G. J. TINSLEY.

GATE.

No. 189,814. Patented April 17, 1877.

Fig. 1.

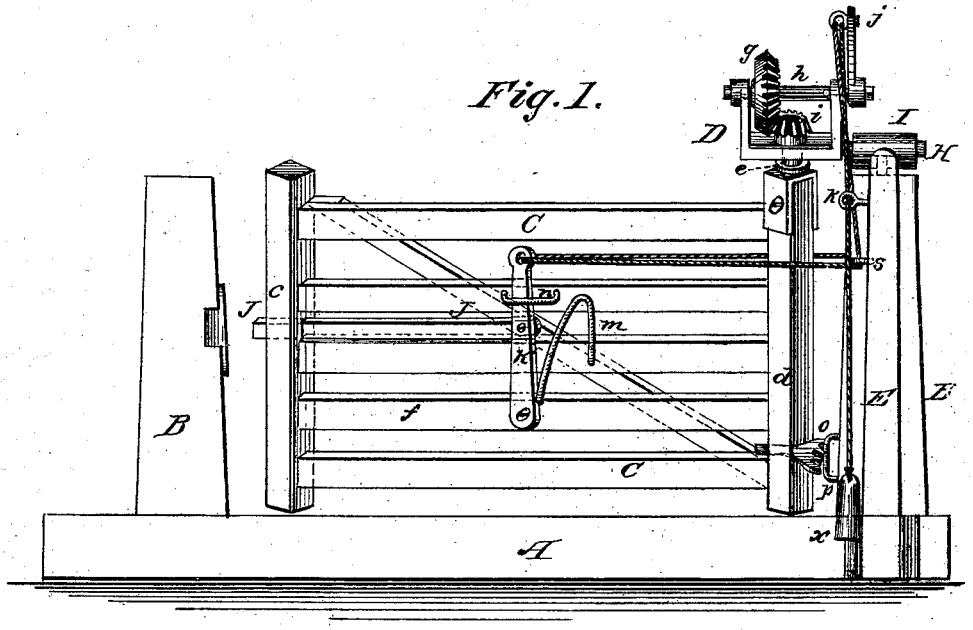


Fig. 2.

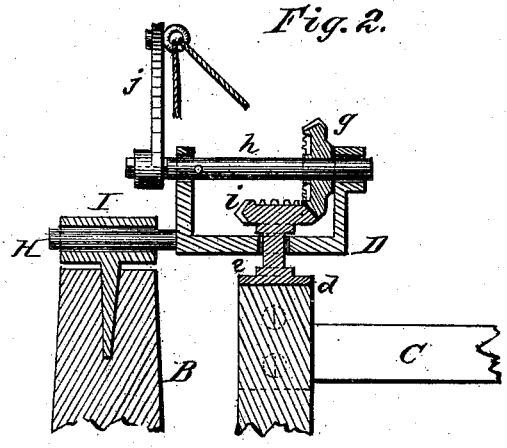
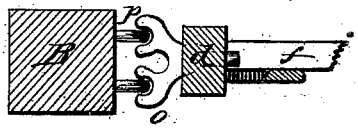


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

GRANVILLE J. TINSLEY, OF KANE, ILLINOIS.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. **189,814**, dated April 17, 1877; application filed February 8, 1877.

To all whom it may concern:

Be it known that I, GRANVILLE J. TINSLEY, of Kane, Green county, Illinois, have invented a new and useful Improvement in Gates, of which the following specification is a clear and exact description, reference being made to the accompanying drawings, which form a part of the same.

Figure 1 is a side view of the gate partly opened. Fig. 2 is a sectional view of the gears and their supporting-brackets, by means of which the gate is operated. Fig. 3 is a top view of the lower hinge.

The object of my invention is to produce a cheap and easily-operated gate, that can be put up in any place, and not be liable to get out of order.

A is the base or foundation, and B B are the upright posts in the same, to one of which the gate is hinged. C is the gate proper, having vertical end pieces *c d*, and horizontal boards *f*. To the upper end of the end piece *d* is fastened a metal cap, projecting from which is a wrist-piece, *e*, turning loosely in a bracket, D. This bracket has two upright arms carrying a shaft, *h*, upon which is a beveled cog, *g*, that meshes with a beveled cog, *i*, on the upper end of wrist-piece *e*. To the outer end of the shaft *h* a removable lever, *j*, is attached, and in its upper end is an eye, through which the operating-cord passes to operate the lever and gears to turn or swing the gate to and fro. Upon opposite sides of the gate are posts E, having in their upper end eyes *k*, for the operating-cord to pass through.

The bracket D has extending from its rear a horizontal pivot or shaft, H, which turns in a socket, I, fastened in the top of one of the posts B. The shaft H may have a nut or pin upon its rear end to prevent it from drawing out. J is the latch, arranged between the boards or horizontal bars of the gate, and is pivoted at its inner end midway of an upright bar, *k*, which is, in turn, pivoted at its lower end to one of the boards, and has at its upper end an eye to which the ropes or cords that operate the gate are attached, so that the latch can be drawn backward to release the gate before it is swung.

A spring, *m*, is situated in the rear of the lever *k'*, which constantly presses against it and keeps it in the forward part of the bracket *n*, save when it is overcome by drawing upon the cords. The lower hinge *o* has two semicircular holes, which, when the gate is closed, rest upon the pintles *p p*, but when the gate is swung in either direction, by drawing upon the cords, the outer end of the gate is raised, on account of its lower hinge turning upon only one of the pintles *p*, and therefore the gate is raised over the snow or other obstruction, and is closed by its own weight, and latched automatically.

The cord or cords *o* that operates the gate is fastened by a knot at its middle to the eye in the upper end of the latch-lever *k*, and one end of the cord runs back and passes through an eye, *s*, upon one side of the post B, and thence up through the eye in lever *j*, and passes to the opposite side of the gate and through an eye, *k*, on the post E. The other end of the cord is arranged in precisely the same manner, and runs up through the eye in lever *j*, after passing through an eye, *s*, in the post B, so to pass from the lever *j* to the opposite side, and through an eye in the post E.

The operation of the gate is, in short, as follows: One of the handles *x* is seized and drawn, which withdraws the latch from its catch in the outer post B, and by further drawing of the cord the bar *j*, is pulled forward, which turns the gear *g*, and it, in turn, turns the gear *i*, and, as the latter is rigidly attached to the wrist-pin *e*, the gate is caused to be swung open in the opposite direction from the side you approached it. The gate is operated in like manner, no matter from which side you approach it. If the cord is drawn hard, the gate will be swung back against one of the posts E E, and be latched thereto, so that when the wagon or horse has passed through the gate it can then be closed by drawing the handle *x* or the cord *o* on the other side from which you enter the gate, as the latch thus becomes released and the gate closes of its own weight.

An important feature in this class of gates is the shaft H, which permits the bracket D to turn in the socket I when the gate is opened, whereby I secure the advantage of having the lower hinge double, and the gate elevating and self-closing.

My gate may be constructed differently from what I have described, it is evident, without departing from the spirit of my invention.

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

1. The combination of the bracket D, shaft *h*, gears *g i*, shaft H, lever *j*, and the gate C, as set forth.

2. A gate, C, having lower hinge *o p*, in combination with a bracket, D, having a turning-shaft, H, and suitable gears *g i*, as set forth.

GRANVILLE J. TINSLEY. [L. S.]

Witnesses:

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