

(No Model.)

A. GANO.  
FARM GATE.

No. 524,849.

Patented Aug. 21, 1894.

FIG. 1.

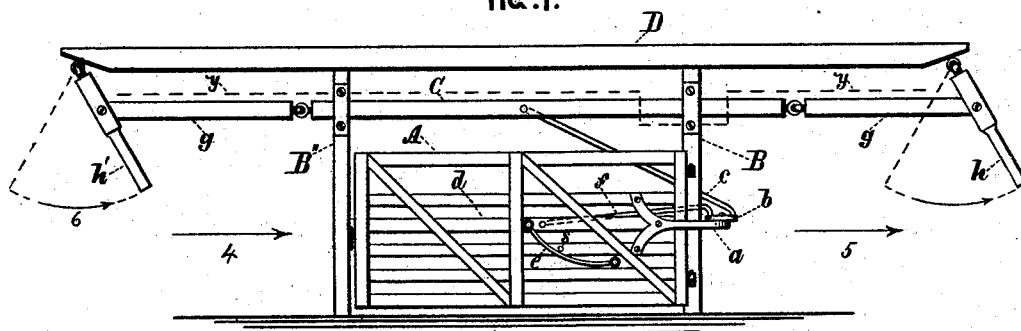
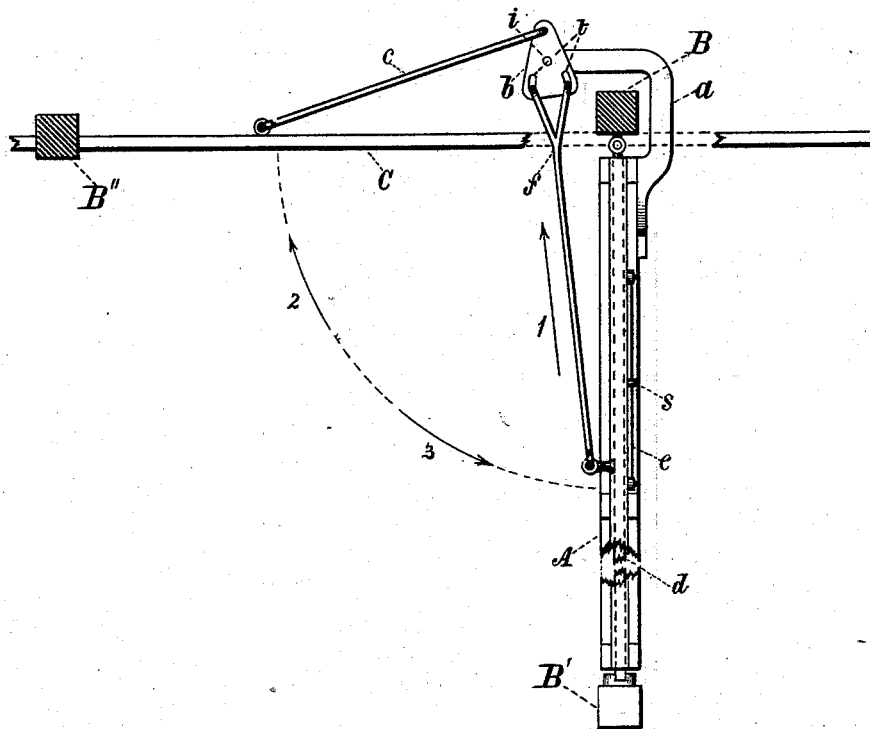


FIG. 2.



Witnesses

R. Newton.  
A. W. Newton.

Inventor

Avery Gano.

By his Attorney F. S. Davenport.

# UNITED STATES PATENT OFFICE.

AVERY GANO, OF GREENE COUNTY, ILLINOIS.

## FARM-GATE.

**SPECIFICATION** forming part of Letters Patent No. 524,849, dated August 21, 1894.

Application filed May 21, 1894. Serial No. 512,034. (No model.)

*To all whom it may concern:*

Be it known that I, AVERY GANO, of the county of Greene and State of Illinois, have invented a new and Improved Farm-Gate; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to an improvement in farm gates of that type adapted to be opened and closed by a person riding in a vehicle or on horseback.

