

(No Model.)

2 Sheets—Sheet 1.

E. KAISER.
GATE.

No. 552,764.

Patented Jan. 7, 1896.

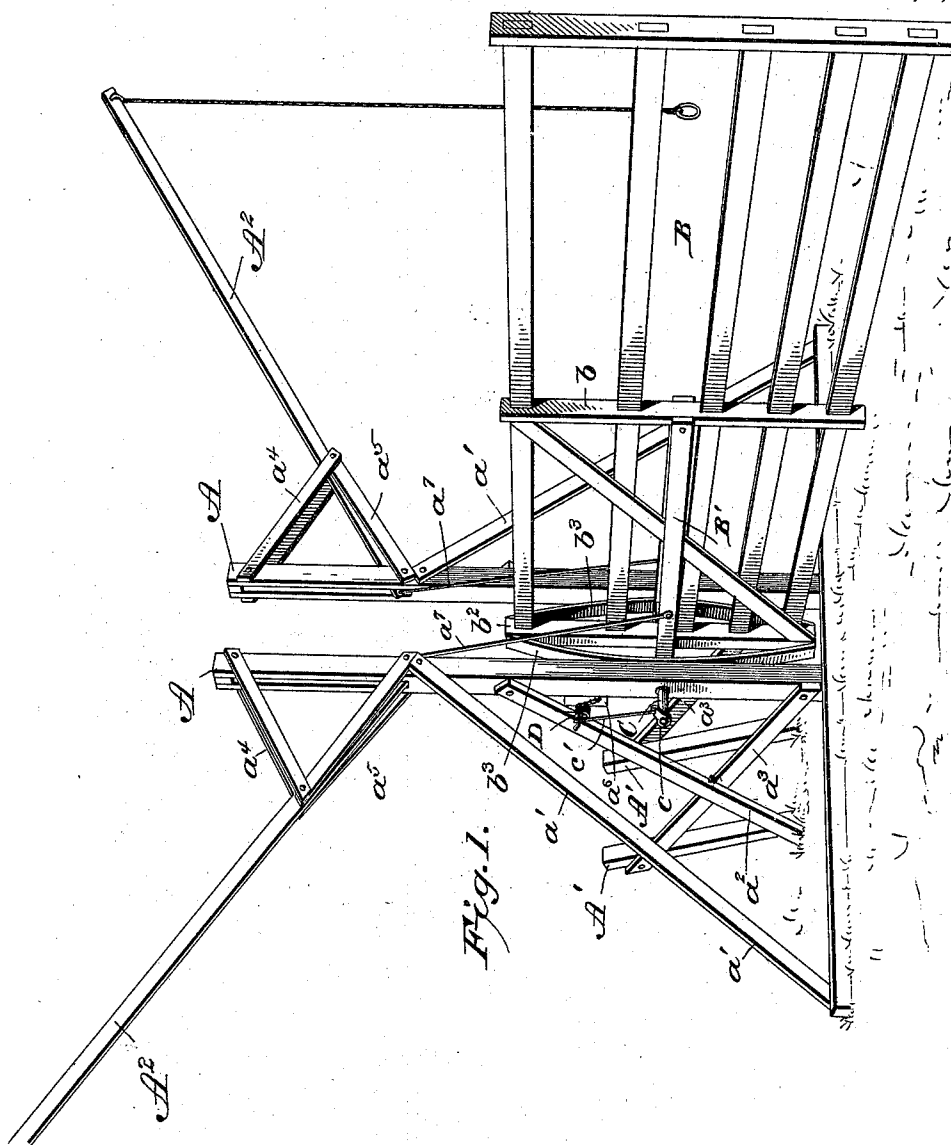
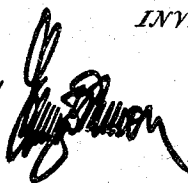


Fig. 1.

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INVENTOR

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Attorney.

