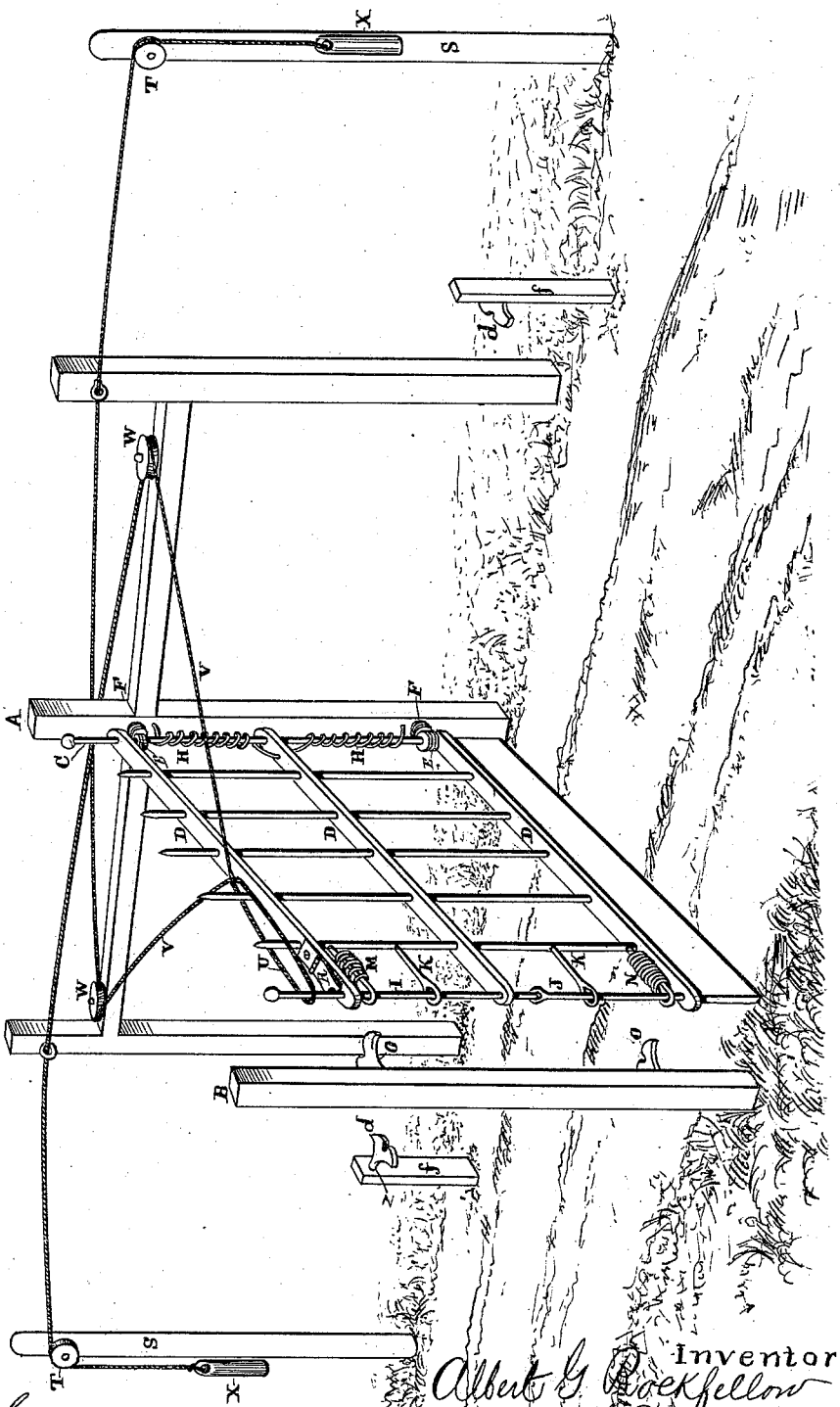
3 Sheets—Sheet 1.

A. G. ROCKFELLOW.

Gate.

No. 201,703. Patented March 26, 1878.

Fig. 1



Witnesses
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Inventor
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by Dewey & Co
Attys

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Fig. 2.

