

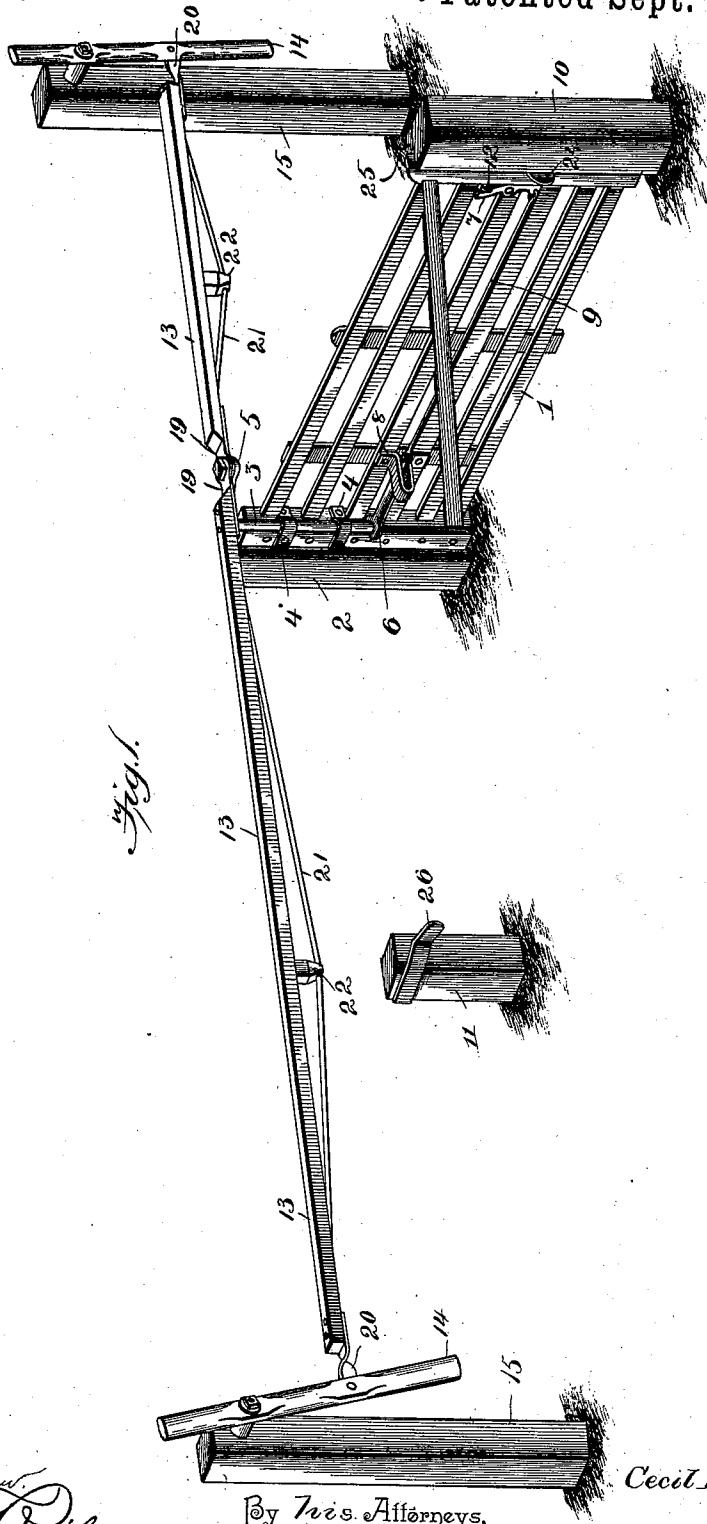
(No Model.)

C. H. LUCAS.
GATE.

2 Sheets—Sheet 1.

No. 504,357.

Patented Sept. 5, 1893.



Witnesses

John Shaw
N. H. Riley

By *W. S. Attorneys,*

Inventor

Cecil H. Lucas.

C. H. Snow & Co.

(No Model.)

