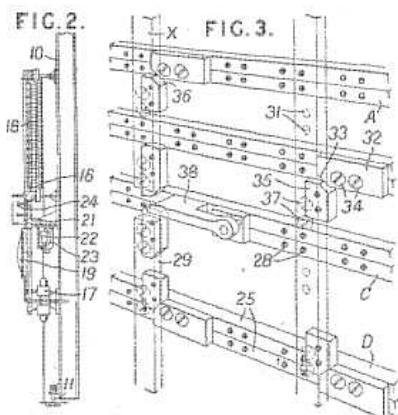


Improvements in or relating to power-operated signal control systems for railways and the like

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Abstract of GB 770187 (A)

770,187. Railway signal interlocking frames. BRITISH TRANSPORT COMMISSION, DELL, R., and OWEN, W. May 23, 1955 [April 26, 1954], No. 12009/54. Class 105. In a power-operating railway signal interlocking frame for controlling signals and points from a cabin by switch contacts 18, Fig. 2, on rotatable rods 16 mounted in the frame 10 and having mechanical interlocking mechanism consisting of sliding bars 25, Fig. 3, coupled to the rods, e.g. by a pin-and-hole coupling and, in perpendicular relationship thereto, interlocking bars 29, both sets of said bars consist of flat metal strips having separate pieces of metal 32, 35 secured thereto by bolts, screws 34, 37 or the like to form dogs or inter-engaging projections on the bars for effecting the interlocking functions. The bars are pierced as at 28, 31 at regular intervals to receive the bolts, screws, &c., the separate pieces of metal being of predetermined shape and dimensions so that pieces 32 on the slide bars co-operate with pieces 35 on the interlocking bars to displace the latter on longitudinal movement of the slide bars or to prevent movement of a slide bar when an interlocking bar is in a predetermined position. The rods 16 have the contacts 18 at one end and power operating means 17 such as a double-acting pressure motor at the other and, in between, the interlocking mechanism 19, an electric lock 22, 23 and a manual operating lever 24 for the rod 16. The frame 10 is supported on vertically adjustable screws 11 so that it can be accurately levelled. The pieces 32 are in the form of flat metal plates chamfered at one corner 33 and the similar plates 35 on the interlocking bars are also chamfered at one corner 36. By means of the equally-spaced holes 28 and 31 a plate 32 may be mounted on any bar 25 to co-operate with a plate 35 on any intermediate interlocking bar 29 so that movement of a bar 25 displaces a bar 29 upwardly and moves one or more other plates 35 into the path of the plates 32 on one or more other slide bars 25, thus obstructing movement of the latter. The interlocking bar X, Fig. 3, is divided and whilst the lower part is always lifted by leftward movement of the slidebar D due to co-operation of the chamfered corners 33, 36 of projection plates 32, 35, this movement is transmitted to the upper part to restrain leftward movement of the slide bar A by co-operation of projections 32, 35, only if slide bar C is moved to the left to insert the hinged arm 38 mounted on a plate screwed to bar C, between projections 35 on the adjacent ends of parts of bar X. Above the interlocking mechanism 19, Fig. 2, each rod has fixed thereto a quadrant 21 having apertures to receive a pin 22 urged upwardly by energization of solenoid 23 to lock the rod against movement until the train for which the mechanism was set has passed. The hand levers 24 serve for the manual operation of a rod 16 and as a visual indication of its position.



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