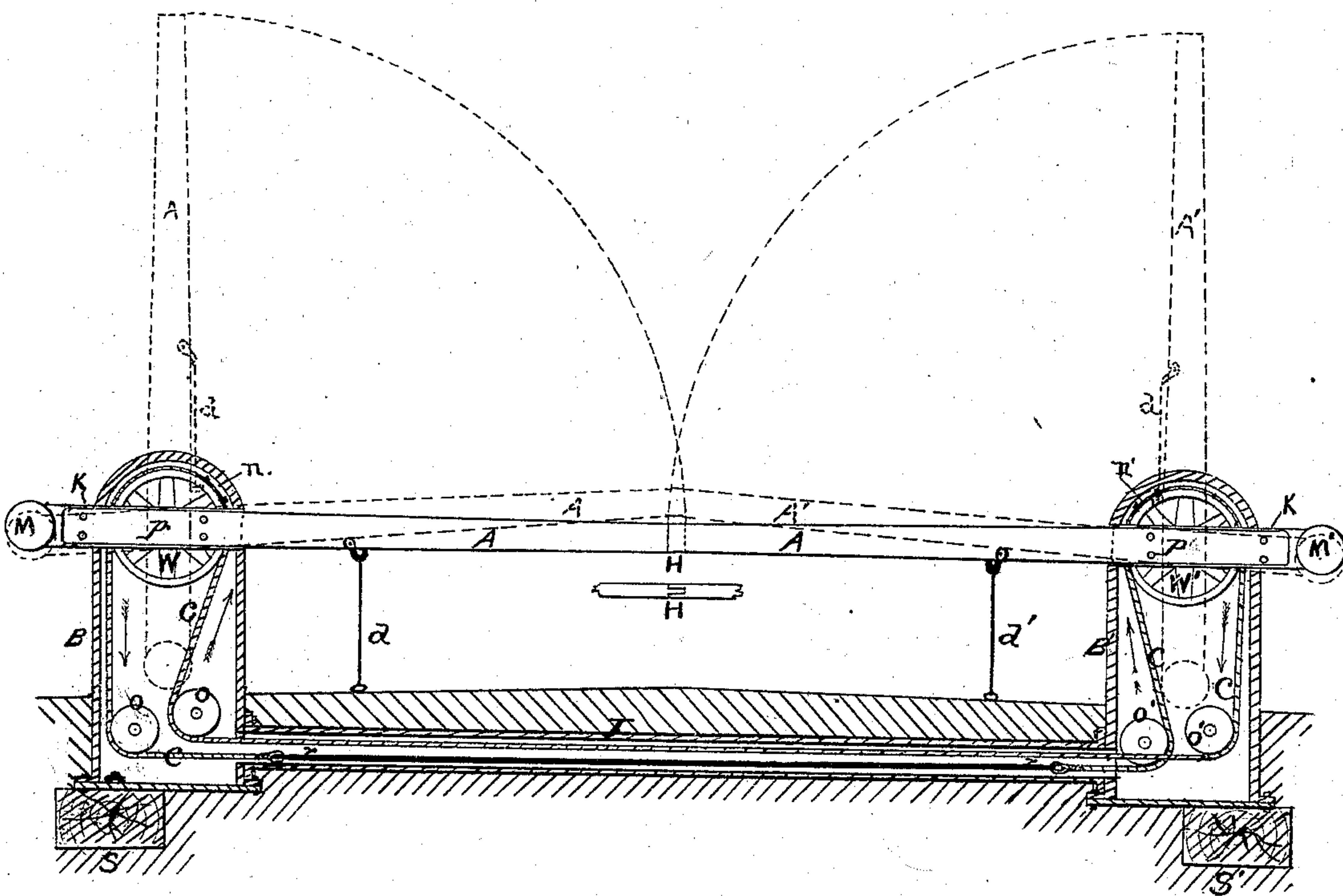


J. S. WINSOR.  
Automatic Gates.

No. 151,260.

Patented May 26, 1874.



WITNESSES.

INVENTOR.

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# UNITED STATES PATENT OFFICE.

JOSEPH S. WINSOR, OF PROVIDENCE, RHODE ISLAND.

## IMPROVEMENT IN AUTOMATIC GATES.

Specification forming part of Letters Patent No. **151,260**, dated May 26, 1874; application filed February 9, 1874.

*To all whom it may concern:*

Be it known that I, JOSEPH S. WINSOR, of Providence, county of Providence, State of Rhode Island, have invented certain new and useful Improvements in Gates; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making a part of this specification.

The form I have shown can be used for any width of opening; but from its light construction, its perfect balance, which insures ease in working, its exemption from any hinderance to its free working by any accumulations beneath, such as of ice or snow, its perfect support when closed, and its capability of being operated by one standing at any part of the crossing, make it especially serviceable for those greater widths, such as are found at ferries, street and railroad crossings, and upon farms.

As shown in the drawing it is formed by the bars A A', which are pivoted at the sides of the passage-way at *p p'*, and whose inner extremities meet at the middle of the road. The movements of the bars are in vertical planes, as shown by the dotted lines. Upon or connected with the pivots or shafts, with which the arms revolve, are wheels *w w'*, which, by suitable connections of chains *c* and rods *r*, form a communication beneath the roadway, so that motion communicated to one bar or wheel causes a corresponding movement in the other, while both preserve their proper relative positions.

In other gates operated simultaneously, in manner as described, the balance is imperfect, because the counter-weights employed do not preserve the same positions relative to the gates during the whole movement of the latter, and the gates do not work with perfect freedom, because they are in different planes from such counter-weights.

These defects are obviated by my improvement, which consists in placing counter-weights M M' to operate in line with the gate-bars themselves. The weights will, by this construction, exactly balance the bars in their every position. This would also be the case if the weights were suspended, provided the points of suspension were in line with these bars, as in such case the weights would act as if their center of gravity were at such point of suspension.

My second improvement consists in the method employed in arresting the descent of the bars when they have reached a desired position. By making the arms longer than the half-distance between their axes of revolution, the arms assume an inclined position when the gate is closed, the ends abutting against each other like rafters.

By this construction it matters not what obstruction may be beneath those bars it will not prevent the proper closing of the gate.

To add to the rigidity of the gate when closed the end of one bar is narrowed or chamfered off to wedge into a corresponding recess at the end of the other gate, a construction which is shown at H.

I claim as my invention, and desire to secure by Letters Patent—

The vertically-swinging gate-bars A A', pivoted to the posts B B', whose outer ends are weighted and whose inner ends abut and interlock, and which are operated simultaneously by means of endless connections *c* and *r*, and pulleys *o o'*, substantially as herein described, for the purpose specified.

JOSEPH S. WINSOR.

Witnesses:

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