

G. C. BOVEY. Farm-Gate.

No. 120,484.

Patented Oct. 31, 1871.

Fig. 1.

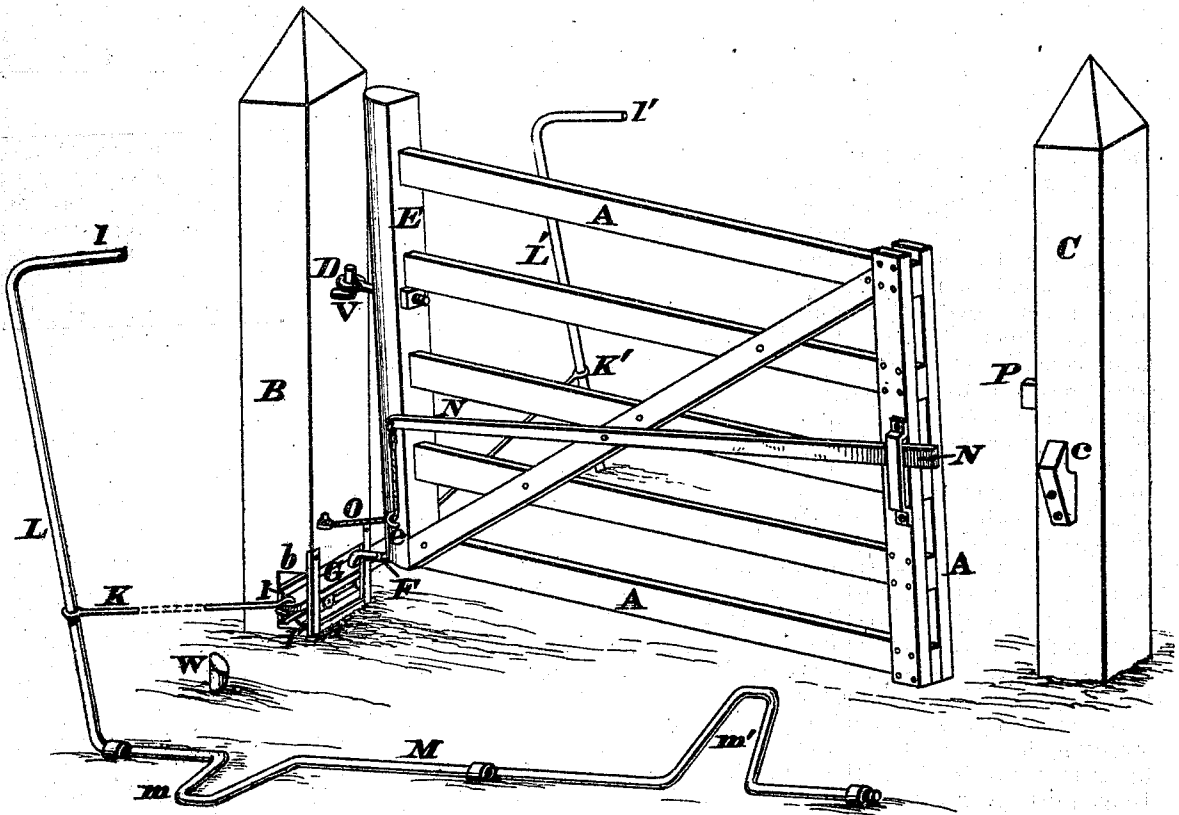


Fig. 2.

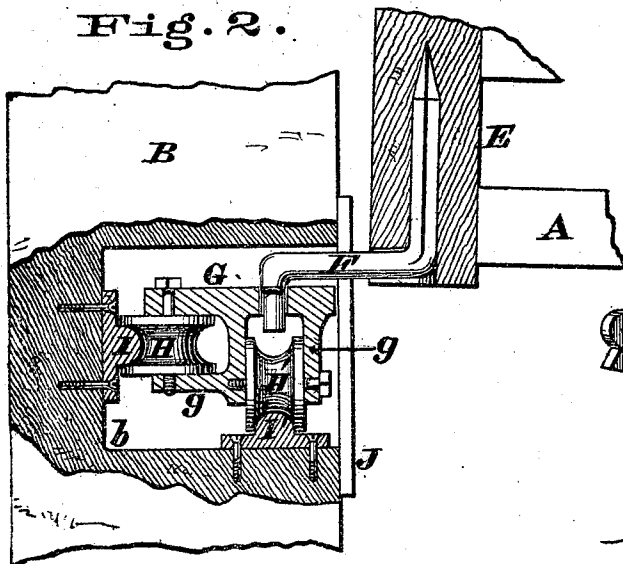
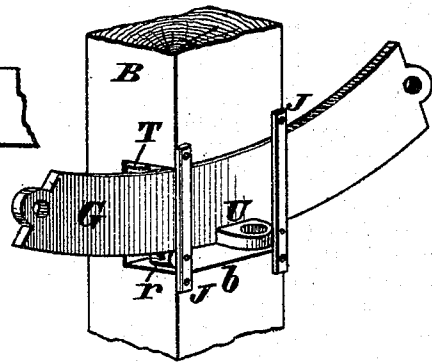


Fig. 3.