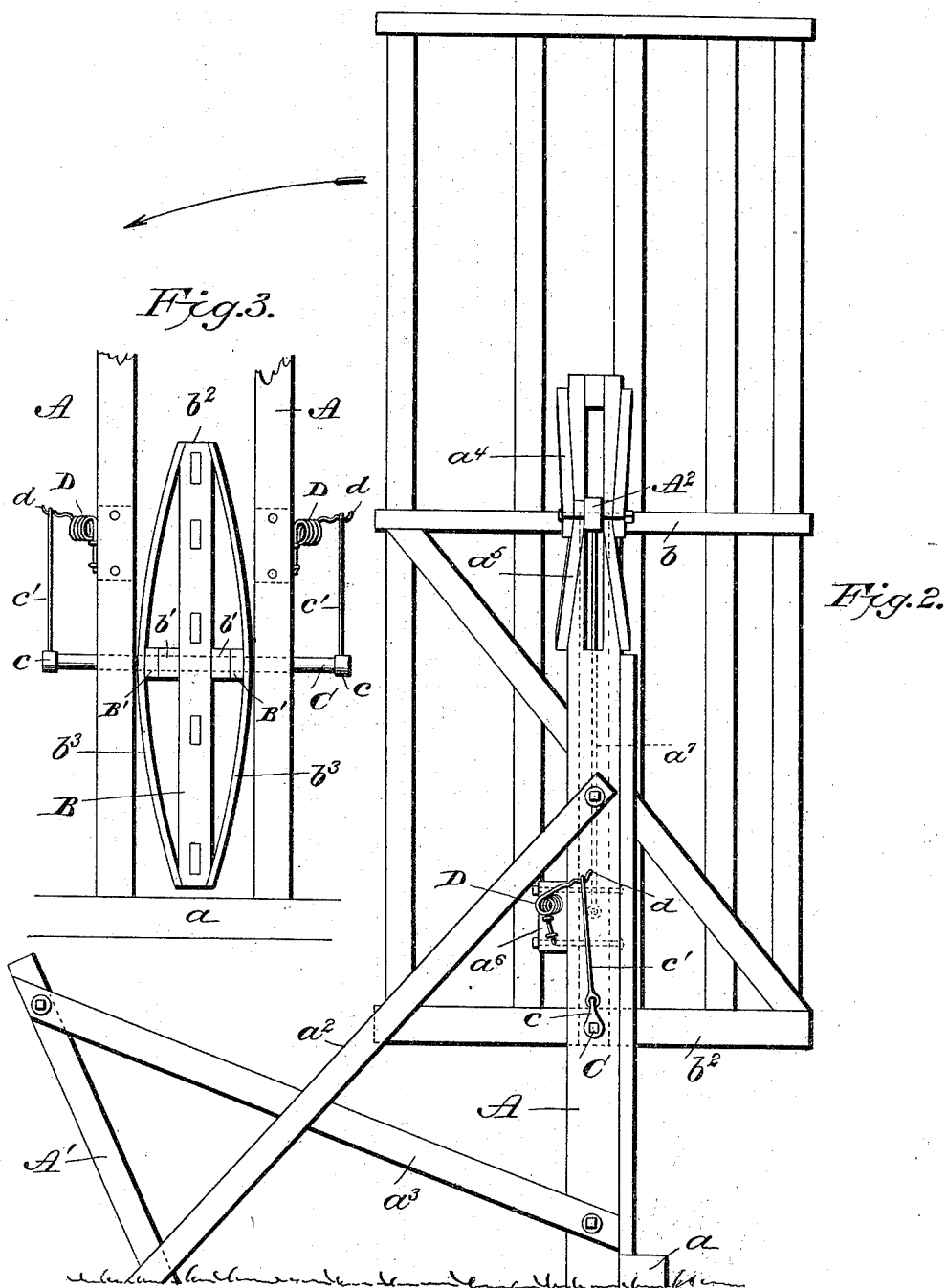
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UNITED STATES PATENT OFFICE.

EDWARD KAISER, OF CONGERVILLE, ILLINOIS.

GATE.

SPECIFICATION forming part of Letters Patent No. 552,764, dated January 7, 1896.

Application filed October 31, 1895. Serial No. 567,487. (No model.)

To all whom it may concern:

Be it known that I, EDWARD KAISER, a citizen of the United States of America, residing at Congerville, in the county of Woodford and State of Illinois, have invented certain new and useful Improvements in Gates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in gates of that class which are pivotally supported at their rear ends, so that they may be swung from a horizontal to a vertical position; the object of the invention being to provide such a gate with means for operating the same. The invention consists in the construction and combination of the parts, as will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of a gate and operating means constructed in accordance with my invention, the gate being shown lowered in a closed position. Fig. 2 is a side elevation, the gate being swung to a vertical position, and Fig. 3 is an end view.

A A designate vertical posts which are mounted on a sill-piece *a* and braced thereto by inclined bars *a'*. The posts A are further braced by oppositely-inclined bars *a²* and *a³*, which are rigidly secured to inclined posts A' A' planted in the ground at a suitable distance in the rear of said posts A. This arrangement serves to hold the posts A securely in an upright position against the jars to which they are subjected in opening and closing the gate.

The upper part of the posts A are provided with slots through which pass the inner ends of the operating-levers A² A², said levers being pivoted between brackets consisting of bars *a⁴* and *a⁵*, which are secured to the posts A and are connected to each other at their outer ends. The outer ends of the levers A² are provided with depending cords, by which they are operated.

