Theodore Munger. Gate.

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PATENTED

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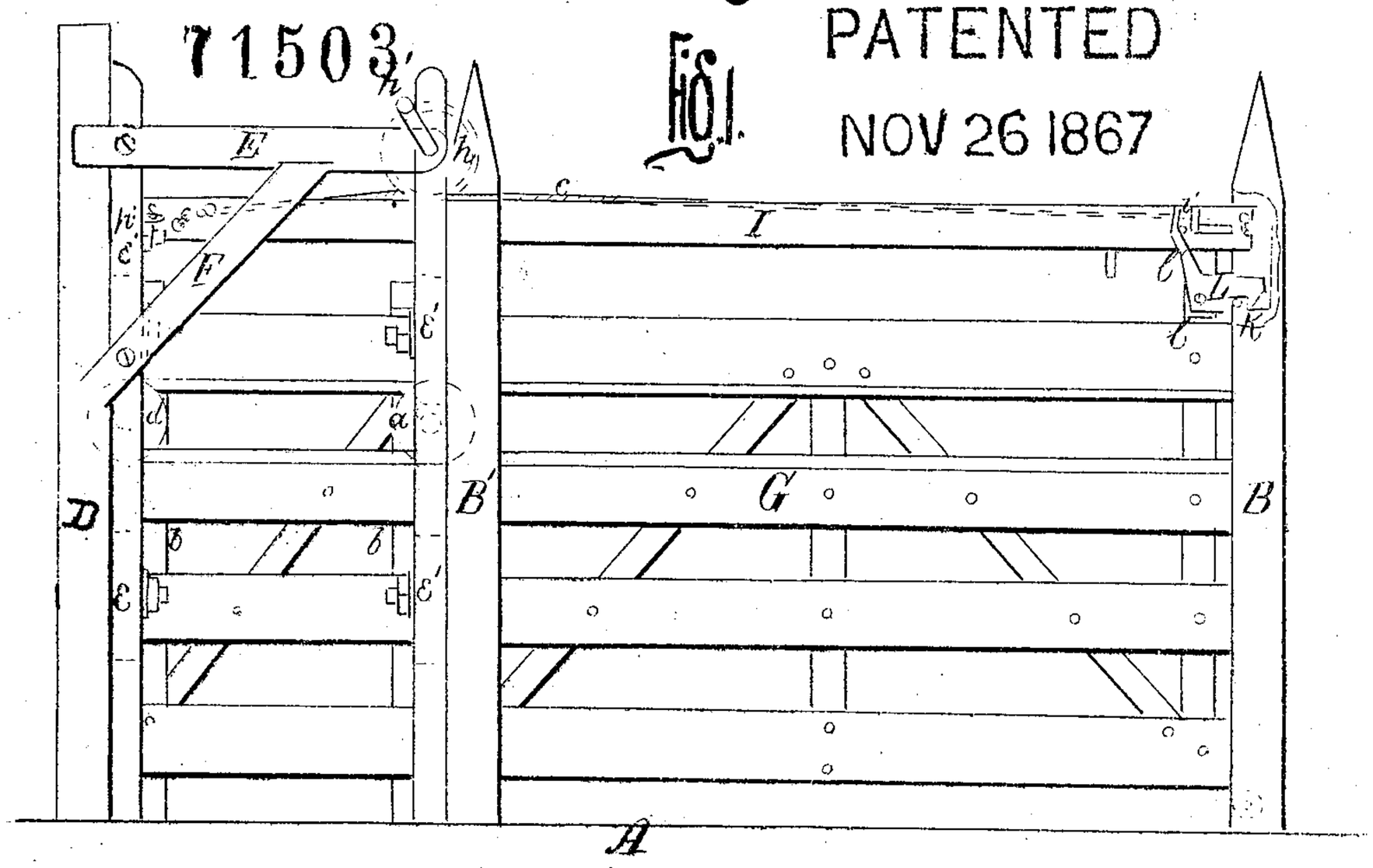
Fig. 1.



