No. 709,548. Patented Sept. 23, 1902.

J. MEYER.

GATE.

(Application filed Mar. 27, 1902.)

(No Model.)

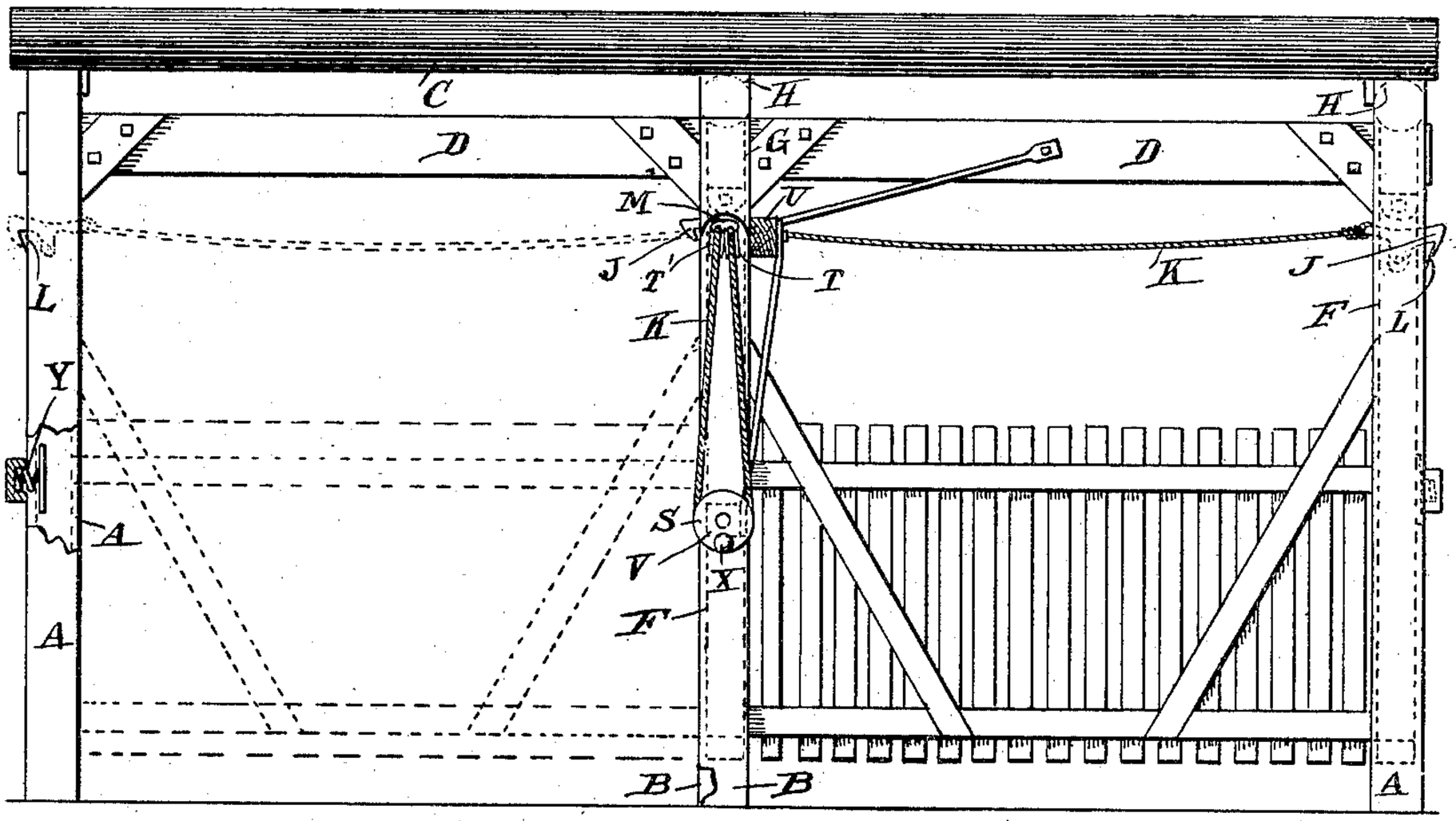


Fig. 1.

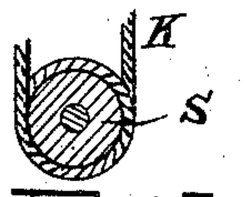


Fig. 3.

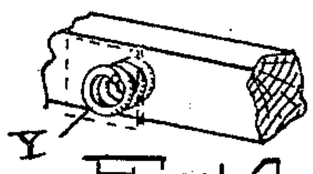


Fig. 4.

Fig. 2

Fig. 5.

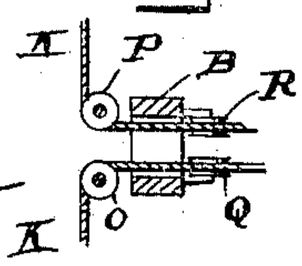
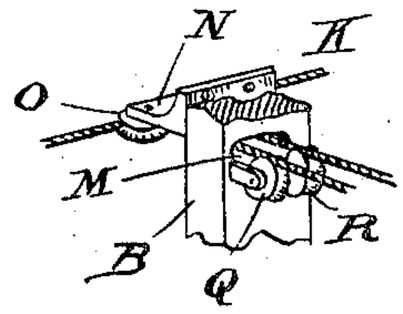


Fig. 6.



WITNESSES

J. F. Blunck

Mac Davis.

INVENTOR

John Meyer.

By L. M. Thurlow.

Atty.

UNITED STATES PATENT OFFICE.

JOHN MEYER, OF YUTON, ILLINOIS.

GATE.

