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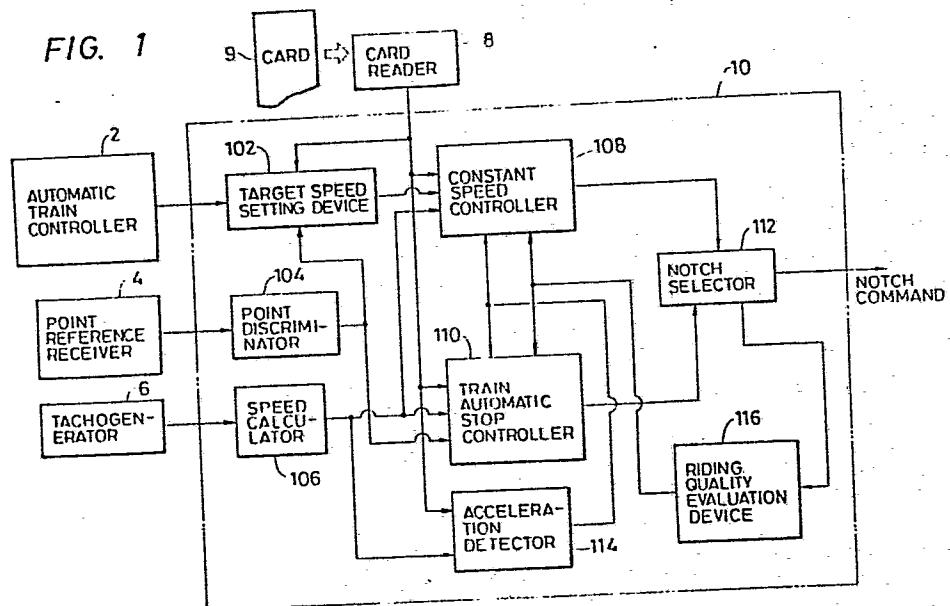
⑳ A train operation control apparatus.

㉑ For supplying data concerning the track condition such as a grade, a curve and so on for an automatic train control apparatus (10), there is used a magnetic card (9) which is combined with a timetable for a train operator. A card reader (8) reads out the data recorded on the card (9) necessary for traveling between a station A and the next station B when a train departs from the station A. The automatic train operation apparatus (ATO) (10) produces a notch command to a driving motor control apparatus in view of the read data. The present invention can realize the ATO flexible to the internal and external variable factors.

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FIG. 1





EUROPEAN SEARCH REPORT

EP 86 10 4748

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Y	US-A-4 179 739 (VIRNOT) * Column 5, line 53 - column 7, line 3; figures 4,6 *	1-6	B 61 L 3/00
Y	US-A-3 805 056 (BIRKIN) * Abstract *	1-6	
A,D	JP-A-55 013 670 (SANYO) * Abstract *	1	
A	FR-A-2 309 916 (M.T.E.) * Page 1, line 28 - page 3, line 26 *	1	
A	WIRELESS WORLD, vol. 81, no. 1476, August 1975, pages 348-353, Hayward's Heath; W.E. ANDERTON: "Computers, communication and high speed railways" * Figure 3 *	1	
A	CONTROL & INSTRUMENTATION, vol. 12, no. 3, March 1980, pages 45-49, London, GB; A. MANDEL: "People movers and the march of the microchip" * Figure 1 *	1	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			B 61 L
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search		Examiner
THE HAGUE	08-09-1988		SGURA S.
CATEGORY OF CITED DOCUMENTS		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	
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			