

(No Model.)

J. C. & L. MERRILL.  
FARM GATE.

No. 431.275.

Patented July 1, 1890.

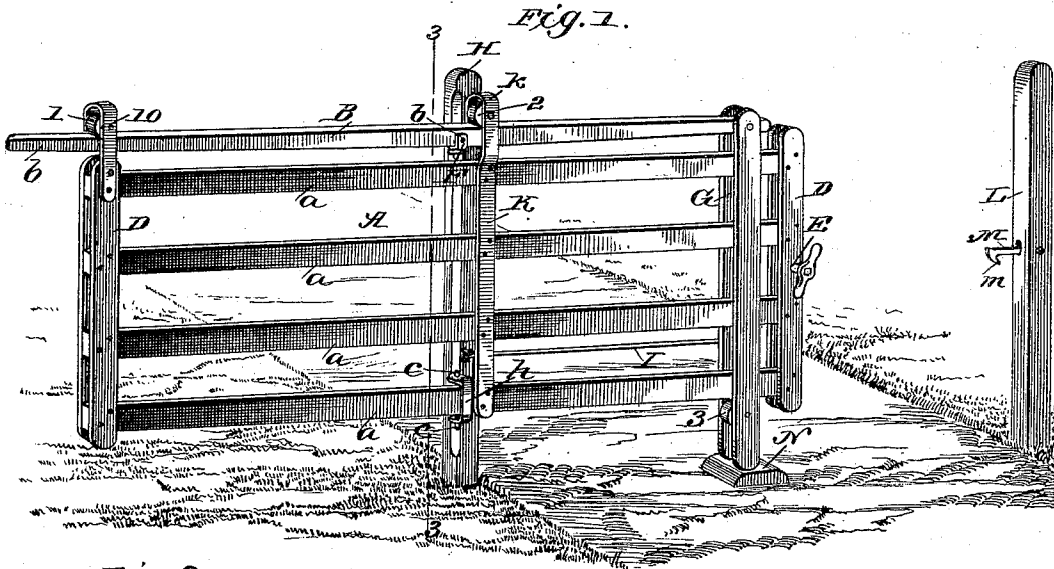


Fig. 3.

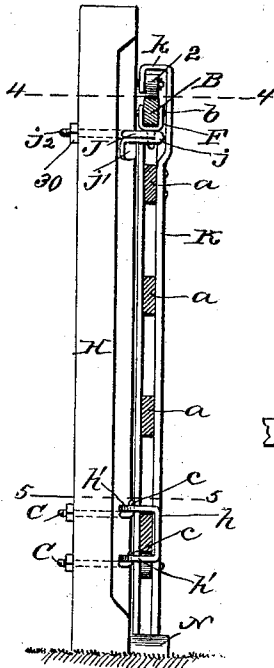


Fig. 2.

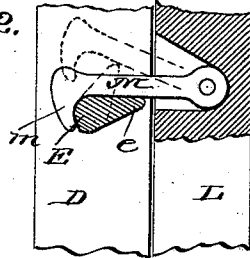


Fig. 4.

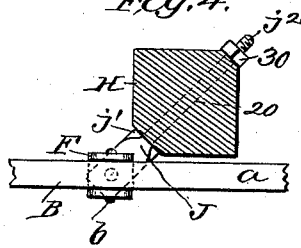
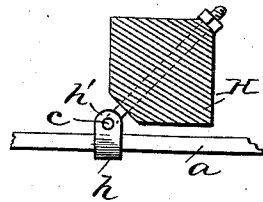


Fig. 5.



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# UNITED STATES PATENT OFFICE.

JOHN C. MERRILL AND LUTHER MERRILL, OF WESTPHALIA, KANSAS.

## FARM-GATE.

SPECIFICATION forming part of Letters Patent No. 431,275, dated July 1, 1890.

Application filed February 12, 1890. Serial No. 340,204. (No model.)

To all whom it may concern:

Be it known that we, JOHN C. MERRILL and LUTHER MERRILL, residing at Westphalia, in the county of Anderson and State of Kansas, have invented certain new and useful Improvements in Farm-Gates, of which the following is a specification.

Our invention relates to that class of farm-gates known as "balanced sliding" and "swinging" gates; and it has for its object to provide such a gate which will be simple in construction, cheap as to cost, and easy to manipulate.

To this end our invention consists in certain novel features of construction and peculiar combinations of parts, all of which will hereinafter be fully described in the annexed specification, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of our improved gate. Fig. 2 is a detail view illustrating the latch mechanism. Fig. 3 is a vertical section of the gate, taken on the line 3 3, Fig. 1; and Figs. 4 and 5 are horizontal sections on lines 4 4 5 5, Fig. 3.

The gate A consists of a series of horizontal rails *a a*, connected by the vertical end bars D D and the central metal strap K, the upper end of which is extended and bent into a loop-bearing *h*, in which is journaled a roller 2, for a purpose presently described.

H denotes the central or supporting post, upon the lower end of which is secured a pivoted keeper *h*, adapted to be swung horizontally, said keeper being preferably connected to the post H, in a manner most clearly shown in Fig. 5 of the drawings, by reference to which it will be seen that we provide a C-shaped piece, the ends *h' h'* of which are fitted on the vertical extensions *c c* of bolts C C, passed diagonally through the post H.

