

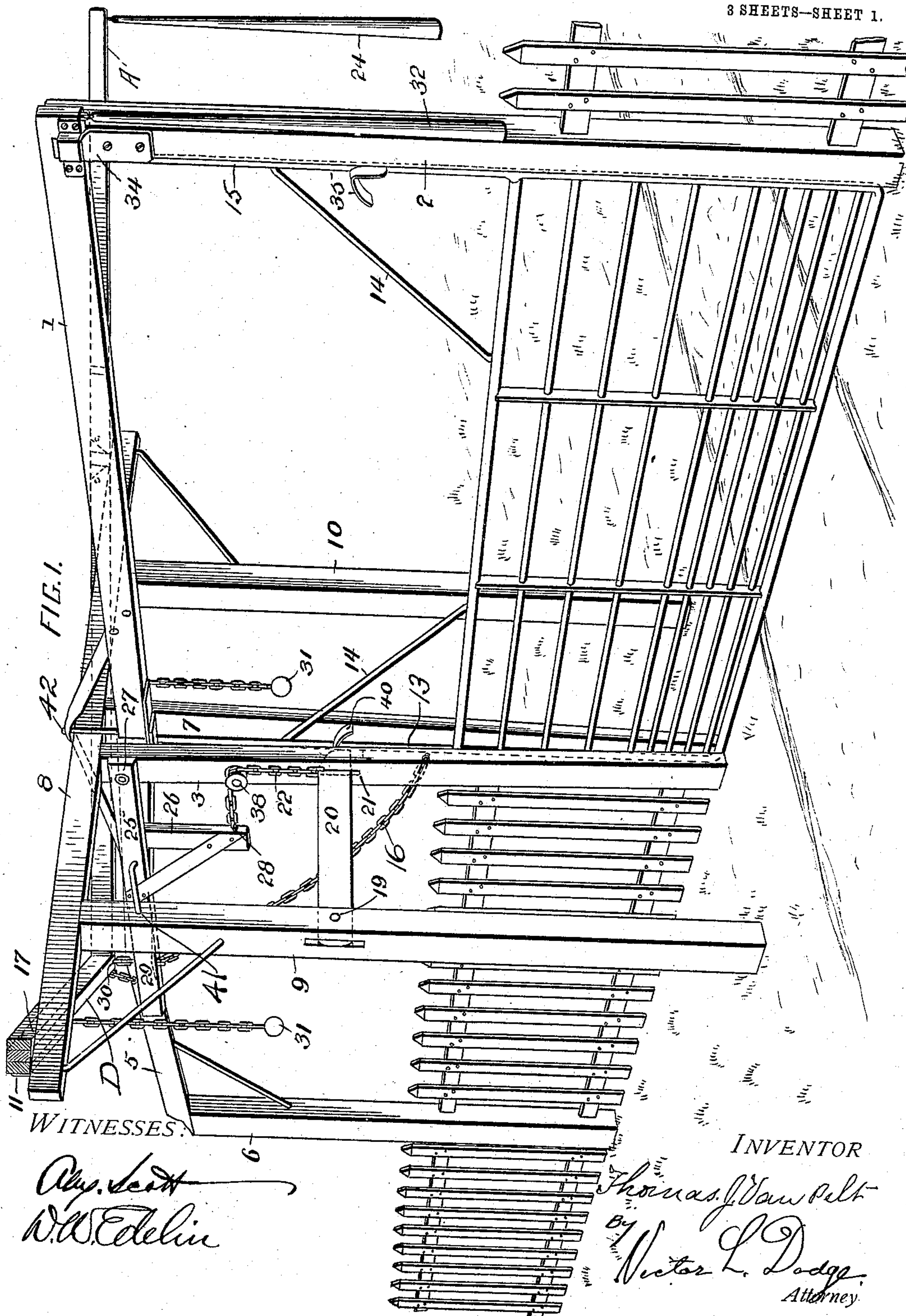
GATE.

APPLICATION FILED FEB. 11, 1908.

915,911.

