	15-01-2004
			DE 69820129 T2	28-10-2004
			ES 2212154 T3	16-07-2004
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