G denotes a guide-bar arranged to support and guide the front end of the gate, said bar having a roller 3 journaled in the lower end thereof, upon which the lower edge of the lower rail *a* of the gate rests, said rail being also supported in the keeper *h*, as shown.

The upper end of the gate is supported upon the tilting bar B, which is fulcrumed at *b* in a socket-plate F, held to the upper end of the

post H at one edge thereof and preferably over the keeper *h*, as shown. The forward end of the bar B is pivotally secured to the upper end of the bar G, the rear end thereof being passed under a roller 1, journaled in a loop 10, projected upward from the rear bar D, said end being extended to form a handle *b'*, as shown.

The socket-plate F is journaled to swing horizontally in the outer end of a bracket J, which consists of an end portion *j*, bent upon itself and formed with a lip *j'*, and an extension or bolt portion *j<sup>2</sup>*, screw-threaded at its outer end, said bolt portion adapted to be passed through a diagonally-disposed horizontal aperture 20 in the post H, and held in place by means of the nut 30, which, when turned home, will bring the lip *j'* to bear against the front face of the post and serve to hold said bracket steady.

E denotes a rock-bolt journaled in the front end bar D, one end of which projects outside of said bar, being squared to receive any suitable key or handle, whereby said bolt may be readily operated, said bolt being provided with a forward-projecting lip *e*.

L denotes the latch-post, in which is pivoted the gravity latch-bar M, the front end of which is formed with a finger *m*, having a beveled face adapted, when the gate is closed, to rise up over the bolt E and lock said gate in position, said latch being lifted by means of the wing *e*, engaging the same when the bolt E is rocked to unlock.

I denotes a brace-rod pivotally secured at its rear end to the post H, its forward end being connected to the bar G, serving to brace and hold the same in its proper position.

The gate A, which is supported upon the rollers 1 2 3 and the keeper *h* when in its closed position, engages the latch M and is held in a locked position, the bar G being at this time supported on a suitable block N, as shown, serving to hold the gate in a true horizontal position.

When it is desired to open the gate, the rock-bar E is turned, its lip or wing *e* disengaging the latch-bar M. Then by depressing the end of the bar B the gate will slide back on the rollers 1, 2, and 3 (the rollers 1 2 being supported on the upper face of the bar

B) to a position shown in Fig. 1 of the drawings, such position being the half-open one. Now by grasping the handle *b* the gate, with the bar *G*, can be bodily turned quarter-way  
 5 around to a position at right angles to its normal one, thus leaving the entire gateway open. To close the gate, the same is swung back into position, the bar *G* to rest upon the block *N*.  
 10 Then by raising the end of the bar *B* slightly the gate will slide on its rollers to a closed position, its bolt *E* engaging the latch *M* in its movement and becoming locked therewith.

By arranging the keeper *h* as described it will be seen that the same can be readily  
 15 fitted in position after the gate has been put in position by slightly raising the gate, so as to permit the keeper being slipped over the lower rail and onto its pivotal supports, the weight of the gate serving to hold said keeper  
 20 from accidental displacement after it is put in position.

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

25 1. The combination, with the supporting-post *H*, provided with a horizontally-swinging socket *F*, the tilting bar *B*, fulcrumed in said socket, and the guide-bar *G*, pivotally  
 30 connected at its upper end to the bar *B*, having a swinging connection at its lower end with the post *H*, and having a roller *3* journaled thereon, of the gate *A*, operating between the parts of said bar *G* and supported  
 35 at its forward end on the roller *3*, said gate provided with upwardly-extending bearings carrying rollers *1 2*, adapted to engage the upper face of the bar *B*, all arranged substantially as and for the purpose described.

2. The combination, with the post *H*, the

socket *F*, the tilting bar *B*, fulcrumed therein, 40  
 the guide-bar *G*, connected to the bar *B*, the brace *I*, the roller *3*, and the horizontally-swinging keeper *h*, of the gate *A*, supported  
 45 at its lower end on the roller *3*, and the keeper *h* and the rollers *1 2*, secured to the gate and engaging the upper face of the bar *B*, substantially as shown and described.

3. The combination, with the post *H*, the gate *A*, the supporting-rollers *1 2*, the guide *G*, and the roller *3*, journaled in the lower end  
 50 thereof and adapted to support the lower front end of the gate, of the bracket *J*, having a lip portion *j*, and a bolt portion *j'*, adapted to pass through the post *H* and held therein, the  
 55 socket *F*, pivotally held on the outer end of the bracket, and the bar *B*, pivotally supported in the socket *F* and adapted to form the upper support for the gate, all arranged  
 60 substantially as and for the purpose described.

4. The hereinafter-described improvements in gates, consisting of the post *H*, the keeper  
 65 *h*, guide-bar *G*, the supporting-block *N*, the roller *3*, the gate *A*, supported at its lower end on said roller *3* and the keeper *h*, the  
 70 bracket or support *F J*, the tilting bar *B*, fulcrumed in said support, the rollers *2 3*, secured to the gate and adapted to engage the upper face of the bar *B*, the rocking bar *E*, with wing *e*, the latch-post *L*, and the gravity-latch *M*, all arranged substantially as and for the purpose specified.

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Witnesses:

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