

No. 838,992.

PATENTED DEC. 18, 1906.

J. B. HOCKERSMITH.
RAILWAY GATE.

APPLICATION FILED APR. 10, 1906.

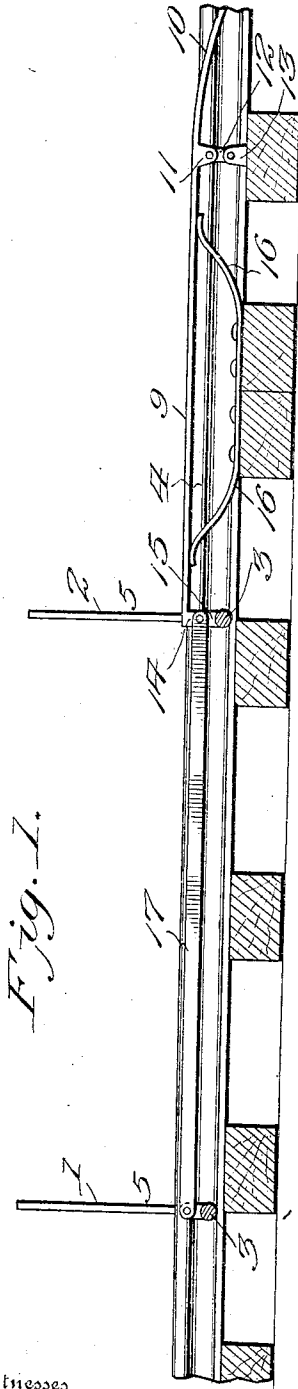


Fig. 1.

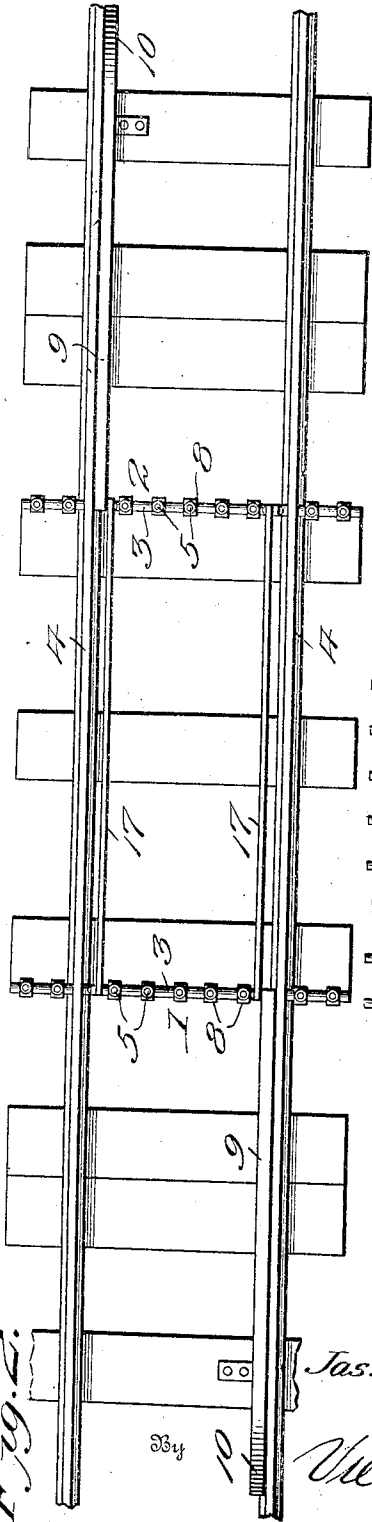


Fig. 2.

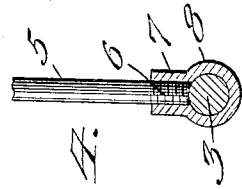


Fig. 4.

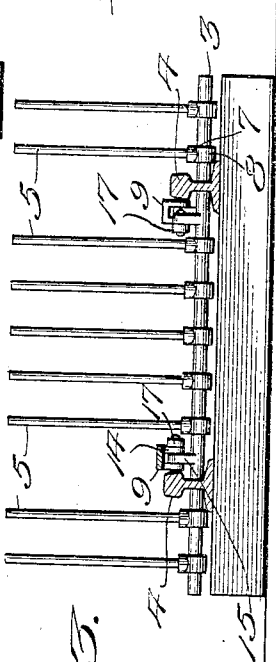


Fig. 5.