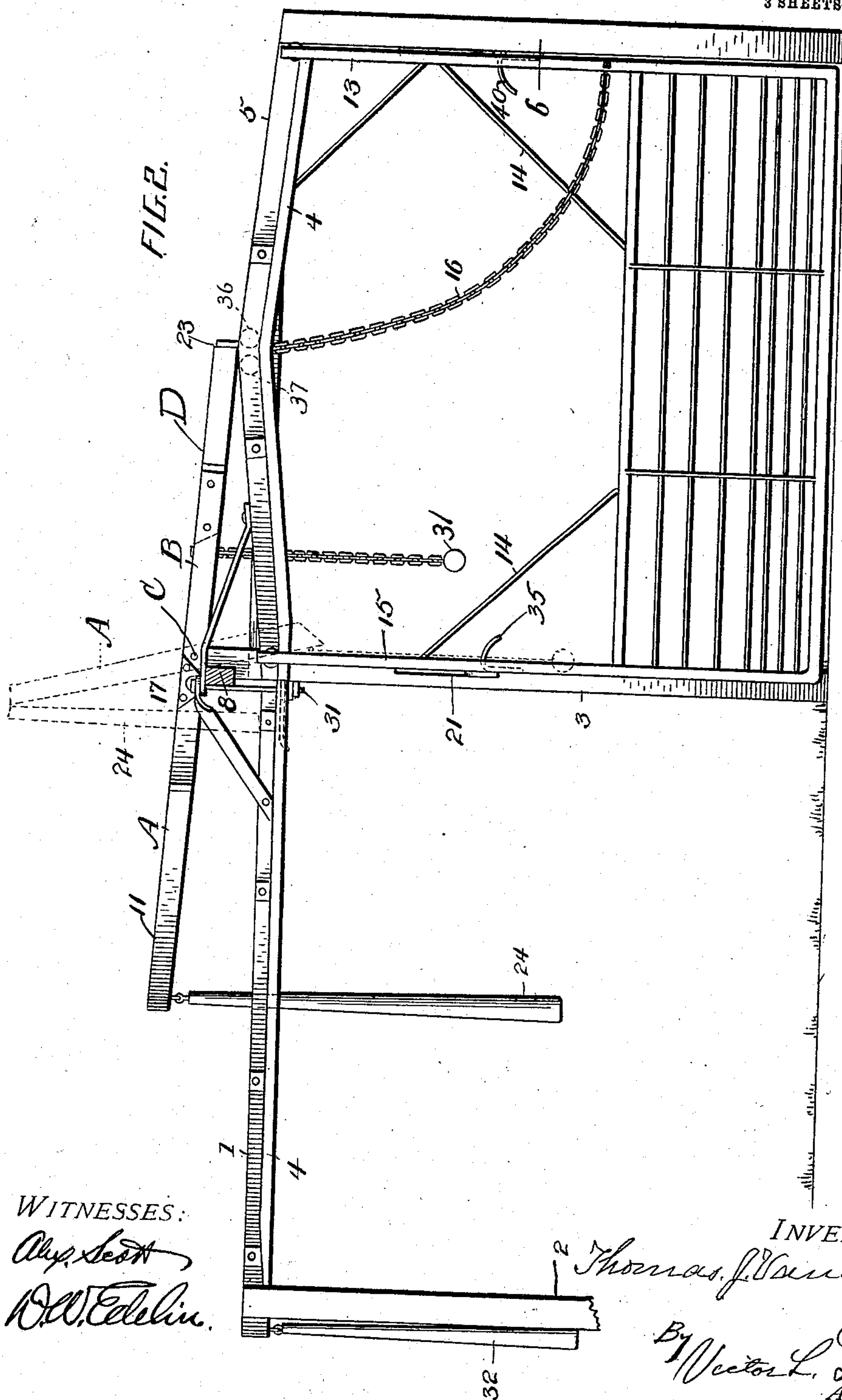
Patented Mar. 23, 1909.

