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Patents (details)

1 - Improvements in electrical signalling apparatus for railways

GB patent 1902/5972 Application date 1902/5972

The objects of the present invention are to provide an apparatus whereby collisions upon railways may be prevented, the principal object consisting of the provision of apparatus whereby signals by sound or the like can be transmitted and exchanged between locomotives and trains in motion, and stations or other places on the line, as well as between the locomotives or trains themselves.

The apparatus is shown in Figs. 1 and 2 of the accompanying drawings.

Fig. 1 shows a section of a railway line x from the station \boldsymbol{a} to the station \boldsymbol{b} , said stations being connected by means of conducting wires \boldsymbol{d} in one direction, and in the other direction that is to say from \boldsymbol{b} to the station \boldsymbol{a} by means of conducting wires \boldsymbol{e} .

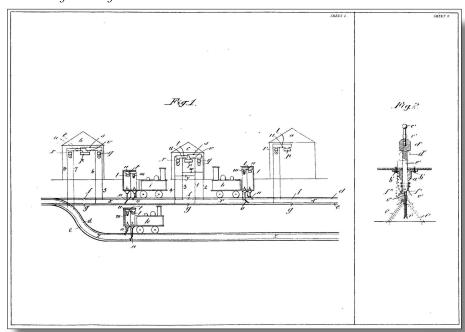
In order to clearly illustrate the invention, locomotives h, i, k, are shown on the drawing.

Upon each locomotive are placed two friction contacts (shown in detail in Fig. 2).

Along the rails of the railway track \mathbf{x} are placed the electric conductor wires \mathbf{d} and \mathbf{s} which are interrupted at the points \mathbf{f} and \mathbf{g} immediately before the stations \mathbf{a} , \mathbf{b} , \mathbf{c} . In each station and upon each locomotive is arranged a battery of accumulators. In each of the stations \mathbf{b} and \mathbf{c} are placed two electric bells with different tones, whilst at the station \mathbf{a} and upon the locomotives there is only one. Each of the bells is connected by the two poles by means of secondary wires to the conducting wires \mathbf{d} and \mathbf{e} .

The accumulator batteries are also connected to the two poles. This connection can be closed and opened when required. This is done by means of switches shown in Fig. 1 by means of letters **s**, **t**, **u**, **v**, **w**, **y**.

Fig. 2 shows the friction contacts fixed by means of screws to the locomotives and intended either to transmit or to receive the electric current. The friction contacts **n**, **o**, can slide along the conducting wires placed alongside the rails or can be lifted clear from the same.



Corresponding patents: CH, LU, ES, FR

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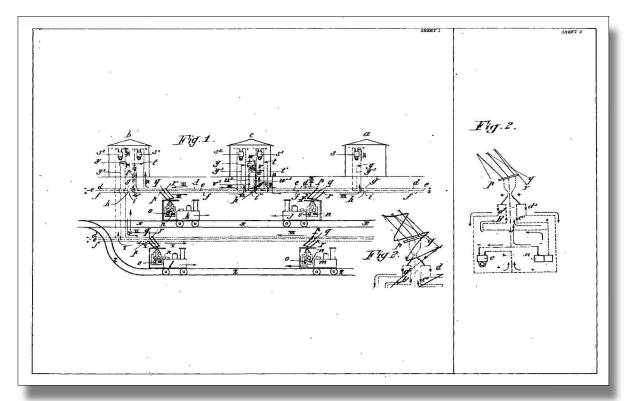
2 - Improvements in or relating to electrical signalling apparatus for railways

GB patent 1903/23750 Application date 2 November 1903

This invention relates to electric signalling apparatus by means of which audible or visible signals may be exchanged between railway trains and stations on the line and, more particularly, to improvements in electric signalling apparatus such as described in the specification accompanying my Application for Letters Patent No. 5972 of 11th March, 1902.

In the accompanying drawings I have shown by way of example a diagram of an electric signalling installation embodying my improvements,

Fig. 1 showing diagrammatically a complete installation and Fig. 2 that part of the apparatus which is mounted on each locomotive.



Corresponding patents

LU, FR