2 Sheets--Sheet 2.

M. M. KENNEY.

Automatic Gates.

No. 148,217. Patented March 3, 1874.

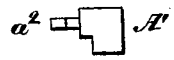
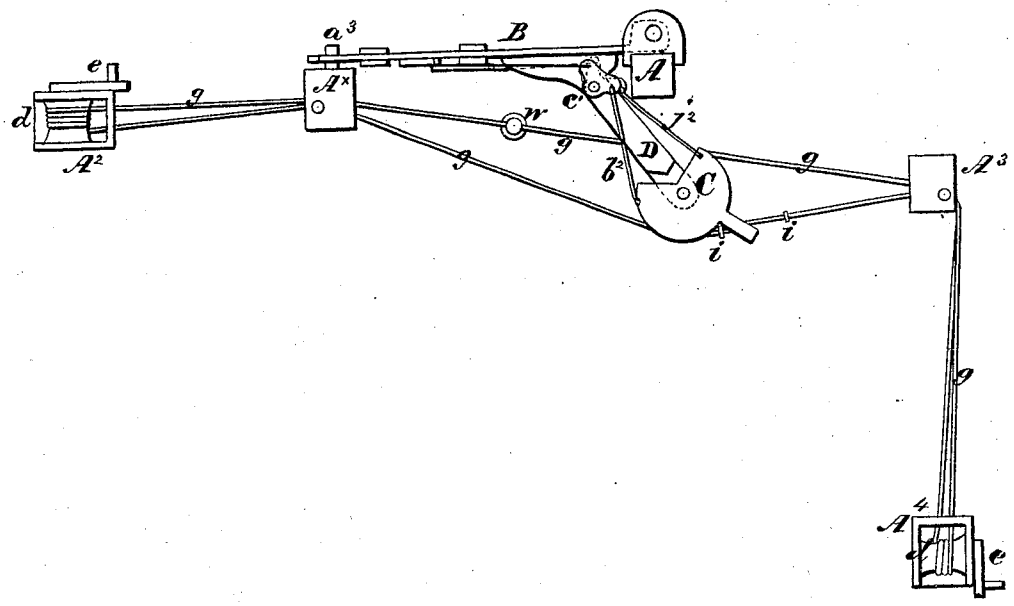


Fig. 2.



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UNITED STATES PATENT OFFICE.

MARTIN M. KENNEY, OF BRENHAM, TEXAS.

IMPROVEMENT IN AUTOMATIC GATES.

Specification forming part of Letters Patent No. **148,217**, dated March 3, 1874; application filed August 23, 1873.

To all whom it may concern:

Be it known that I, MARTIN M. KENNEY, of Brenham, in the county of Washington and State of Texas, have invented a new and valuable Improvement in Farm-Gates; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of my gate in working order. Fig. 2 is a top view of same.

This invention has relation to improvements on mechanism which, when applied to swinging gates, allows persons riding to open or close the same. My object is mainly to apply to the well-known horizontally-swinging gate a latch to hold it shut against one post and a latch to hold it open against another post, and to employ, in combination with these two latches, a sytem of ropes, pulleys, and levers, by means of which the gate can be opened or shut by a person riding as well as by a person walking, as will be hereinafter fully explained.

