

No. 677,364.

Patented July 2, 1901.

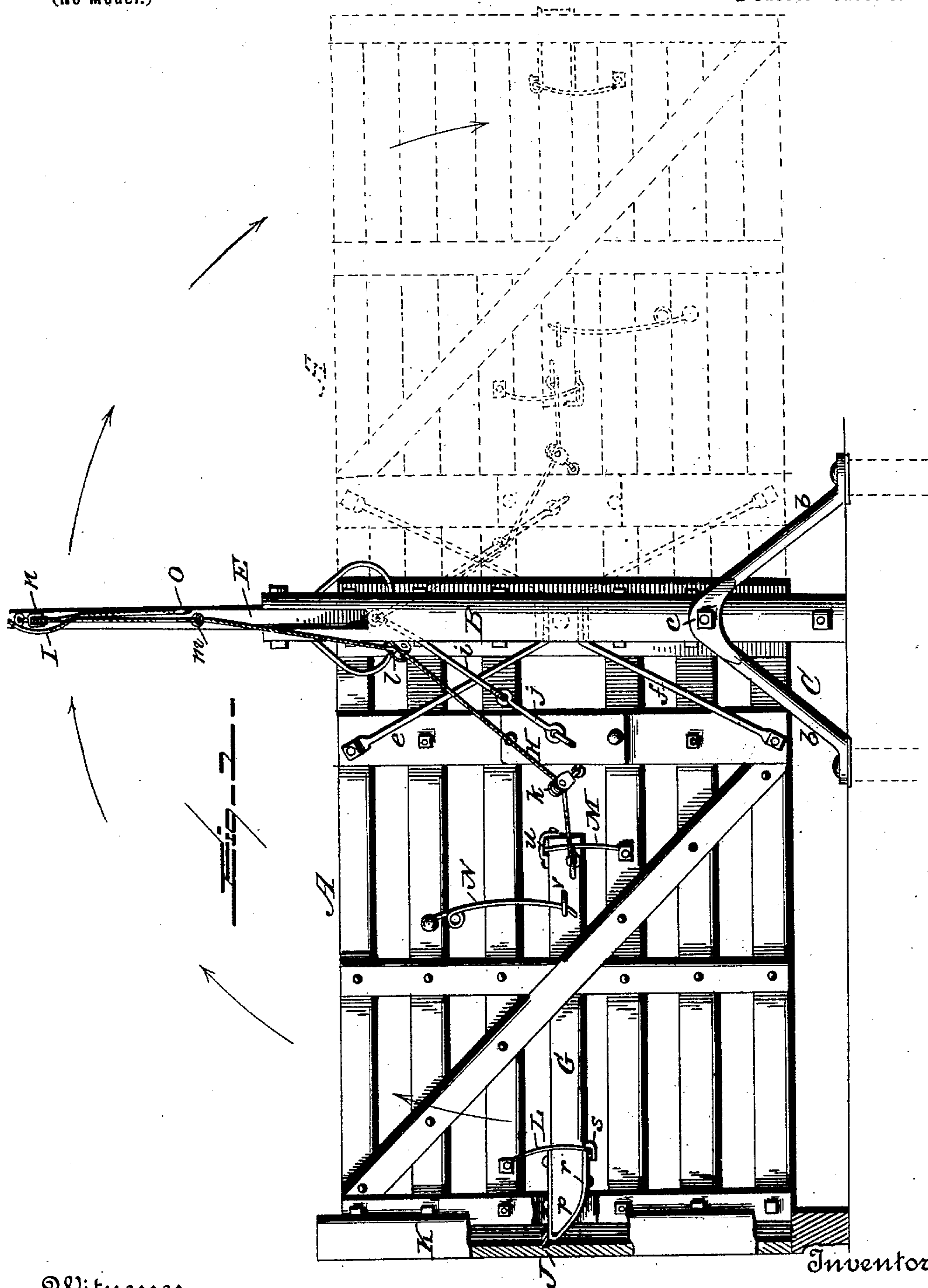
J. E. MOORE.

FARM GATE.

(Application filed Apr. 6, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses  
M. B. Browning.  
M. C. Browning.

