No. 791,223. PATENTED MAY 30, 1905.

N. & G. SOESBE.

GATE.

APPLICATION FILED JAN. 21, 1905.

2 SHEETS—SHEET 1.

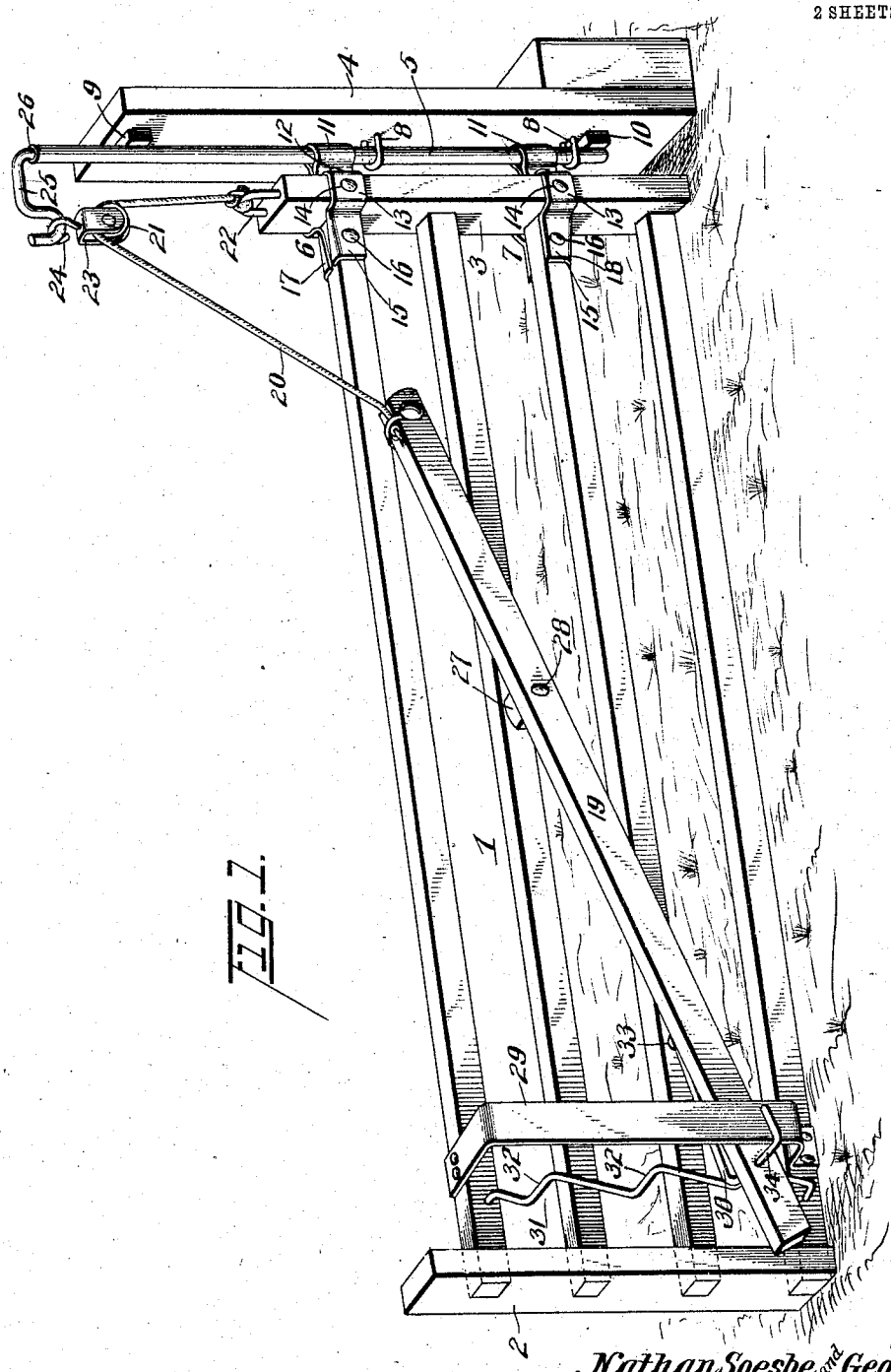


FIG. 1.

Witnesses

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2 SHEETS—SHEET 2.

FIG. 3.

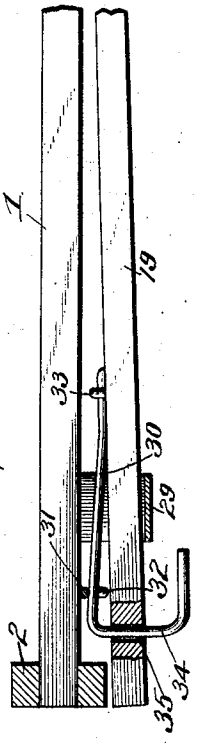


FIG. 5.

