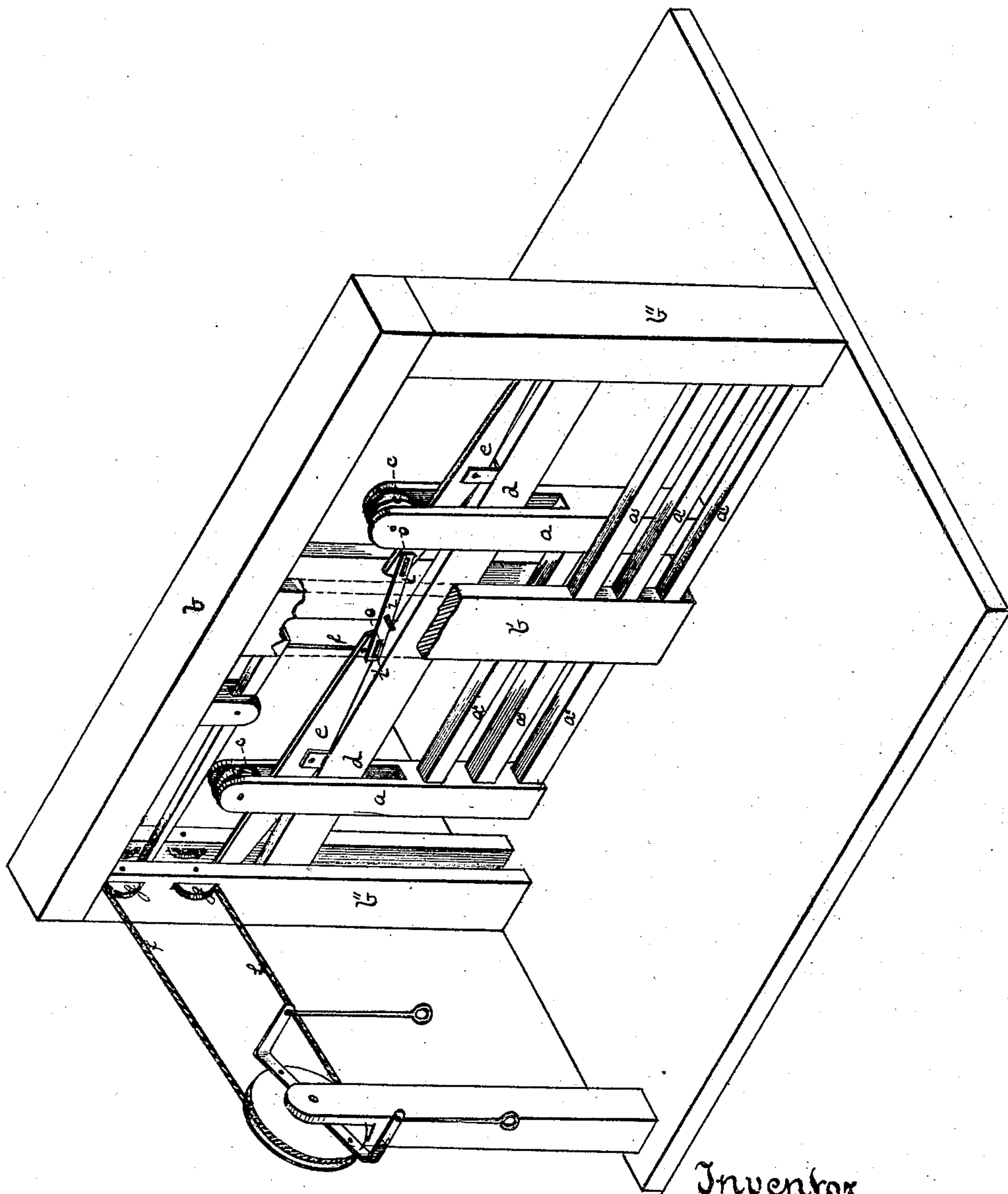


J. B. Erwin,

Gate.

No. 113282.

Patented Apr. 4. 1871.



Witnesses
R. L. Wenshall
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United States Patent Office.

JAMES B. ERWIN, OF PITTSBURG, PENNSYLVANIA.

Letters Patent No. 113,282, dated April 4, 1871.

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, JAMES B. ERWIN, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Gates; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a perspective view of my improvement.

Like letters of reference indicate like parts of each.

My improvement relates to the construction of gates for use in farm fences, in the fences of door-yards, ornamental grounds, &c., and consists in the combination and arrangement of devices for hanging the gate by rollers and hangers to a pair of tilting-bars, each pivoted at its center, so that when such bars are tilted either way the gate will automatically run on its rollers down the inclines so formed.

The tilting of the bars is effected by means of any suitable apparatus, so arranged as to be operated by the weight of the horse or buggy coming thereon, or by the manipulation of the rider or driver, who for such purpose need not leave his seat.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and mode of operation.

The gate-bars *a'* and posts *a* are of the usual or any known construction, except that two of the posts *a* extend up to such height as may be desired, and each has in its upper end a roller, *c*.

A frame-work, consisting of end posts *b'*, center post *b*, and cross-bar *b*, of about twice the length of the gate, is erected as a support for the gate and its operating devices. The gate plays through the center post, as shown.

The end and center posts *b' b* are at the desired point connected by stringers *d*, and on these the tilting inclines *e* are balanced, at or near their respective centers.

Each incline *e* is so shaped that it shall, when either end rests on its stringer *d*, be a little out of horizontal, such end being the lower.

The rollers *c* of the gate-post *a* operate on these inclines *e*, so that by throwing up or elevating the corresponding ends of both inclines *e*, the gate, operating by its own weight, will automatically roll down the inclines so formed and open or close, as the case may be.

For changing the tilt or slant of the inclines *e* va-

rious devices may be employed. They may be tilted separately or simultaneously, by levers or pulleys or other equivalent mechanism, which mechanism may be set in operation by the weight of the horse, or by the carriage striking a lever, or by the direct manipulation of the driver. But the devices shown in the drawing I find work well.

As here illustrated, I connect the contiguous ends of the inclines *e* to each other by one or more bars *i*, pivoted at or near their centers to the center-post *a*.

A slot, *i'*, should be made for the pin or wrist *a* to work in.

A cord, rope, or chain, *f*, then extends from the contiguous ends of the inclines *e*, or from the opposite ends, if so preferred, over pulleys *g*, to any convenient point for the manipulation of the rider, who, by pulling the proper cord, can open or close the gate at pleasure without leaving his seat.

The rising of the inner end of either incline *e* effects, through the action of the connecting-bars *i*, the lowering of the inner end of the other incline, and *vice versa*.

The cords *f* and pulley *g* can be arranged under a protecting cover, or carried down and arranged in a box under ground, so as to be free from obstruction by snow and ice.

If so desired, any elastic buffer or spring may be used to arrest gradually the motion of the gate at the end of its movement in either direction.

I am aware that gates have been opened and closed by the tilting of the bars on which they were hung, and hence I do not claim, broadly, such mode of operation, but limit myself to the features of construction hereinafter specified.

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

A pair of inclines, *e e*, pivoted at or near their respective centers, tilting simultaneously in the same direction, each carrying, by an interposed roller, one of the posts *a* of the gate, in combination with the bar *i*, arranged between and connecting such tilting-levers, and, by means of slots and wrists, operating the same, substantially as described.

In testimony whereof I, the said JAMES B. ERWIN, have hereunto set my hand.

JAMES B. ERWIN.

Witnesses:

A. S. NICHOLSON,
G. H. CHRISTY.