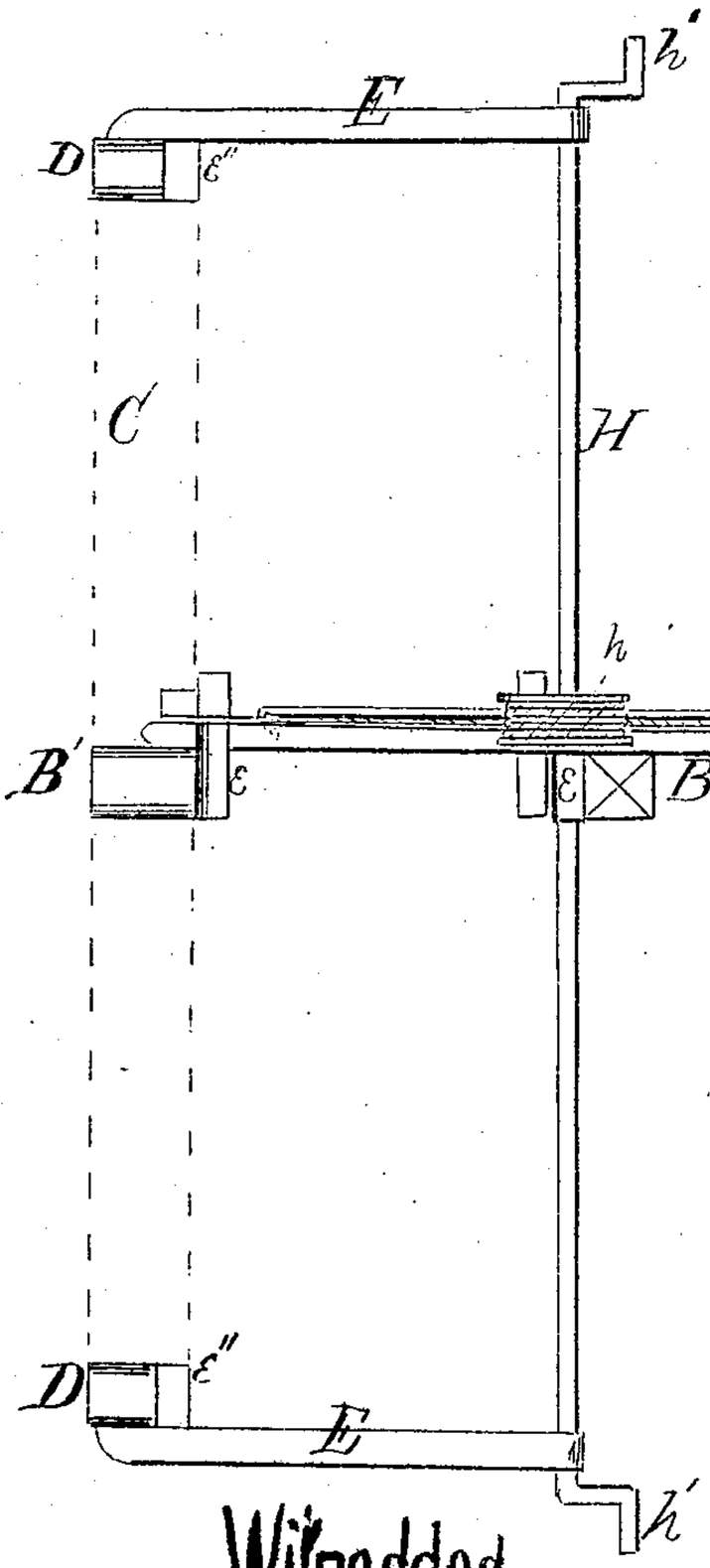


Fig. 2.

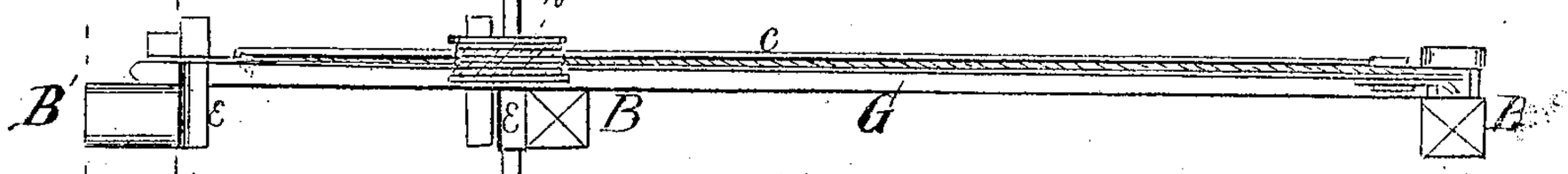
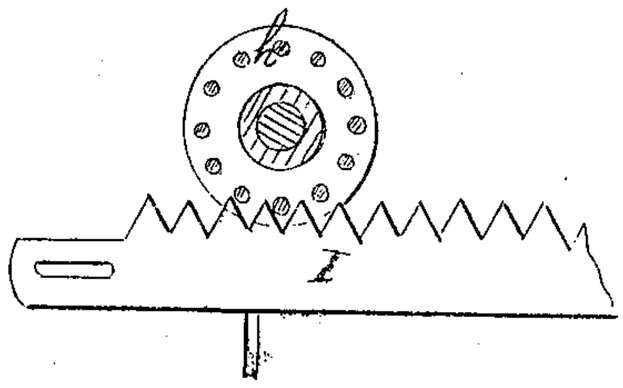


Fig. 3.