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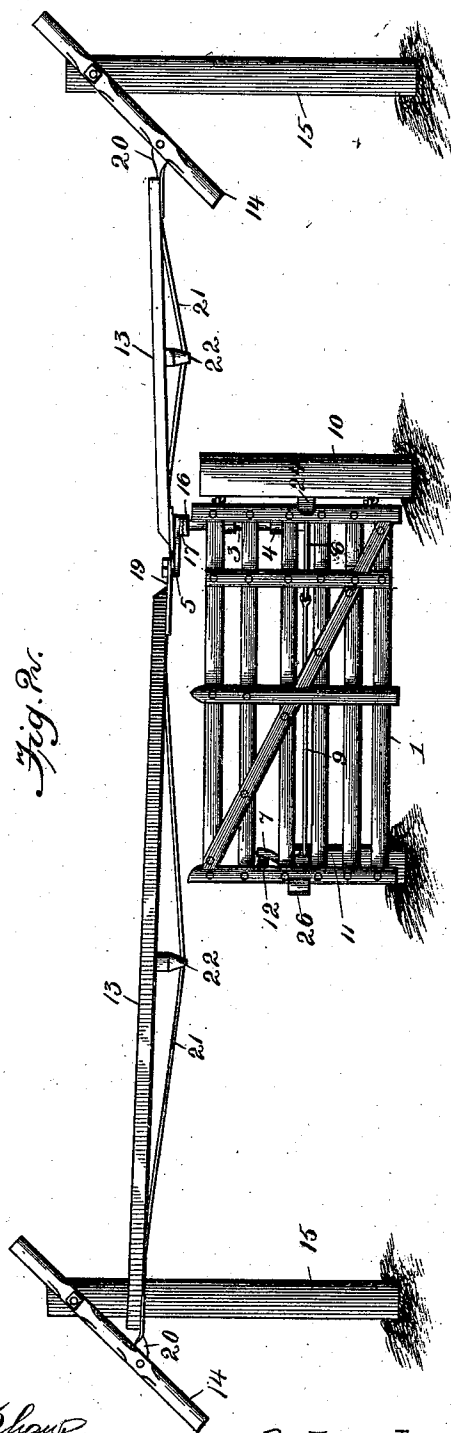


Fig. 2.

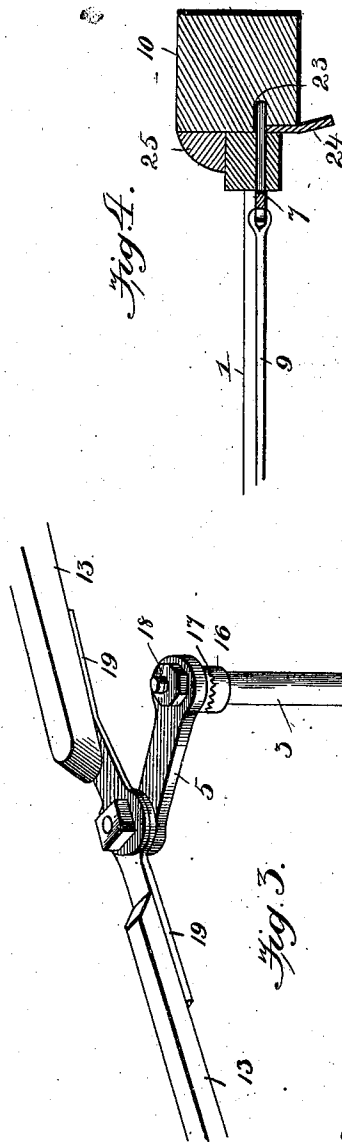
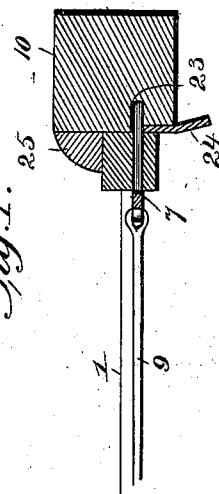


Fig. 3.

Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

CECIL H. LUCAS, OF GILLIVAN, OHIO.

GATE.

SPECIFICATION forming part of Letters Patent No. 504,357, dated September 5, 1893.

Application filed February 14, 1893. Serial No. 462,296. (No model.)

To all whom it may concern:

Be it known that I, CECIL H. LUCAS, a citizen of the United States, residing at Gillivan, in the county of Madison and State of Ohio, have invented a new and useful Gate, of which the following is a specification.

The invention relates to improvements in gates.

The object of the present invention is to improve the construction of swinging gates, and the means for operating the same, and to enable them to be readily opened and closed from a vehicle, or from the top of a load of hay, or the like.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended.

