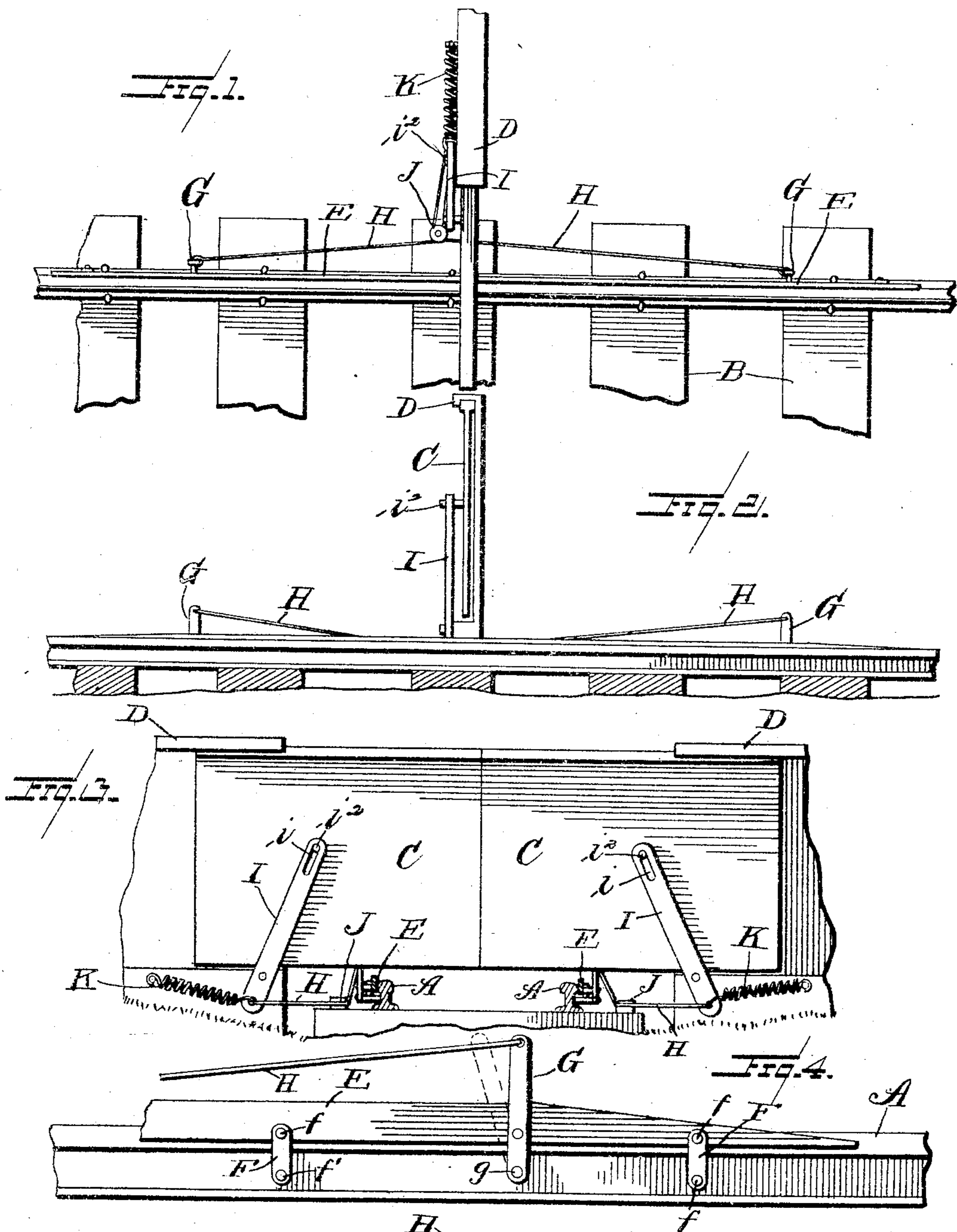


No. 779,603.

PATENTED JAN. 10, 1905.

W. D. HUDGINGS.  
RAILWAY CATTLE GUARD GATE.

APPLICATION FILED OCT. 7, 1904.

