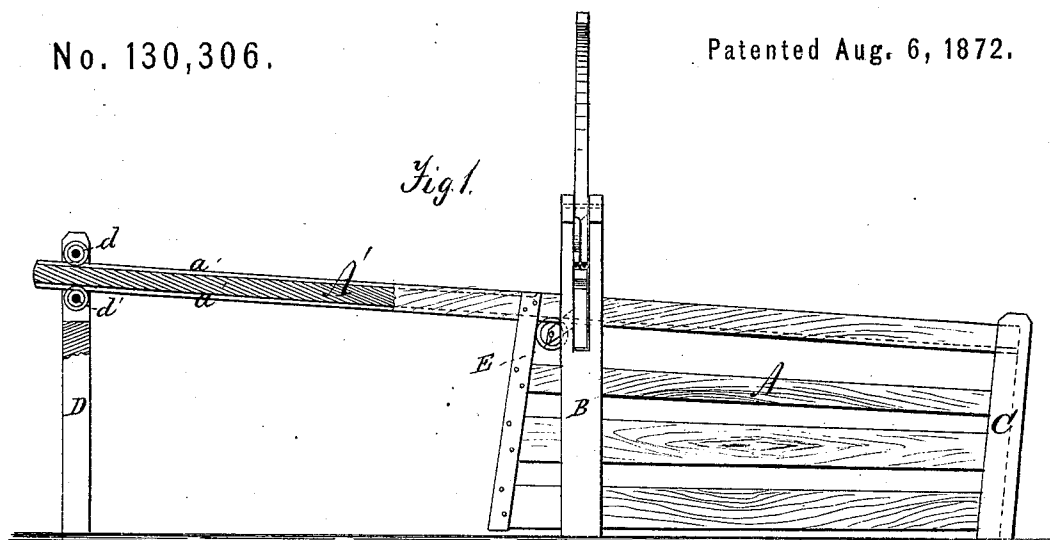
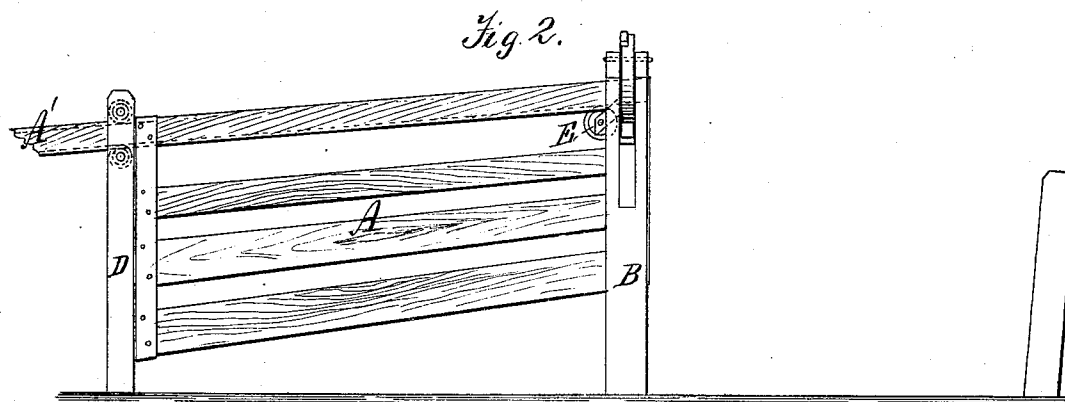
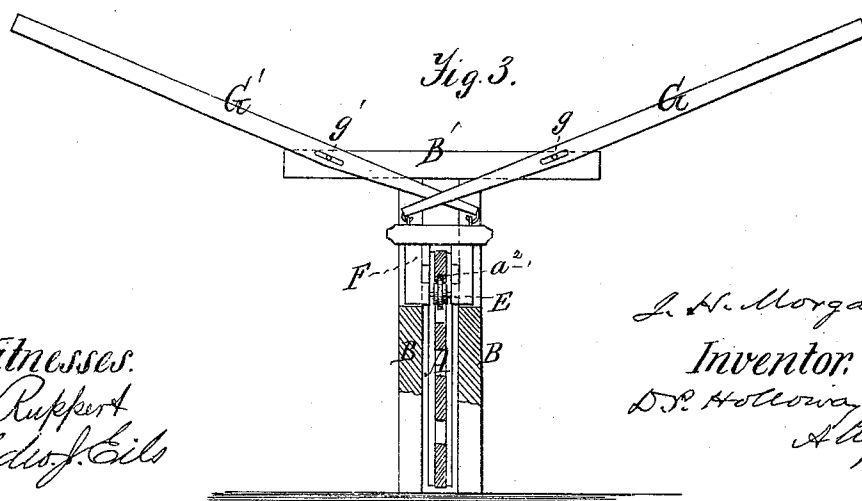


