

No. 636,011.

Patented Oct. 31, 1899.

J. L. STOUTENBOROUGH.

GATE.

(Application filed Sept. 2, 1899.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 2.

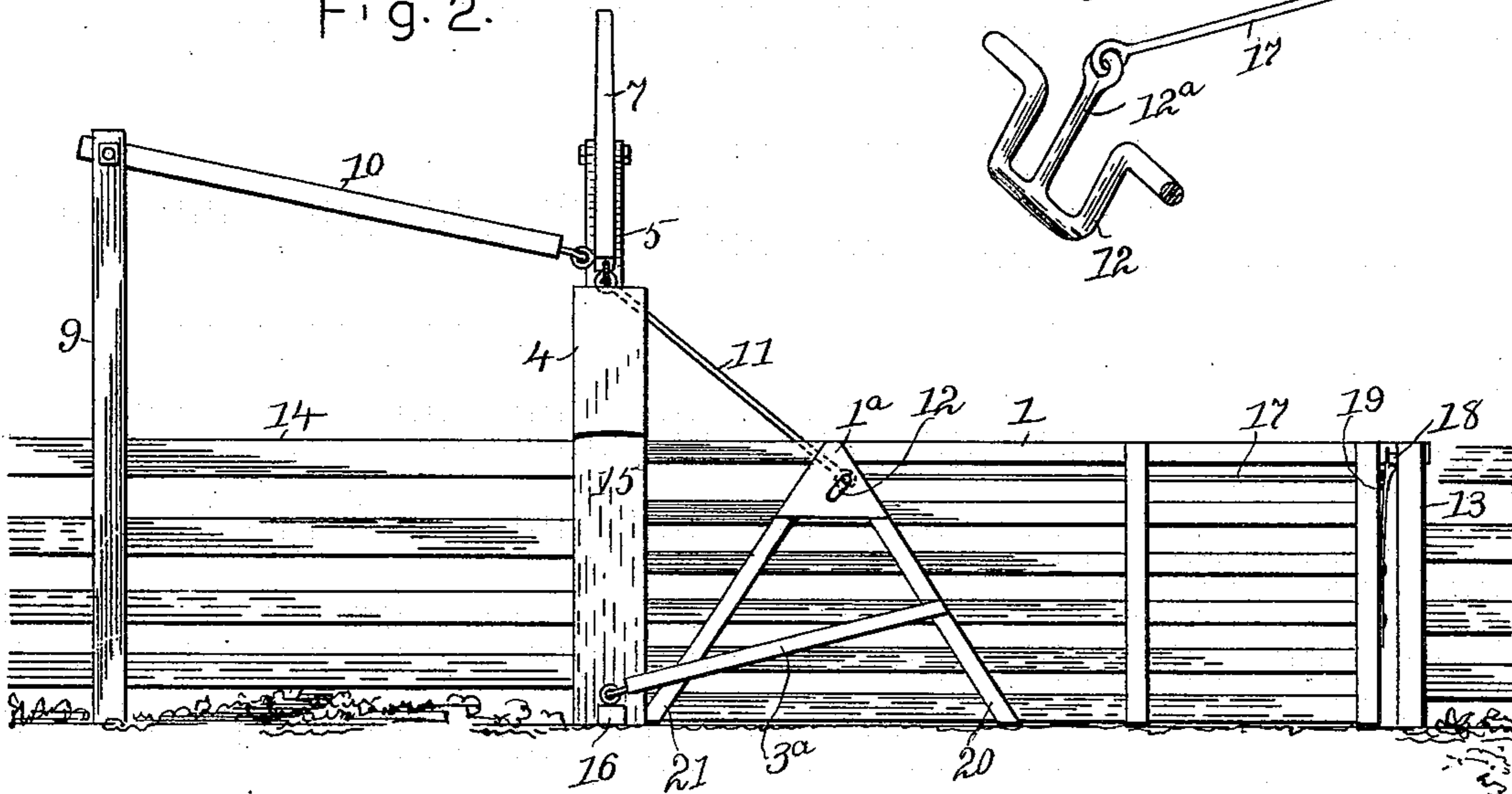


Fig. 4.

