No. 647,943. Patented Apr. 24, 1900.

W. H. COFFMAN.

GATE.

(Application filed July 13, 1899.)

(No Model.)

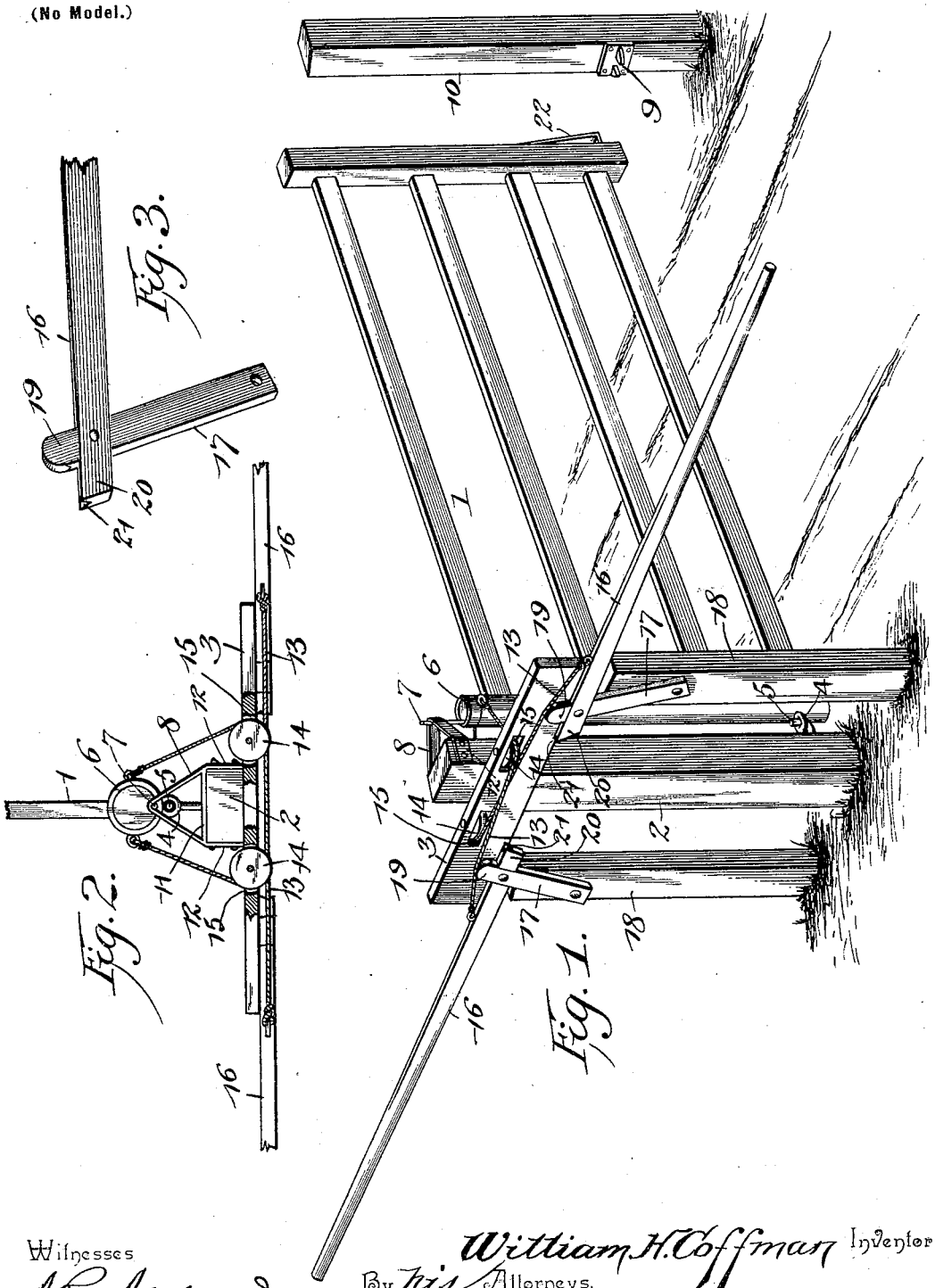

Fig. 1.

Fig. 2.

Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM H. COFFMAN, OF NEWARK, OHIO.

GATE.

SPECIFICATION forming part of Letters Patent No. 647,943, dated April 24, 1900.

Application filed July 13, 1899. Serial No. 723,724. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. COFFMAN, a citizen of the United States, residing at Newark, in the county of Licking and State of Ohio, have invented a new and useful Gate, of which the following is a specification.

The invention relates to improvements in gates.