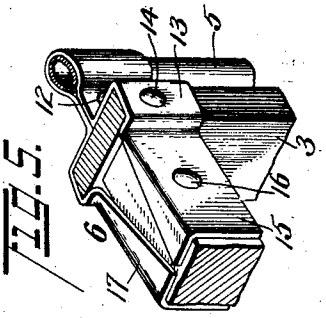


FIG. 4.

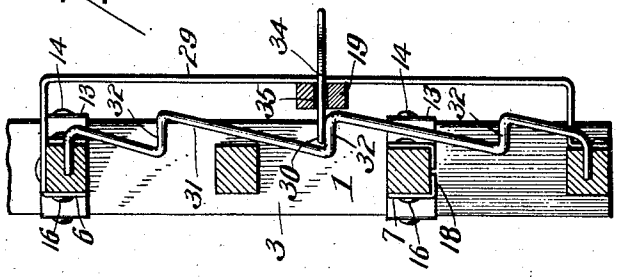
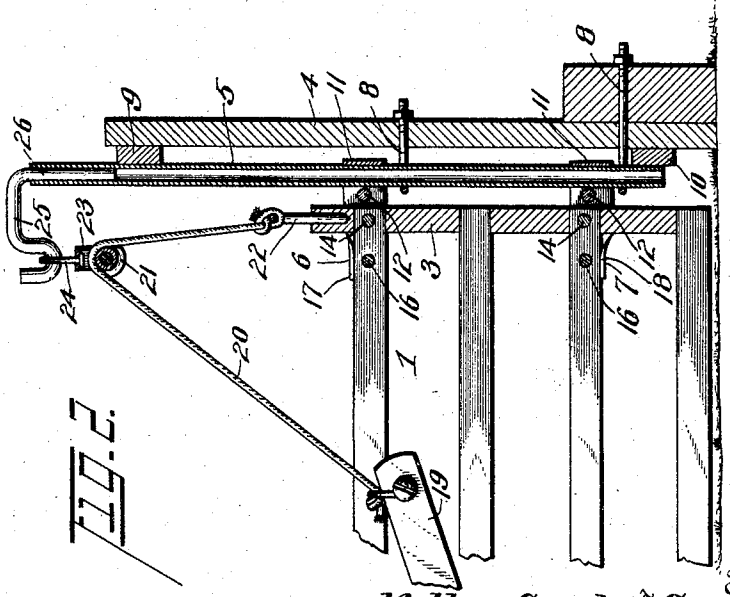


FIG. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

NATHAN SOESBE AND GEORGE SOESBE, OF CENTRAL CITY, IOWA.

GATE.

SPECIFICATION forming part of Letters Patent No. 791,223, dated May 30, 1905.

Application filed January 21, 1905. Serial No. 242,124.

To all whom it may concern:

Be it known that we, NATHAN SOESBE and GEORGE SOESBE, citizens of the United States, residing at Central City, in the county of Linn and State of Iowa, 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 to provide a simple, inexpensive, and efficient one of great strength and durability adapted to be readily raised and lowered to enable it to clear snow and other obstructions and to provide a passage-way for small animals for separating stock.

Another object of the invention is to provide a construction for hinging the gate to a post or support which will not be affected by the freezing of the ground.

With these and other objects in view 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, it being understood that various changes in the form, proportion, size, and minor details of construction within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a gate constructed in accordance with this invention. Fig. 2 is a vertical sectional view of the inner portion of the gate, illustrating the manner of hinging the same. Fig. 3 is a horizontal sectional view of the front portion of the gate. Fig. 4 is a vertical sectional view of the same. Fig. 5 is a detail perspective view of the upper hinge member.

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

1 designates a gate composed of horizontal bars or rails and inner and outer vertical end bars 2 and 3, connecting the ends of the horizontal bars or rails. The gate is hinged to a post or support 4 by means of a pintle-rod 5, which passes through upper and lower hinge members 6 and 7 and which is clamped to the post or support by means of clips 8 or other suitable fastening devices. The pintle-rod, which is constructed of tubular metal, is located above the ground, so as not to be affected by the freezing of the same, and it is spaced from the post or support by upper and lower blocks 9 and 10 to prevent the hinge members from binding against the post or support when the gate swings. Each hinge member is constructed of a single piece of metal, such as strap-iron, the material being centrally bent to form an eye 11 to receive the pintle. The sides are secured together in advance of the pintle-rod by a rivet 12. The sides are angularly bent to form a vertical opening to receive the inner end bar of the gate, the substantially U-shaped side bends 13 conforming to the configuration of the inner end bar. These angularly-bent side portions are secured to the inner end bar of the gate by means of a transverse bolt 14 or other suitable fastening device. The terminal portions 15 of the sides are arranged parallel and embrace the end portion of the adjacent horizontal bar or rail and are secured to the same by a transverse bolt 16. The upper hinge member is provided at the terminal parallel portions with inwardly-extending top flanges 17, and the lower hinge member is provided with inwardly-extending bottom flanges 18. The top flanges 17 are arranged upon the upper face of the top rail of the gate and the flanges 18 are arranged on the lower face of one of the bottom rails of the gate. By this construction the hinge members are adapted to be applied to any ordinary gate, and they are capable of reinforcing and securely bracing the same.

