

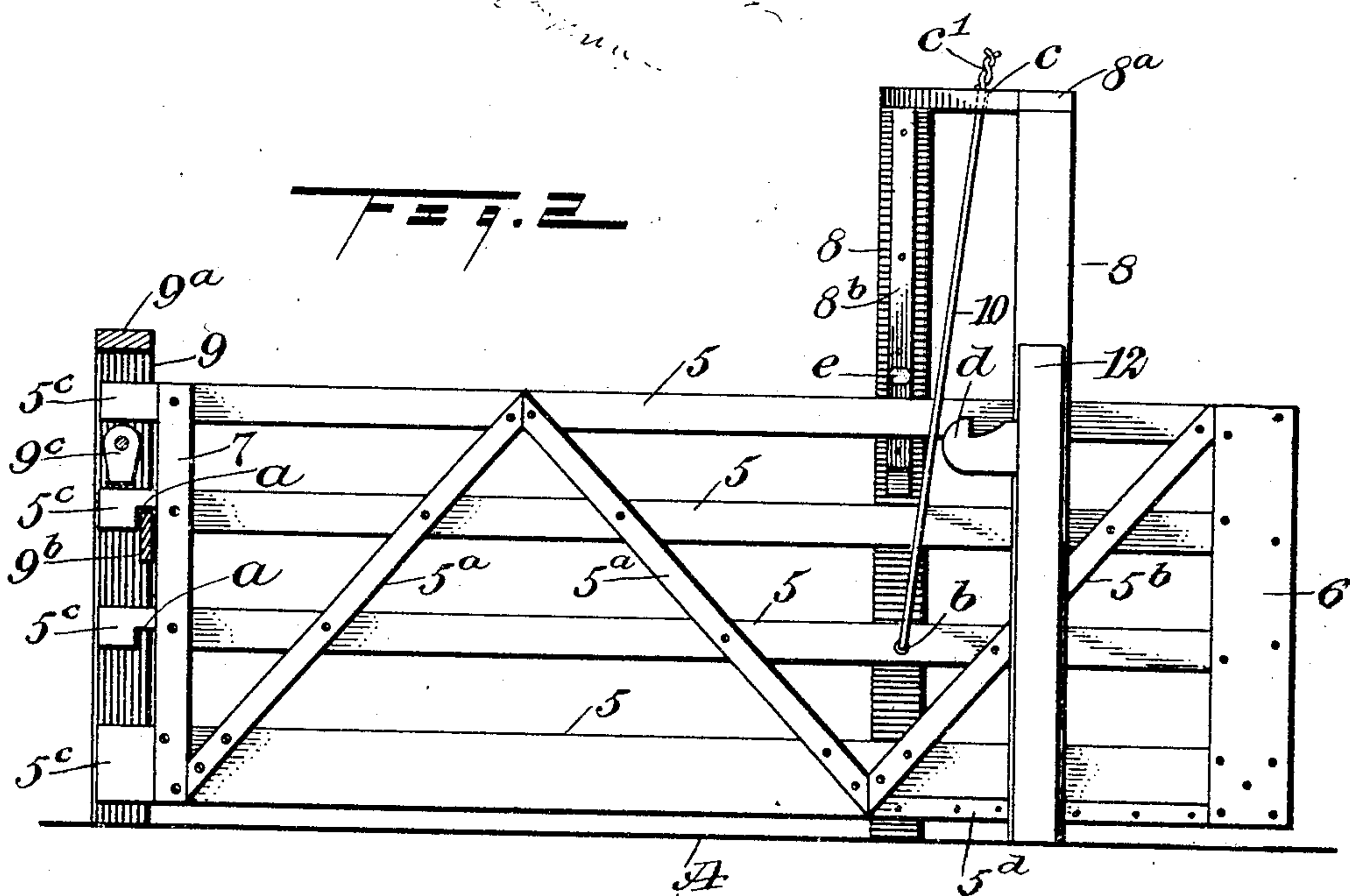
