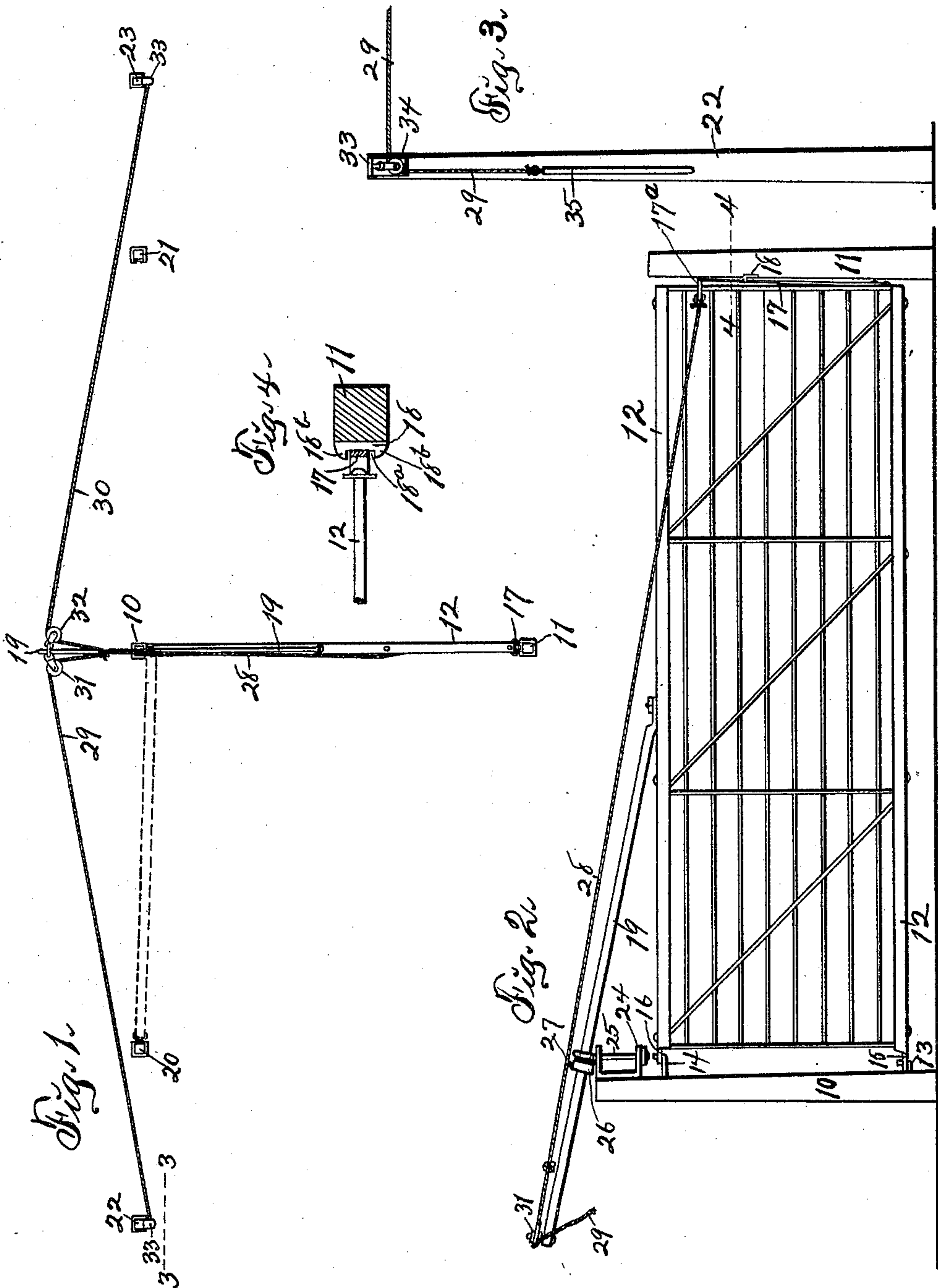


H. H. BELL.  
FARM GATE.  
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Attest:  
E. W. Miller  
Carl M. Sinclair

Inventor:  
Harvey H. Bell.  
By J. C. Sweet Att'y



# UNITED STATES PATENT OFFICE.

HARVEY H. BELL, OF NEVADA, IOWA.

