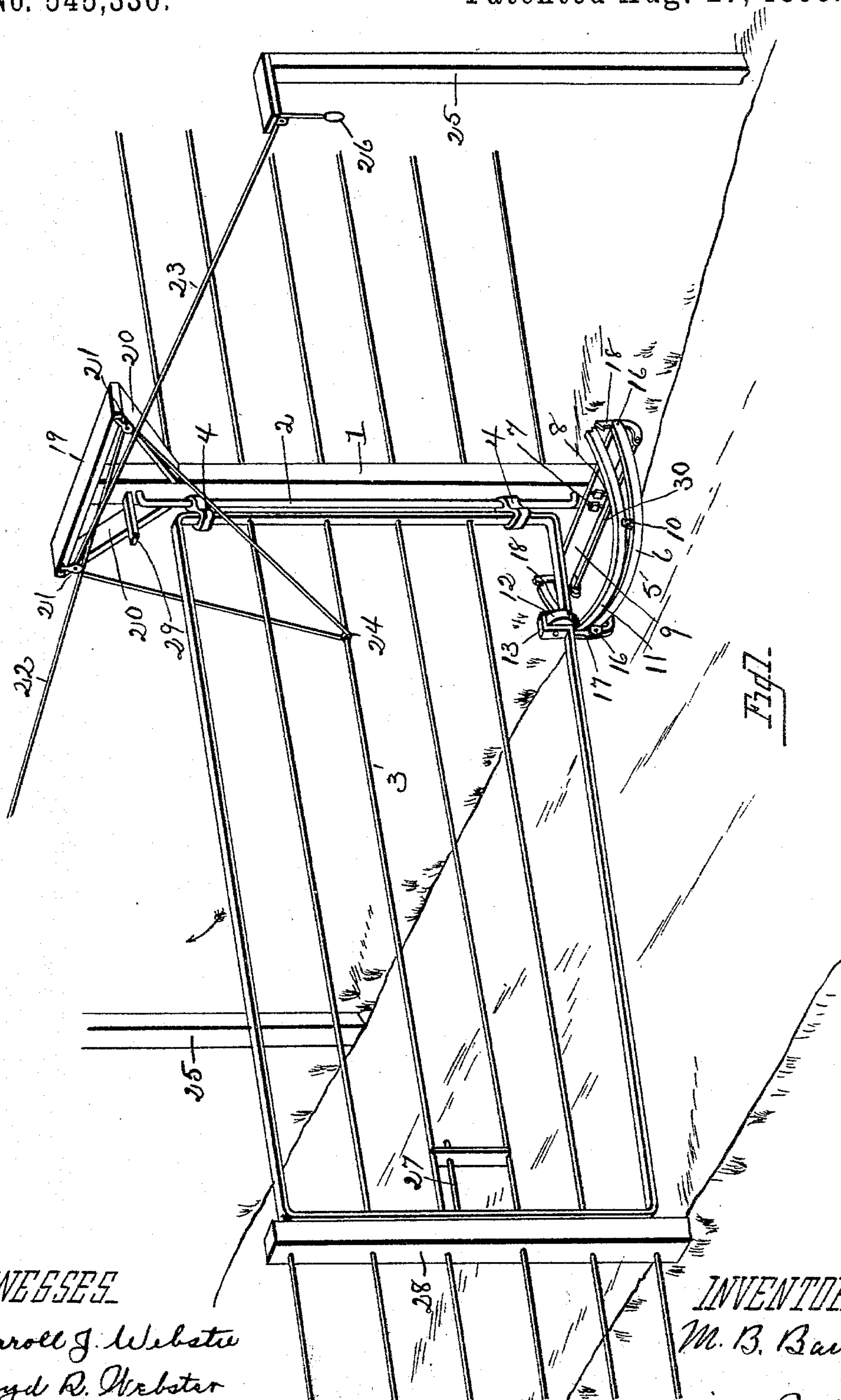


2 Sheets—Sheet 1.

No. 545,330.

Patented Aug. 27, 1895.



WITNESSES

Carroll J. Webster
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INVENTOR

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By William Webster

UNITED STATES PATENT OFFICE.

MELVILLE B. BAIRD, OF TULSA, INDIAN TERRITORY.

GATE.

SPECIFICATION forming part of Letters Patent No. 545,330, dated August 27, 1895.

Application filed August 22, 1894. Renewed July 26, 1895. Serial No. 557,251. (No model.)

To all whom it may concern:

Be it known that I, MELVILLE B. BAIRD, of Tulsa, Creek Nation, Indian Territory, have invented certain new and useful Improvements in Gates; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form part of this specification.