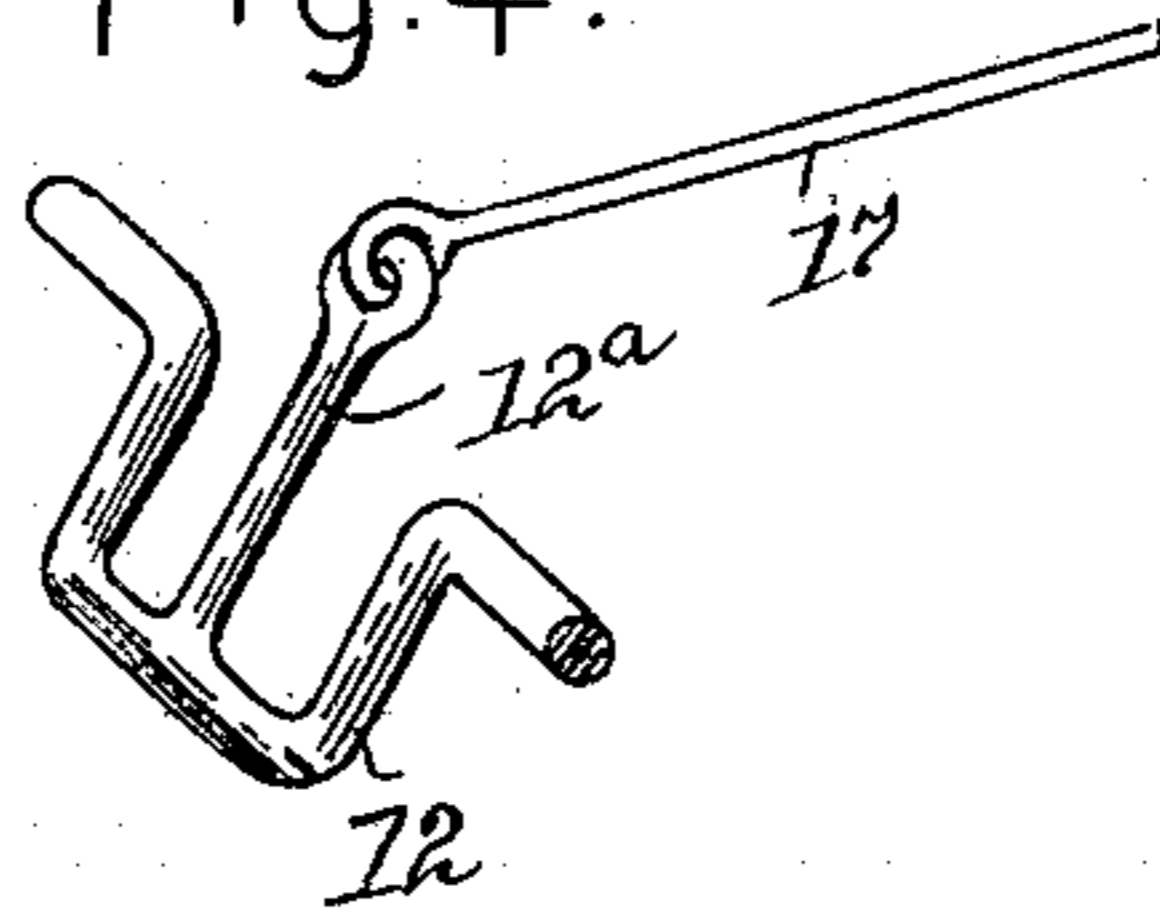