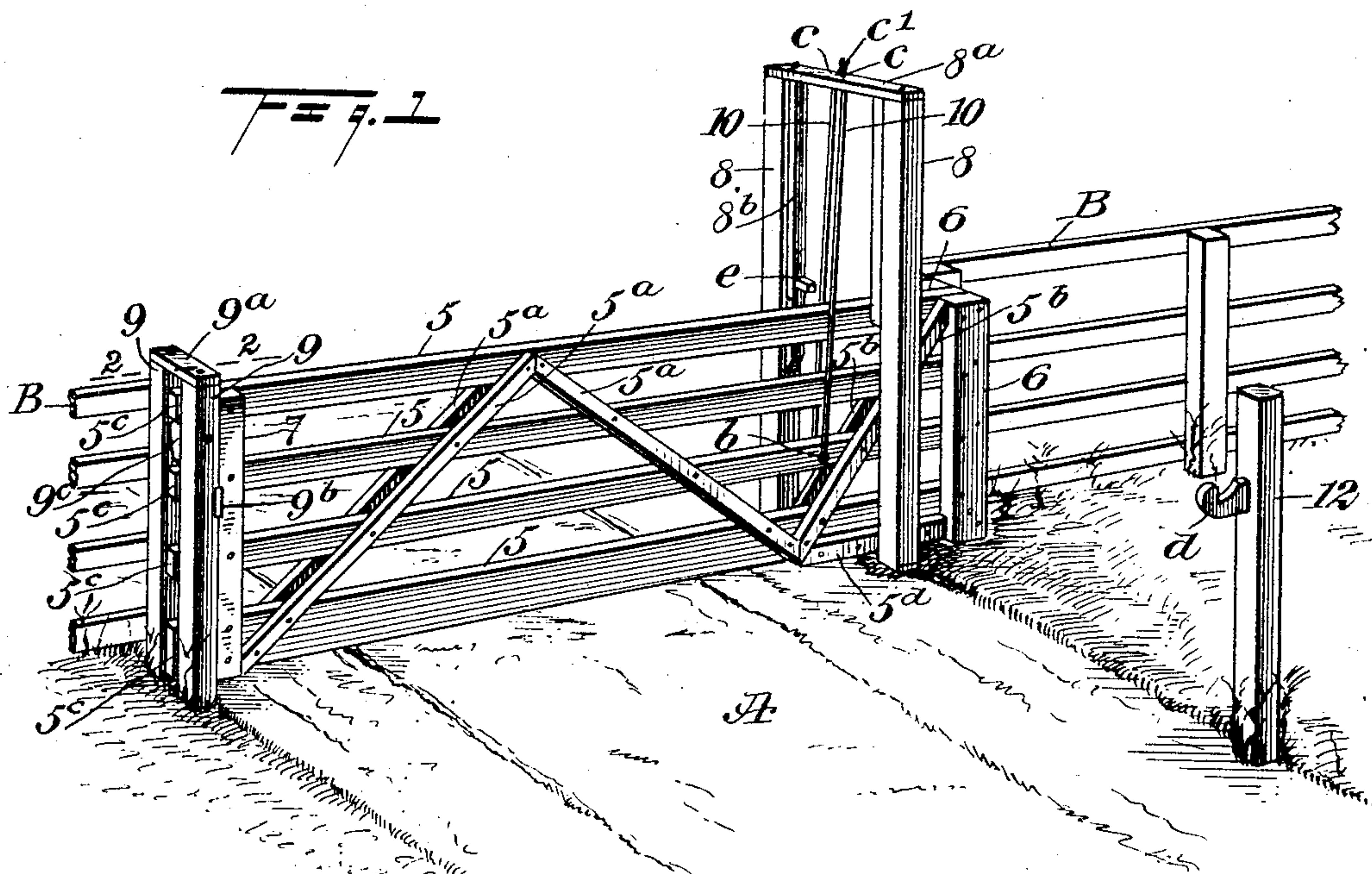
No. 786,124.