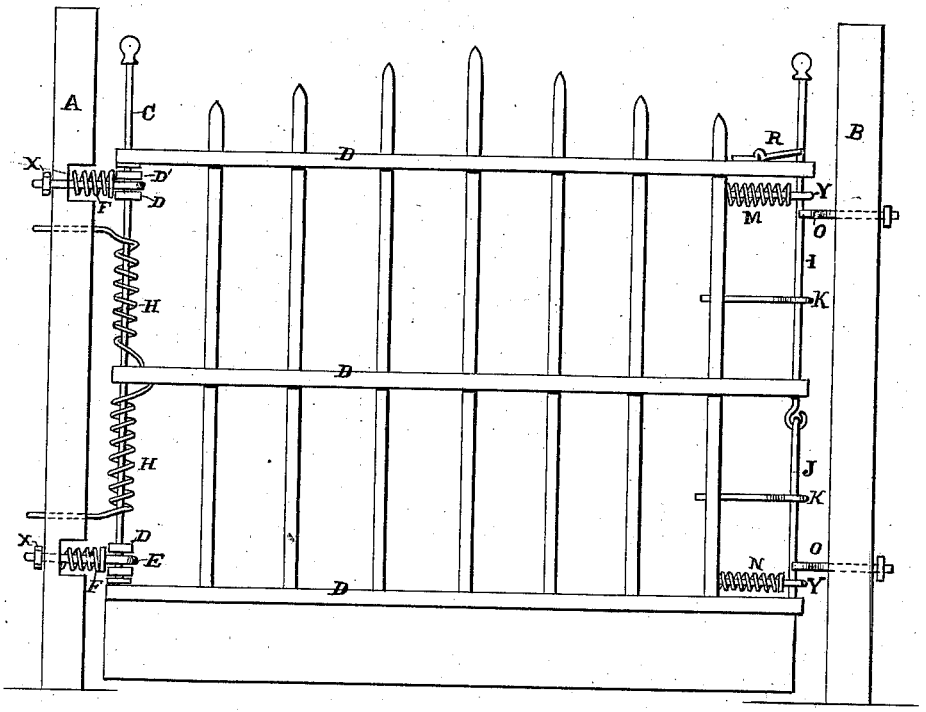
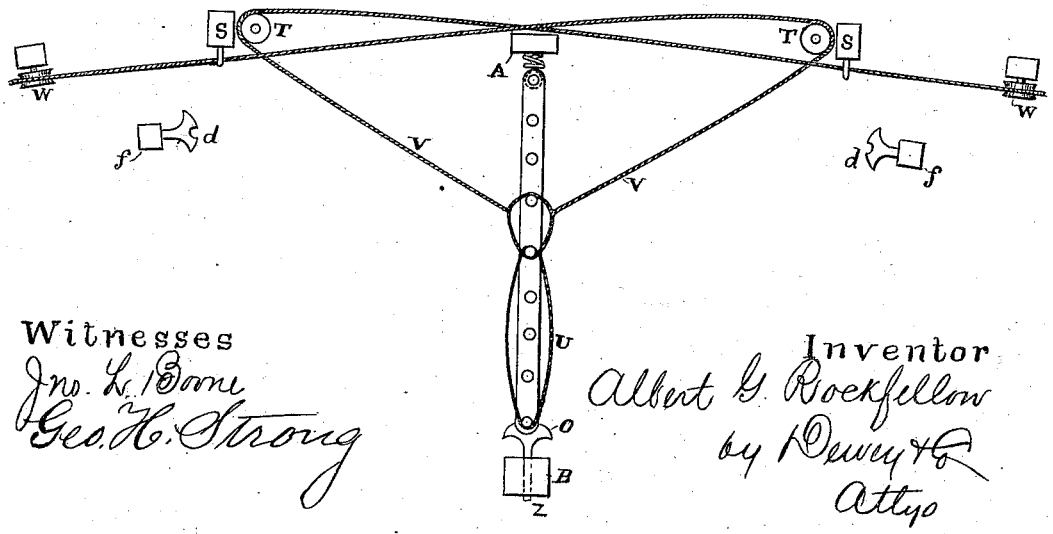


Fig. 3.



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3 Sheets—Sheet 3.

A. G. ROCKFELLOW.

Gate.

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Fig. 4

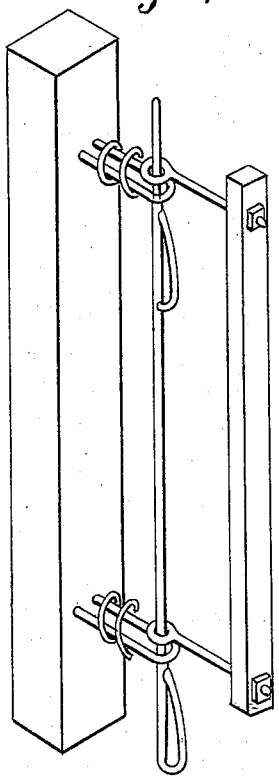


Fig. 5.

