(No Model.)

W. WISE.

GATE.

No. 553,602. Patented Jan. 28, 1896.

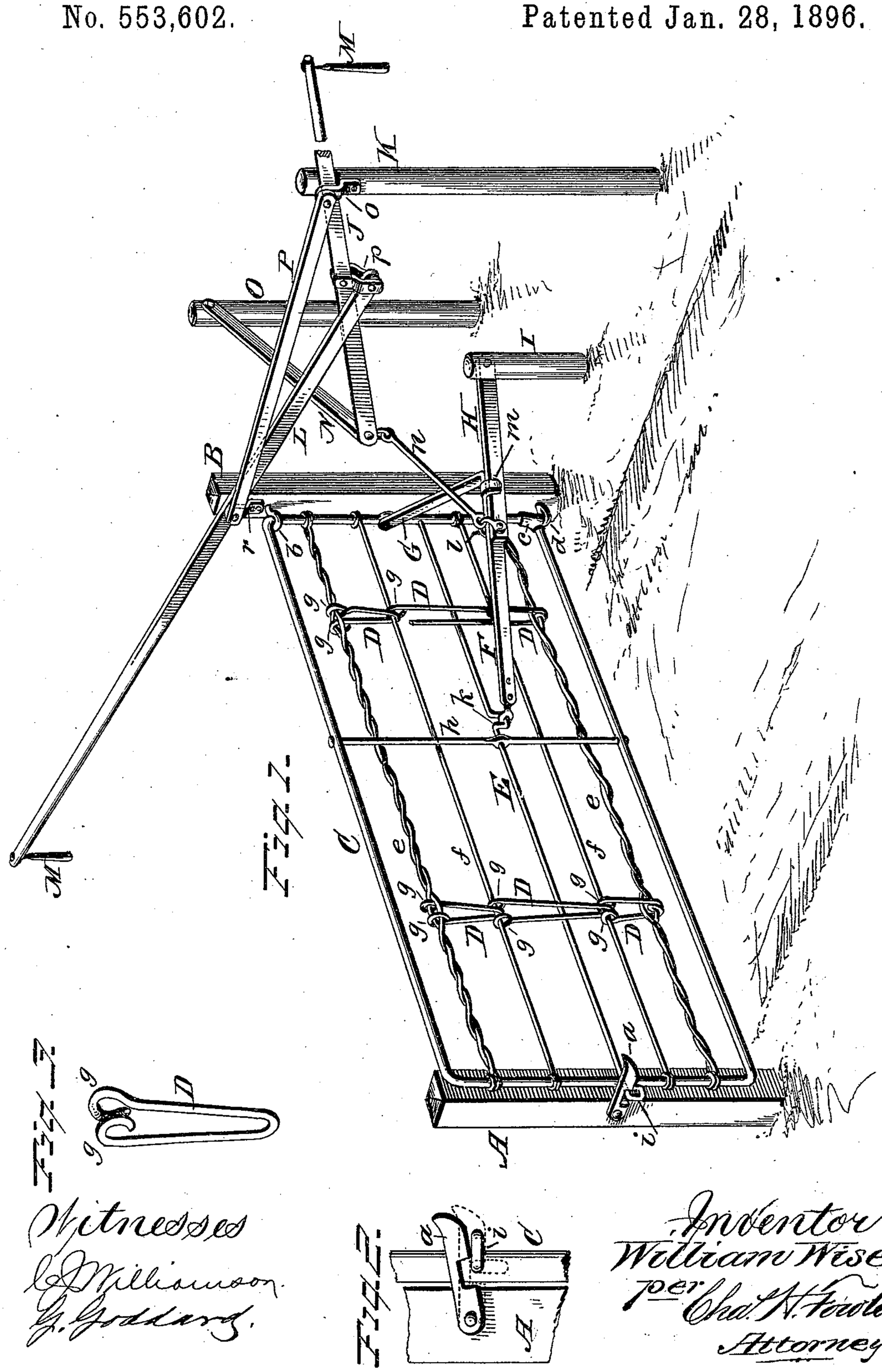

Fig. 1.

Fig. 2.

Fig. 3.

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GATE.

SPECIFICATION forming part of Letters Patent No. 553,602, dated January 28, 1896.

Application filed May 3, 1895. Serial No. 547,972. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WISE, a citizen of the United States, residing at Yellow Creek, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Gates; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has relation to that class of swinging gates in which is provided an arrangement or system of levers or an operating mechanism that will enable the gate to be opened from either side thereof, and for which a patent was granted to me February 12, 1895, No. 534,186.

The invention is designed as an improvement upon my former patent, which improvement consists in the details of construction, substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a perspective view of my improved gate and its operating mechanism; Fig. 2, a detail view showing a portion of the gate-post, the latch pivoted thereto, the end of the gate-frame, and the end of the lever for operating the latch, the latch and end of the lever being shown in operative position in full and dotted lines; Fig. 3, a detail view showing one of the gate-stays.

