

J. H. CHRISTOPHER.  
FARM GATE.  
APPLICATION FILED JULY 6, 1911.

1,053,786.

Patented Feb. 18, 1913.

3 SHEETS—SHEET 1.

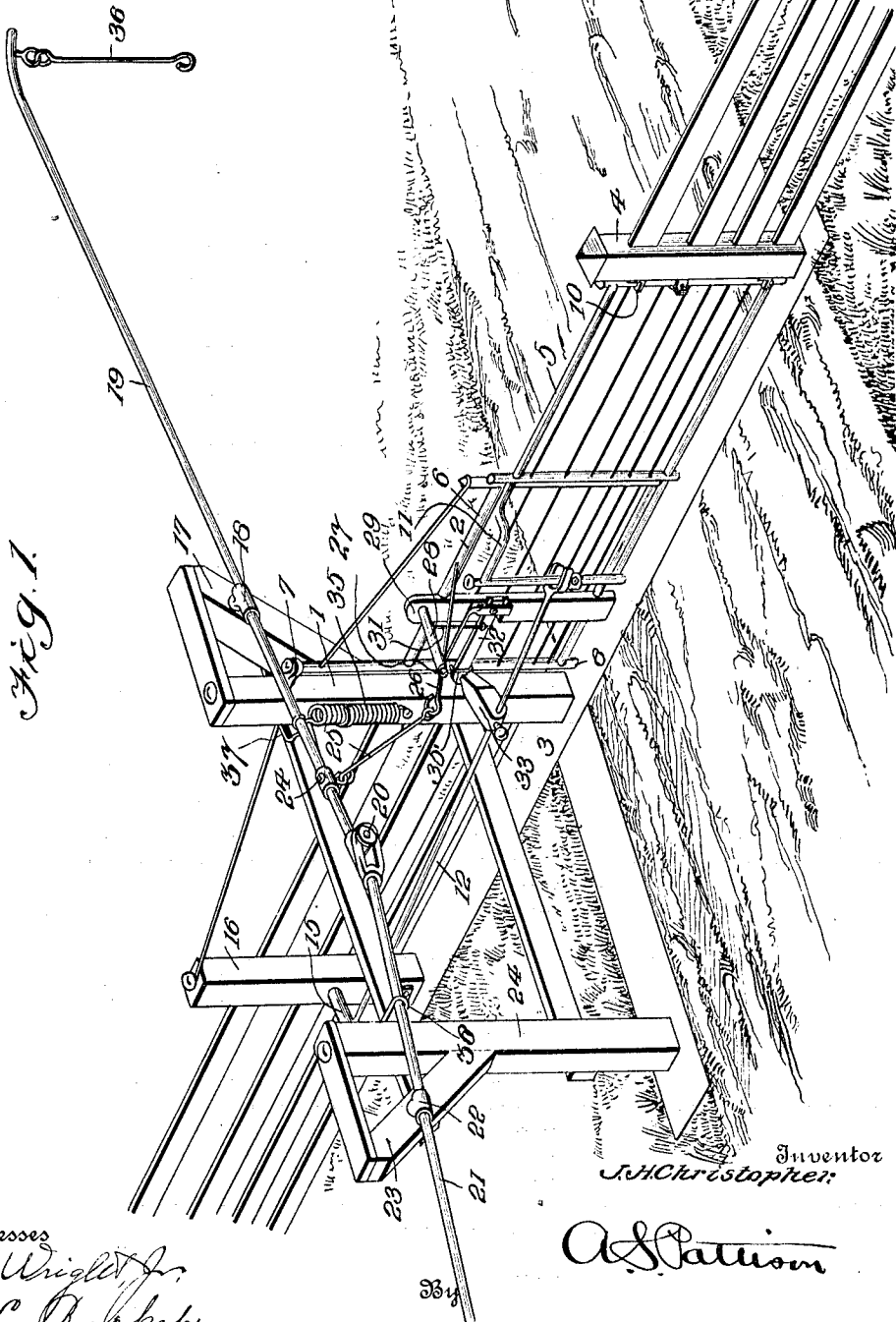


Fig. 1.

