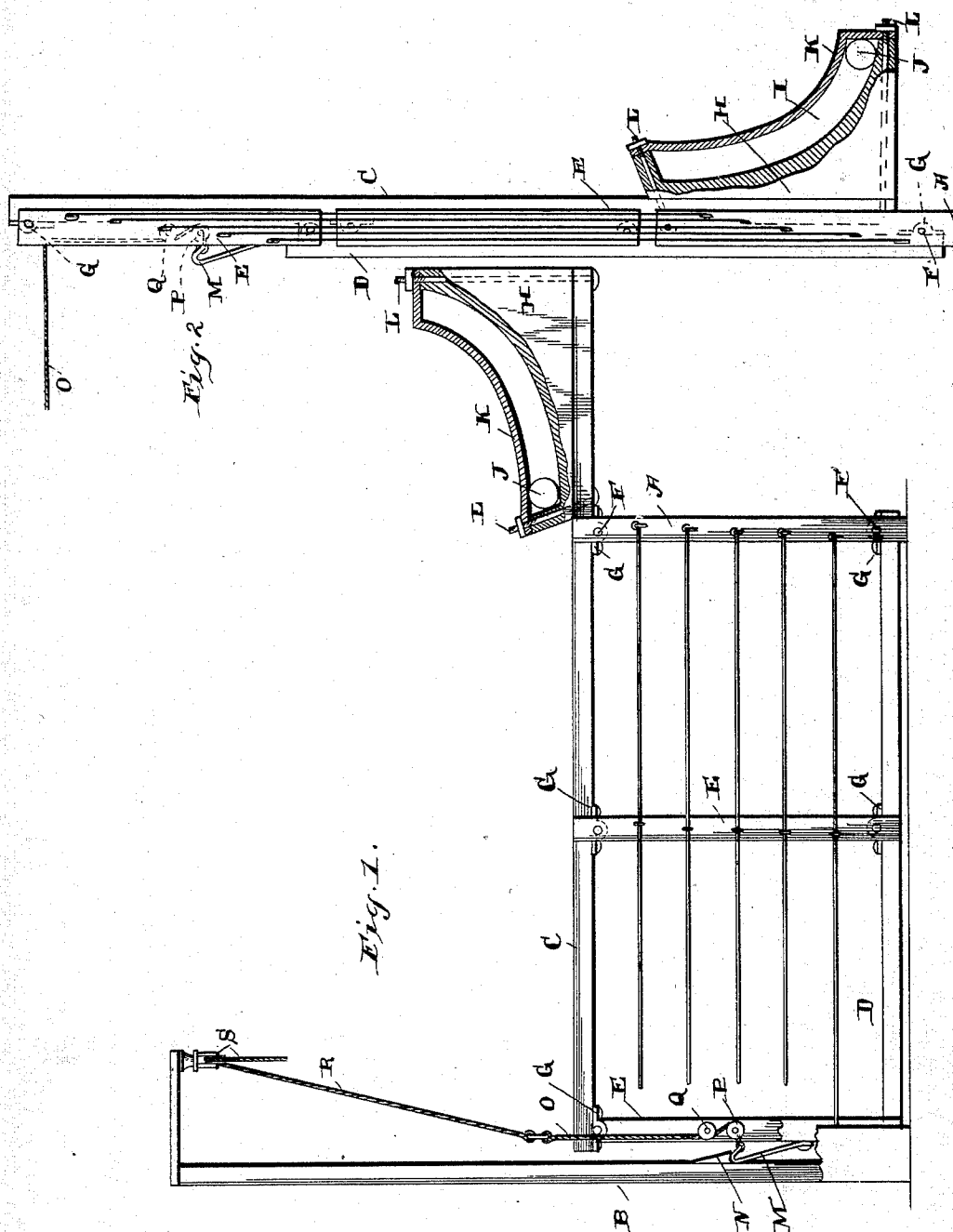


(No Model.)

A. J. DUCK, W. S. SAVIDGE & G. W. WOLFE.
TILTING GATE.

No. 483,432.

Patented Sept. 27, 1892.



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TILTING GATE.

SPECIFICATION forming part of Letters Patent No. 483,432, dated September 27, 1892.

Application filed March 17, 1892. Serial No. 425,316. (No model.)