In the accompanying drawings, A B represent the outer and inner gate-posts, respectively, and which may be of the usual construction, the post A being provided with a pivoted latch *a* and the post B with means for hinging or pivoting the gate thereto.

The gate consists in part of a rectangular wire frame C, or a frame of any other desirable shape, as found most preferable, the wire forming the inner end of the frame extending through an eye *b* upon the post B near its upper end. The meeting ends of the wire are afterward joined together by means of a coupling *c*, and this end of the frame C is suitably connected to a support *d* upon the post near its lower end.

The gate may be hinged or pivoted to the post in any other convenient and well-known manner, as I do not desire to be understood as limiting myself to the means shown.

The frame C has longitudinal braces *e* near the top and bottom thereof, said braces being formed of twisted wires, as shown, and between these twisted-wire braces are the intermediate braces *f* of single wires, but may be of twisted wires, if found preferable. These wire braces are connected to the ends of the frame C in any suitable manner and are connected together by wire stays D. These stays I shall term "bifurcated stays," as their arms extend out at an angle, there being two arms to each stay which terminate in eyes *g*. The stays which are connected to the twisted-wire braces *e* are prevented from lateral displacement by the strands of the braces, and these stays hold in position the intermediate stay, thereby making a very light and durable gate. The latch *a* upon the post A is operated by a crank-rod E having its bearings in the end of the frame C and in an upright rod *h* connected thereto, said rod also serving as a brace for the frame. This crank-rod terminates at its outer end in a lift *i*, so that when the rod E is turned in its bearings to bring the lift in the position shown in Fig. 2 of the drawings the latch will be raised to allow the gate to be swung open. This lift *i* also acts as a keeper for the latch to hold the gate closed, as shown in Fig. 1 of the drawings, the two positions of the latch and lift being shown in full and dotted lines respectively.

In constructing the gate the longitudinal braces hereinbefore described may be variously modified or changed from the form shown in the drawings, the braces being either of twisted wires, plain, or provided with barbs, as found most desirable.

The mechanism for operating the gate consists in a bracket comprising two arms F G, of metal, formed integral with each other and about at right angles. This angular bracket has its arm F suitably connected to the crank *k* of the rod E, and the arm G is suitably connected to the inner end of the gate-frame C. The arm F is pivoted to the end of a locking-bar H by means of a clevis *l*, and said locking-bar in turn is pivotally connected to a

short post I fixed in the ground. The arm F is provided with a clutch *m*, so that when the gate is closed the clutch will embrace the locking-bar H and hold it and the angular bracket rigidly together and prevent the gate being opened until the bracket and locking-bar are elevated from a horizontal position. To the clevis *l* is connected one end of a lifting-rod *n*, which lifting-rod in turn is connected to any suitable arrangement of levers found best adapted to the purpose.

I have shown one of many arrangements of levers that may be successfully employed in elevating the lifting-rod *n* when it is desired to open the gate by a person on either side thereof.

In the operating mechanism or arrangement of levers above referred to the lifting-rod *n* is suitably attached to one end of a lever J, which lever is pivoted to a bracket *o* at the upper end of a post K. A second lever L is employed, which extends to the opposite side of the gate from the lever J, and each lever is provided with a suitable pull M for operating it. The lever L is pivoted to a bracket *p* upon the lever J, and the latter-mentioned lever connects with a post O through the medium of a bar N, which bar is pivoted to the post. A transverse brace P connects the posts B and K together, said brace being connected at its ends to the brackets *o r* upon said posts, respectively.

In place of the levers and their connections suitable ropes or cords and pulleys may be substituted, or any suitable arrangement of devices may be employed that will successfully operate the locking-bar and angular bracket hereinbefore described.

Although the gate is securely held closed when the bracket and the locking-bar H are in the position shown in Fig. 1 of the drawings, it is thought best to provide additional security against the accidental opening of the gate in the employment of the pivoted latch *a*, hereinbefore described.

When the locking-bar H is elevated to release the gate, the arm F of the bracket, which is connected with the crank *k* of the rod E, will turn the rod, and by means of the lift *i* on the end thereof the latch will be raised and the gate allowed to be swung open.

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

A suitable swinging gate, a crank-rod having a lift at its end, a pivoted latch engaging with the lift, a locking-bar pivoted to a post in the ground, an angular bracket pivoted to said bar and having a clutch upon one of its arms to engage with the locking bar, said arms of the bracket being connected respectively to the crank of the rod and to the gate, and suitable means for operating the locking-bar and bracket, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM WISE.

Witnesses:
AARON WINTERS,
WM. TERRY.