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GEORGE C. BOVEY, OF CINCINNATI, OHIO.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. 120,484, dated October 31, 1871.

To all whom it may concern:

Be it known that I, GEORGE C. BOVEY, of Cincinnati, Hamilton county and State of Ohio, have invented certain Improvements in Farm-Gates, of which the following is a specification:

This invention relates to that class of gates which are provided with laterally-shiftable hinges to render them self-opening. The first improvement consists in a novel form of lower hinge constructed on this principle, the same consisting of a pintle and a sliding step-bar supported on anti-friction rollers, as hereinafter fully set forth. The second part of my invention relates to an arrangement of devices whereby the latch is automatically disengaged from its catch by the opening of the gate.

Figure 1 is a perspective view of a gate embodying my improvements, it being represented in a partially-opened position. Fig. 2 is a vertical section of the lower hinge and its accessories, and Fig. 3 is a perspective, illustrating a modification of the first part of the invention.

A represents a gate of any approved construction, and B C are its posts, the gate being hung to the one, B, in the following manner: Driven firmly into the post B is a hook, V, that serves as the pintle for the upper hinge of the gate, which consists of a ring-bolt, D, which engages over said pintle and is capable of turning within the beam E of the gate. Securely attached, in any suitable manner, to the lower end of beam E is a rod, F, which performs the function of the lower hinge, and, instead of being attached to the gate-post in the same way as the upper hinge, it is pivoted in a sliding bar or beam, G, which occupies a recess, *b*, of said post. Brackets or hangers *g* of the bar G afford journal-bearings for two distinct sets of grooved rollers, H H', which are adapted to transverse tracks I I', of which the one I is secured to the side of recess *b* while the other one I' is attached to the bottom of said recess. Strips J, which are secured to the gate-post, prevent the bar G becoming disengaged from the recess *b*. Attached to the ends of shifting-bar G are rods K K', which connect with the operating-levers

L L', and said levers may be furnished with inward projections *l l'*, so as to be convenient for riders upon horseback or in carriages, wagons, &c. If preferred, rock-shafts M, having cranked portions *m m'*, may be arranged so as to open the gate by the impingement upon the latter of the wheels of vehicles. Pivoted to the gate in such a manner that its outer end shall be heavier than its inner end is a latch, N, which, when the gate is closed, engages with the catch *c* of post C, and the inner end of said latch has attached to it a rope or other flexible connection, O, which, after passing through a ring, staple, or pulley, *e*, upon the gate-beam E, is secured to the post B. P is a stop, which limits the closure of the gate. W is a stake or peg, which maintains the gate in its opened position. It will be seen that all the features of construction described with reference to the preferred or primary form are not essential. A modification of the shiftable lower hinge adapted to gates which are to open in both directions is illustrated in Fig. 3. Here the bar G is of arc shape instead of straight; is arranged in the face of the post, and provided with a perforated lug on its face to receive the pintle. The tracks I I' are also dispensed with, and smooth rollers T T', journaled in the posts, are substituted for the grooved rollers H H'. When the gate is in its closed position the latch N engages with the catch *c* and the lower hinge F is directly in line with the upper one D; but as soon as either of the levers L L' are operated so as to shift the step-bar G, the condition of the gate is immediately changed. The shifting of bar G throws the bottom hinge out of line with the upper one, thereby drawing upon the cord O with sufficient force to disengage the latch from its catch, and, there being nothing to keep the gate closed, its inclined position compels it to swing open, which it does until it rides over the stake W, which maintains it in an open position as long as may be desired. To shut the gate the lever is operated in an opposite manner, so as to shift the bar G and bring the lower hinge in line with the upper one. This act elevates the outer end of the gate so

as to ride over the stake W and shut itself, and as soon as the gate strikes the stop P the latch drops by gravitation into the catch c.

I claim as my invention—

1. As a shiftable support for the lower hinge of a gate, the sliding step-bar G supported on anti-friction rollers, and arranged and operated as described.

2. The catch c, latch N, cord O, and staple e,

when arranged to operate in connection with the shiftable gate A and fixed post B, in the manner herein explained.

In testimony of which invention I hereunto set my hand.

GEO. C. BOVEY.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.

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