3 SHEETS--SHEET 1.



T. J. VAN PELT.
GATE.
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3 SHEETS—SHEET 2.



WITNESSES:

Alfred Scott
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INVENTOR

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Thomas J. Van Pelt

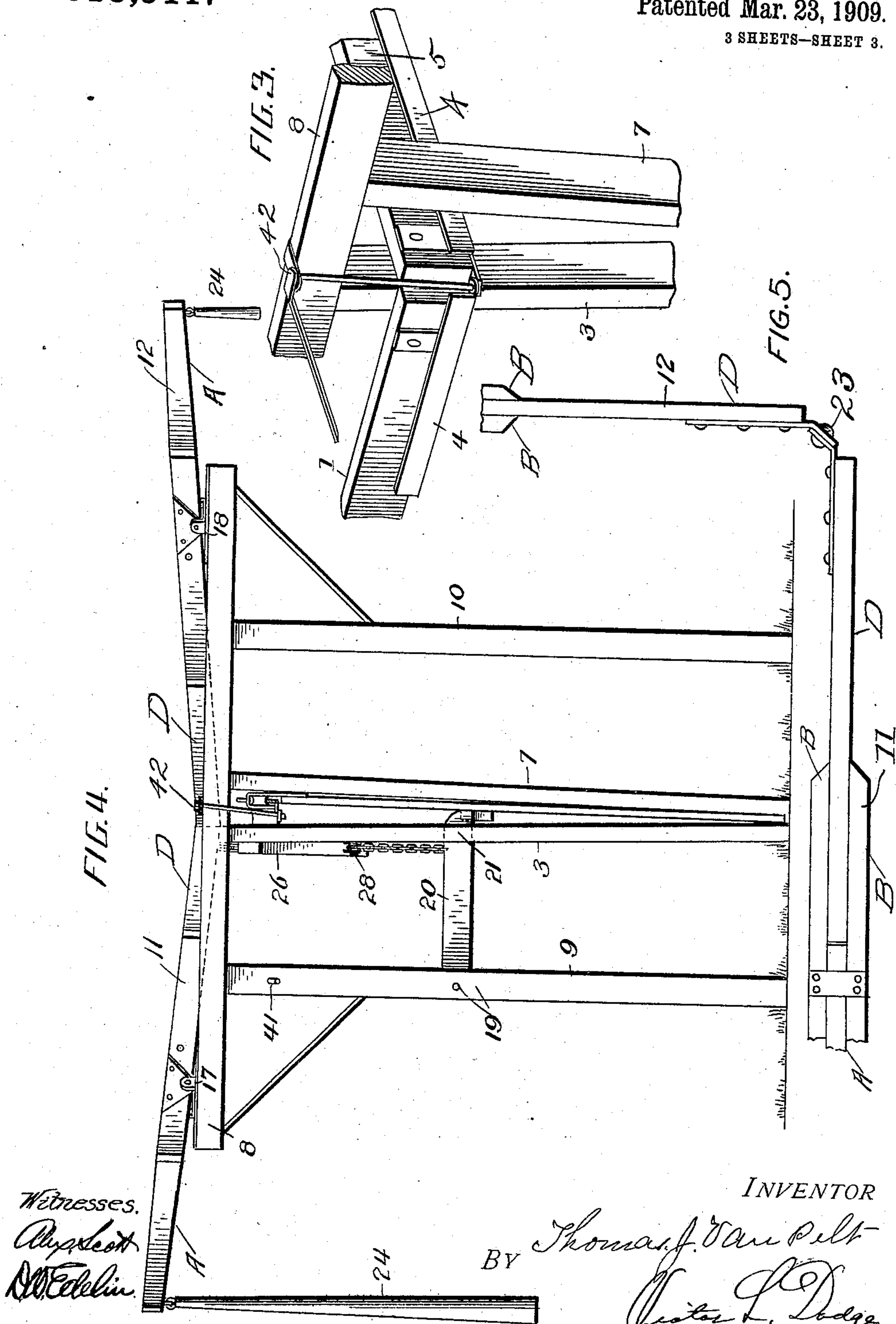
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3 SHEETS—SHEET 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

THOMAS J. VAN PELT, OF STATE CENTER, IOWA.

GATE.

No. 915,911.

Specification of Letters Patent.

Patented March 23, 1909.

Application filed February 11, 1908. Serial No. 415,367.

To all whom it may concern:

Be it known that I, THOMAS J. VAN PELT, a citizen of the United States, residing at State Center, in the county of Marshall and State of Iowa, have invented certain new and useful Improvements in Gates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in gates for farm, field and other uses, the object of the invention being to provide a simple durable and easily operated automatic gate, which will meet all the demands of a gate for constant practical use in the localities and situations where farm gates are required; and the invention consists in the construction, arrangement and combination of parts substantially as will be described hereinafter with reference to the accompanying drawings and subsequently claimed.

