

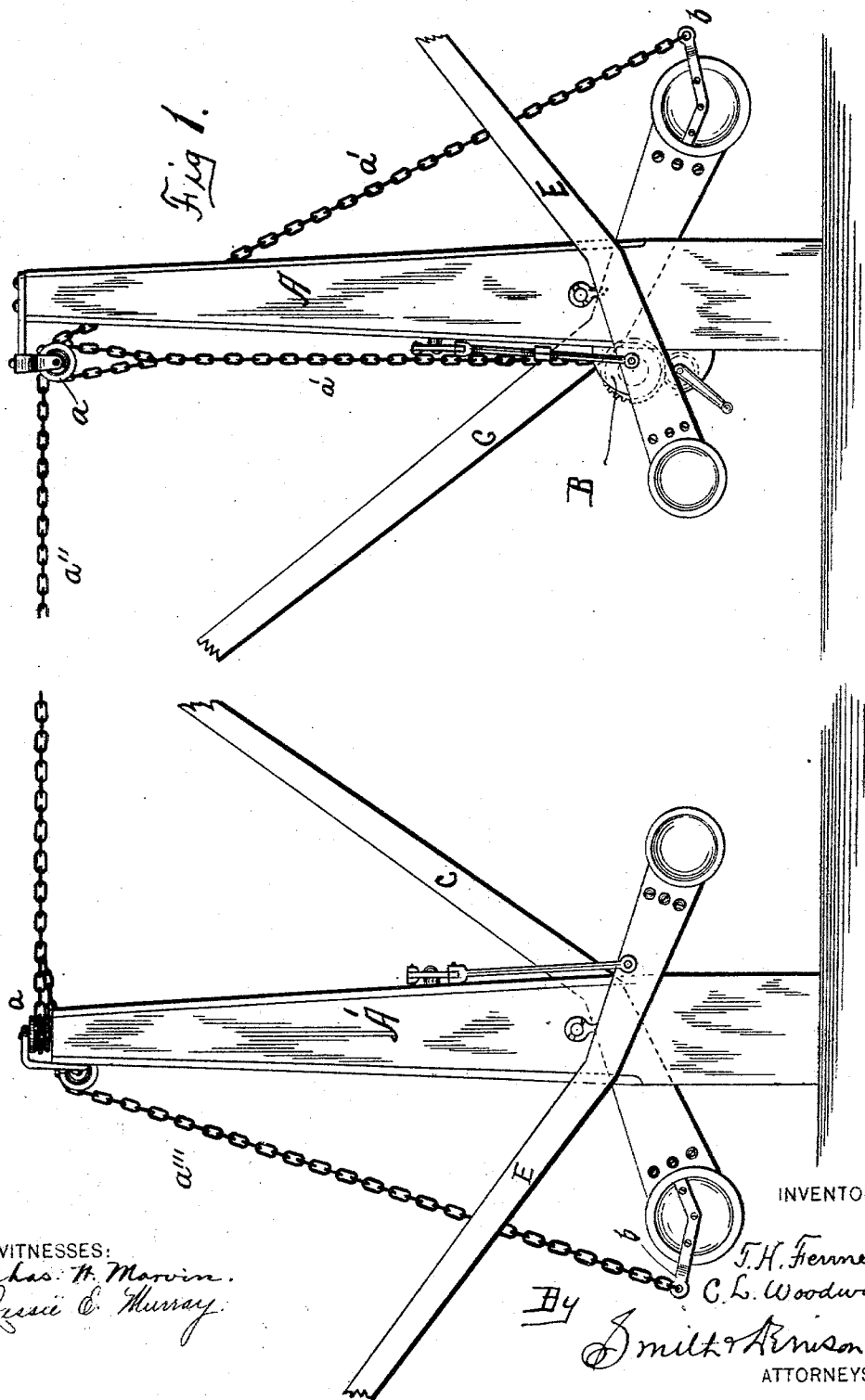
(No Model.)

2 Sheets—Sheet 1.

T. H. FENNELL & C. L. WOODWARD.
RAILROAD GATE.

No. 564,983.

Patented Aug. 4, 1896.



WITNESSES:

Chas. H. Marvin.
Jesse E. Murray.

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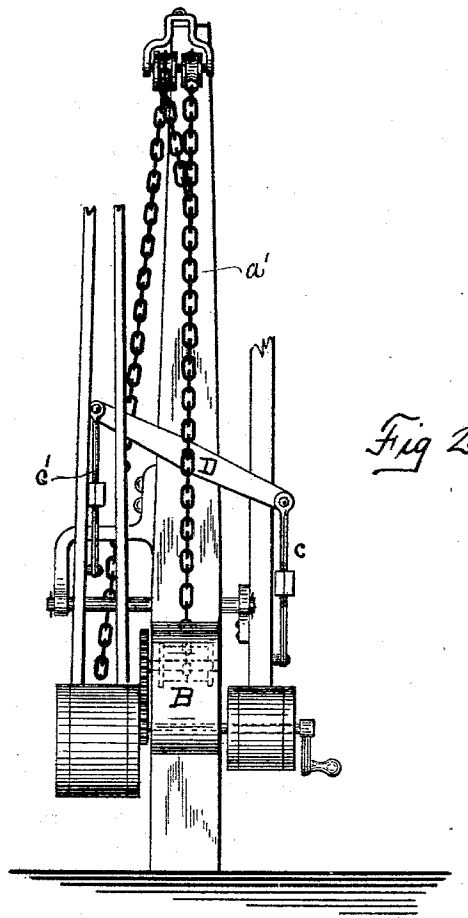


Fig 2

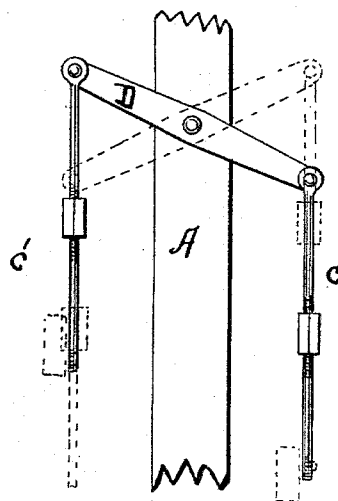


Fig 3

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UNITED STATES PATENT OFFICE.

