No. 672,080.

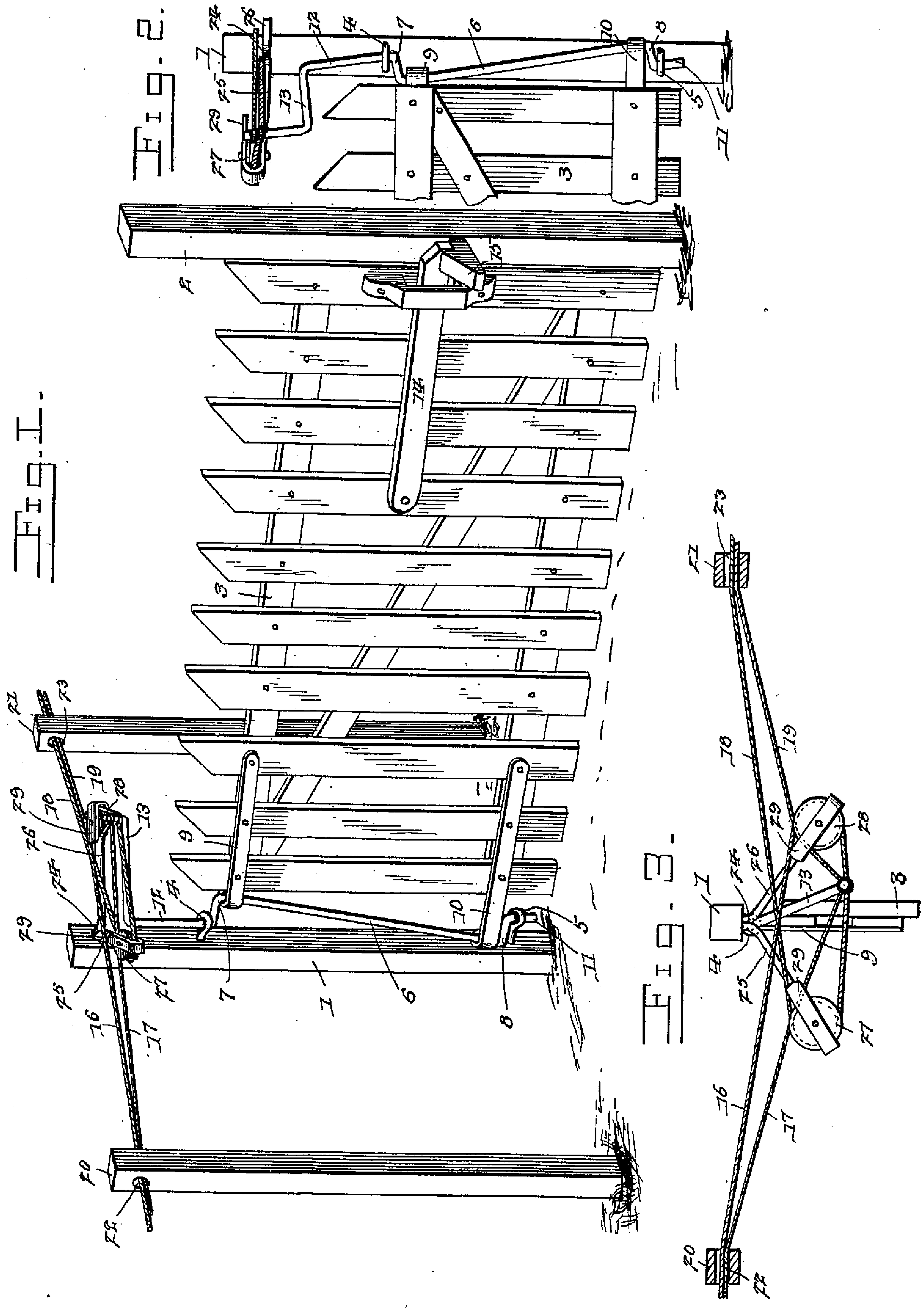
Patented Apr. 16, 1901.

H. F. KING.

GATE.

(Application filed Aug. 24, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

HILLMON F. KING, OF BELAIR, GEORGIA.

GATE.

SPECIFICATION forming part of Letters Patent No. 672,080, dated April 16, 1901.

Application filed August 24, 1900. Serial No. 27,951. (No model.)

To all whom it may concern:

Be it known that I, HILLMON F. KING, a citizen of the United States, residing at Belair, in the county of Richmond and State of Georgia, have invented a new and useful Gate, of which the following is a specification.