FARM-GATE.

998,739.

Specification of Letters Patent.

Patented July 25, 1911.

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*To all whom it may concern:*

Be it known that I, HARVEY H. BELL, a citizen of the United States of America, and resident of Nevada, Story county, Iowa, have invented a new and useful Farm-Gate, of which the following is a specification.

The object of this invention is to provide an improved construction for farm gates.

A further object of this invention is to provide improved means for opening and closing a farm gate.

A further object of this invention is to provide improved means for holding a gate in open position during the passage of a team and closing the same from the opposite side without dismounting.

My invention consists in the construction, arrangement and combination of elements hereinafter set forth, pointed out in my claims and illustrated by the accompanying drawing, in which—

Figure 1 is a plan of my improved gate, dotted lines showing the same latched in open position. Fig. 2 is a side elevation of the same. Fig. 3 is an elevation of a portion of the device on the line 3—3 of Fig. 1. Fig. 4 is a horizontal section of a portion of the device on the line 4—4 of Fig. 2. Figs. 2 and 3 are on a scale enlarged relative to Fig. 1 and Fig. 4 is on a still further enlarged scale.

In the construction of the device as shown, a hinge post 10 and a latch post 11 are set in the proper places and spaced apart sufficiently to receive between them a gate 12 of any desired construction. The posts 10, 11 may be of any suitable material and preferably are tapered toward their upper ends. The hinge post 10 is of somewhat greater height than the post 11 and projects above the top of the gate 12. The hinge post 10 is provided near its lower end portion with a short screw hook 13 and near its upper end with a long screw hook 14 adapted to receive respectively a long eye 15 and a short eye 16 on the hinge end of the gate 12. By this means a gravity hinging is provided for the gate 12 and said gate is in a condition of stable equilibrium only when in closed position, or in alinement with the trend of the hooks 13, 14.

A spring latch 17 is fixed at its lower end to the lower portion of the latch end of the gate 12 and extends upwardly nearly to the top of said gate, and outward slightly from said gate and toward the latch post 11. The

latch 17 is formed on its upper end portion with a rearwardly extending apertured arm 17<sup>a</sup>. The latch 17 is adapted to engage at times and be held by a latch plate 18 on the inner face of the latch post 11. The latch plate 18 is formed with a vertical groove 18<sup>a</sup> and with rounded edges 18<sup>b</sup> (Fig. 4) adapted to contact with and press back the spring latch 17 preliminary to its engagement in said groove.

A bar 19 is fixed to the top bar of the gate 12 and extends upwardly and rearwardly therefrom, above and beyond the top of the hinge post 10. Latch posts 20, 21 are set on either side of the hinge post 10 and spaced therefrom a distance approximating to the spacing of the latch post 11 from said hinge post. The latch posts 20, 21 are provided with latch plates similar to the latch plate 18 and are adapted to latch the gate in open position on either side of the fence. Operating posts 22, 23 (one of which is shown in elevation in Fig. 3) are set on either side of the hinge post 10 beyond and in alinement with the latch posts 20, 21. The operating posts 22, 23 preferably are of materially greater height than the hinge post and at least as high as the rear end of the inclined bar 19.

An angle iron 24 is fixed to the upper end portion of the hinge post 10 above the hinge hook 14 and the outstanding members of said angle iron are apertured and adapted to receive loosely the lower end of an eye-bolt 25. The eye of the bolt 25 extends above the angle iron 24 and embraces and supports the upper end portion of the inclined bar 19. The bolt 25 is adapted to turn in the aperture in the angle iron 24 with the swinging of the gate in either direction. A collar 26 is adjustably secured by means of a set screw 27 to the bar 19 above the eye of the bolt 25. The collar 26 engages against the eye of the bolt 25 and is adapted to prevent sagging of the gate.