In the accompanying drawings, A represents the post to which the gate B is hinged so as to swing horizontally. A^1 represents the post to which the gate is fastened by a latch, *a*, and catch, a^2, when shut, and $A^\times$ represents the post to which the gate is fastened when open, by a latch, a^1, and catch a^3. The latches and catches are of the well-known gravitating kind, the latches being released from their catches by simply raising them. To the top rail of the gate B, I secure at a suitable angle an arm, D, on the outer extremity of which is pivoted a crescentric-shaped lever, C, having an oblong slot horizontally through its arm, through which passes a rope, *g*. This rope is endless, and is carried around drums *d d*, which are applied to the upper ends of two posts, A^2 and A^4, on the shafts of which drums cranks *e e* are secured, by means of which a person approaching the gate can turn the drums, wind or unwind the rope *g*, and open or shut the gate. The rope *g* passes several times around each drum, thence over and alongside of deflecting rollers *f f*, which are applied in two posts, $A^\times$ A^3, and between these two intermediate posts a weight, *m*, is attached to the lower part of rope *g* for the purpose of keeping it under constant and proper tension. The posts A^2 A^4 may be located at any convenient distance from the gate, and at any desired angle with respect thereto, and the posts $A^\times$ A^3 carrying the deflecting rollers or pulleys *f*, which allow the rope *g* to be deflected at any desired angle, may be similarly arranged to adapt them to any arrangement of fences or angle of roads. As above stated, the upper portion of the endless rope *g* passes freely through the arm of the crescentric lever C, and at a proper distance apart, on opposite sides of said arms, knots or blocks *i i* are secured to this portion of the rope, by means of which the lever C is vibrated to unlatch and open or close the gate. The object of having these knots separated is to allow the gate to be opened and shut by a person on foot without acting on the rope *g*. To each angle of the crescentric lever C a rope is attached. The rope b^2 is connected to one arm of a horizontal angle-lever, *c'*, on the arm D, the other arm of which lever is connected to one arm of an angular hand-lever, *c*, by means of a wire, b^1, and by means of wires *b* this latter lever is connected to the upper latch *a*, as clearly shown in Fig. 1. The rope j^2 connects the crescentric lever C to one arm of a right-angular lever, h^2, the other arm of which is connected, by a wire, j^1, to an angular lever, h^1, and this in turn is connected, by a wire, *j*, to the latch a^1, which fastens the gate open. A person riding toward the gate from the side presented in the drawing, Fig. 1, turns the crank of the drum *d* on post A^2 so as to wind up the lower part of the rope *g* and pay off the upper part of this rope. The rope *g* will move freely through the arm of lever C until a knot, *i*, bears against this arm, when the lever C will be moved with the rope and raise the upper latch *a*. The turning of the drum *d* being then continued, the gate will swing open and be latched against the post $A^\times$ by the lower latch a^1 engaging with the catch a^3. After the person has passed through the gate-opening and reached the post A^4, he turns the drum *d* on this post so as to wind up the upper portion of rope *g* and pay out the lower portion thereof. This unlatches the gate from post $A^\times$ and swings it against the post A^1. The gate

J. KING.

Teeth for Agricultural Implements.

No. 148,218. Patented March 3, 1874.

Fig. 1.

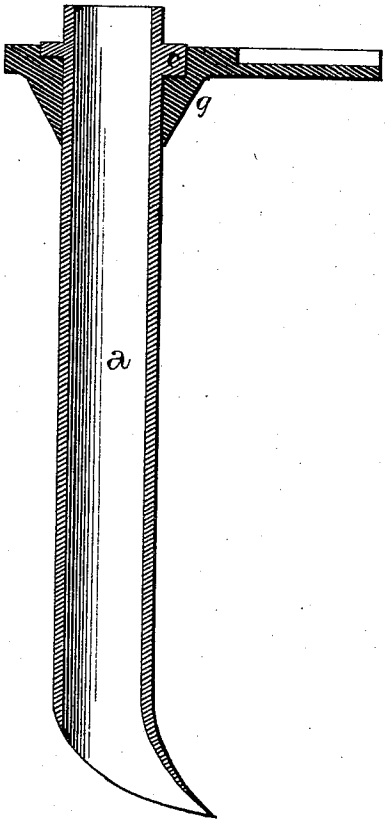


Fig. 2.

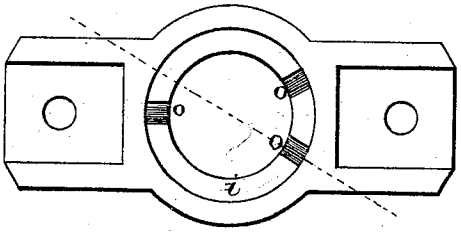


Fig. 3.

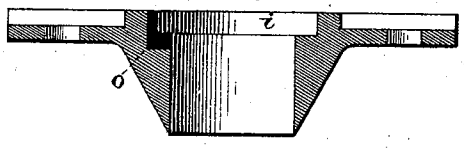
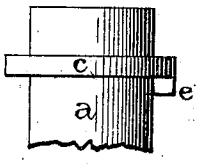


Fig. 4.



WITNESSES.

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