In the annexed drawings, illustrating my invention, Figure 1 is a perspective view of my improved gate in its closed position. Fig. 2 is a side elevation of the same certain parts being removed and the gate shown in an open position. Fig. 3 is a detail perspective view showing the structure of the hinge supporting the horizontal beam. Fig. 4 is an end elevation of the gate showing the locking mechanism. Fig. 5 is a plan view showing the attachment of lever 11 to lever 12 at right angles to each other.

Similar characters of reference designate corresponding parts throughout the different figures of the drawings.

In carrying out my invention, I first construct a suitable frame consisting essentially of a beam or other support arranged over the roadway where the gate is required, said beam being in the drawings represented by the numeral 1 and supported at each end upon the posts 2, 3, located in an upright position at either side of the road where the gate is to be placed. The transverse beam 1 will be placed at a suitable height from the ground to permit the passage underneath it of a wagon or vehicle. The side of the beam 1 is provided with a track 4 adapted to permit a grooved roller to move thereon and be guided thereby and said track extends along the side of a second transverse beam 5 supported on posts 3 and 6, the upper edge of which beam is formed with a double incline,

said edge being highest at the middle point and sloping therefrom toward each end, said doubly inclined beam being thus made to afford a track surface for the grooved roller which moves up and down thereon freely, the downward motion being aided by the action of gravity.

Adjacent to the post 3 is the post 7 spaced apart from the post 3 and diverging upwardly therefrom and secured in this position by the beam 8 capping the posts 3 and 7 and disposed at right angles to the transverse beams 1 and 5. The beam 8 is also supported by posts 9 and 10 at equal distances from posts 3 and 7 respectively and the levers 11 and 12 are pivoted at equal distances from the ends of the beam 8 and upon the upper surface thereof, the purpose of which will be presently explained.

I have selected the common gate composed of a series of bars in which the end bars 13 and 15 are extended upwardly to the level of the track and provided with hangers carrying rollers adapted to ride upon said track. Braces 14 give additional stability to the gate and its supports in this form of my invention.

The levers 11 and 12 are pivotally attached to the beam 8 at 17 and 18 at points somewhat removed from their centers and are hingedly connected to each other at right angles and disposed at equal angles on opposite sides of the gate as shown at 23 and are composed of the slats A in each lever held in place between two slats B with pivotal connection at C. Between the extreme ends of slats B is rigidly secured the slat D. Hand-bars 24 are hinged to the ends of levers 11 and 12 opposite to their hinged connection with each other, and the said hand-bars are normally disposed in the track of approaching teams. A chain 16 is attached to the end bar 13 of the gate above the last horizontal bar, which chain passes between the rollers 36 and 37 which are pivoted to beam 5 and is secured to the united levers 11 and 12 near their hinged connection. The levers 11 and 12 are removably attached to the bar 8. A latch 20, pivoted at 19 and adapted to fit loosely in slot 21 retains the gate in an open or closed position and is released by the chain 28 and the bracket 26. A short beam 25 is hinged to post 3 at 27 and supports the bracket 26 attached at 28 to the chain 22 actuating the latch 20 and the beam supporting said bracket is attached to the lever 11 at 30 by chain or other suitable connection.

The chain 22 passes over a roller 38 and is attached to a latch 20 pivotally attached to post 9 at 19 and working in a slot 21 in post 3 and is adapted to drop back of stops 35 and 40 respectively and lock the gate in an open or closed position. The said stops consist essentially of a support in each case, partially driven into the body of the gate at a convenient point in each end thereof. The beam 1 is hinged to beam 8 and the beam 1 is provided with the hand-bar 32 by means of which the beam may be disengaged from the latch 34 when the gate is in an open position and the support 41 is adapted to receive said beam when it is swung at right angles to beam 5. This support consists of a metallic bar securely driven into the post 9. Chains 31 are attached to the extremities of the slats A near the extremities thereof opposite the hand-bars.