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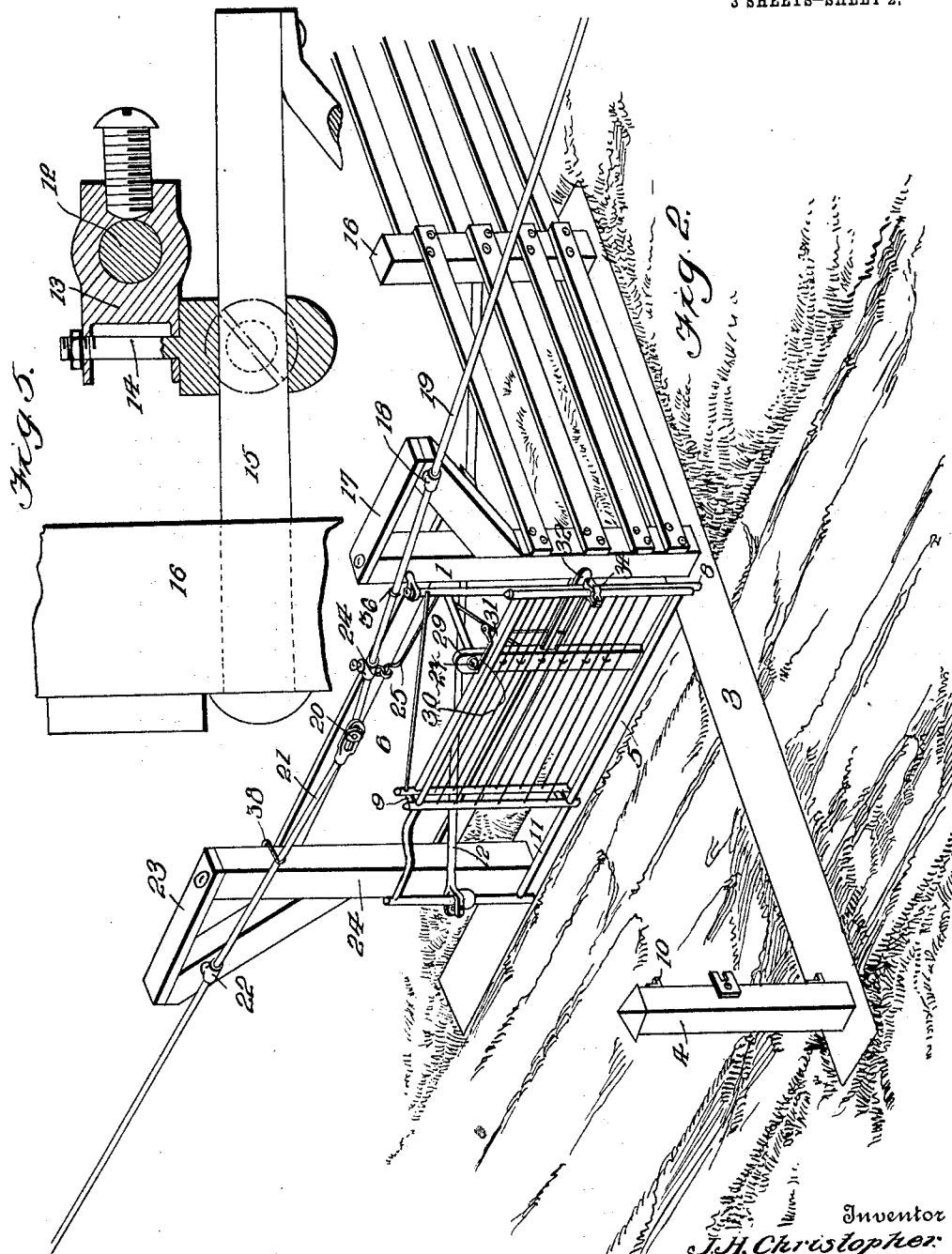
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