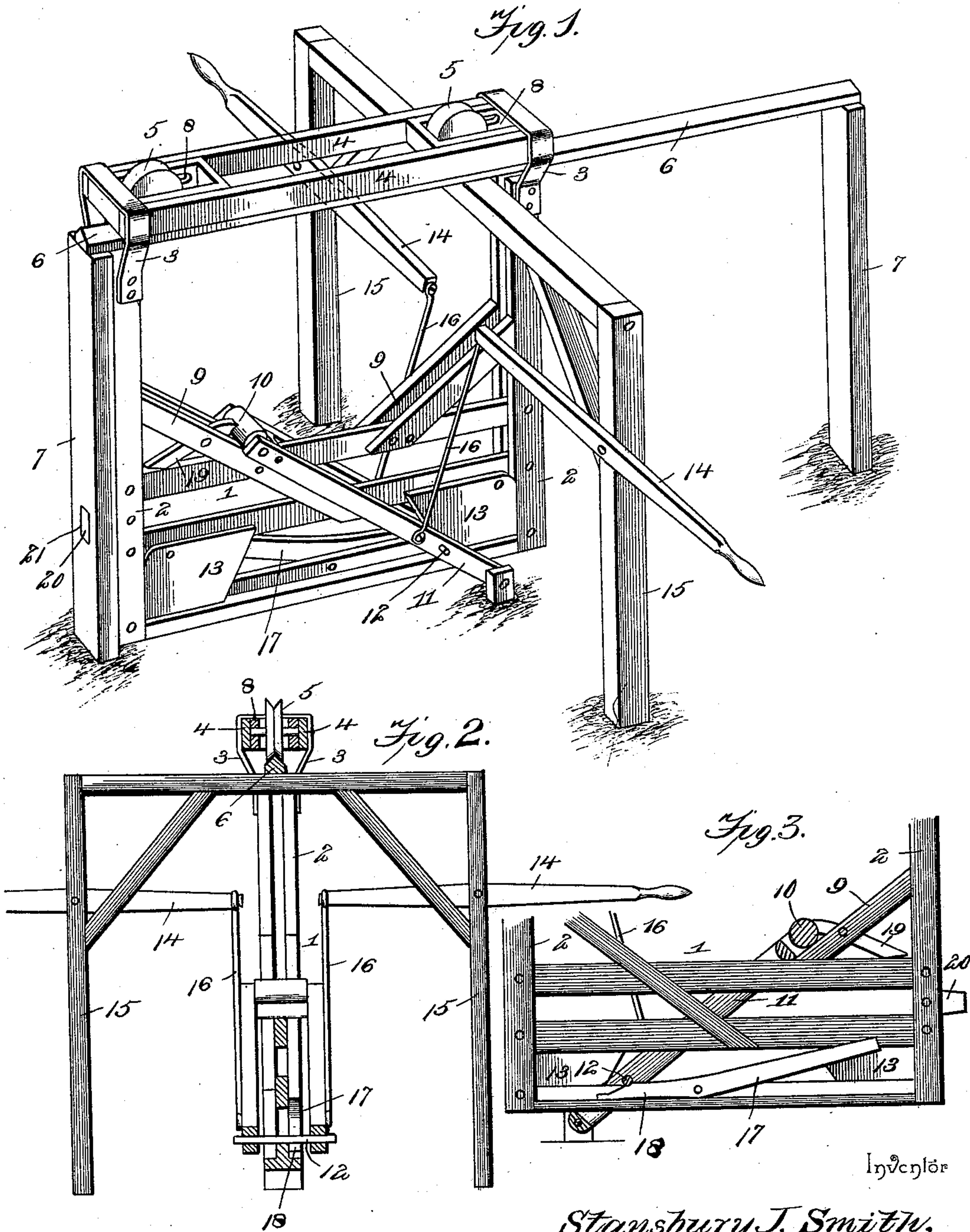


(No Model.)

S. J. SMITH.
GATE.

No. 529,086.

Patented Nov. 13, 1894.



Witnesses

John C. Shaw
J. H. Riley

By *his* Attorneys.

Stansbury J. Smith,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

STANSBURY J. SMITH, OF PARIS, TEXAS.

GATE.

SPECIFICATION forming part of Letters Patent No. 529,086, dated November 13, 1894.

Application filed June 27, 1894. Serial No. 515,883. (No model.)

To all whom it may concern:

Be it known that I, STANSBURY J. SMITH, a citizen of the United States, residing at Paris, in the county of Lamar and State of Texas, 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, and to provide a simple and inexpensive one, which will be positive and reliable in its operation, and which may be opened and closed a distance from it approaching it in either direction, without dismounting or leaving a vehicle.

A further object of the invention is to prevent any liability of chickens, hogs, or the like passing through the gate when the same is closed.

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 transverse sectional view. Fig. 3 is a detail view of the lower portion of the gate, showing the pivoted gate bar or rail.

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

1 designates a gate, having vertically extended end bars 2 suspended by hangers 3 from a narrow frame 4, which is provided with rollers 5, arranged to run on a track 6 supported by uprights 7. The track 6 and uprights 7 form a supporting frame; and the rollers are journaled in longitudinal slots of rectangular bearing frames 8, which are constructed of suitable metal, and which are connected by parallel horizontal bars to form the narrow frame. The hangers, which may be of any suitable construction, preferably pass over the top of the narrow frame at the ends thereof, and have their depending sides secured to opposite sides of the end bars of the gate.