J. H. MORGAN.

Improvement in Gates.

No. 130,306.

Patented Aug. 6, 1872.



Witnesses.
A. Ruppert
P. C. J. Cils

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Inventor.
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Atty

UNITED STATES PATENT OFFICE.

JAMES H. MORGAN, OF WARSAW, INDIANA.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. 130,306, dated August 6, 1872.

Specification describing a certain Improvement in Farm-Gates, invented by JAMES H. MORGAN, of Warsaw, in the county of Kosciusko and State of Indiana.

This invention relates to that class of farm-gates which are opened and closed by sliding them endwise on anti-friction rollers; and my improvement consists in a combination of mechanism, by means of which a person on horseback, in a wagon, or afoot, may raise or lower one end of the gate and thus cause it to gravitate shut or open, as the case may be, the details being explained generally in the following description and specifically pointed out in the claim.

Figure 1 is a front elevation of the improved gate shut, showing part of the extension-rail in section. Fig. 2 is a similar view of the gate slid open. Fig. 3 is a transverse section.

The same letters of reference are used in all the figures in the designation of identical parts.

The upper rail of the gate A is prolonged beyond the length of the gate proper to form the extension A', which should be somewhat longer than the entire extent of endwise movement of the gate. B and C are the gate-posts, and D is an additional post located the proper distance from the post B, and carrying near its upper end two anti-friction rollers, *d* and *d'*, between which the extension-rail A' runs. The rollers are constructed with tongues on their peripheries to enter corresponding grooves *a* *a'* in the rail, as shown in Fig. 1. Aside from the support the gate derives from the rollers *d* and *d'*, it is suspended upon a vertically-movable anti-friction roller, E, by its top rail, which has a groove, *a*², in its lower edge fitting a tongue on the roller, as best seen in Fig. 2, this roller being arranged on the middle post B. This arrangement of grooves in the top rail of the gate, and in its extension A' and corresponding tongues on the anti-friction rollers sustaining the gate,

provides everything necessary to steady the gate and cause it to move in straight lines. The post B is composed of two sticks of timber with an intervening space, in which the gate is arranged, and a slot is cut in the upper end of each stick for the reception of the frame F, which is suspended from the ends of the levers G and G'. The roller E is journaled in the lower ends of the bifurcated frame, and the relative arrangement of the parts is such that when the downward movement of the frame is arrested by the ends of the slots in which it moves the gate will have a downward inclination toward the post C, and its own gravity will cause it to slide endwise toward that post to close the gateway. If, on the other hand, the frame F be raised to its highest position by the levers G or G', the gate will be raised until it obtains a downward inclination toward the post D, when it will automatically slide toward that post and open the gateway. The levers G and G' turn on studs *g* and *g'* on a cross-bar, B', of the post B, are made of any required length, and should be made of just sufficient weight to counter-balance the gate, so that it will need only a slight exertion to raise or lower the gate and cause it to open or shut.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the sliding gate A A', stationary anti-friction rollers *d* *d'*, movable anti-friction roller E and frame F, and operating-levers G and G', all arranged in relation to one another substantially in the manner and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES H. MORGAN.

Witnesses:

D. P. HOLLOWAY,
B. EDW. J. EILS.