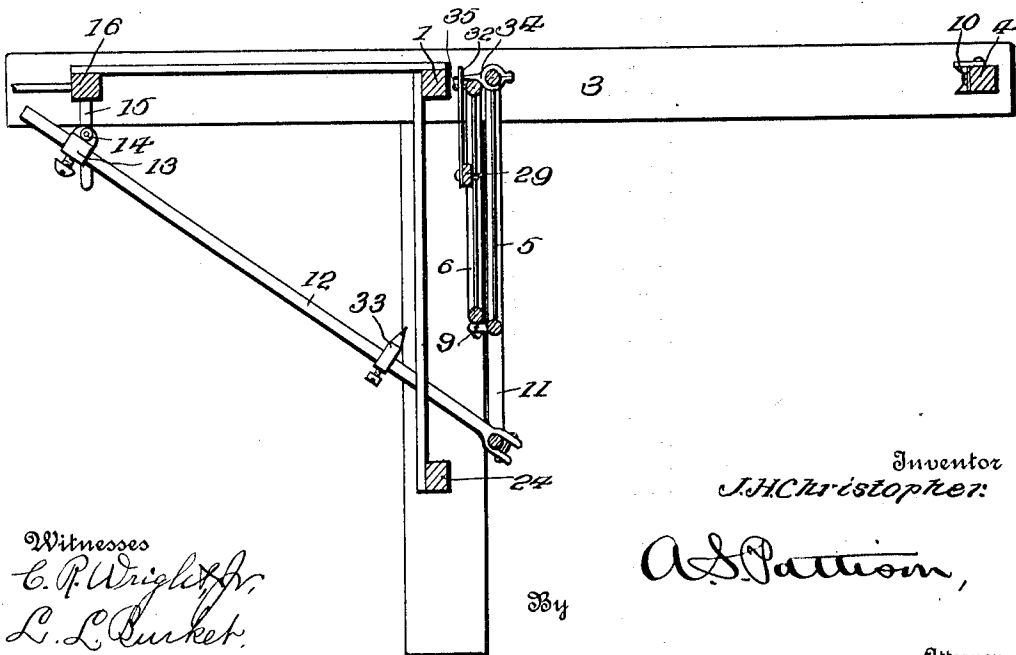
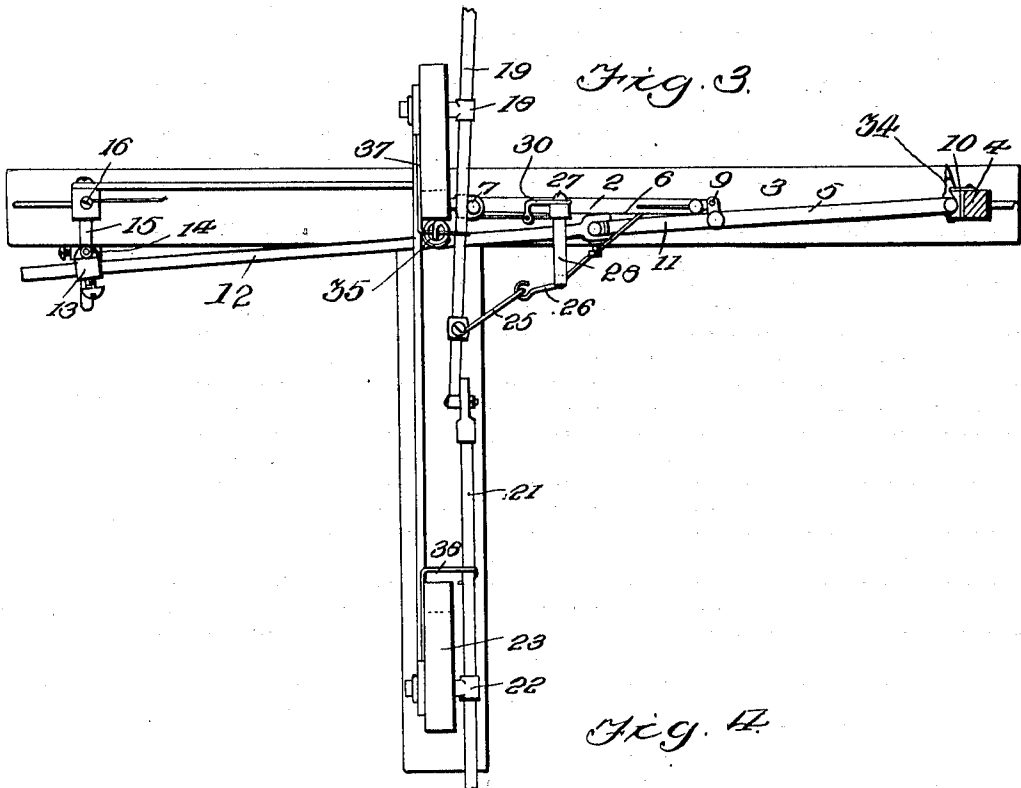
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3 SHEETS-SHEET 3.



