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(71) Applicant: **Hitachi, Ltd.**  
**Chiyoda-ku**  
**Tokyo 100-8280 (JP)**

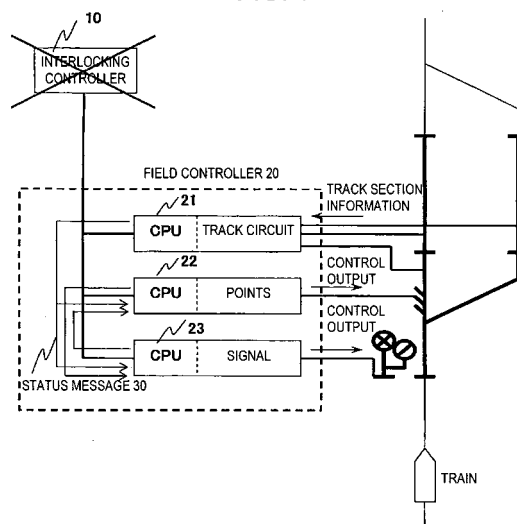
(72) Inventors:  
• **Shibata, Naoki**  
**Tokyo 100-8220 (JP)**  
• **Maekawa, Keiji**  
**Tokyo 100-8220 (JP)**  
• **Taoka, Hiroshi**  
**Tokyo 100-8220 (JP)**

(74) Representative: **Paget, Hugh Charles Edward et al**  
**Mewburn Ellis LLP**  
**33 Gutter Lane**  
**GB-London EC2V 8AS (GB)**

(54) **Signalling system**

(57) Wayside equipment cannot acquire control information when an interlocking controller is terminated. Therefore, signals inside the premises show stop indications, and operations of trains stop. Field controllers of a signalling system realizes route control, the field controllers having a transmission path for transmitting and receiving state information between the field controllers constituting a route, having wayside equipment control logic for realizing the route control of a train based on the received state information, having first wayside equipment control logic used when communication from the interlocking controller to the field controllers continues, having second wayside equipment control logic for continuing the route control when the communication from the interlocking controller to the field controllers is interrupted, and switching the control logic from the first wayside equipment control logic to the second wayside equipment control logic to continue the route control if the interrupt of communication with the interlocking controller is detected.

FIG. 1



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## EUROPEAN SEARCH REPORT

Application Number  
EP 11 25 0031

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	CH 352 000 A (SIEMENS AG [DE]) 15 February 1961 (1961-02-15) * page 1, line 7 - line 11 * * page 1, line 42 - line 61 * -----	1-8	INV. B61L19/06 B61L23/16
A	EP 0 006 309 A1 (WESTINGHOUSE BRAKE & SIGNAL [GB]) 9 January 1980 (1980-01-09) * claim 10 * * page 4, line 28 - page 6, line 11 * -----	1-8	
A	US 3 740 548 A (HOYLER R) 19 June 1973 (1973-06-19) * column 5, line 13 - line 68 * -----	1-8	
			TECHNICAL FIELDS SEARCHED (IPC)
			B61L
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 30 January 2012	Examiner Janhsen, Axel
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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 ..... &amp; : member of the same patent family, corresponding document</p>			

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

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30-01-2012

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
CH 352000	A	15-02-1961	NONE
-----			
EP 0006309	A1	09-01-1980	AU 523521 B2 29-07-1982
		AU 4745779 A	20-12-1979
		CA 1138970 A1	04-01-1983
		EP 0006309 A1	09-01-1980
		ES 481079 A1	01-03-1980
		GB 2022893 A	19-12-1979
		NZ 190590 A	15-03-1983
		US 4270715 A	02-06-1981
		ZA 7902479 A	25-06-1980
-----			
US 3740548	A	19-06-1973	AR 193740 A1 22-05-1973
		BE 785305 A1	27-12-1972
		CA 937666 A1	27-11-1973
		ES 403630 A1	16-12-1975
		FR 2143480 A1	02-02-1973
		IT 956809 B	10-10-1973
		US 3740548 A	19-06-1973
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