To all whom it may concern:

Be it known that we, ANDREW J. DUCK, WINDFIELD S. SAVIDGE, and GEORGE W. WOLFE, of Lewisburg, in the county of Union and State of Pennsylvania, have invented certain new and useful Improvements in Tilting Gates; and we do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in tilting gates; and it consists in the novel features of construction, which will be fully described hereinafter, and more particularly referred to in the claim.

The object of our invention is to provide an improved means of throwing a gate upon its pivot, whereby only a very slight pull upon the operating-line is required either to open or to close the same.

Referring to the accompanying drawings, Figure 1 is a side elevation of the gate lowered with parts broken away to show the latch and operating mechanism. Fig. 2 is a side elevation of the same, the gate being thrown open.

A represents the post, upon which the gate is hung, and B the latch-post at the opposite side of the road.

The gate-frame consists of the upper rail C, the lower rail D, and the vertical strips E, which connect the said rails. The rear ends of the said rails are pivotally connected to the post A by means of the bolts F, which extend through the projecting bearings G on the adjacent edges of the rails. Similar projecting bearings are provided, as shown, at the points where the strips E connect with the rails. By means of these projecting bearings, which may be formed of any suitable metal, all wear is avoided which would occur were the bolts passed directly through the rails. The great advantage, however, which is derived from this construction is that the rails of the gate may be thrown to a perfectly-vertical position, as shown in Fig. 2, the said bearings holding the rails out from their pivotal points, thus

enabling them to assume the vertical position when turned upward or open.

Supported on the rear extended end of the rail C is the block or boxing H, having a curved groove I in its upper edge, as shown. Adapted to move in this groove is the ball-weight J, which is confined therein by the curved cover K, which fits the upper edge of the block H, and which is secured thereto by the vertical bolts L, which also hold the block in position on the rail. The way *w* is curved gently upward from its inner end; but the outer portion of the way is curved sharply upward. When a slight lift or pull is exerted on the opposite end of the gate, it will be seen that the inner end of the way forms an incline down which the weight rolls toward the center of the way, and while the gate is being tilted upward by the action of the said ball-weight this downward incline constantly terminates just in advance thereof, so that the latter is prevented from rolling at once to the outer end of the way. Its movement toward that point being gradual gives to the gate an even and easy ascent, whereas were the bottom of the way straight the weight would roll outward very suddenly and throw the gate open with a jar, which would be very wearing thereon. The curved way also has its advantage over a straight one when it is desired to close the gate or draw it downward. In this case a slight pull is exerted on the upper end of the gate, pulling it forward when immediately the outer end of the groove forms an inward incline, down which the weight rolls, thus throwing its weight with the gate in the downward movement of the latter.

Secured in the outer edges of the front strips E is the spring-latch M, which engages a catch N on the inner side of the post B. Connected to the upper end of this latch is the operating-line O, which extends inward around the roller P, and then outward under the second roller Q, so that when an upward pull is given to the line the top of the latch will be drawn inward and released from the catch on the post. This line O is connected at its upper end to the inner ends of the pull-lines R, which extend upward through the pulleys S, depending from the vertical standard B', and

from this point they extend in opposite directions, being supported by the horizontal arms S, carrying pulleys, as shown, through which the lines work. Thus the outer ends 5 of the lines are within convenient reach of the driver of an approaching vehicle, and by simply pulling thereon from either side of the gate the latch is disengaged from the post B, and the same pull gives an upward lift to the 10 gate, setting in motion the rolling weight, which throws the gate entirely open and out of the way. The pull required to effect this operation is very slight.

The space between the top and bottom rails 15 of the gate may be occupied by strands of wire or rods, as may be preferred.

Having thus described our invention, we claim—

In combination, a post, a vertically-tilting gate hinged to said post, and the box H, secured to the upper portion of the gate and 20 located on the opposite side of the post, and provided with the rearwardly and upwardly curved inclosed way T, and the ball-weight in said way, whereby when the gate is raised or 25 lowered the movement of the ball is gradual, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

ANDREW J. DUCK.
WINDFIELD S. SAVIDGE.
GEO. W. WOLFE.

Witnesses:

WM. R. FOLLMER,
WM. F. BARBER.