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# UNITED STATES PATENT OFFICE.

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## FARM-GATE.

1,053,786.

Specification of Letters Patent.

Patented Feb. 18, 1913.

Application filed July 6, 1911. Serial No. 637,195.

*To all whom it may concern:*

Be it known that I, JAMES H. CHRISTOPHER, a citizen of the United States, residing at Litchfield, in the county of Montgomery and State of Illinois, have invented certain new and useful Improvements in Farm-Gates, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in farm gates.

The object of my invention is to provide a farm gate which can be operated from either side by an occupant of a buggy or wagon, and which can be readily closed by the occupant after passing through the gate.

Another object of my invention is to provide a gate of this character formed of two sections hinged together at the center and so constructed and arranged that the gate can be more readily operated and require less space to allow for the swinging of the same.

Another object of this invention is to provide a gate of this character which is locked in its closed or opened position and in which the operating means first releases the locking means before it commences to operate the gate.

A still further object of my invention is to provide a simple, cheap and more durable gate having certain details of structure hereinafter fully set forth in the specification.

In the accompanying drawings—Figure 1 is a perspective view of my improved gate in a closed position. Fig. 2 is a perspective view of my improved gate in an open position. Fig. 3 is a top plan view of Fig. 1. Fig. 4 is a horizontal sectional view of Fig. 2. Fig. 5 is an enlarged side elevation of the guide rod connection, whereby the said rod may be adjusted to provide for the proper throw of the gate.

Referring now to the drawings, 1 represents the gate post to which the gate 2 is hinged. For the purpose of illustration, I have shown this post as attached to a T-shaped frame 3, although the post could be settled directly in the ground. Secured to the outer end of the head of the T-shaped frame 3, is a second gate post 4, against which the outer end of the gate 2 swings, and the space between the posts 1 and 4

forms the drive-way through which the vehicle is adapted to pass.

My improved gate consists of two sections 5 and 6. The inner section 6 is hinged to the post 1 at its upper end by a hinge 7 and its lower end provided with a downwardly extending pin 8, entering the socket in the frame 3, whereby the gate is free to swing as clearly shown in Fig. 2 of the drawing. The sections 5 and 6 of the gate are approximately of the same length and are hinged together at the center by the hinges 9. The outer end of the section 5 is adapted to enter the bifurcated catches 10 carried by the post 4 and held against movement in either direction by pressure upon either side of the gate. The inner end of the outer section 5 of the gate is provided with an extended frame 11, to which is pivotally connected a rod 12. The inner end of the rod 12 is adjustably secured in a socket 13, pivotally mounted upon a vertically adjustable bolt 14, carried by a bracket 15, secured to the post 16, carried by the end of the frame 3.

By this construction, it will be seen that when the gate sections are swung outwardly, as shown in Fig. 2, of the drawings, the guide rod 12 is so adjusted in the bracket 13, that the outer end of the section 5 of the gate is within the stops 10 carried by the post 4 and cannot swing beyond this point, as the said guide rod engages the post 1, as clearly shown in Figs. 3 and 4. This guide rod also forms an additional support for the gate in either its closed or opened position. The rod 12 being adjustable in the socket 13, allows the rod to be so positioned that the gate will evenly swing upon its hinges and yet the said rod serves as an additional support for the gate, as heretofore stated. The socket 13 being vertically adjustable on the bolt 14, allows the rod 12 to be moved vertically to support the outer section 5 of the gate in a position so that it will freely swing.

The post 1 is provided with a frame 17, in which is pivotally mounted a socket 18, through which the operating lever 19 passes. The inner end of the rod 19 has a link connection 20, with the second operating rod 21 passing through the socket 22, carried by the frame 23 mounted on the post 24. By

this structure it will be seen that the downward movement of the outer end of the operating rod 19 will cause the rod 21 to move downwardly for the purpose of which will be hereinafter more fully described. Secured to the operating rod 19 is a collar 24 to which is pivotally connected a link 25, which extends downwardly and is pivotally connected to a crank arm 26 carried by an oscillating shaft 27. This shaft 27 is mounted in a bearing 28 carried by a vertical standard 29 secured to the inner section 6 of the gate.

