

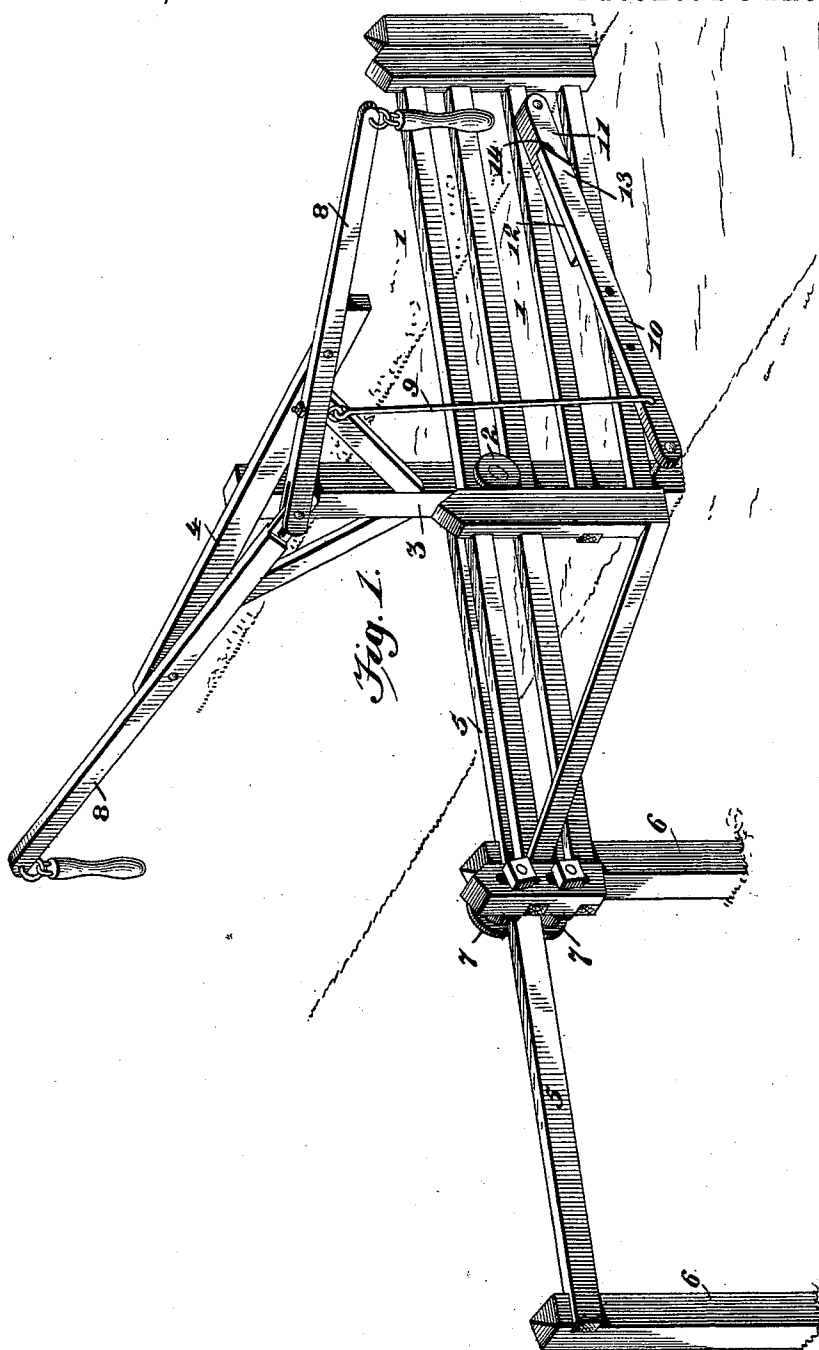
(No Model.)

2 Sheets—Sheet 1.

F. M. SOMMER.  
GATE.

No. 583,824.

Patented June 1, 1897.