The object of the present invention is to improve the construction of swinging gates, more especially the operating mechanism for opening and closing the same, and to provide a simple, inexpensive, and efficient device capable of enabling a gate to be readily operated at a distance from it and adapted to open the gate away from the operator.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a gate constructed in accordance with this invention. Fig. 2 is a horizontal sectional view of the same. Fig. 3 is a detail perspective view of the inner portion of one of the operating-levers.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a swinging gate hinged to a support composed of a vertical post 2 and a horizontal bar 3, located near the top of the post and extending from opposite sides thereof to form a pair of supporting-arms. The lower end of the gate is provided with an eye 4, which receives an upwardly-extending pintle 5 of the post 2, whereby the gate is hinged to the support at the bottom thereof. The upper end of the inner end bar 6 of the gate is provided with a pintle 7, which is arranged within a substantially triangular frame 8, projecting from the upper portion of the post and adapted to permit the gate to be tilted rearward in opening it, whereby the gate is disengaged from a keeper 9 of a latch-post 10. The triangular frame 8 consists of forwardly-converging side portions, a transverse connecting portion 11, and a pair of rearwardly-extending arms 12. The transverse connecting portion is arranged on the front face of the post 2, and the rearwardly-extending arms embrace the side faces of the post and are secured to the same by suitable fastening devices, as clearly shown in Fig. 2 of the accompanying drawings.

The upper portion of the inner end bar of the gate is rounded, and a pair of operating-cords 13 or other flexible connections are attached to the same at opposite sides thereof, and when either of the operating cords or ropes is pulled upon, by the means hereinafter described, the gate is tilted backward and swung laterally, whereby it is unlatched and opened. The flexible connections 13 extend rearward at opposite sides of the post 2 and pass around pulleys 14, mounted in openings 15 of the horizontally-disposed arms of the support, and the said flexible connections, which are crossed at the back of the support, extend from the guide-pulleys in opposite directions and are secured at their outer ends to substantially L-shaped operating-levers 16. The L-shaped operating-levers have long ends disposed longitudinally of the roadway and adapted to be grasped to open and close the gate, and the shorter arms 17 depend from the inner portions of the levers and are fulcrumed on posts 18, located at opposite sides of the post 2. The arms of the levers are constructed of separate pieces secured together adjacent to their inner ends to form projections 19 and 20. The projection 19, which extends upward, is located above the longitudinal arm of the lever and is provided with a groove to receive the flexible connection, which is attached to the longitudinal arm at a point beyond the projection 19. The other projection 20 extends inward longitudinally of the long arm of the lever and is provided with a notch 21, adapted to receive the flexible connection when the outer portion of the lever is swung downward sufficiently to carry the said projection 20 into engagement with the rope or cable 13. As the flexible connections cross the supporting-frame at the back thereof and extend around the post 2, as clearly illustrated in Fig. 1 of the accompanying drawings, the gate is opened and swung away from the operator by depressing either one of the operating-levers. After a person passes through the gateway the gate is closed by depressing the other operating-lever.

The keeper 9 consists of a pair of beveled projections, and the latch may be of any desired construction; but as shown it consists of a depressible spring 22, mounted on the end of the gate and adapted to engage the keeper and fit between the projections, which are spaced apart, as clearly shown in Fig. 1.

The invention has the following advantages: The gate, which is simple and comparatively inexpensive in construction, is positive and reliable in operation and is adapted to be readily operated at a distance from either side of it, and when operated it always opens away from the operator. When one of the operating-levers is depressed, the gate is tilted rearwardly to disengage the latch from the keeper and it is simultaneously swung laterally by the flexible connection between the levers and the upper end of the inner end bar of the gate.

Changes in the form, proportion, size, and minor details of construction, such as varying the means for connecting the lower ends of the ropes or cables to the gate, may be resorted to without departing from the spirit or sacrificing any part of the advantages of the invention.

What is claimed is—

1. The combination of a support, a gate hinged to the support, flexible connections extending from opposite sides of the gate and connected with the same, and the substantially L-shaped operating-levers fulcrumed at one end and having the connections secured to them adjacent to their angles, said levers having their angles engaging the connections at points between the ends thereof, substantially described.

2. The combination of a post 2, a horizontal bar 3 secured to the post and extended from opposite sides thereof, guide-pulleys mounted on the bar and located at the sides of the post 2, an open frame projecting from the front of the said post 2, a gate hinged at its bottom and provided at its top with a pintle arranged within the said frame, flexible connections extending from the gate, passing around the pulleys and crossing the post 2 at the back thereof, and substantially L-shaped operating-levers fulcrumed at the outer ends of their short arms, said operating-levers having their angles engaging the flexible connections, substantially as described.

3. The combination of a support, a gate hinged to the support, pulleys mounted on the support at opposite sides of the gate, flexible connections extending from the gate, passing around the pulleys and crossing the support at the back thereof, and the substantially L-shaped operating-levers having short arms fulcrumed at their outer ends, said operating-levers being provided at their angles with projections, grooved to receive the flexible connections, substantially as described.

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

WILLIAM H. COFFMAN.

Witnesses:
PETER BALHVINE,
WM. MILLER.