Witnesses

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JAMES B. HOCKERSMITH, OF IOLA, ILLINOIS, ASSIGNOR OF ONE-FOURTH TO JOHN W. WILSON AND ONE-FOURTH TO HENRY E. WATSON, OF IOLA, ILLINOIS.

RAILWAY-GATE.

No. 838,992.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES B. HOCKERSMITH, a citizen of the United States of America, residing at Iola, in the county of Clay and State of Illinois, have invented new and useful Improvements in Railway-Gates, of which the following is a specification.

This invention relates to a railway-gate designed to serve the function of a cattle-guard, the object of the invention being to provide a gate of this character which may be readily mounted for use and removed when occasion requires, which is simple of construction, efficient in use, and inexpensive of production, and which is adapted to be automatically opened by the wheels of an approaching train and to close automatically after the train has passed.

In the accompanying drawings, Figure 1 is a vertical longitudinal section through a railway track and gate embodying my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a cross-section. Fig. 4 is a detail showing the mode of connecting the pickets with the gate-shaft.

Referring to the drawings, 1 and 2 designate gates arranged a suitable distance apart and each comprising a rock-shaft 3, journaled in the webs of the track-rails 4 and carrying a series of pickets 5. Each picket is preferably mounted upon the shaft by providing it with a threaded inner end 6, fitting within a threaded socket 7 on a coupling-sleeve 8 embracing the shaft, the picket and sleeve being fixed to the shaft by the impingement of the threaded end of the picket against said shaft or in any other preferred manner. This construction allows the shaft to be slipped longitudinally through the bearing-openings in the rails and threaded through sleeves of the pickets between the rails and the completion of the gate by fitting the outer pickets upon the extending ends of the shaft, as will be readily understood.

Each shaft is operatively connected with a depressible trip or operating bar 9, disposed alongside the head of one of the rails, said bar being provided with a downwardly-curved outer end 10 to allow the flange of a car-wheel to readily come in contact therewith. The outer end of each bar is provided with a depending lug 11, connected by a link 12 with a bracket 13, fixed to one of the ties, while the inner end of the bar is formed with

a bifurcated crank 14, pivotally connected with a crank 15 on the rock-shaft of the gate, whereby when the bar is depressed the shaft will be rocked to swing the gate to a horizontal position and out of the way of the passing train. Leaf-springs 16 are disposed beneath the depressible bar, with their lower ends attached to adjacent ties and their upper curved ends bearing against the under side of the bar. These springs permit depression of the bar under the weight of the car-wheel and return it when released by the car-wheels to normal position. The crank members 14 of the two depressible trip-bars are connected by links 17, so as to effect their operation in unison to open or lower the gates upon the depression of the bars and close or return them to normal position through the action of the springs upon the passage of the train. The depressible bars are shown in the present instance as located, respectively, alongside the two rails of the track, with their downturned ends arranged to be engaged by a train passing in either direction along the track, thus adapting the gate for use upon single-track railways. The bars are also so located that they will be successively engaged by the wheels of a train running in either direction to hold the gates closed until the train fully passes the guarded point.

It will be understood that instead of employing a pair of gates constructed and arranged as shown a single gate may be used, in which event both depressible bars will be connected with the shaft of the gate to swing the latter in reverse direction to a closed position, so that the gate will swing downward in the direction of movement of the train irrespective of the direction in which the train is traveling.

It will be observed that the construction of the gate is simple and such as to secure a positive automatic action.

It will of course be understood that a single bow-spring may be substituted for the springs 16, in which event the spring will be centrally secured to the ties, and that any required number of springs may be used.

Having thus described the invention, what is claimed as new is—

In combination with the ties and rails of a track, a cattle-guard comprising a pair of rock-shafts journaled in the webs of the rails,

pickets carried by said shafts, a pair of crank-arms upon each shaft, trip-bars located adjacent the inner sides of the opposing rails, said bars being pivotally connected at their inner ends to one of the crank-arms of each shaft and each provided adjacent its outer end with a lug, a bracket upon the tie below said lug, a link pivotally connecting said bracket and lug, a bowed spring arranged below each trip-bar and secured to the road-bed between said pivotal connection and cooperating crank-shaft, the springs having their free ends arranged to bear against the bars to maintain them in normal position,

and a pair of links, each link being pivotally connected at one end with the crank-arm of one shaft to which the trip-bar is pivoted and at its other end to the other crank-arm of the other shaft, said links being disposed in parallel relation on opposite sides of the center of the trackway and in parallel relation to the rails. 15 20

In testimony whereof I affix my signature in presence of two witnesses.

JAMES B. HOCKERSMITH.

Witnesses:

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