A rope 28 is fixed at its lower end to the rearwardly extending arm 17<sup>a</sup> of the spring latch, extends upwardly and rearwardly along the side of the gate and above the bar 19, nearly to the rear end portion of said bar. At its upper end the rope 28 is attached to the ends of ropes 29, 30 which diverge and pass through sheaves 31, 32 on each side of the upper end of the bar 19. The ropes 29, 30 are bent approximately at right angles through the sheaves 31, 32 and extend later-



ally to the operating posts 22, 23. Angle plates 33 are fixed to the upper end portions of the posts 22, 23 and the outstanding members of said angle plates support sheaves 34 (one of which is shown in Fig. 3). The ropes 29, 30 are rove through the sheaves 34, depend downward beside the posts 22, 23 and are provided on their lower ends with handles 35.

10 In the practical operation of the gate as shown a person approaching the gate in a vehicle or on horseback will pull up alongside an operating post, for instance 23. He gives a sharp pull on the handle 35 depending beside said post, which, acting through the rope 30 to the rope 28, releases the spring latch 17 from the groove in the latch plate 18 on the post 11. Further draft on the handle and connecting ropes will operate to swing the gate open away from the operator, and when the forward end of said gate reaches the latch post 20 the spring latch 17 will be engaged by the latch plate on said post and the gate will be held open in the position shown by dotted lines in Fig. 1. Then the driver may pass through and pull up alongside the operating post 22 on the further side. A sharp pull on the handle 35 depending from said post will operate in a similar manner to release the latch 17 from the post 20 and the gate will swing shut and be latched automatically to the post 11 in closed position. Such swinging of the gate is caused by the gravity hinging above described and is initiated and assisted by the draft on the ropes. In a similar way the gate may be opened from the opposite side and be latched in open position to the post 21 by operation from the post 22.

40 I claim as my invention—

1. The combination of a hinge post, a gate hinged to said post, an eye-bolt pivoted on said hinge post above the gate, a bar fixed to the top of said gate and extending upwardly and rearwardly therefrom through the eye of said bolt, a collar on said bar bearing against the rear side of said eye-bolt, and draft devices acting on the extremity of the bar and adapted to swing said gate in either direction.

2. The combination of a hinge post, a gate hinged to said post, an eye-bolt pivoted on said hinge post above the gate, a bar fixed to the top of said gate and extending upwardly and rearwardly therefrom through the eye of said bolt, a collar mounted on and adjustable longitudinally of said bar and bearing against the rear side of said eye-bolt,

and draft devices acting on the extremity of the bar and adapted to swing the gate in either direction.

3. The combination of a gate, a hinge post, a latch post adapted to engage a spring latch on said gate and hold the gate in closed position, an auxiliary latch post on each side of said hinge post adapted to engage the spring latch and hold said gate in open position, an operating post beyond each auxiliary latch post, a bar fixed to the top of said gate and extending upwardly and rearwardly therefrom, an eye-bolt embracing the upper end of said bar and pivoted in said hinge post, a collar on said bar bearing against the rear side of said eye-bolt, a rope fixed to and adapted to release said spring latch, said rope extending upwardly along said bar and secured at its upper end to operating ropes, said operating ropes extending through sheaves on the upper end of said bar and laterally therefrom to points of operation beyond the auxiliary latch posts, whereby said spring latch may be released and the gate opened or closed from either side.

4. In a gate, a hinge post provided with gravity hinging, a spring latch on the gate, a latch post adapted to engage said latch and hold said gate in closed position, an auxiliary latch post on each side of said hinge post adapted to engage said spring latch and hold said gate in open position, an operating post beyond each auxiliary latch post, a bar fixed to the top of the gate and extending upwardly and rearwardly therefrom, an eye-bolt embracing said bar and pivoted in the top of said hinge post, a collar adjustably secured to said bar and bearing against the rear side of said eye-bolt, sheaves on the upper end of said bar, a rope fixed at its lower end to said spring latch, said rope extending upwardly along said bar, and operating ropes fixed to the upper end of said latch rope, said operating ropes rove through said sheaves and extending to said operating posts, said operating ropes rove through sheaves on the tops of said operating posts and depending therefrom, whereby said spring latch may be released from either latch post and the gate swung open or shut.

Signed by me at Nevada, Iowa, this second day of May, 1910.

HARVEY H. BELL.

Witnesses:

C. F. DABELSTEN,  
RALPH I. LA PLANT.