TIMOTHY H. FENNELL, OF EAST HARTFORD, CONNECTICUT, AND CLARENCE
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RAILROAD-GATE.

SPECIFICATION forming part of Letters Patent No. 564,983, dated August 4, 1896.

Application filed November 4, 1895. Serial No. 567,785. (No model.)

To all whom it may concern:

Be it known that we, TIMOTHY H. FENNELL, of East Hartford, county of Hartford, and State of Connecticut, and CLARENCE L. WOODWARD, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Railroad-Gates, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the construction of railroad-crossing gates, in which it is desired to have a pair of arms upon each side of the track to close the foot-passage across the railroad as well as the carriage-crossing.

Our object is to produce such a gate, the arms of which we may be able to operate by the rotation of a drum so adapted and arranged that the eight arms will all act simultaneously; and to that end our invention consists in the several new and novel features of construction and operation hereinafter described, and which are specifically set forth in the claims hereunto annexed. It is constructed as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of the posts of the gate upon one side of the crossing, showing the arms and chains at the top broken away. Fig. 2 is a view of the post upon which the operating-drum is mounted, looking at it from the inside. Fig. 3 is a view of a section of the inside of said post, showing an enlarged detail of the walking-beam, which is connected at one end to the arm which crosses the foot-path and the other end connected to the arm which crosses the road-passage, so as to adapt the respective arms to act simultaneously.

Similar letters of reference indicate corresponding parts.

A and A' are posts, constructed of iron or other material desired, upon each side of the railroad and between the carriage and foot passage. Inasmuch as there are four posts, two upon each side similarly located, it will not be necessary to describe the corresponding ones, as they are in all respects substantially similar to the ones hereinafter to be described.

The post A is provided at its upper end with an antifrictional wheel or pulley *a*, hav-

ing two or more grooves in its periphery, adapted to receive the operating-chain *a'*.

B is the drum mounted near the lower end of the inside of the post A, the chain *a'* being secured thereto and means being provided for rotating said drum for the purpose of winding and unwinding the said chain. The chain *a'*, between the drum and the antifrictional pulley *a*, has attached thereto an additional chain *a''*, which is adapted to pass over the pulley, as shown in the drawings. The chain *a'* passes over the pulley *a* and thence extends outwardly and is secured to the end *b* of the arm C, which is pivoted or hinged and adapted to move vertically upon the post A.

Upon the inner face of the post A is mounted a walking-beam D, having links *c* and *c'* secured at its outer ends, the link *c* being secured at its lower end to the inner end of the arm E, which is pivoted to the post A and adapted to swing vertically, while the end of the link *c'* is secured to the arm C for the purpose of making an operating connection between the arm C, which closes the carriage-passage, while E closes the foot-passage across the railroad.

It will be observed that when the drum B is rotated, as by a handle or gear meshing with the gear upon the drum, as shown in the drawings, the chain *a'* will be wound on the drum B, and as this chain is drawn down the outer end of the arm C is raised, thus throwing the inner end of the arm C down across the carriage-passage of the railroad.

As the arm C is depressed the link *c'* draws one end of the walking-beam D down and throws the opposite end upward, and inasmuch as the link *c* is connected to the inner end of the arm E, it forces the outer end of said arm down and across the foot-passage, so that by one operation or by winding the chain *a'* upon the drum B we simultaneously throw the arms C and E downward across the carriage and foot passages, respectively.

Inasmuch as each of the other three posts is similarly constructed and arranged, and the arms for closing the passages are similarly connected together, it will be unnecessary to describe them further than to note that the chain *a''*, as it approaches the post

upon the same side, is joined to a chain a''' , which extends down and connects with the outer end of the arm C, as heretofore described, while the main chain a'' , after passing around the pulley a upon the upper end of the post A', passes directly across the track and is connected to the arms of the opposite set of gates.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

1. A gate for a railroad-crossing, comprising posts having pulleys near their tops, a drum mounted on one of them and means for rotating it, pairs of oppositely-extending arms pivoted to each of said posts, a chain or flexible connection having several chains connecting thereto, one end of the main chain being secured to the drum and adapted to be wound upon it, the opposite ends of the chains passing over pulleys and secured to the ends of the main arms, and walking-beams connecting the two arms of each pair, as set forth.

2. A gate for a railroad-crossing, comprising a post, a drum mounted thereon and means for rotating it, oppositely-extending arms pivoted to said post, a flexible connection between the drum and the end of one of

the arms over or around the upper portion of the post and a walking-beam pivoted to said post having its ends connected to the arms for the purpose of operating said arms simultaneously.

3. A gate for a railroad-crossing comprising posts, a drum mounted on one of them and means for rotating it, pairs of arms pivoted to said posts, antifriction-rollers at the upper ends of said posts, a flexible connection between said drum and the end of one of the main arms over said roller, a walking-beam pivoted to each post and connecting the arms of its pair for the purpose of operating them simultaneously, and auxiliary chains connecting the aforesaid chain with the remaining posts for the purpose of operating the arms.

In witness whereof we have hereunto set our hands on this 20th day of June, 1895.

TIMOTHY H. FENNELL.

CLARENCE L. WOODWARD.

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