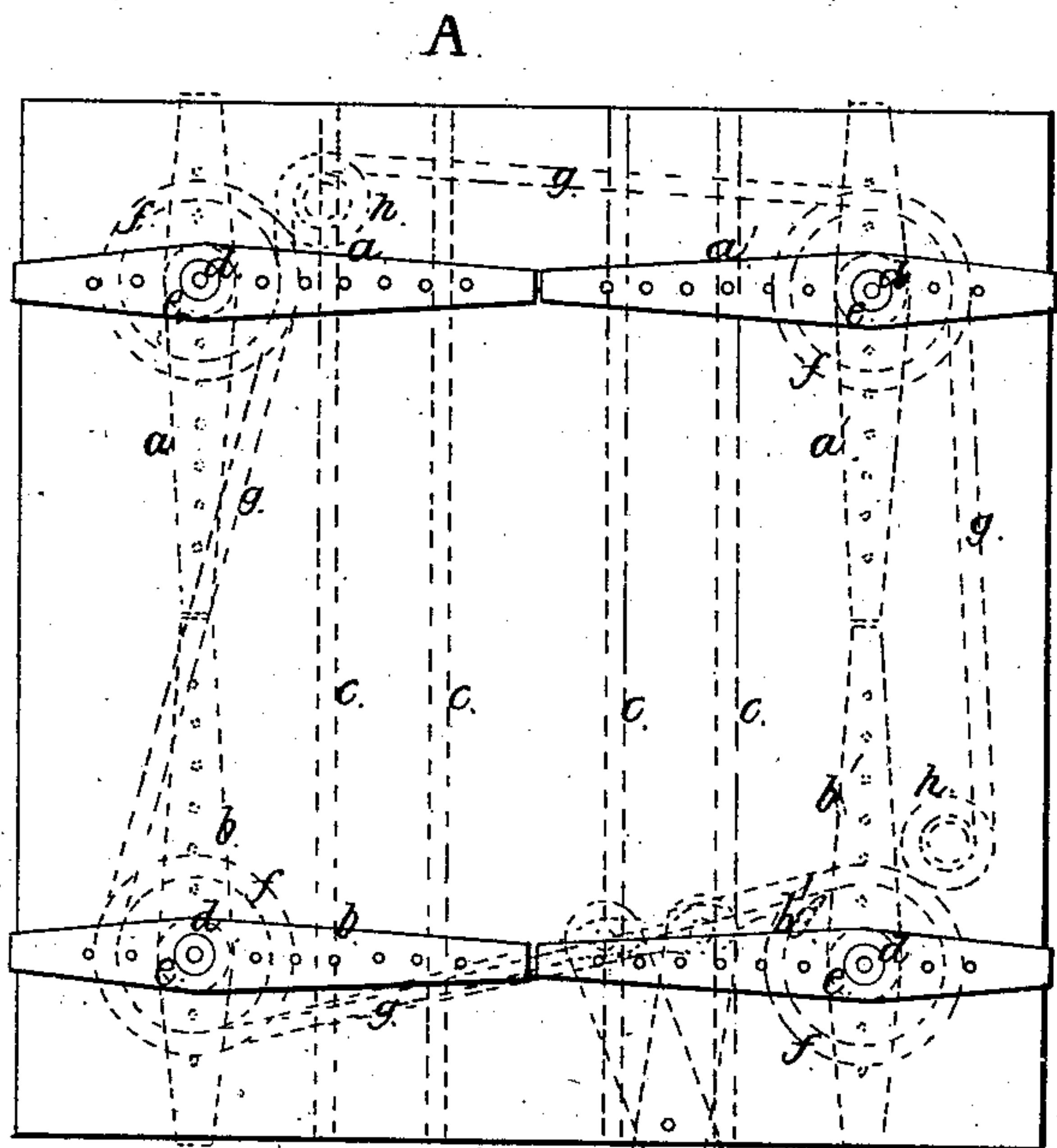
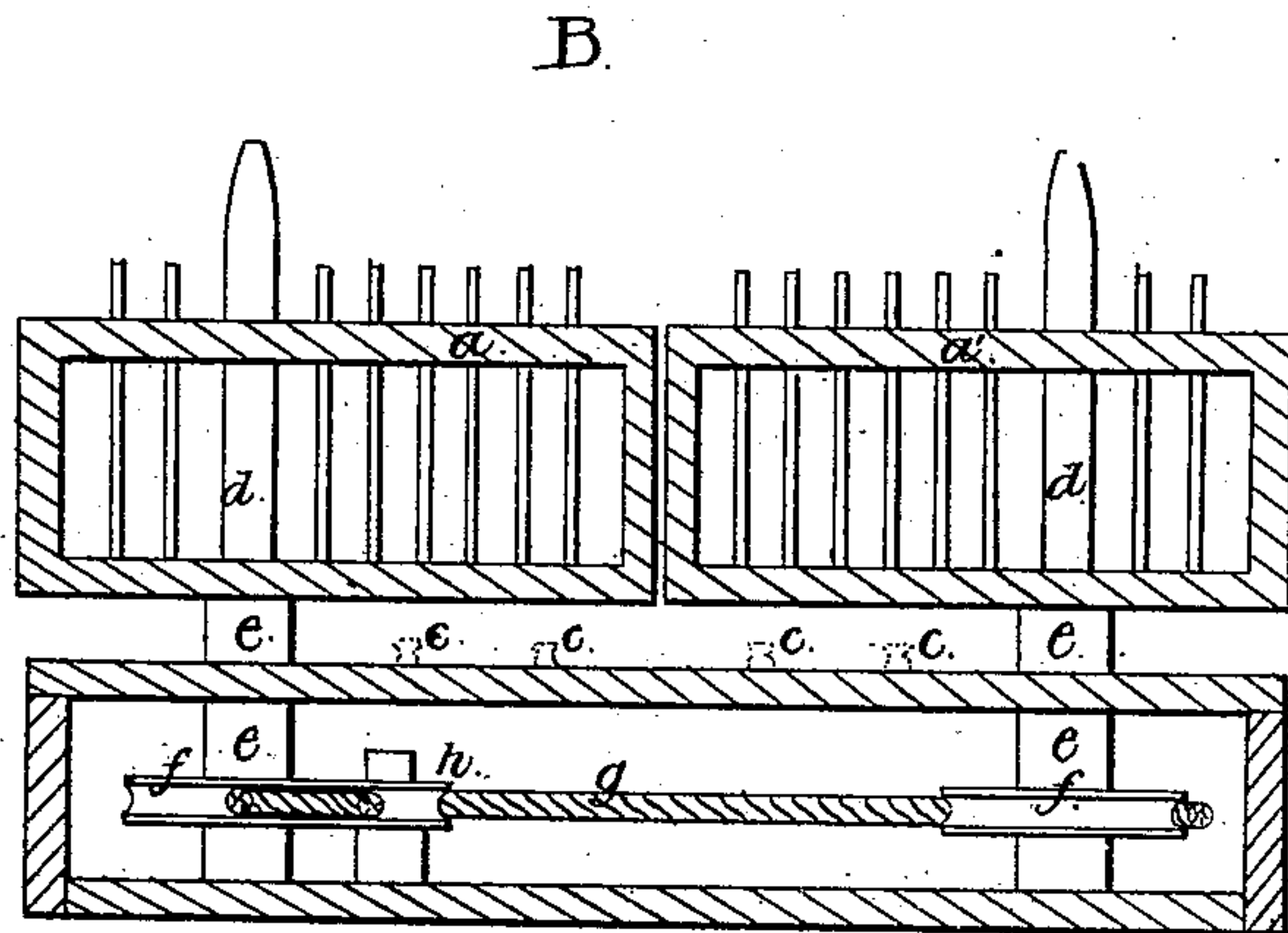