It will now be obvious that if a person desires to pass through the gate with a team, he may, by pulling one of the depending hand-bars on either side of the gate cause the beam 25 to be lifted, releasing the latch 20, engaged behind the stop 40. Through the chain 16 an impulse will be given to the gate, which will move upon its track 4 and ascend the first incline upon the beam 5. The impulse will carry it past the center of the incline, upon which the action of gravity will cause it to descend the second incline completely opening the gate and throwing the end thereof past the latch 20, which is supported by the chain 22 until the lever is released and when this has taken place the latch will fall behind the stop 35, locking the gate in an open position. All ordinary loads will pass beneath the beam 1, but in the event of a load of hay or other very large load passing the gate, the beam 1 may be unlatched by means of the hand-bar 32 and said beam swung back on its swivel 42 at right angles to its normal position and be hooked over or supported by the bar 41 driven into the post 9. At the same time the slats A of the levers 11 and 12 may be raised together by means of the hand-bars thereto attached or raised from the ground by means of the depending chains 31. When the load has passed, these slats will resume their ordinary position by the action of gravity, the bar 1 may be swung back to its ordinary position engaging latch 34. After this a pull upon either hand-bar 24 will cause the latch 20 to be released and by the impulse of the pull, the gate will ascend the first incline on beam 5, after which the gate will automatically complete its closure by the action of gravity and be locked in its closed position when the latch falls behind stop 35, upon releasing the hand-bar.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is—

1. A supporting frame comprising center

posts, side posts and end posts, beams having a track thereto attached connecting the end posts with the center posts, a transverse beam attached to the center and side posts, the track disposed in a double incline on one of the beams, the highest point of said double incline at the center of said beam, in combination with a gate provided with hangers carrying rollers mounted on the track, levers pivotally attached to the transverse beam, hinged connection between the extremities of the levers disposed to each other at an angle of ninety degrees, hand-bars on the opposite extremities of the levers adapted to operate the levers and actuate a chain attached to the levers near said hinged connection and to the end bar of the gate nearest the outer post when the gate is in closed position, and means for locking the gate in an open or closed position, substantially as described.

2. A sliding gate comprising upright posts, a horizontal beam extending above the roadway connecting the end post with the center posts, a second horizontal beam having a doubly inclined upper edge continuous with the first beam, a track normally continuous on both beams and forming a double incline corresponding to the inclined edge on the second beam, a transverse beam forming a cap to the center and side posts and disposed at right angles to the track, hinged connection between one of the center posts and the straight horizontal beam, a hand-bar attached to the end of said beam opposite to the hinge, a latch at the upper extremity of said post engaging the free end of the horizontal beam adapted to be disengaged from the end of the beam so as to permit said beam to be swung to one side at right angles to the gate, means for supporting the bar against the side post in this position, means for opening and closing the gate and means for locking the gate in an open or closed position, substantially as described.

3. A sliding gate comprising upright posts, a horizontal beam extending above the roadway, connecting one end post with the center posts, a second horizontal beam continuous with the first connecting the other end post with the center posts and disposed away from the roadway, a double inclined track on said second beam continuous with a level track on the first beam, a transverse beam capping the center and side posts and disposed at right angles to the track, a pair of levers pivoted to the transverse beam adapted to open and close the gate, a latch pivoted to one of the side posts, a slot in one of the center posts adapted to receive the latch, a short beam pivotally attached to said post at a point approximately level with the track and adapted to circular motion in a vertical direction, a perpendicular bracket rigidly attached to the lower surface of said beam, hinged connection between the free end of

the beam and the pair of levers, chain connection between the free end of the bracket and the latch lever, a roller on the post adapted to receive the chain and direct the
5 movement of the latch perpendicularly in its slot, stops on the side posts of the gate adapted to engage said latch when the gate is fully opened or closed, substantially as described.

4. A sliding gate adapted to slide between
10 two upright posts diverging upwardly, horizontal beams supported on end posts and the two center posts, a track on the horizontal beams, a transverse beam supported on side posts, levers hingedly connected to said
15 transverse beam at right angles to each other, each composed of three slats and a fourth

pivotaly attached between the three slats and having an oblique division relatively near its pivoted extremity, hand bars at the free extremities of the fourth slats, depending
20 chains near their opposite extremities, means for opening and closing the gate and means for locking the gate in an open or closed position, substantially as described.

In testimony whereof, I have hereunto subscribed my name in the presence of two witnesses.
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THOMAS J. VAN PELT.

Witnesses:

WILMER W. WHITE,
W. N. GILBERT.