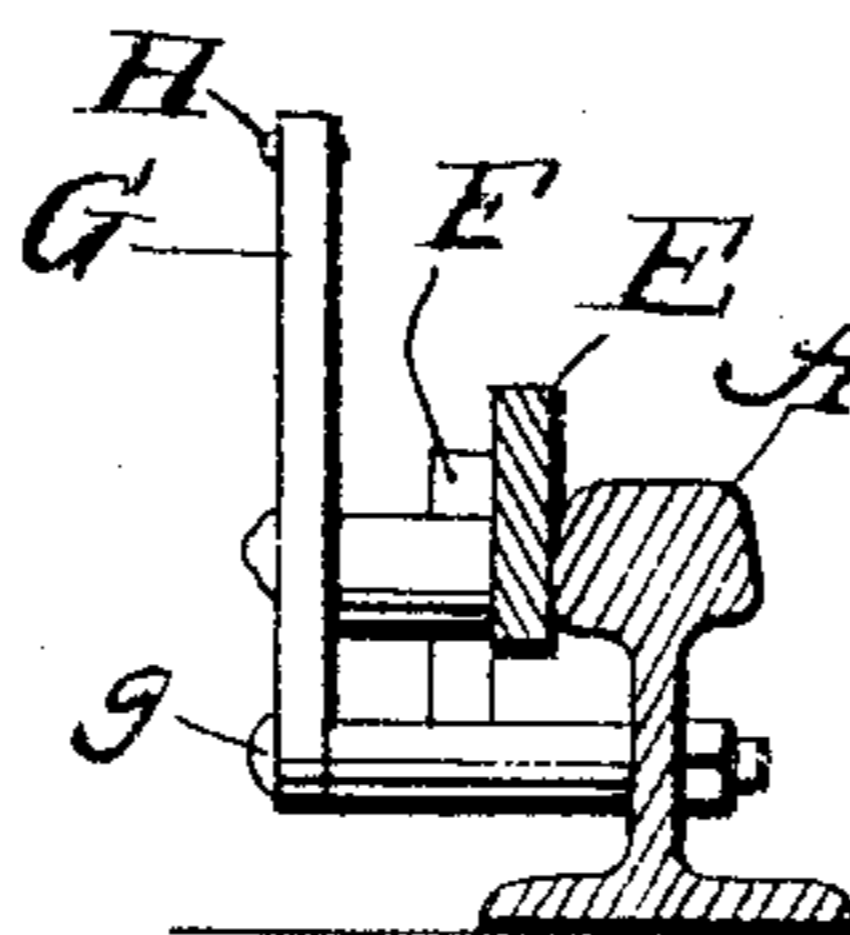


WITNESSES:

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FIG. 5.



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# UNITED STATES PATENT OFFICE.

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## RAILWAY CATTLE-GUARD GATE.

SPECIFICATION forming part of Letters Patent No. 779,603, dated January 10, 1905.

Application filed October 7, 1904. Serial No. 227,567.

*To all whom it may concern:*

Be it known that I, WILLIAM DAVID HUDGINGS, a citizen of the United States, residing at Game, in the county of Pemiscot and State of Missouri, have invented certain new and useful Improvements in Railway Cattle-Guard Gates; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in cattle-guards; and it has for its object the provision of a simple and efficient cattle-guard of the class in which sliding gates are normally closed across the railway-track at street-crossings, the said gates being so connected by link-and-lever mechanism with bars so adjusted relative to the railway-track as when operated upon by the wheels of a passing engine or car to automatically open the gates for the passage of the train and to close the same after the train has passed.

The invention has also for its object the provision of a railway cattle-guard gate of this description which will be inexpensive in construction, of few parts, and also positive in its operation.

To these ends and to such others as the invention may attain the same consists in the peculiar construction and in the novel arrangements, combinations, and adaptations of parts, all as will be hereinafter more fully described, shown in the accompanying drawings, and then specifically defined in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, like letters referring to the same parts throughout the several views, in which—

Figure 1 is a top plan view showing a portion of a railway-bed with one of the rails and with my invention applied thereto. Fig. 2 is an end elevation of the same. Fig. 3 is a front view of the device and its connections,

the gates being shown as closed. Fig. 4 is an enlarged side elevation of a portion of a railway-rail with the bar which is automatically acted upon by the wheels of a locomotive or car in operating the gate and the connections between said bar and rail, and Fig. 5 is an enlarged detail view showing the rail and bar in cross-sections and the gate-operating connections linked therewith.