Nason & Wilson.

Railroad Gate.

Nº 68,306.

Patented Aug. 27, 1867.



Witnesses:

J. B. Kidder

M. W. Frothingham

Inventor:

*J. Nason
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by their attys
C. W. Kalsbeek & Co.*

United States Patent Office.

JOSEPH NASON AND JOSEPH F. WILSON, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 68,306, dated August 27, 1867.

IMPROVED GATE FOR RAILROAD CROSSINGS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, JOSEPH NASON and JOSEPH F. WILSON, both of Boston, in the county of Suffolk, and State of Massachusetts, have invented an Improvement in Operating Gates at Road-Crossings; and we do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of our invention sufficient to enable those skilled in the art to practise it.

In opening and closing the gates where railways cross highways at grade, the means that have been heretofore employed to simultaneously operate gates on opposite sides of the highway are expensive, and generally require the attention and laborious manipulation of several gatemen.

Our invention is designed to remedy these difficulties, by mounting the several gates on tubular shafts, through each of which and the gate a stationary post runs, the shafts extending below the track-way, and having at or near the lower end of each a pulley or wheel, around which a rope or chain passes in such manner as to bring the several shafts into a train operated by said rope, so that by opening or closing either gate the others will be thereby simultaneously opened or closed, or by operating a lever connected with a chain or rope, all the gates shall be operated together.

It is in this connection of the gates together, below the track, so that all are simultaneously thrown open or shut; that the invention consists.

The drawings represent a set of gates connected and operated in accordance with our invention, A showing a plan, and B a cross-section between the gates. $a a' b b'$ denote two sets or pairs of gates, one pair being upon one, and the other upon the opposite side of the road across which the rails c run. Each gate swings on a stationary vertical post, d , and is fixed upon the top of a sleeve or tubular shaft, e , (through which the post extends,) said shaft extending below the track or road-bed, and having fixed upon its lower end a pulley or wheel, f , the several wheels being connected or made into a train by a band, rope, or chain, g , engaging with each, as seen at A, guide-pulleys h being used, if desirable, to force the band into contact with the wheels or pulleys f . At any convenient point the rope or chain g is attached to one end of a lever, h^2 , whose opposite end is so located as to be within reach of the gateman, so that by swinging the lever in one or the other direction, he actuates the chain, and simultaneously opens all or closes all the gates. The same result may, however, be obtained by swinging either one of the gates, this operation correspondingly swinging all the others. In most cases a chain and chain-pulley may preferably be used instead of a rope and plain groove pulleys to connect and operate the gates, the teeth of the pulleys working into the links of the chain and insuring proper relative movement of all the gates. Instead of having the tubular shafts or sleeves e to rotate on the posts d , these sleeves may be made stationary, and the pulleys and gates be fixed upon the posts, but we prefer the arrangement substantially as shown, as most conducive to strength and ease of operation. The pulleys and connecting apparatus being arranged in a box below the track, are protected from the injurious effects of open exposure to the weather, and may be kept in much better operating condition than where high posts are used with pulleys and overhung connections from post to post to operate the gates.

We claim the combination of the rotary gates, supporting shafts or sleeves, and their pulleys and connecting band or chain, with reference to the stationary posts, and relatively to each other, the pulleys and their operating mechanism being arranged below the track or road-bed, and operating together to simultaneously open or close the gates, substantially as set forth.

JOSEPH NASON,
J. F. WILSON.

Witnesses:

FRANCIS GOULD,
S. B. KIDDER.