Inventor  
James E. Moore.  
per Chas H. Fowler  
Attorney

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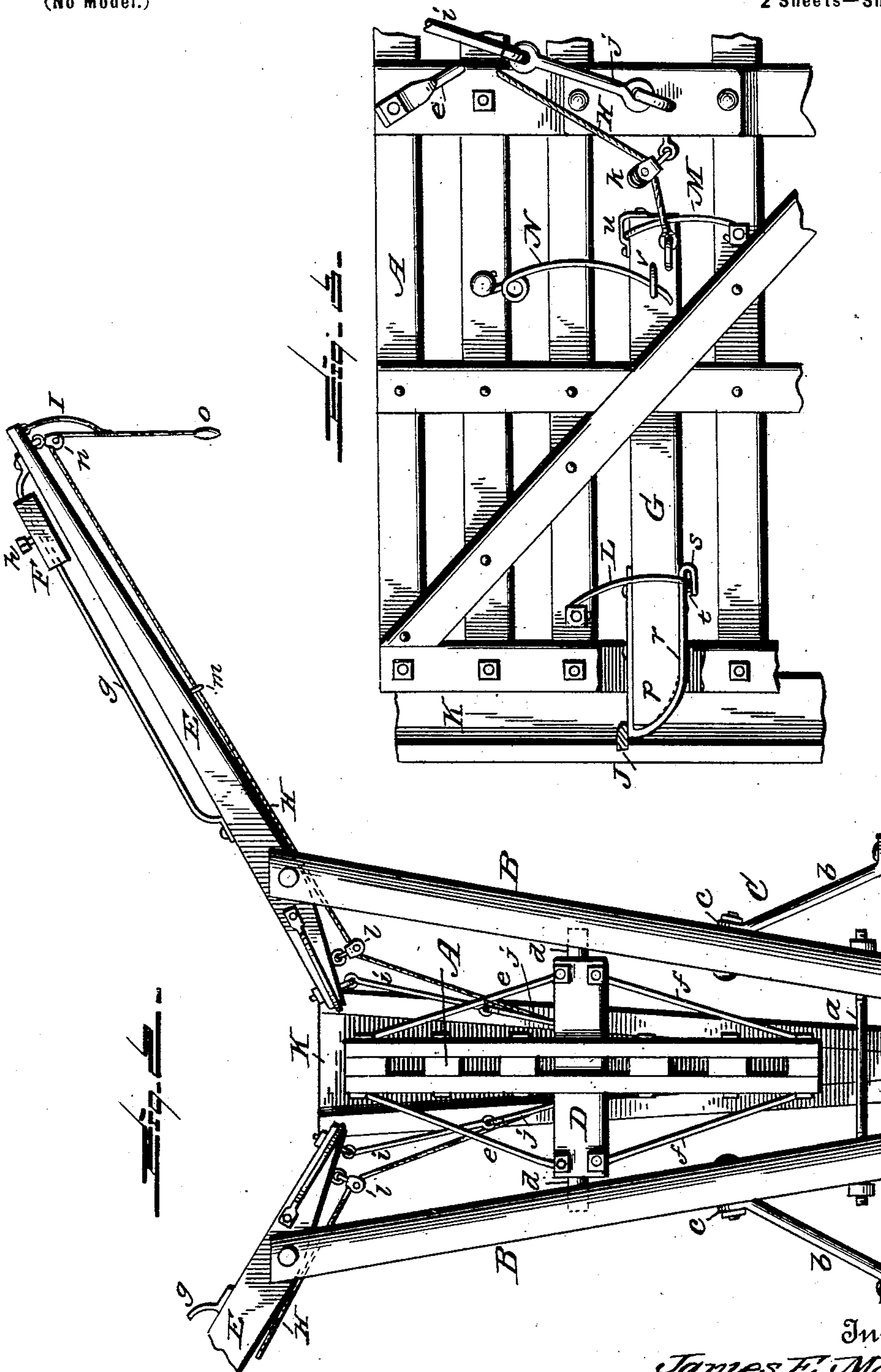
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Inventor.  
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per Cha. W. Fowler  
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# UNITED STATES PATENT OFFICE.

JAMES E. MOORE, OF BOZEMAN, MONTANA.

## FARM-GATE.

SPECIFICATION forming part of Letters Patent No. 677,364, dated July 2, 1901.