My invention relates to a gate, and has for its object to provide a gate which shall open or close upon either side by gravity; and it consists in a gate having a vertical movement which shall automatically tilt a cradle upon which the gate rests to throw the same either open or closed.

The invention further consists in the parts as shown, described, and claimed.

In the drawings, in Figure 1, I have illustrated a perspective view of a section of fence having a gate constructed in accordance with my invention. Fig. 2 is an enlarged view of a portion of the same, illustrating more particularly the cradle. Fig. 3 is a sectional elevation through the cradle. Fig. 4 is a sectional view of a modified form of hinge.

1 designates the gate-post, to the front side of which is secured a vertical guide 2, comprising a rod secured to the post at the upper and lower ends thereof, the guide being preferably round in cross-section, upon which is pivotally secured the gate 3 by hinges 4, the hinges having a vertical movement upon the rod either by sliding or by the help of anti-friction-rollers 4'.

To the post at the lower end thereof is secured the cradle 5, comprising a lower section 3, which is stationary and is secured to the post by bolts 7 passed through slots 8 in the cross-piece 9 into the gate, by which means the lower section of the cradle may be adjusted vertically. The cradle is formed semi-circular, and at a point upon each side of the same, midway between the front and back, is a pivot 10, extending upwardly from the same, and secured upon the pivot is a section 11 of the cradle, which tilts upon the pivot. There-

fore as the front end is lowered the rear end is raised, and vice versa.

Secured upon the gate in a vertical line with the cradle is a roller 12, which rests upon the upper section of the same and travels thereon. Therefore when the gate is closed, if the cradle is tilted to raise the front side, inclining the same, the roller will have a tendency to ride down the incline and the gate moving therewith will be opened, and vice versa.

I will now describe the means of raising the gate and tilting the cradle. One side of the box 13 of the roller 12 extends below the roller and is formed with a flange 14, which at all times rests beneath a flange 15 upon the upper section of the cradle. At the rear end of the lower section of the cradle, upon each side of the same and at a point midway the width of the same at the front portion, are lugs 16, in which are secured catches 17 and 18 at the front and rear portion of the same, respectively. Secured upon the top of post 1 is a cross-piece 19, braced by braces 20, and upon the ends of the cross-pieces are secured pulleys 21, over which pass ropes or cables 22 and 23, respectively, one end being secured to the gate at 24, the opposite end passing to posts 25 and provided with hand-holds 26.

In operation, the gate being closed, as shown in Fig. 1, it being desired to open the same, the operator grasps the hand-hold 26 of the cable 23. Pulling upon the same raises the gate. The catch 27 being raised out from engagement with the post 28, the gate is free to move. As the gate is raised flange 14 of the bearing 13 raises the upper section of the cradle, tilting the same until the catches 18 engage in the same, holding the cradle in a tilted position. The tendency of the pull upon the cable 23 is to throw the gate away from the operator, as shown by the arrow, Fig. 1. Therefore, the cradle being tilted, the roller 12 will ride down the incline of the upper section of the cradle, carrying the gate, and thereby opening the same away from the operator. To close the gate the operator pulls upon the hand-hold of the cable 22, which raises the gate, and consequently the rear end of the cradle. The roller striking the catch as

the gate is opened disengages the same, the catches 18 upon each side being connected by a rod 30, whereby they move in unison. The front catch 17 will hold the cradle tilted, the roller sliding down the incline closing the gate.

29 designates a stop secured upon the post 1, which limits the vertical movement of the gate.

10 What I claim is—

1. In a gate, a gate post, a gate hinged thereto, having a vertical movement, and normally supported upon a tilting track, means whereby when the gate is raised the track is tilted automatically, and catches for holding the track in a tilted position until the gate is opened or closed.

2. In a gate, a gate post, a guide secured thereto, a gate hinged to the guide having a vertical movement, a roller pivotally secured to the gate normally resting upon a tilting track, a flange upon the track, and a projection upon the gate for engagement beneath the flange, whereby when the gate is raised,

the track moves therewith and is tilted, and a catch for holding the same in a tilted position. 25

3. In a gate, a gate post, a gate hinged thereto having a vertical movement, a cradle comprising a lower section, an upper tilting section pivotally secured thereon, a roller pivoted to the gate normally resting upon the upper section of the cradle, catches pivotally secured to the lower section of the cradle, ropes or cables secured to the gate at one end, whereby when the opposite end is pulled the gate is raised, and means for automatically tilting the cradle simultaneous to raising the gate, whereby the gate is opened or closed by gravity. 35 40

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

MELVILLE B. BAIRD.

Witnesses:

S. G. KENNEDY,
J. L. KENNEDY.