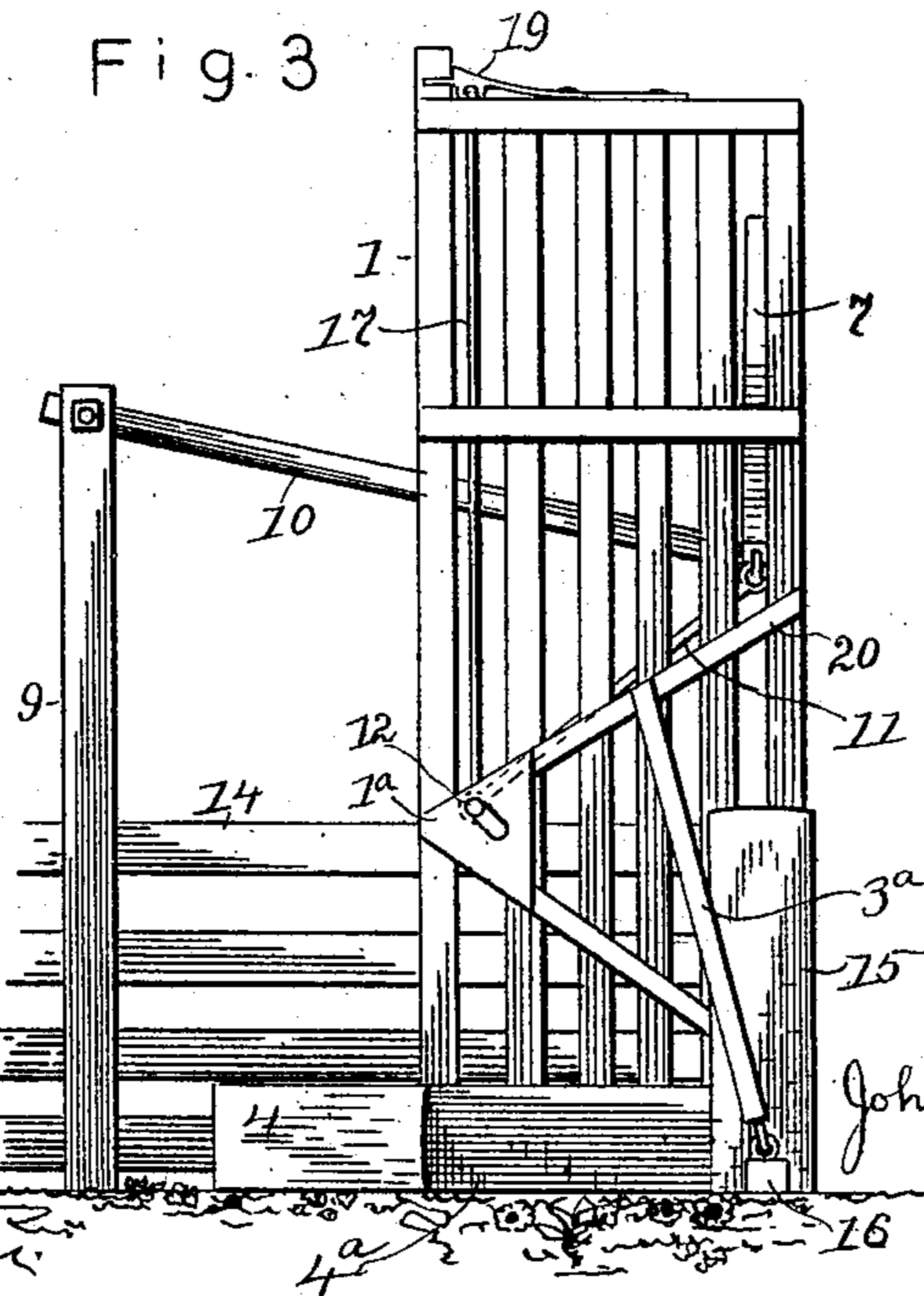