This invention relates to swinging gates, and has for its object to provide improved means for opening and closing the same without requiring a separate operation to engage or disengage the gate-latch. It is furthermore designed to arrange the device so that the gate may be both opened and closed from the same side of the gate, whereby it is not necessary to pass through the gateway in order to close the gate from the opposite side thereof.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a swinging gate provided with the improved operating means. Fig. 2 is a detail elevation thereof in the open portion of the gate. Fig. 3 is a detail top plan view of the operating device.

Corresponding parts are designated by like characters of reference in all of the figures of the drawings.

Referring to the accompanying drawings, 1 and 2 designate, respectively, the hinge and latch posts of the gate 3. The hinge-post is provided with the upper and lower eyes 4 and 5, respectively, of which the lower eye projects outwardly beyond the upper eye, and pivoted within these eyes is a pintle-rod 6, which is provided with the upper and lower crank-bends 7 and 8, respectively. The adjacent end of the gate is provided with the upper and lower strap-hinge members 9 and 10, which embrace the pintle-rod below and above the respective crank-bends, so as to hingedly connect the gate to the post. The lower extremity of the pintle-rod is formed into a pintle 11, which turns within the lower eye 5, and the upper end of the rod is formed into a pintle 16, which turns within the upper eye and has its upper extremity formed into a crank-arm 13, which is located above the upper eye. The free end of the gate is locked to the latch-post by means of any common gravity-latch 14, pivoted to the gate and arranged to engage with a keeper 15, carried by the latch-post.

From the foregoing description it will be apparent that the pintle-rod is designed to be turned in the bearings afforded by the eyes 4 and 5 by manipulation of the crank-arm 13 at the top of the rod, and by reason of the opposite relation of the crank-bends the top and bottom edges of the gate will be forced in opposite directions, resulting in a lifting of the free end of the gate to disengage the latch from the keeper. Also the pintle-rod will take an inclined position, as shown in Fig. 2, whereby the gate will swing open by the influence of gravity. The gate is closed by a reverse turning of the pintle-rod.

Te facilitate the opening and closing of the gate, there are provided the opposite pairs of operating devices, comprising the cables 16 and 17 upon one side of the gate and the cables 18 and 19 upon the opposite side of the gate. At opposite sides of the hinge gate-post are the respective posts 20 and 21, which are provided with guides for the cables, such as the openings 22 and 23, so that when the free ends of the cables are pulled they will draw in the proper direction upon the crank-arm 13, to which the opposite ends of said cables are connected. Carried by the upper end of the hinge-post is a bracket 24, having the divergent arms 25 and 26, which are located at opposite sides of the gate and carry at their outer ends the respective grooved pulleys 27 and 28. The outer extremity of each bracket-arm is bent rearwardly across the upper face of the adjacent pulley, so as to form an upper bearing therefor, and the extremity of this rebent portion is extended beyond the inner edge of the pulley, so as to form a guide-lip 29. These guide-lips are designed to overhang the respective cables 17 and 19 which are connected directly to the crank-arm 13 and travel over the inner edges of the respective pulleys. The cable 16 passes around the pulley 28 on the opposite side of

the gate and is then connected to the crank-arm, while the cable 18 passes around the pulley 27 and is then connected to the crank-arm. By this arrangement each side of the gate is provided with a pair of operating-cables, one member of which is connected directly to the crank-arm, while the opposite member is connected so as to draw from the opposite side of the crank-arm, whereby the gate may be thrown in opposite directions from the same side of the gate and does not require that the operator pass through the gateway to close the gate from the opposite side thereof. It will be observed that the gate always opens in the same direction, and this direction may be changed by changing the crank-arm from one side of the gate to the other.

What is claimed is—

1. The combination with a swinging gate, having an operating crank-arm, of a bracket supported independently of the gate and at one side thereof, a horizontally-disposed pulley mounted upon the bracket, a guide-lip overhanging and projecting at the inner edge of the pulley, and a pair of operating-cables, one of the latter being connected directly to the crank-arm and passed across the rear or inner edge of the pulley and beneath the guide-lip, and the other cable being passed around the pulley and then connected to the crank-arm.

2. The combination with a swinging gate, having an operating crank-arm, of a bracket supported independently of the gate, and having divergent arms, which are located at opposite sides of the crank-arm, the end of each arm being rebent upon itself, pulleys mounted upon the arms and embraced by the rebent portions thereof, the extremities of the rebent portions extending beyond the pulleys and forming guide-lips, and opposite pairs of operating-cables, one cable of each pair being connected directly to the crank-arm, and passed beneath the adjacent guide-lip, and the other cable being passed around the opposite pulley and then connected to the crank-arm.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HILLMON F. KING.

Witnesses:
J. B. KEENER,
SAM F. GARLINGTON.