SPECIFICATION forming part of Letters Patent No. 709,548, dated September 23, 1902.

Application filed March 27, 1902. Serial No. 100,343. (No model.)

To all whom it may concern.

Be it known that I, JOHN MEYER, a citizen of the United States, residing at Yuton, in the county of McLean and State of Illinois, have invented certain new and useful Improvements in Gates; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in farm-gates.

The object of the invention is to provide a gate of peculiar form and arrangement of parts, which will be hereinafter fully set forth.

A further and more important object is to provide a gate which will have no "dead-point" at which the gate can stop while being operated in either direction.

In the appended drawings, which form a part of this application, Figure 1 is a front view of the gate and its operating mechanism. Fig. 2 is an end view of the same. Fig. 3 is a sectional view of an operating pulley and rope. Fig. 4 is a perspective view of a portion of a stop for the gate, showing a spring attached thereto. Fig. 5 is a plan view of a set of pulleys for carrying operating-ropes. Fig. 6 is a perspective view of the same, showing a support for two of the pulleys not shown in Fig. 5.

In the drawings, A A represent the end posts of the gate, and B B the middle posts thereof. A roof C covers the entire gate and gateway and is supported upon the posts just described. Supported also by the several posts and held between them is a horizontal beam D, having secured thereto a metal track E, as shown in Fig. 2. The gate proper consists of the end pieces F. (Shown in dotted lines in Fig. 1, and one of which is shown in Fig. 2.) Two horizontal beams are secured to the portions F, as shown, and carry the pickets. I attach no claim, however, to this, as it is used in all fence and gate construction. Secured to the top of each portion F is a casting G, having a flanged roller H, Fig. 2. These rollers are adapted to run upon the track E to carry the gate from end to end thereof, as will be understood. At each end of the gate within a suitable slot in the upright pieces is a pivoted catch J. One end of each catch has a hook, and to the opposite end is attached a cord K, as shown in Fig. 1. As above intimated, each end of the gate is thus provided with a catch, so that at either position of the former the catches are in position to engage a suitable keeper. The keepers consist of the cross-pieces L, attached to the outside of the uprights A and which hold the gate by means of the said catches. In each of the posts B, in line with the catches J, is a hole, Figs. 1 and 6, through which is passed a cord or rope which, projected, terminates in the rope K, already described. Said rope is made to pass over pulleys, so that little or no friction obtains. Figs. 5 and 6 show this. A casting N is attached to the inside of each post B and carries two pulleys O and P, while on the outer surface of such posts are two pulleys Q and R. The rope K passes over the pulleys P and R and descends to and around a pulley S after running over a pulley T, the latter being held on a projecting beam U, supported on the post B. The said pulley S is likewise held on a suitable pin fastened in the end of a beam V, secured also to the post B. The rope takes a double turn around the pulley S, so that considerable friction is obtained. The beams U and V are of sufficient length to permit the rope being reached by a person in a wagon before and after passing through the gate, as will be understood. The rope after passing around the pulley S passes up over a pulley T', thence over the pulleys Q and O to the catch J on the near end of the gate, Fig. 1. I have described the construction for one side of the gate; but the same exists at the opposite side, as shown in Fig. 2 and indicated by the same letters of reference. I attach a metal covering to the beams U U, which is indicated by U'. This covers the ropes and pulleys and protects them from the weather. This may, if desired, be continued down to the pulley S, so as to inclose it also.

The operation of the gate is as follows: If it is desired to throw the gate from the position shown in full lines in Fig. 1 to that shown in broken lines, it is only necessary to grasp the rope lying between the pulley R and the pulley S and pull it in a downward direction. This action raises the catch J, thus releasing it from the keeper L and at the same time

pulls the gate along its track to the opposite position, or that shown in broken lines. As this movement obtains the rope K is continually wound upon the pulley S and at the same time passes up over the opposite pulleys Q and O, and the gate in moving along takes up the slack continually supplied until it reaches the end of its travel. In moving the gate to its original position the same operation takes place. It will be seen that a good strong pull will release the gate and carry it to its opposite position, or, if desired, a series of short pulls may be made, and thus accomplish the same object. I have provided a handle *x* for the pulleys S, so that, if desired, a crank motion may be imparted to the said pulley, and thus steadily move the gate, and in addition to this I have provided at the end posts A A a stop, which consists of a block against which the gate is permitted to strike. As a matter of fact, however, the gate does not strike the said block, but against a spring Y, let into a depression therein. As the gate comes against the spring the latter is compressed and at the same time the catch J engages with the keeper L, thus keeping the said spring under tension. Now when the rope is pulled the catch is released and the spring at once exerts a pressure upon the gate and gives it a quick start in the opposite direction, thus assisting the operator in moving it. To this mode of operating a gate I attach much importance, and I desire to secure the same as my own, and

I therefore claim—

In a gate of the character described, the combination of the gate mounted to slide on an overhead track, a catch J at each end of the gate, a keeper L for each catch, a rope K attached at one end to one of the catches, pulleys secured to the center posts of the supporting structure, beams U projecting at right angles to the length of the gate, the pulleys T thereon, the beams V below the said beams U, the pulleys S thereon, the said rope K passing over the pulleys on the center posts, thence over the pulley T of the beam U, thence down and around the pulley S, thence up over pulley T and back to the center posts and over pulleys thereat, thence to the catch J on the opposite end of the gate from which the rope started all arranged to operate as described, and the springs Y at each end of the movement of the gate, the same adapted to be put under tension whereby when released they assist in throwing the gate as set forth and described.

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

JOHN MEYER.

Witnesses:
J. H. BLUSCH,
MAE DAVIS.