Fig. 3



Attest,

Nora Graham.

Lina Graham.

Inventor.

John L. Stoutenborough

By L. P. Graham
his attorney.

UNITED STATES PATENT OFFICE.

JOHN L. STOUTENBOROUGH, OF MAROA, ILLINOIS.

GATE.

SPECIFICATION forming part of Letters Patent No. 636,011, dated October 31, 1899.

Application filed September 2, 1899. Serial No. 729,396. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. STOUTENBOROUGH, of Maroa, county of Macon, and State of Illinois, have invented certain new and useful Improvements in Gates, of which the following is a specification.

This invention relates to farm-gates tilted on horizontal pivots by means of levers accessible to riders some distance from the gate, and it is embodied in the structure hereinafter set forth and claimed.

In the drawings forming part of this specification, Figure 1 is a plan of a gate constructed in accordance with my invention, showing opening and closing levers on both sides of the gate. Fig. 2 is a side elevation of the gate in a closed position with one set of operating-levers omitted. Fig. 3 is a similar view showing the gate open. Fig. 4 is a detail of a catch-actuating lever.

The gate is composed of a principal stile 4^a, (seen only in Fig. 3,) which is pivoted at its lower end between a pair of posts 15 and extended upward at 4 to form a gate-balancing weight. The upward extension 4 preferably extends sidewise over the posts 15, so as to give the appearance of a continuous post of uniform dimensions when the gate is closed. Rails, as 1, extend from stile 4^a, and other stiles are introduced near the swinging end of the gate to hold the rails in position. Bars 21 rise from the lower end of stile 4^a on opposite sides of the rails of the gate and extend obliquely upward and away from the principal stile to the top of the gate. At their upper ends the bars 21 meet a pair of bars 20, which diverge from the perpendicular in a direction opposed to the inclination of bars 21, and the two pairs of bars form, with the base of the gate, approximate isosceles triangles. At the apex of the triangles formed by bars 20 and 21 plates 1^a are attached to the bars to inclose a space between the two upper rails of the gate. In the space so inclosed is placed a doubly-cranked shaft 12, which has bearings in plates 1^a. The cranked ends of the shaft extend outward beyond the plates, and to that part of the shaft between the plates is fixed an arm 12^a, as shown in Fig. 4, which swings between the upper rails of the gate. A spring-catch is fastened onto the swinging end of the gate in some suitable manner, and

a rod 17 connects arm 12^a with such catch. In this instance the catch is in the form of a strap-spring 19 or in a pair of them fastened to the end stiles of the gate, and a cross-bar 18 (seen in Fig. 2) is attached to the fence-post 13, against which the gate closes, in a position to engage the spring-catch when the gate is closed.

A pair of posts (shown at 5 and 6 in Fig. 1) are set one on each side of the pivot-posts of the gate, and back of the pivot-posts and in line with the gate is set a post 9. Levers 7 and 8 are fulcrumed one in the upper end of the post 5 and the other in the upper end of post 6, and they extend nearly to the weighted end 4 of the principal stile of the gate. From the inner ends of the levers connecting-rods 11 and 11^a extend to and connect with the outward-projecting ends of the crank-shaft 12, and swinging bars 10 and 10^a connect the lift ends of the levers with post 9.

Bars 16, one of which is shown in Figs. 2 and 3, are laid along the ground between the pivot-post of the gate and fulcrum-posts 5 and 6, and brace-bars 3 and 3^a extend obliquely from brace-bars 20 of the gate and connect pivotally with the ground-bars 16 or their equivalent midway between posts and in line with the pivot of the gate.

In operating the gate the outer end of one of the levers is pulled downward with a somewhat quick motion and then released. The initial movement of the inner end of the lever rocks the crank-shaft 12 and carries the catch 19 out of engagement with the stop-bar 18 on the post 13, and then the force is utilized in raising the gate over its horizontal pivot. As soon as the gate is raised a very little at its swinging end the weight 4 begins to aid in producing the motion, and its effect increases as the gate rises until finally it overbalances the gate and completes the opening movement unaided. In closing the gate the gate acts to counterbalance the weight and complete the closing motion, and the momentum is developed by pulling down on a lever the same as in opening. The bars 10 and 10^a stay the ends of the levers against sidewise pull, and the lifting force is exerted on the gate approximately in line with the oblique cleat-bars 20.

The brace-bars 3 and 3^a hold the gate against

side swing on its pivot, and they are long enough to pass over the pivot-posts in opening and closing the gate.

What I claim is—

5 1. A gate swung on a horizontal pivot at one of its lower corners, such gate being composed of rails and stiles with an **A**-shaped brace structure adjacent to the pivot-stile, a weight for counterbalancing the gate, verti-
10 cally-swinging levers in line with the pivot-post, stays to hold the swinging ends of the levers against side motion, and links connecting the swinging ends of the levers with the apex of the **A**-formed brace structure, sub-
15 stantially as described.

2. A gate swung on a horizontal pivot at one of its lower corners, such gate being composed of rails and stiles with an **A**-shaped brace structure adjacent to the pivot-stile, a
20 weight to counterbalance the gate, braces fastened to the **A**-shaped structure and pivoted to the side of and in line with the pivot of the

gate, and lift-levers connected through links with the apex of the **A**-formed brace structure, substantially as described. 25

3. A gate swung on a horizontal pivot at one of its lower corners, such gate being composed of rails and stiles with an **A**-shaped brace structure adjacent to the pivot-stile, a weight to counterbalance the gate, a crank-
30 shaft journaled in the apex of the **A**-shaped structure between rails of the gate, a crank-arm on the crank-shaft between the ends thereof, a catch to hold the gate closed, a rod connecting the arm on the crank-shaft with
35 the catch, and lift-levers connecting with the crank-shaft, substantially as described.

In testimony whereof I sign my name in the presence of two subscribing witnesses.

JOHN L. STOUTENBOROUGH.

Witnesses:

H. C. DEMPSEY,
J. W. REAVIS.