B designates the gate, which may be of any

suitable form of construction, and is provided on each side with a bar B', said bars being attached at their forward ends to the central vertical batten *b* of the gate and at their rear ends to blocks *b'* which are secured on each side of the rear vertical batten *b²* of the gate. Strips *b³* are attached to the bars B' at their rear ends and are bowed and secured to the upper and lower ends of the batten *b²*, said bowed strips serving more firmly to connect the bars B' and blocks *b'* to the batten *b²*. The gate B is connected to the posts A by a transverse shaft C, which is passed through the parts *b³*, B', *b'*, and *b²* of the gate and rigidly secured thereto, the shaft bearing in the posts A A and the ends thereof extending a short distance beyond said posts. The central portion of the shaft may be squared and passed through squared apertures in the parts of the gate, and the posts A may be provided with suitable bearings or journals for said shaft. The outer ends of the shaft C are provided with projecting arms *c*, which are connected by rods *c'* to helical springs D supported by the posts A. The inner ends of the helical springs D are rigidly secured to blocks *a⁶*, bolted to the posts, while the outer ends *d* project a suitable distance beyond the helical sections and are bent or waved, as shown, better to hold the connecting-rods *c'* in engagement therewith, the several bends providing for increasing the tension of the springs upon the shaft to which said connecting-rods are attached. The inner ends of the operating-levers A² are connected to the gate B by rods *a⁷*, which are attached to the bars B' of said gate at a suitable point forward of the shaft C.

In operation, supposing the gate to be closed, a person pulling down upon the outer end of one of the levers A² by means of the depending cord attached thereto will raise the inner end of said lever, which, being connected to the gate by the rod *a⁷*, will swing the gate upon its pivot to a vertical position, being assisted by the helical springs D, which are connected to the shaft, said springs also serving to support the gate in the vertical position by holding the arms *c* of the shaft C in an upright position, the arms extending from the shaft on a line with the gate. When it is desired to open the entire gateway, by quickly pulling down upon the flexible connection or operat-

ing-cord at the outer end of one of the levers A^2 , the gate will be thrown from a horizontal position across the roadway to a horizontal position on the other side of the posts $A A$, the jar of the gate in falling to its horizontal positions being taken up by the springs D .

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

1. The combination with a gate and its supporting posts, of a transverse shaft rigidly secured to the gate and journaled in the supporting posts, arms projecting from the shaft, and springs attached to the supporting posts and connected to said arms, substantially as shown and for the purpose set forth.

2. The combination, of supporting posts having a transverse shaft journaled therein to which the gate is secured, levers pivoted to brackets carried by the supporting posts and connected to the gate forward of its pivot, bars B' to which the connecting-rods of the operating levers are attached, blocks b' interposed between the bars B' and rear batten of the gate, and bowed strips b^3 for holding the bars B' and blocks b' in place; the shaft passing through the parts b^3 , B' , b' and b^2 of the gate, substantially as shown and for the purpose set forth.

3. The combination with a gate, of posts $A A$ having operating levers connected to the gate; a shaft C to which the gate is rigidly attached, said shaft passing through the posts and bearing therein; arms c projecting laterally from the ends of the shaft on a line with the gate; and helical springs D secured to the posts and connected to the projecting arms of the shaft, substantially as shown and for the purpose set forth.

4. The combination with a gate and its operating means, of a shaft rigidly attached to

the gate and having bearings in the supporting posts; arms projecting laterally from the ends of the shaft on a line with the gate; and helical springs rigidly secured to the supporting posts and having projecting ends which extend beyond the helical portions and are bent or waved as shown, the projecting ends of the helical springs being connected to the arms of the shaft, for the purpose set forth.

5. The combination with a gate constructed substantially as shown, of the supporting posts having a transverse shaft upon which the gate is mounted, operating levers pivoted to the supporting posts and connected at their inner ends to the gate; together with the inclined brace-rods a' , and oppositely inclined brace-rods a^2 and a^3 attached to the supporting-posts and to inclined anchor-posts A' , substantially as shown and for the purpose set forth.

6. The combination with the supporting-posts $A A$ braced substantially as shown, of a transverse shaft C journaled in the supporting-posts and provided at its ends with laterally-projecting arms c ; a gate B rigidly secured to the shaft between the supporting-posts and connected to operating levers; helical springs D rigidly secured to blocks secured to the supporting-posts, the springs being provided at their outer ends with a projecting portion d bent or waved as shown; and rods c' connected to the arms c and adapted to engage the bends of the projecting portion d of the helical springs, for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD KAISER.

Witnesses:

U. G. SLUTZMAN,

L. E. BROUN.