Witnesses:

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THEODORE MUNGER, OF JAYNESVILLE, IOWA.

Letters Patent No. 71,503, *dated November* 26, 1867.

IMPROVEMENT IN GATES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, THEODORE MUNGER, of Jaynesville, in the county of Bremer, and State of Iowa, have invented a new and improved Gate and Opener; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a side elevation of my invention.

Figure 2 is a top view of the same.

Figure 3 shows the rod I and wheel *h* when made in the form of a pinion and rack.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to gates which open and shut by sliding horizontally back and forth in a frame, and consists in applying to them a cord, pulley, and crank-rod, for the purpose of opening and shutting them; in a novel support for the crank-rod; and in a peculiar latch or fastening, operating in combination with the cord, pulley, and crank.

In order that others skilled in the art to which my invention appertains may be enabled to make and use the same, I will proceed to describe it in detail.

In the drawings, A represents the sill, and B B′ B″ the upright posts of a frame which supports the gate, and which extends across the road, being connected at one end with the centre of another sill, C, which extends parallel with the road. At the extremities of the latter sill are upright posts D D, provided with stout arms E E, strengthened by braces F F, and projecting towards the travelled way, to receive and support the crank-rod H. The gate G is an ordinary sliding gate, running on trucks *a a*, which are supported by the posts B′ B″, and guided and steadied by the guide-pieces *b b*. Along its top extends a movable rod, I, sliding a few inches longitudinally by means of its supporting-pin, *p*, and a slot, *s*. It is connected with the crank-rod H by a cord, *c*, which passes from its extremities over a grooved pulley, *h*, on the crank-rod, and enables the operator, by turning the cranks *h′ h′* in either direction, to slide the rod I the length of the slot *s*, and after that to slide the gate in either direction, so as to open or shut it. *m* is a roller, upon which the gate rests when shut. A latch, L, is pivoted to the forward end of the gate, and provided with a spring, *l*, to keep it in the proper situation to latch itself readily, and with an arm, *l′*, by which the latch is opened whenever the sliding rod I is drawn back till the pin *i* strikes the arm. A suitable keeper, K, is fixed to the post B, to operate in connection with the latch L. To strengthen the whole apparatus I would pass the crank-rod H through the post B′, making the latter serve as an additional central bearing for the crank-rod. The bearings of the crank-rod, as well as the supports of the gate itself, may be all made adjustable vertically, by being in separate pieces, attached to the posts by a set-screw operating in a slot, as shown at *e e′ e″*. When this device is employed, the projecting arms E E and braces F F must be attached to the vertically-adjustable piece *e* instead of the posts. This will enable the gate to be adjusted at any desired height from the ground.

Among the advantages which my improved gate possesses may be enumerated the following:

First. The projecting arms H H bring the cranks over the edge of the travelled path, and enable a person to drive his carriage close to them. When the crank-rod bears in the side posts themselves, it is difficult to approach it in a carriage without striking the wheels against the posts; besides, the posts must necessarily be stationed outside of the path, and one must drive out of his way to get within reach of them.

Secondly. The gate operates easily, smoothly, and without noise, and when shut, is very strong and firm.

Thirdly. The gate, when fastened, can be opened in two ways only: first, by unlatching it directly by hand and pushing it back, and secondly, by turning the crank-rod, which operates first to unlatch, and secondly to open the gate.

The spring *l*, which holds the latch in position, also serves, by pressing against the arm *l′* and pin *i*, to keep the sliding rod I always in position to be operated by a turn of the crank.

It is evident that a pinion may be used instead of the pulley *h*, and the rod I may be formed into a rack to operate with the pinion. The shaft H bearing at its centre in the adjustable piece *e′*, the gate can be raised or lowered to clear snow or other obstructions without the necessity of raising the crank-shaft.

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

The adjustable pieces *e e′ e″*, in combination with the gate G, substantially as and for the purpose shown.

THEODORE MUNGER.

Witnesses:

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