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(54) **System for communication with trains on railway lines**

(57) A system for detection of trains and digital communication with trains on a railway line with at least one track, which track is divided into a plurality of successive track segments, known as track blocks, and means for generating signals for detection of or communication with the train being provided for each of said track segments and receiving means allowing the track block to receive said detection and communication signals generated by a train by active signal generation or change of the detection and communication signals transmitted to the track block as well as means for processing the detection signals or the communication signals received from the track block to determine the operating or working conditions of the train and/or the track block based on the changes found in the received signals with respect to the transmitted signals and/or on the information contained in the communication signals transmitted by the train and means for generating signals indicative of the operating or working conditions of the train and/or the track block and for transmitting said status signals to a central railway network control unit, known as central Interlocking System, which is connected to said detection and communication unit and receives signals therefrom, indicative of the conditions of the train and/or the track block, and transmits control signals for detection of and communication with the train.

tions of the train and/or the track block based on the changes found in the received signals with respect to the transmitted signals and/or on the information contained in the communication signals transmitted by the train and means for generating signals indicative of the operating or working conditions of the train and/or the track block and for transmitting said status signals to a central railway network control unit, known as central Interlocking System, which is connected to said detection and communication unit and receives signals therefrom, indicative of the conditions of the train and/or the track block, and transmits control signals for detection of and communication with the train.

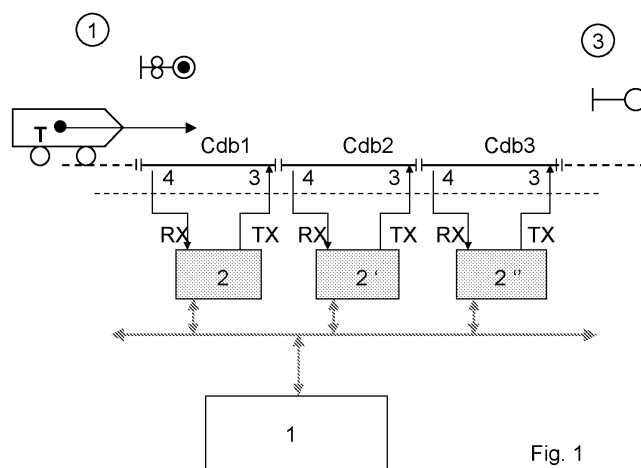


Fig. 1



EUROPEAN SEARCH REPORT

Application Number
EP 11 17 1102

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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			TECHNICAL FIELDS SEARCHED (IPC)
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 30 November 2011	Examiner Janhsen, Axel
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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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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