The gate is provided with upward and outward oppositely inclined track bars 9, which

are adapted to be engaged by a roller 10 of oscillating levers 11, which are fulcrumed at their lower ends, on a stud 11^a and are disposed at opposite sides of the gate, and serve to guide the gate and prevent any lateral movement thereof. The levers 11 are provided with a transverse pin 12, located between the adjacent rails of the gate, and adapted to engage alternately pivoted blocks 13, mounted on the gate at opposite ends thereof and forming stops, which lie in the path of the pin 12 of the levers. The pivoted blocks have their inner ends downwardly beveled toward their outer ends. At the first opening movement of the oscillating levers they are engaged, one or the other, according to the direction in which the gate is being moved, by the pin 12, which slightly raises the block; but, as the gate advances in its movement, the block drops back to continue the pushing or operating action of the pin 12. The roller then engages one of the inclined tracks, and continues, and completes the movement of the gate.

The oscillating levers are actuated by operating levers 14, fulcrumed on a transverse frame 15 forming a portion of the supporting frame. They have a vertical movement, and a limited lateral movement, and their inner ends are connected by rods 16 with the oscillating lever.

In order to close the opening, which must be necessarily provided in the gate for the transverse pin 12, when the gate is shut, a pivoted bar 17 is mounted on the gate at the bottom thereof, and has an upward extending end 18 located rearward beyond the center of the gate in position to be engaged by the transverse pin 12, when the gate is closed, whereby the front portion of the bar 17 will be thrown upward diagonally across the said open space of the gate. This construction effectually prevents the passage of hogs, chickens, and the like when the gate is closed.

The oppositely inclined track bars are preferably formed each of two pieces as shown, and between those at the front portion of the gate is arranged a pivoted latch 19, adapted to engage the roller of the oscillating levers when the gate is closed.

The gate is provided at its front end with a lug or projection 20, adapted to engage an

opening or socket 21 of the front upright of the supporting frame, to prevent any lateral movement of the gate when closed.

The oscillating levers, which are located at opposite sides of the gate, being connected at their upper and lower ends, form a rectangular frame, which receives the panel portion of the gate, and greatly supports the latter, especially against lateral strain.

It will be seen that the gate is simple and comparatively inexpensive in construction, that it is positive and reliable in operation, and that it may be readily opened and closed without necessitating a person dismounting from a horse or leaving a vehicle. It will also be seen that the gate is securely braced and held against lateral movement, both while in operation and when closed.

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.

What I claim is—

1. The combination of a supporting frame having a track, a sliding gate suspended from the track and provided with rollers arranged on the track, the opposite inclined tracks arranged on the gate, the oscillating levers fulcrumed at their lower ends located at opposite sides of the gate and adapted to engage the inclined tracks, the opposite pivoted blocks mounted on the gate and arranged in advance and in rear of the oscillating levers, a transverse pin mounted on the oscillating levers and arranged to engage the pivoted blocks, substantially as described.

2. The combination of a supporting frame having a track, a gate provided with oppositely inclined track bars and suspended from the supporting frame and provided with rollers arranged on the track bar thereof, the oscillating levers located on opposite sides of the gate fulcrumed at their lower ends and provided at their upper ends with a roller arranged to engage the inclined tracks, the opposite pivoted blocks mounted on the gate and having their inner ends inclined, a transverse pin mounted on the oscillating levers and arranged to engage the blocks, and means for operating the oscillating levers, substantially as described.

3. The combination of a supporting frame having a track, a sliding gate suspended therefrom and having rollers arranged thereon and provided with oppositely inclined tracks, oscillating levers arranged at opposite sides of the gate, and adapted to engage the tracks thereof, the opposite pivoted blocks mounted on the gate, the bar pivotally mounted on the

gate at the bottom thereof and having an upward extending portion arranged at the rear portion of the gate, and a transverse pin carried by the oscillating levers and adapted to engage the blocks in opening and closing the gate and to engage the rear portion of the pivoted bar when the gate is closed, substantially as described.

4. The combination of a sliding gate provided with oppositely inclined tracks arranged at the front and back of the gate, pivoted blocks mounted on the gate at the bottom thereof, oscillating levers arranged at opposite sides of the gate and provided at their upper ends with a roller and carrying a pin for engaging said blocks, and a pivoted latch mounted on the inclined track at the front of the gate and adapted to engage the roller when the gate is closed, substantially as described.

5. In a sliding gate, the combination with the superimposed track bar, the supporting posts, the hangers, and rollers mounted on the track bar, of the depending standards, a series of panel rails connecting the same and forming a gate, the opposite stops mounted on the gate, the inclined oppositely disposed track bars extending upward from the center of the gate to the standards, a stud below the gate, a pair of swinging levers pivoted to the stud and embracing the gate and arranged to engage said stops, a roller arranged between the upper ends of the levers and adapted to operate upon the inclined track bars, and operating levers at opposite sides of the gate connected with the swinging levers and fulcrumed at opposite sides of the gate, substantially as described.

6. In a sliding gate, the combination with opposite posts, the superimposed track, the rollers arranged thereon, and the depending hangers of the gate provided with oppositely inclined track bars, the opposite stops mounted on the gate, the swinging levers embracing the gate and pivoted below the same, a roller arranged near the upper ends of the swinging levers and adapted to operate against either of the inclined track bars, the operating levers fulcrumed between their ends, and connecting rods between the operating levers, and swinging levers, 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.

STANSBURY J. SMITH.

Witnesses:

D. B. OWEN,
E. S. CONNOR.