In the drawings—Figure 1 is a perspective view of a gate constructed in accordance with this invention and shown closed. Fig. 2 is a side elevation of the gate, the latter being open. Fig. 3 is a detail perspective view of the upper arm of the rock-shaft and the inner end of the connecting bars. Fig. 4 is a detail sectional view of the latch-post and the gate.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a gate, hinged to a post 2 at one corner thereof and having journaled on its inner hinged end at the top thereof a rock-shaft 3, which is arranged in clips 4 and provided at its upper and lower ends with arms 5 and 6. The clips form bearings for the rock-shaft, which has a limited movement to operate a spring actuated latch 7 to retract the latter to release the gate in opening and closing. The lower arm 6 is arranged within a horizontally disposed keeper 8, and is connected by a wire 9 with the latch. The keeper 8 is approximately U-shaped and limits the movement of the rock-shaft and has the ends of the metal of which it is constructed bent outward and perforated to form ears to receive securing devices. The latch is approximately L-shaped and is pivoted at a point intermediate of the ends of its longer arm, and its shorter arm operates through an opening in the outer end bar of the gate to engage suitable keepers on a latch post 10, and a sup-

plemental latch post 11. The wire 9 is attached to the heel or lower end of the longer arm of the latch; and the upper end of the longer arm is provided with a lug, and has a spiral spring 12 interposed between it and the end-bar of the gate. The spiral spring has one end seated in a recess of the gate, and its other end receiving the lug and is thereby held in proper position.

The upper arm 5 of the rock-shaft is detachably and adjustably secured to the shaft in order to enable the parts to be properly arranged to produce a perfect operation of the gate, and its outer end is connected by longitudinally disposed bars 13 with operating levers 14, which are fulcrumed intermediate of their ends at the upper ends of uprights 15, and which have their ends shaped into handles. The handles of the operating levers are arranged so that they may be conveniently grasped from the top of a load of hay, or the like, and from any vehicle, or from the ground.

The upper end of the rock-shaft is threaded and is provided with an annular flange 16 having teeth on its upper face, adapted to cooperate with and be engaged by teeth 17 on the lower face of the inner end of the upper arm 5. The upper arm is held in engagement with the toothed flange of the rock-shaft by a nut 18 arranged on the threaded end of the rock-shaft.

The inner ends of the connecting bars 13 are provided with plates 19, which are pivoted to the outer end of the upper arm 5 of the rock-shaft; and the outer ends of the connecting bars are pivoted to twisted plates 20, which are secured to the operating levers near the lower ends thereof. The longitudinal bars 13 are each trussed by a wire 21 and a strut 22 to prevent the parts sagging.

When an operating lever is moved the rock-shaft at the commencement of its movement withdraws the spring actuated latch out of engagement with a keeper, when its movement, independent of the gate, is stopped by the keeper 8, and a continued movement of the rock-shaft produces a swinging movement of the gate to open and close the same.

The keeper of the latch-post is formed by a recess 23, and it is provided with a guide-plate 24 arranged at an angle to retract the latch and guide it into the recess. A stop cleat 25

is secured to the latch post 10 to prevent the gate from swinging past the post; and the supplemental latch post is provided with a keeper 26.

- 5 The gate opens only in one direction and the supporting post or upright 15, which is arranged at the side on which the gate opens, is located a sufficient distance from the gate to permit the latter to open without coming in
10 contact with the draft animals of a vehicle.

It will be seen that the means for operating the gate are simple, inexpensive and efficient, and that the operating levers are arranged within easy reach.

- 15 Changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

- 20 What I claim is—

1. The combination of a swinging gate having a latch, a vertically disposed rock-shaft journaled on the gate and provided at its ends with arms, the lower one being connected
25 with the latch, a keeper secured to the gate and limiting the movement of the lower arm of the rock-shaft, operating levers, the con-

necting bars provided with depending struts and having truss wires, and the plates secured to the inner ends of the connecting bars and
30 pivoted to the upper arm of the rock-shaft and secured to the outer ends of the connecting bars and pivoted to the operating levers the latter plates being twisted, substantially as described.

2. The combination of a swinging gate having a latch, a rock-shaft journaled on the gate and arranged vertically and provided at its lower end with an arm connected to the latch, said rock-shaft having its upper end threaded
40 and provided with a flange having teeth on its upper face, an arm provided on its inner end with teeth engaging those of the flange, a nut securing the arm to the upper end of the rock-shaft, and operating levers connected
45 with the upper arm of the rock-shaft, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CECIL H. LUCAS.

Witnesses:

H. S. QUINN,
ELMER STEPHENS.