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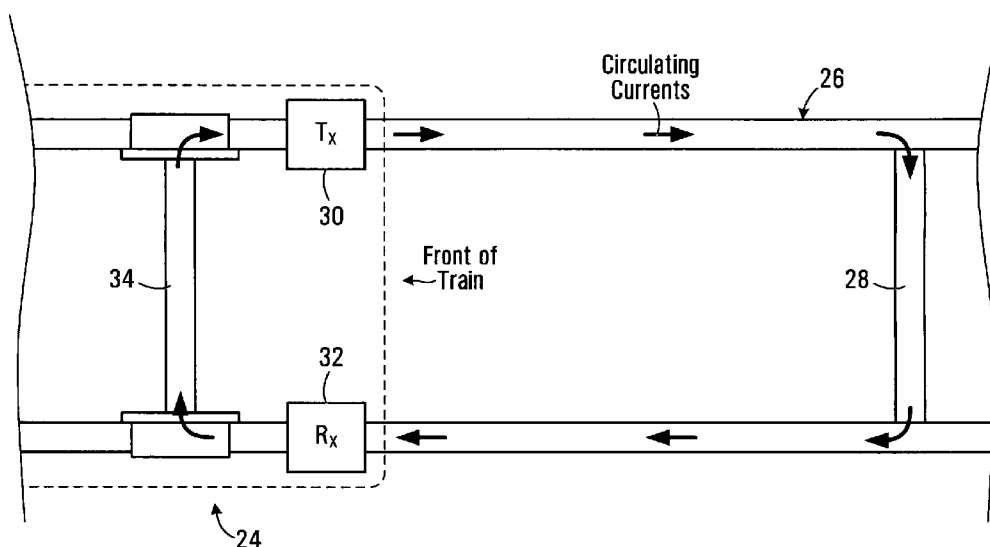
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(54) Title: A BROKEN RAIL DETECTION SYSTEM



(57) Abstract: A system for performing broken rail detection on a railway track. The system comprises at least one locomotive and a monitoring entity. Each locomotive comprises a receiver for receiving a track signal that is circulating in the railway track and a processing unit that is in communication with the receiver. The processing unit is operative for detecting a characteristic of the track signal and generating a signal indicative of a potential broken rail in response to a change in the characteristic of the track signal. The locomotive further comprises a wireless transmitter for transmitting the signal indicative of a potential broken rail over a wireless communication link. The monitoring entity comprises a receiver for receiving the signal indicative of a potential broken rail and a processing unit for detecting a broken rail at least in part on the basis of the signal indicative of a potential broken rail from the locomotive.