Reference now being had to the details of the drawings by letter, A A represent the railway-rails, secured in the ordinary manner to cross-ties B B.

C C are sliding gates which are mounted to be moved longitudinally within guides D D, provided for the purpose of guiding the movement of the gates and retaining the same in position, these guides D being placed upon opposite sides of the railway-track at points where the highways cross the railroad and being intended to prevent cattle, horses, or other animals from passing from the highway upon the rails.

E is a metallic bar placed upon the outside of the railway-rail and connected therewith by means of links F F, one end of said links being sleeved upon bolts  $f$ , extending from the said bar E, and its opposite end upon similar bolts  $f'$ , passed through the web of the rail. The said bar E is at its opposite ends beveled downwardly from the main portion to the extreme ends of the bar, as shown, and normally the said ends are substantially flush with the tread of the rail, while the body portion of the bar is slightly raised above the rail, so that the tread of the car-wheel in passing over the bar will serve to depress the same, as will be readily understood.

G is a lever pivoted at its lower end upon a transverse bolt  $g$ , extended through the web of the rail at a point intermediate of the links F. Said lever G is pivotally connected to the bar E, while at its upper end said lever is attached to a cable H, which extends in the direction of the gate and is passed around a pulley J and is thence extended to and attached at the lower end of a lever I, the said lever I being at its lower end pivoted to a fixed point beneath and adjacent to the outer end

of one of the gates, and at its upper end, which is provided with a slot *i*, the said lever is sleeved upon a stub bolt or pivot *i* upon the face of the gate. A spiral spring *K* is provided at the lower end of the lever *I* upon the side opposite that to which the cable *H* is attached, so that the forward movement of the lever *I*, which is imparted in opening the gate, will be against the tension of the said spring *K*.

It will be understood, of course, that both of the railway-rails are provided with operating-levers and connections, the device upon one side being adapted to operate one of the gates, while the other gate is operated simultaneously by duplicate mechanism connected with the opposite rail.

From the foregoing description the operation of the gates will be at once and readily understood. It will be seen that a train approaching the gate from either direction will when the wheels of the passing car or engine cross the rails depress the end of the bar *E*, and this depression will force the said bar in the direction the train is moving, the said longitudinal movement of the bar being limited by the linked connections *F*, and of course this forward movement will be comparatively slight and only such as to serve to tilt the links *F* slightly out of their vertical connections. The said bar *E* having moved this slight distance will be depressed, this depression serving to tilt the lever *G*, thus drawing upon the cable *H*, passing over the pulley *J*, and pulling upon the lower ends of the pivoted lever *I*, connected with the gate, will cause the gate to be moved outwardly upon either side, thus opening the gate for the passage of the train, and that the wheels of the train in leaving the opposite end of the bar *E* will force the said bar back to its original position, thus through the

reversing movement upon the gate serve to close the same automatically.

Having thus described my invention, what I claim to be new, and desire to be secured by Letters Patent, is—

1. A cattle-guard for railway-tracks comprising two horizontally-sliding gates, a framework in which said gates slide, suitable guideways engaging the tops of said gates, a depressible bar mounted adjacent to a rail and designed to be depressed by the wheels of a train passing over the rails, tilting levers having sliding pivotal connection with said gates, a tilting lever pivoted at one end and having pivotal connection with said depressible bar, and cable connections between said tilting levers, as set forth.

2. A cattle-guard for railways comprising two horizontally-sliding gates and framework in which the same are mounted, guideways at the upper ends of said framework in which the upper ends of the gates have play, tilting levers *I* pivoted to said framework and having elongated slots whereby said levers may have sliding pivotal connections with said gates, a depressible bar, links pivotally connected at their lower ends to the web of the rail of a railway-track and their upper ends pivoted to said depressible bar, a lever *G* pivoted at its lower end to the web of a rail and having pivotal connection with said depressible bar, a cable connecting said lever and bar, and a spring fixed to said framework and having connection with one of said tilting levers, as set forth.

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

WILLIAM DAVID HUDGINGS.

Witnesses:

J. A. McFARLAND,  
M. B. HENDRIX.