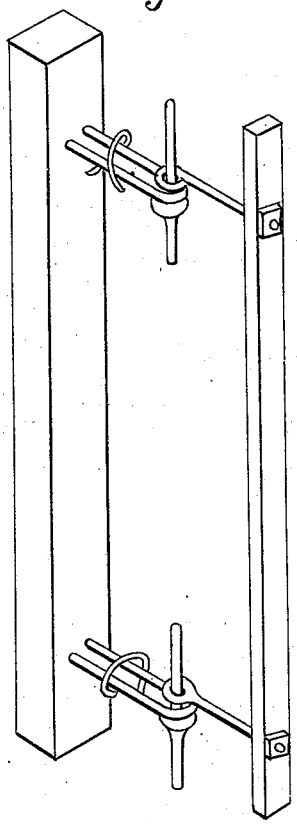
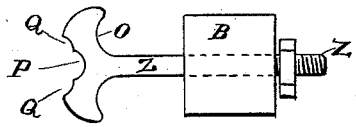


Fig. 6



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UNITED STATES PATENT OFFICE.

ALBERT G. ROCKFELLOW, OF ASHLAND, OREGON.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. **201,703**, dated March 26, 1878; application filed January 14, 1878.

To all whom it may concern:

Be it known that I, ALBERT G. ROCKFELLOW, of Ashland, county of Jackson, and State of Oregon, have invented an Improved Gate; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings.

My invention relates to an improved gate which can be used either as a house-yard gate, to be opened and closed by hand, or as a farm-gate, to be opened and closed by cords leading to and over pulleys at a distance from the gate.

The object of my invention is to provide a gate with adjustable bearings, hangings, and fastenings, which can be quickly and easily adjusted to the varying conditions of the gate in wet and dry weather, so as to always preserve its freedom of motion and operation.

The hangings and fastenings are strong and substantial, and at the same time ornamental, so that the gate presents a handsome appearance and is convenient to be operated.

Referring to the accompanying drawings, Figure 1 is a perspective view of my gate. Fig. 2 is a front view. Fig. 3 is a plan of the same. Figs. 4 and 5 are modifications.

Let A represent the post on which the gate is hung, and B the post against which it closes. The gate may be either a picket, door, or panel gate, although I prefer the picket style, as it is lighter and more ornamental.

The hinge which I use for hanging this gate is constructed as follows: A rod, C, is secured vertically at the rear end of the gate, so as to extend from the bottom to the top, being secured by passing through the horizontal timbers D D, or by passing through the staples E in Figs. 1 and 2, and having collars D′ either fixed or adjustable, for a bearing for the gate, the object of the adjustable knuckle being to raise the gate over a temporary impediment—as, for instance, snow in winter—and lower it again. This rod serves as the pintle of the hinge. I then take a long narrow staple, E, whose legs are just far enough apart to receive the pintle C, and which form a slot for the pintle to slide and turn in. The pintle is passed through the slot, so that the collars D rest upon the staple E. A spirally-coiled or other tubular spring, F, (the hinge-spring,) is passed round the legs of the staple back of the pintle, and the staple driven into holes made in the post A to receive it, and secured at the back of the post by a nut, X. When the staple E is driven sufficiently into the post A, the spring F will be condensed between the post and knuckles D, so as to press the pintle closely to the end of the slot.

Usually I shall countersink the post around the staple E, so as to let the end of the spring F enter the countersink. This gives a better bearing for the spring, and allows me to use a longer spring without making too wide an opening between the post and the pintle.

The pintle C passes vertically through the staples E E and the horizontal timbers D D, as above described, and has a nut on its lower end below the lower beam. This pintle may be stationary in the beams and turn freely in the staples, or it can be made stationary in the staples and turn in the beams.

The hinge is adjustable—that is, the moving joint or pintle and its bearing can be moved to or from the post A.

By turning the nut X at the back of the post, turning it to the right hand contracts the hinge, and turning to the left expands it, so as to compensate for the shrinking and swelling of the gate and fence occasioned by the state of the weather, and keep the gate working freely and easily all the time.

To close the gate, I use two springs, H H, which I call "shutter-springs," coiled in opposite directions. One of these springs I coil around the upper part of the pintle, while the other is coiled in an opposite direction around its lower part.