The gate is adapted to slide vertically on the fixed pintle-rod, and it is adjusted vertically by means of a lever 19, extending longitudinally of and fulcrumed between its ends on the gate. The rear end of the lever is connected with one end of a rope or cable 20, which passes over a guide-pulley 21 and is secured at its other end to the gate at the top of the inner end bar. The upper end bar is

provided with an eye or loop 22, which may consist of a staple, as illustrated in Fig. 1 of the drawings. The pulley is mounted in a suitable frame or casing 23, which is provided with a hook 24 for engaging a horizontally-swinging arm 25. The arm 25 is provided at its inner or rear end with a vertical pivot 26, which is arranged within the upper end of the fixed pintle-rod 5. The outer end of the arm is bent to form a hook, which is engaged by the hook of the pulley. The arm is adapted to swing with the gate when the same is opened or closed. The lever is offset from the horizontal bar or rail, on which it is mounted by means of a block 27, which is secured to the gate by a bolt 28, which forms the pivot of the lever.

The front end of the lever is arranged within a vertical guide 29, consisting of a metal bar having its upper and lower ends bent at an angle to form arms, which are secured at the top and bottom bars of the gate. The guide is spaced from the front end bar, and the lever carries a spring-actuated catch 30, arranged to engage a ratchet bar or rod 31, secured at its upper and lower ends to the top and bottom bars of the gate between the guide and the front end bar and consisting of inclined and horizontal portions, the horizontal portions 32 forming shoulders to be engaged by the catch 30. The catch 30, which is constructed of resilient metal, consists of a body portion extending longitudinally of the front portion of the lever and secured at one end to the same by means of a staple 33 or other suitable fastening device. The other end of the catch is provided with a substantially L-shaped arm 34, extending through an aperture 35 of the lever and forming an exterior operating-handle for the lever adapted to be grasped by the operator and drawn outward to disengage the catch from the ratchet-bar 31. The lever may then be swung upward or downward for raising or lowering the gate, and the catch when released will automatically engage the ratchet-bar and lock the gate in its adjusted position.

The gate is adapted to swing clear of snow or any other obstruction, and it is also adapted to provide a passage-way for separating small animals, such as sheep and hogs, from other stock.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1 The combination with a pintle-rod, and a gate having horizontal rails and end bars, of a hinge member having an eye to receive the pintle-rod and provided with similar gate-embracing sides, said sides being provided with intermediate substantially U-shaped portions to receive the inner end bar and having end portions arranged to embrace the adjacent rail, said end portions having projecting substantially horizontal flanges for engaging the end rail, and fastening devices securing the hinge member to the gate.

2. The combination of a tubular pintle-rod, a gate provided with hinge members receiving the pintle-rod and slidable thereon, an arm having a pivot fitted in the upper end of the pintle-rod, said arm being arranged to swing horizontally, and provided with a terminal hook a guide carried by the arm, and detachably engaging the hook thereof a flexible connection passing through the guide and secured at one end to the gate, and a lever connected with the other end of the flexible connection.

3. The combination of a gate, a lever extending longitudinally of the gate and fulcrumed thereon, means connected with the rear end of the lever for raising and lowering the gate when the said lever is oscillated, a ratchet mounted on the gate, and a resilient catch mounted on the inner face of the lever and arranged to engage the ratchet, said catch being provided with an arm extending through the lever and forming an exterior handle for operating both the catch and the lever.

4. The combination of a gate, a lever extending longitudinally of and fulcrumed on the gate, means connected with the lever for raising and lowering the gate when the lever is oscillated, a guide arranged vertically on the gate and receiving the front portion of the lever, a ratchet located adjacent to the guide and consisting of a rod mounted on the gate and bent at intervals between its ends to provide shoulders, a catch mounted on the lever and adapted to engage the ratchet, and an exterior handle connected with the catch for operating the same and the lever.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

NATHAN SOESBE.
GEORGE SOESBE.

Witnesses:
O. R. BARBER,
W. HUTCHINS.