The inner end of the shaft 27 is provided with a crank arm 30, to which is connected a wire 31, extending downwardly and secured to a latch 32. This latch 32 is pivoted at its inner end to the standard 29 carried by the inner section 6 of the gate, and the inner end of said section is provided with a loop 35' which limits the upward movement of the latch. This latch, as will be seen, is raised by the oscillation of the shaft 27 and is necessarily operated by the operation of either the rod 19 or rod 21. This latch, as I will now proceed to describe, locks the gate in either a closed or open position.

The guide rod 12, intermediate its ends, is provided with an adjustable catch 33, which is adapted to pass under the latch 32 when the gate is in a closed position. The plate 10 carried by the post 4, serves as a holding means to prevent the gate from being pushed in either direction, but there is no locking feature between the said plate and the outer end of the section 5 of the gate. The outer end of the section 5 of the gate is provided with a catch 34, very similar to the catch 33, and is adapted to extend under the latch 32 when the gate is in an open position, as clearly shown in Fig. 4, of the drawings and lock the gate in its open position, in order that it may be held in said position while driving through the gate.

Secured to the post 1 is a coiled spring 35, which extends upwardly and is provided with a hook 36, extending over the operating rod 19 in beyond the bearing 18. This spring, as clearly shown, is at all times exerting a downward pull upon the operating rod 19. The rod 19 having a link connection 20 with the rod 21, the said rod 21 is necessarily held downward by the said spring.

The crank 30 of the shaft 27 extends inwardly to enable the said crank to first release the latch 32 and after the said latch is released to serve as an operating means for opening and closing the gate.

The gate being in a closed position anyone wishing to pass through the gate will give the rod 19 a downward pull by means of the handle or link 36, which will throw the inner end upwardly and by means of the link

25 the shaft 27 is rocked in the bracket 28 and the crank 30 is thrown upwardly causing the latch 32 to release the catch 33. The upward movement of the crank 30 is limited by the loop 35. The latch having been released the continued upward movement of the rod 19 draws the inner section 6, inwardly and the outer section by means of the guide rod 12 is swung upon its hinges on the outer end of the inner section of the gate. As soon as the link 25 has passed a vertical line the tension of the spring 35 draws the end of the rod 19 downwardly and continues to move the gate to an open position. The catch 34 raises the latch 32 and drops into the catch and the rod is locked in an open position. After having passed through the guide 21 is drawn downwardly and by means of the link connection 20 the rod 19 is raised rocking the shaft 27 in the bearing 28 and raising the latch 32 to cause it to move out of the notch in the catch 34. The continued upward movement of the rod 21, causes an upward pull upon the link 25 until the latch 32 is limited in its upward movement by the loop 35 and the continued upward pull on the latch opens or draws the inner section 6 of the gate outwardly. The guide rod 12 holding the inner end of the outer section 5, causes the said section to swing upon its pivot and to gradually assume a position parallel with the inner section. Carried by the posts 1 and 24 are spring-wire loops 37 and 38, which have their outer ends coiled around the levers 19 and 20 and serve as guides therefor. After the link 25 has passed a vertical line the spring 35 exerts a downward pull upon the rod 19, causing the gate to entirely close. The catch 33 automatically raises the latch 32 and the gate is locked in its closed position. The operation of my improved gate is the same when approaching the gate from either direction and, therefore, it is not necessary to describe the operation when approaching it from the opposite direction.

While I have shown and described the gate as being made of two sections, made of piping and having the wire secured thereon, it will be understood that the form of gate can be gradually varied without departing from my invention. It will also be understood that many other minor details could be changed without departing from my invention.

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

1. A gate of the character described, comprising a hinged inner section, an outer section hinged to the inner section, a rod pivotally connected to the outer section and having its opposite end pivotally connected to a rigid support, a latch carried by the gate,

a catch carried by the rod and adapted to be engaged by the latch to lock the gate closed, and a catch carried by the outer end of the outer section for engaging the latch when the gate is open and locking the gate in said open position.

2. A gate of the character described, comprising an inner hinged section, an outer section hinged to the inner section, a rearwardly extending arm carried by the outer section, a rod pivotally connected to said arm and having its inner end pivotally connected to a rigid support, a latch carried by the hinged end of the inner section, a catch carried by the rod and adapted to be engaged by the latch and lock the gate in its closed position, a catch carried by the outer end of the outer section and adapted to engage the latch when the gate is in its open position for locking the same in said position, means for operating said latch and by a continued movement of said operating means for opening and closing the gate.