One end of each spring is secured to the post A, while the opposite end is secured to the gate-beam, so that they counteract each other and hold the gate at its closed position, and when the gate is opened in either direction the tension of one spring is increased, while the tension of the other is diminished, so that they act to close the gate as soon as it is released.

The gate-latch consists of two jointed rods, I J, which are arranged as follows: These rods pass vertically through slots in the ends of the horizontal beams, through link-shaped

screw-eyes Y Y above the lower beam and below the upper beam, and through the screw-eyes K K midway between the lower and middle and the middle and upper beams, and are jointed or hinged together immediately below the middle beam, the upper end projecting several inches above the upper beam. Spiral springs M N (the latch-springs) are slipped over the link-shaped screw-eyes Y Y, between the rods and the pickets or posts into which the screw-eyes are screwed. These springs press the rods outward in the slots, and keep them in line with each other. Upon applying pressure, however, to the projecting upper end of the rod, so as to force it back in the slot toward the middle of the gate, resting, as they do, in the eyes K for a fulcrum, the jointed ends will be forced outward between the fulcrums and inward at the opposite ends. In connection with the latch a hinge-shaped lock, R, is screwed on the top of the upper beam between the latch and picket, which is turned over against the latch, so as to lock the gate when it is desirable to do so.

Into the gate-post B, I screw two catches, O O, one opposite each spring M N, with which the latch-rods I J engage when the gate is closed.

Each catch consists of a hand attached to a screw-bolt, Z. The head stands transversely to the rods, and its edge is curved on each side, so that the latch-rods will be gradually thrown back until they drop into the notch P in its middle. This notch is made with an offset or secondary notch, Q, on each side, so that if the closing force should carry the latch beyond the main notch P, it will be caught by the secondary notch and thrown back into the main notch.

This latch-holder can be adjusted in or out by turning the screw-bolt, so as to accommodate it to the latch-rods, whose position is ever varying, consequent on the ever-varying state of the weather.

I shall usually use gas-pipe or other tubing for the latch-rods and pintle, as it is lighter and more rigid than a solid rod.

This forms an excellent house-yard gate, to be operated by hand.

By grasping the upper end of the rod I and the first picket between the forefinger and thumb and pressing the rod I toward the picket, the latch-rods will be released from the catches, and the gate can be opened in either direction. The spring will return the gate to its closed position.

Figs. 4 and 5 represent two modifications of my arrangement for hanging the gate.

To convert this gate into a farm-gate, I erect a post, S, on one side of the road, at a suitable distance from the gate, one on each side of the gate. On the upper end of each post I mount a pulley, T. I then pass an endless cord, U, around the upper end of rod I, and also around one or more of the pickets. Then I attach the middle of the rope V to this endless cord, as shown, and carry each end around a pulley, W, and thence across the gate, as represented at Fig. 2. To the post S, I attach a weight, X, to each end of this rope, and hang the rope over the pulley T, so that by drawing upon the rope on either side the latch-rods will be released from the catches and the gate opened in the opposite direction.

This arrangement is quite simple and effective. It enables a person on horseback or in a carriage to open the gate in front of him and close it behind him without getting off his horse or wagon.

I also secure a latch-plate, *d*, to a short post, *f*, on each side of the gate, so that it will engage the lower latch-rod when the gate is open, and thus hold it until the opposite rope is drawn to release and close it.

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

1. The collars D D′, in combination with the pintle C and oppositely-coiled springs H H, having their ends secured as described, for the purposes specified.

2. The latch-rods I J, linked together at or near the mid-height of the gate, and having the fulcrums or bearings K at or near the middle of each rod, with the link-shaped slotted eyebolts Y and the pressure or latch springs M N coiled around the link-shaped eye near the opposite ends of the rods, in combination with the catches O O and the hinged lock R, making two perfect fastenings, all combined and arranged to operate substantially as above specified, and also the hinge-shaped lock R, for the purpose set forth.

3. An adjustable catch for latches, consisting of the screw-bolt Z and double-inclined catch O, substantially as and for the purpose described.

4. The catch-head O, provided with the notch P and secondary notches or offsets Q, substantially as and for the purpose described.

5. In combination with the above-described gate-latch, the endless cord U and draw-rope V, which is arranged to pass over pulleys W, thence to and over pulleys T on the upper end of posts S, distant from the gate, substantially as and for the purpose described.

In witness whereof I have hereunto set my hand.

ALBERT G. ROCKFELLOW.

Witnesses:

C. K. KLUM,

J. M. MCCALL.