Inventor

Frank M. Sommer

Witnesses

H. G. Dieterich

By his Attorneys,

J. F. Riley

C. A. Snow & Co.

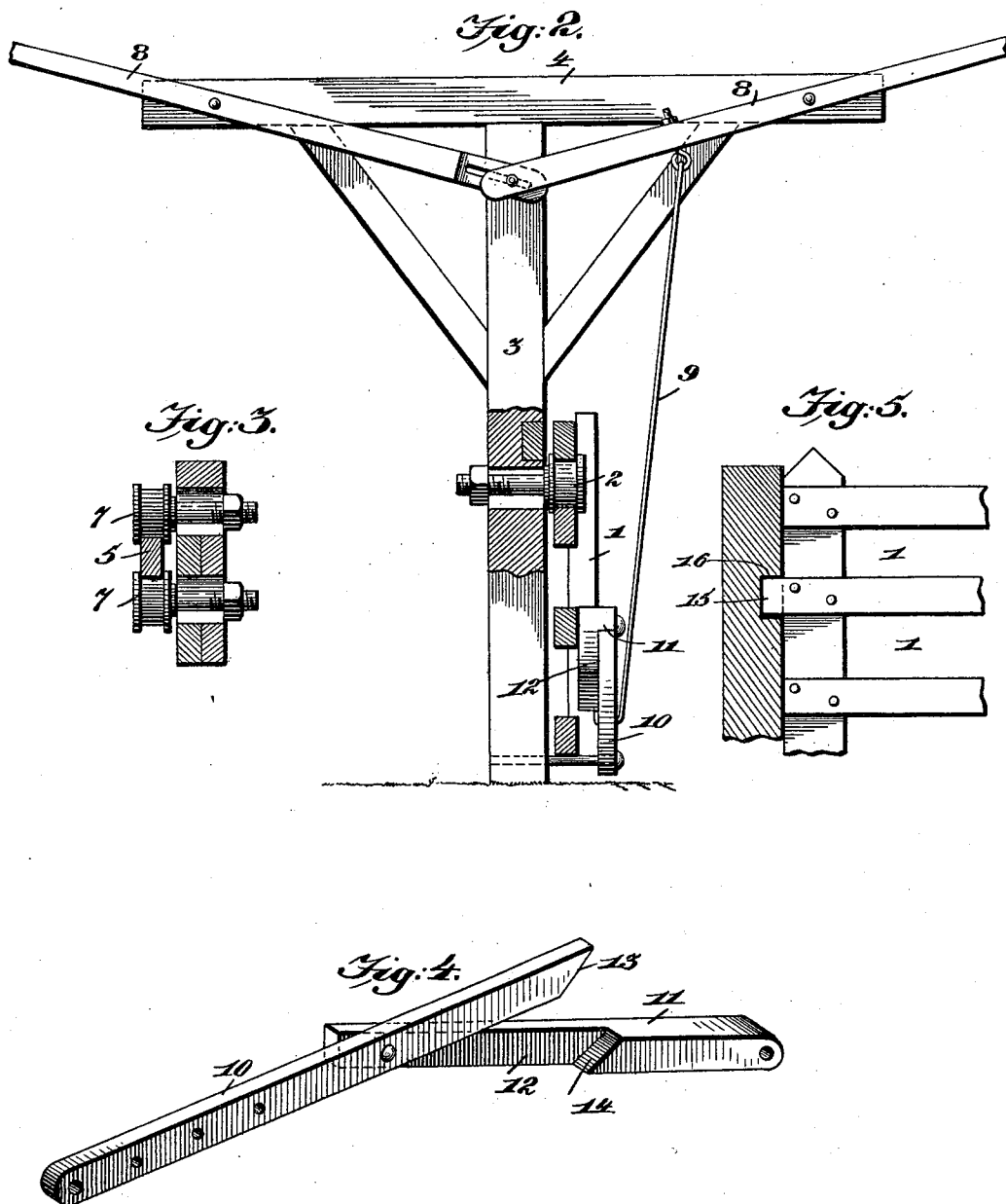
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# UNITED STATES PATENT OFFICE.

FRANK M. SOMMER, OF FAIRLAND, ILLINOIS.

## GATE.

SPECIFICATION forming part of Letters Patent No. 583,824, dated June 1, 1897.

Application filed March 23, 1897. Serial No. 628,882. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK M. SOMMER, a citizen of the United States, residing at Fairland, in the county of Douglas and State of Illinois, 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 sliding gates, more especially the operating mechanism for opening and closing them, and to provide an operating mechanism which will of itself lock a gate in its closed position, and thereby obviate the necessity of providing an ordinary latch and latch-operating mechanism.

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

In the drawings, Figure 1 is a perspective view of a sliding gate constructed in accordance with this invention and shown closed.

Fig. 2 is a transverse sectional view, the operating-levers being shown in elevation. Fig. 3 is a detail sectional view illustrating the manner of slidingly mounting the rear end of the gate. Fig. 4 is a detail perspective view of the oscillating bar and the connecting-bar. Fig. 5 is a detail view of a portion of the front of the gate, showing the projection thereof.