3. A gate of the character described, comprising a hinged inner section, an outer section hinged to the inner section, an arm carried by the outer section in rear of the pivoted connection between the sections, a rod pivotally connected to said arm, the opposite end of the rod pivotally connected to a rigid support, a latch carried by the hinged end of the inner section, means for limiting the movement of said latch, a catch carried by the rod and adapted to be engaged by the latch, a catch carried by the outer end of the outer section and adapted to engage the latch when the sections are folded and the gate is open and hold said gate open, a shaft mounted in the said inner section, a crank carried by one end of said shaft, a connection between the shaft of said crank and the latch, a crank carried by the opposite end of said shaft, a rod intermediately pivoted above the inner section, a spring normally holding the inner end of said rod in a downward position, a link connecting the inner end of said rod and the crank whereby the upward movement of the rod rocks the shaft, releasing the latch and the continued upward movement of the rod draws the inner section inwardly until the end of the crank is beyond a vertical line with the rod when the spring draws the rod downwardly and continues the opening operation of the gate, substantially as shown and described.

4. A gate of the character described, comprising an inner hinged section, an outer section hinged to the inner section, an arm carried by the outer section, a rod pivotally connected to the said arm, a rigid support in rear of the inner section, a sleeve vertically adjustable on said support and through which the said rod passes, means for locking the said rod in the sleeve in

its adjusted position, and means for operating the inner section.

5. A gate of the character described, comprising a hinged inner section, an outer section hinged to the inner section, an arm carried by the outer section on the inside of the hinged connection, a rod pivotally connected to said arm, the inner end of said rod pivotally and adjustably carried by a rigid support, a latch carried by the hinged end of the inner section, a catch carried by the rod adapted to be engaged by the latch for locking the gate in its closed position, a catch carried by the outer end of the outer section for engaging the latch when the sections are folded in their open position, a rock shaft journaled in the inner section, a crank carried by one end of said rock shaft, a flexible connection between the rock shaft and the latch, means for limiting the movement of said crank, a crank carried by the opposite end of the rock shaft, intermediately pivoted operating rods above the inner end of the inner section and having their inner ends linked together, a spring normally holding the inner ends of the said operating rods in their downward position and a link connection between the inner end of one of said rods and the crank carried by the rock shaft, substantially as shown and described.

6. A gate of the character described, comprising an inner hinged section, an outer section hinged to the inner section, a rigid rod pivotally connected to the outer section and to a stationary support, means for swinging the inner section whereby the outer section is folded upon the inner section, and a single latch carried by the inner section of the gate for locking the gate in its closed or open position.

7. A gate of the character described, comprising a hinged inner section, an outer section hinged to the inner section, a rigid rod pivotally connected to the outer section and to a stationary support, means for swinging the inner section whereby the outer section is operated through the rigid rod and a latch carried by the inner section of the gate for locking the gate in its closed or open position and operated by the gate operating means.

8. A gate of the character described, comprising an inner hinged section, an outer section hinged to the inner section, a rod connected to the outer section and to a stationary support, a latch for locking the gate in its open position, and means carried by the rod and engaged by the latch for locking the gate in its closed position.

9. A gate of the character described, comprising a hinged inner section, an outer section hinged to the inner section, a rod pivotally connected to the said outer section, a rigid support, a sleeve horizontally adjustable on said support, a member pivotally

connected to the sleeve and through which the rod passes and means for locking the said rod in its adjusted position in the pivoted member.

5 10. A gate of the character described, comprising two hinged sections, a rod pivotally connected to the outer section, a rigid support, a laterally extending arm carried by the support, a sleeve adjustable on the arm, a member pivotally supported by the sleeve and through which the rod passes and means for locking the said rod in its adjusted position in the pivoted member.

10 11. A gate of the character described, comprising two hinged sections, a rod pivotally connected to the outer section, a rigid

support adjacent the gate, a laterally extending arm carried by the support, a sleeve adjustable on the arm, means for holding the sleeve in its adjusted position, a laterally extending stud carried by the sleeve, a member pivoted upon the stud, and through which the rod passes, and a set screw for holding the rod in its adjusted position in the member. 20

In testimony whereof I hereunto affix my signature in the presence of two witnesses. 25

JAMES H. CHRISTOPHER.

Witnesses:

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H. H. STARKEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."