My object is to provide a simple and inexpensive mechanism adapted to give the operator full power over the gate throughout its entire travel from the closed to the open position, and return; thus avoiding the very common objection of a point where the operator has little or no control over it, and where a light wind will frequently arrest its motion.

With this end in view, my invention consists in a certain construction and combination of parts set forth in the following specification and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the gate shown in the open position, and provided with my device. Fig. 2 is a plan view of the central portion of the same shown in the closed position, drawn to a larger scale and taken in the line *y, y*, Fig. 1.

Referring to the drawings, A, represents the gate, which is adapted to open only one way.

B B' B'' represent the gate-posts, the gate being hinged to the post B, and designed, when closed, to latch to the post B', and when open, to latch to the post B''.

To one side of the gate, as shown in Fig. 1, is secured a bent arm *a*, formed so as to reach round to the rear of the hinge post, (see Fig. 2.) To the outer end of this arm is pivoted at *i*, a triangular lever or plate *b*, the outer end of which is, by means of a rod *c*, connected with an overhead bar C, which is adapted to slide longitudinally in the upper part of the gate-posts B, B'', as shown in Fig. 1.

The opposite end of the lever or plate *b*, is provided with two slots *t*, for the reception of the bifurcated end of a rod *f*, the opposite

end of which is connected with the gate-latch *d*, which is formed of one of the gate-bars, as shown in Fig. 1.

To each end of the sliding bar C, is linked a short bar *g*, connected with a pendulous hand-lever *h*, fulcrumed, as shown in Fig. 1, to the end of a long horizontal bar D, supported on the top of the gate-posts.

Referring to Fig. 2, it will be observed that in whichever direction the lever or plate *b* may be turned about its pivot, whether to the right or to the left, as for opening or closing the gate, its action about its pivot *i*, will be limited to the length of the slots *t*, and the effect in either direction will be to draw the rod *f*, in the direction of the arrow 1, Fig. 2, and consequently to unlatch the gate, after which, the lever *b* having reached the limit of its angular vibration about its pivot, all further motion given to the bar C, will be transmitted to the gate, and will have the effect of either opening or closing it, as indicated by the arrows 2 and 3, Fig. 2, according to the direction in which the hand-levers *h, h'*, may be operated.

When the gate has been unlatched and opened or closed, the relatching is effected automatically by a long bow spring *e*, the lower end of which is secured to one of the gate-bars, and the upper end to the latch-bar *d*, and the middle part is adapted to impinge upon a fixed stud *s*, secured in one of the gate-bars, as shown in Fig. 1.

The several parts of my device being constructed and combined as described, its operation is as follows: Approaching the gate in the direction indicated by arrow 4 Fig. 1, the gate being closed as shown in Fig. 2, the hand-lever *h'* is taken hold of and thrust into the position indicated by arrow 6, as shown in Fig. 1, the effect of which is to first unlatch the gate, and then swing it round through a quarter of a circle into the position shown. The operator having passed through the gate-way, a reverse motion of the hand-lever *h*, unlatches, closes, and re-latches the gate.

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

The combination with a farm gate, of a device for opening and closing the same, com-

prising an arm secured to the side of the gate, and bent so as to reach round to the rear of the hinge-post, a triangular lever or plate pivotally secured to the outer end of said arm, and having at one end thereof two slots 5 for the reception of the bifurcated end of a rod the opposite end of which is connected with the latch so that in whichever direction the triangular lever may be turned about its 10 pivot, the latch will be drawn toward the hinge-post, a rod *c* connecting the rear angle of the triangular lever with a horizontal bar *C* adapted to slide longitudinally in the gate-posts, bars *g, g*, connecting it with hand-levers 15 *h, h'*, in such manner that the movement of said hand-levers either to or fro will first turn the triangular lever about its pivot to an ex-

tent limited by the length of the slots therein, and thus withdraw the latch, and then swing the gate round through a quarter of a circle; 20 a bow spring *e*, secured at its lower end to one of the gate-bars, and adapted to return the latch after it has been withdrawn; all of said parts constructed, and adapted to each other for united operation, substantially as 25 and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 7th day of May, 1894.

AVERY GANO.

Witnesses:

WM. G. NALLEY,  
R. NEWTON.