Application filed April 6, 1901. Serial No. 54,733. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES E. MOORE, a citizen of the United States, residing at Bozeman, in the county of Gallatin and State of Montana, have invented certain new and useful Improvements in Farm-Gates; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has relation to that class of swinging farm-gates for which a patent was granted to me, dated the 25th day of September, 1900, and numbered 658,454; and the object of the present invention is to improve the operation of the gate, whereby the opening and closing thereof is rendered more effective and the gate more perfectly under control in releasing or locking the same.

The invention therefore consists in a farm-gate constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a side elevation of a farm-gate embodying my invention, showing the same in a closed and opened position in full and dotted lines, respectively; Fig. 2, an end view of the pivoted or rear end of the gate, showing one of the operating-levers partly broken away; Fig. 3, a side elevation showing the gate proper and its latch with connecting parts.

In the accompanying drawings, A represents the gate, which may be of any suitable size and construction and is pivoted to the two upright posts B, which are strengthened at their lower ends by suitable braces C and the horizontal tie-rod *a* or by any other means found best adapted to the purpose.

The braces C comprise two angular rods *b*, integral with each other and having a flat plate *c* at the apex formed by the angle of the two rods, as shown in Fig. 1 of the drawings, said plate being secured to the post by bolt and nut or by any other well-known means, thereby perfectly bracing the posts at their lower ends and holding them at the desired angle.

One of many means that may be used to pivot the gate A to the posts B is the hori-

zontal beam D, provided with pivot-pins *d*, entering sockets in the posts, said gate and beam being connected together by suitable brace-rods *e f*. Pivotally connected to the upper ends of the posts B are operating-levers E, which are provided with guide-rods *g* for the adjustable counterpoise-weights F, only one of said rods and weights being shown in the drawings, the weight being held in its adjusted position by set-screw *h*.

The inner ends of the operating-levers E are connected to the gate by suitable rods *i j* or by any other means that may be found most effective in operating the gate through the medium of the levers. The gate A is provided with a horizontally-movable latch G, which is operated by a rope or cable H, secured at one end to the rear end of the latch and engaging a pulley *k* upon the gate, said rope or cable extending up to the lever E and engaging a pulley *l* thereon and thence through a guide-loop *m* upon the under side of the lever and over a pulley *n* at the end thereof.

The rope or cable H is of sufficient length to hang down within convenient reach and is provided at its end with a hand-grasp *o*, said rope or cable connecting with the lever by a supplemental rope or cable I, so that when the rope or cable H is pulled down upon it will not only operate the latch G to release the gate, but will depress the lever and in its action throw the gate over to the position indicated in dotted lines of Fig. 1 of the drawings.

The gate A when in a closed position is locked by the engagement of latch G with the keeper J upon the gate-post K, as shown in Fig. 3 of the drawings, thereby securely holding the gate in a closed position against the same being accidentally opened.

To insure the perfect operation of the latch, the end of the latch is in the form of a cam *p* and is lined with a wearing-plate *r*. There are three springs connecting with the latch G—the springs L and M, engaging with the latch near the front and rear ends, respectively, and the main spring N, connecting with the latch in front of the spring M. Through the medium of the three springs the latch is suspended without pivoting the same and is enabled to move horizontally and on an arc



of a circle to engage the keeper as the gate is lowered. The lower end of the spring L engages a guide *s*, preferably formed on the end of the wearing-plate *r*, said guide having  
5 a stop *t* to prevent its escaping, the upper end of the spring M engaging a similar guide *u*, but on the upper side of the latch instead of the under side, and the free end of the main spring N engaging the guide *v* upon the  
10 side of the latch. The employment of the three springs and the manner of connecting them to the latch provides a perfect spring-actuated latch held to the gate without pivots or other like fastenings.

15 Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A tilting gate, pivoted levers for operating the gate, a latch upon the gate provided with

a cam latching end, supporting or suspend- 20  
ing springs engaging guides at the front and rear ends of the latch and upon its under and upper sides respectively, a main spring engaging a guide upon the side of the latch, 25  
and a rope or cable connected to the rear end of the latch and extending over suitable pulleys and connecting with the outer ends of the levers by means of supplemental ropes or cables, substantially as and for the purpose described. 30

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES E. MOORE.

Witnesses:

H. H. HOLLOWAY,  
W. H. EVERSON.