Like numerals of reference designate corresponding parts in the several figures of the drawings.

1 designates a sliding gate constructed of any suitable material, either wood or metal, and mounted on a roller 2 of a supporting-frame, which is composed of an upright 3, provided at its top with a horizontal bar 4, and a horizontal track-bar 5, which is supported by suitable posts 6. The gate may be made of rectangular bars, as illustrated in the accompanying drawings, or it may be constructed of tubular metal, such as gas-pipe, and the roller 2, which is grooved to provide opposite flanges, will have its tread conforming to the configuration of the adjacent longitudinal bars of the gate. The roller is vertically adjustable, its shaft or spindle being arranged in slotted bearings.

The two uppermost bars of the gate are ar-

ranged above and below the pulley 2 and fit in the groove thereof, and they are extended beyond the rear portion or end of the gate proper and are supported by an inclined brace. The rear ends of the two uppermost longitudinal bars are connected by a vertical bar or piece, upon which are mounted vertically-aligned rollers 7, which are grooved to receive the horizontal track-bar 5. The rollers 7 are vertically adjustable and have their shafts or spindles arranged in slotted bearings.

The top cross or horizontal bar 4 of the upright 3 is supported by inclined braces, and a pair of oppositely-disposed operating-levers 8 is fulcrumed between their ends at the terminals of the horizontal bar 4. The operating-levers, which extend from the gate in opposite directions, are of sufficient length to be readily grasped by a person approaching the gate from either direction without necessitating a person dismounting or leaving a vehicle, and the inner terminals of the operating-levers are movably connected with each other.

One of the operating-levers is connected by a link-rod 9 with an oscillating bar 10, pivoted at its lower end to the supporting-frame and located at one side of the gate. The oscillating bar is connected between its ends with the gate by a bar 11, pivoted at its front end to the gate and similarly connected at its other end to the said oscillating bar. When the gate is closed, as illustrated in Fig. 1 of the accompanying drawings, the oscillating bar and the connecting-bar 11 are arranged in alinement, the oscillating bar overlapping the rear portion of the connecting-bar and fitting in a recess 12 thereof. The upper end of the oscillating bar is beveled at its lower side and it fits against a corresponding beveled shoulder or wall 14 at the inner end of the recess 12. The beveled portions of the bars 9 and 11 prevent those bars from swinging downward past each other, and when in alinement they form a positive lock for the gate and obviate the necessity of employing an ordinary latch. This also greatly simplifies the operating mechanism, as latch-operating mechanism is dispensed with.

The lower end of the link-rod is adjustably connected to the oscillating bar, the latter being provided with a series of perforations

to receive the link-rod and enable the operating mechanism to impart to the oscillating bar the proper swing for opening and closing the gate.

5 The front end of the gate is provided with a projection 15, which fits in a corresponding recess of a post 16, to support the front end of the gate when the latter is closed.

10 It will be seen that the operating mechanism is adapted, when the operating-levers are depressed, to oscillate the bar 9 and actuate the gate to open or close the same, and that when the gate is closed the operating mechanism itself constitutes a latch and dispenses  
15 with the ordinary latch. Furthermore, it will be apparent that as no latch is employed the operating mechanism is simplified to the extent of not employing a latch-operating connection.

20 What I claim is—

1. The combination with a sliding gate, of a connecting-bar pivoted at its front end to the gate, an oscillating bar located adjacent to the gate, fulcrumed at its lower end and  
25 pivoted between its ends to the connecting-bar so as to overlap the same when the said bars are arranged in alinement, means for preventing the oscillating and connecting

bars from swinging downward past each other, whereby they are adapted to lock the gate in its closed position, and operating mechanism  
30 connected with and adapted to actuate the oscillating bar, substantially as described.

2. The combination with a sliding gate, a connecting-bar pivoted at its front end to the gate and having its rear portion recessed and provided with an inner beveled shoulder, an oscillating bar pivoted at its lower end and similarly connected between its ends to the rear end of the connecting-bar in the recess  
35 thereof, said oscillating bar having its upper end beveled and adapted to abut against the beveled shoulder of the connecting-bar, whereby the two bars are prevented from swinging downward past each other and are  
40 held in alinement to lock the gate in its closed position, operating-levers, and a link-rod connecting the operating-levers with the oscillating bar, substantially as described.

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

FRANK M. SOMMER.

Witnesses:

LEVI A. POTTER,  
DENNIS B. COLLINS.