

UNITED STATES PATENT OFFICE.

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GATE.

SPECIFICATION forming part of Letters Patent No. 783,582, dated February 28, 1905.

Application filed August 25, 1904. Serial No. 222,132.

To all whom it may concern:

Be it known that I, JAMES HODGENS, a citizen of the United States, residing at Savannah, in the county of Andrew and State of Missouri, have invented certain new and useful Improvements in 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 new and useful improvements in sliding gates; and the object of the invention is to generally improve upon and render more efficient the gate upon which I have been granted Letters Patent in the United States, No. 718,626, of January 20, 1903.

The present invention consists, essentially, in the provision of two gates made, preferably, of hollow metallic piping so arranged that the upper horizontal tubular portion of each gate works horizontally upon grooved pulleys, with the parallel tubular portion engaging pulleys at a position diametrically opposite the portion engaged by the upper part of the gate, and in means for holding the gate from tilting while it is in any particular position.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which—

Figure 1 is a side elevation of my improved gate. Fig. 2 is a cross-sectional view on line 2 2 of Fig. 1, and Fig. 3 is a diagrammatic view of the rope-and-pulley apparatus for opening and closing the gates.

Referring to the drawings by letter, A A designate posts which are vertically disposed and spaced apart, and secured to said posts are the elongated boxings B, having two spaces therein, in one of which are mounted the pulleys G¹ and D³ and G³ and D¹, arranged in pairs, and in the other boxing are pulleys I², I³, I⁵, and I⁶, as shown clearly in Fig. 2 of the drawings. A cross-piece E connects the upper ends of said boxings, and a staple or loop E' projects downward from said

cross-piece, through which the gate-operating ropes are guided. Secured at one end of said cross-piece E is a block H, which has mounted on suitable spindles in the central aperture therein the pulleys G' G' and D I'. 55

The gates have each preferably a frame of hollow tubular metal, with a top tubular portion K', which extends the entire length of the gate and connects at its outer end with a union O, which in turn is connected to the inclined tubular portion O'. The bottom tubular portion K² of the gate is connected to the union O², and a similar tubular portion K¹, parallel to the tubular portion K', has cross-pieces P connecting the same with the bottom portion K². The space intermediate the tubular outline of each gate is filled in with intersecting wires J, the ends of said wires being fastened in any suitable manner. 60

L designates a post having reels L' and L^x, 70 mounted upon and rotating with crank-shafts L', which are mounted upon said post L, and M designates a grooved pulley mounted upon a suitable spindle upon the post L and upon which the tubular portion K' of the gate rests 75 and is guided.

R designates a rope, which is secured to and winds about the reel L^x and thence passes about a pulley D, thence over a pulley D', through the loop E', over the pulley I², about the pulley I³, and has its end secured to an eye 1/2 on the end post K⁵ of one of the gates. A branching rope R' is fastened to the rope R, passes over a pulley D', underneath a pulley D³, thence passes through an eye 1/2', and 85 is fastened to a catch 1/2², pivotally mounted upon one gate and adapted to engage a pin 1/2³ upon the adjacent gate. A rope R² is secured to and winds about the pulley L', thence passes over a pulley G, over a pulley G³, thence 90 through the loop E', over a pulley I⁵ and under a pulley I⁶, and is fastened to a loop or eye J⁵ upon one of the gates. A branching rope R¹ passes about the pulley I' and pulley G', over the pulley G³, underneath the pulley 95 G⁶, and is fastened to an eye G' upon one of the gates.

In operation when it is desired to open the gates the reel L² is rotated, which through the medium of the ropes, arranged as shown, 100

causes the two gates to slide in opposite directions, one of the ropes raising the latch before the gate carrying the same is opened. As the gates move longitudinally their upper tubular portions K' ride upon the grooved pulleys, while the tubular portions K¹ of the gate are guided in the same grooved pulleys at positions diametrically opposite the locations at which the gates rest. By the arrangement shown it will be observed that the gates are held in horizontal positions whether partially open or fully open and when closed.

While I have shown a particular detailed construction of apparatus illustrating my invention, it will be understood that I may vary the construction of the same as to details, if desired, without in any way departing from the spirit of the invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In combination with the vertical posts, a metallic boxing mounted between said posts and having a longitudinal partition, a pin mounted in said posts beneath said boxing, a pulley mounted upon said pin, a gate having parallel tubular portions adjacent to the top

thereof, the upper of said tubular portions mounted upon said pulley and held thereon by the lower end of said boxing, the ends of said tubular portions being connected together, a post with reels mounted thereon, a pulley mounted upon said reel-carrying post and upon which the top tubular portion of the gate travels, a cross-piece connecting the parallel tubular portions of the gate and adapted to limit the movement of the gate in one direction, said gate being guided between the posts supporting said boxing, a plate supported against the face of said boxing near the top thereof, horizontally-disposed pulleys mounted in an opening in said plate, and vertically-mounted pulleys in said boxing adjacent to said plate, ropes winding about said reels, passing over said pulleys upon the plate and boxing and connected to the gate, as shown and described.

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

JAMES HODGENS.

Witnesses:

G. S. MATHEWS,
J. H. REA.