PATENTED MAR. 28, 1905.

J. J. HINER.  
FARM GATE.

APPLICATION FILED JAN. 16, 1905.

2 SHEETS—SHEET 1.



WITNESSES:

*John J. Kittle*  
*Wm. L. Patton*

INVENTOR

*Jacob J. Hiner*

BY

*Wm. L. Patton*

ATTORNEYS

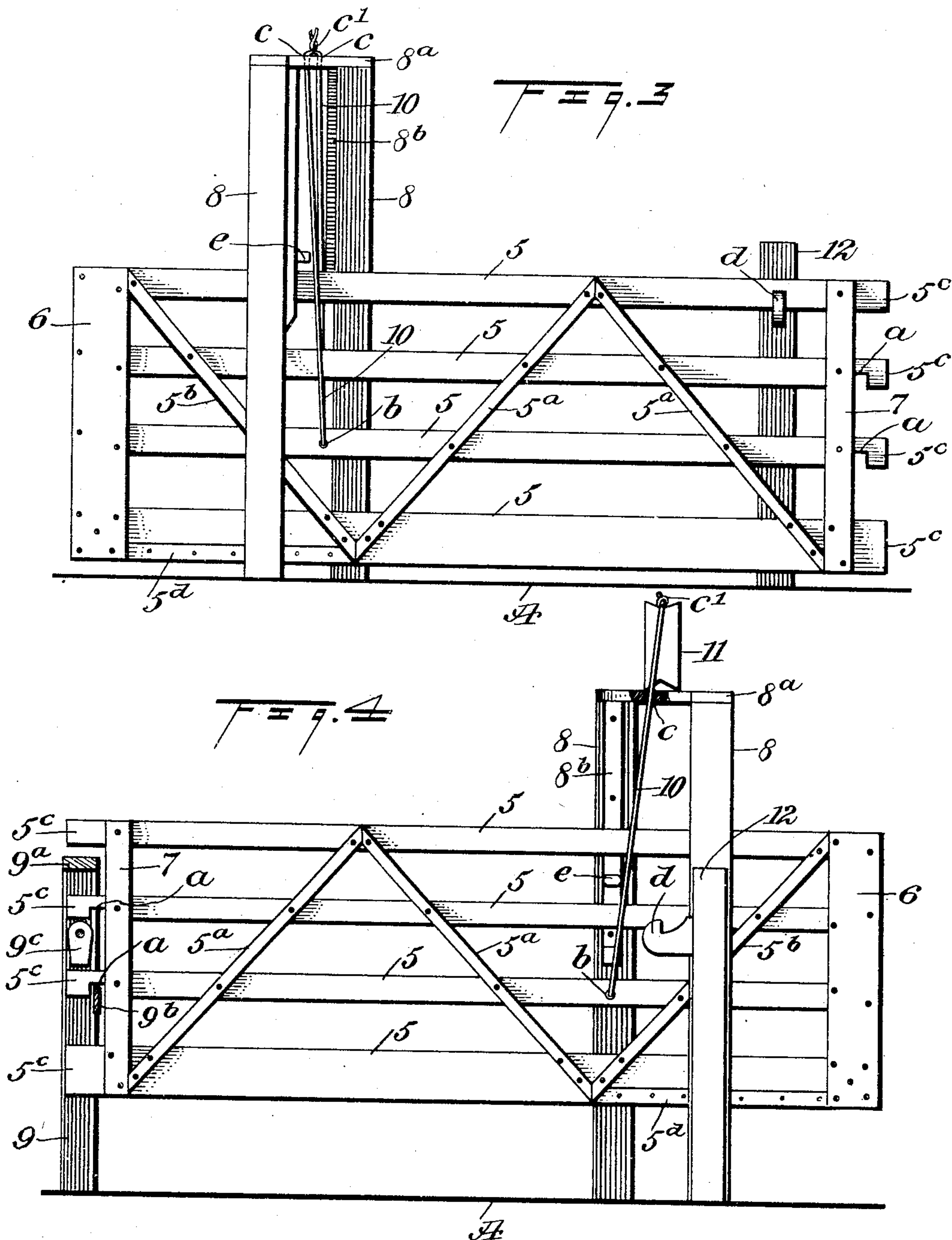
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*Mum*

ATTORNEYS



# UNITED STATES PATENT OFFICE.

JACOB J. HINER, OF WOODSTOCK, ILLINOIS.

## FARM-GATE.

SPECIFICATION forming part of Letters Patent No. 786,124, dated March 28, 1905.

Application filed January 16, 1905. Serial No. 241,243.

*To all whom it may concern:*

Be it known that I, JACOB J. HINER, a citizen of the United States, and a resident of Woodstock, in the county of McHenry and State of Illinois, have invented new and Improved Details of Construction for Farm-Gates, of which the following is a full, clear, and exact description.

The object of my invention is to provide novel fixtures for a farm-gate which are simple, practical, durable, convenient to operate, and inexpensive, which enable the easy opening and closing movement of the gate, permit it to be closed and supported at different heights from the ground, and afford automatic means for locking the gate closed at different heights in a way that will resist the efforts of live stock to open it.

The invention consists in the novel construction and combination of parts as is hereinafter described, and defined in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the improved gate in closed condition. Fig. 2 is an enlarged partly-sectional side view of the gate, the section being taken substantially on the line 2 2 in Fig. 1, showing a normally concealed detail of the improvement. Fig. 3 is a side view showing the gate in open adjustment; and Fig. 4 is an opposite side view of the gate closed and locked in a position somewhat elevated from the ground, parts being in section, substantially on the line 2 2 in Fig. 1.

The gate is preferably formed of a plurality of rails 5, four being shown, which are spaced apart by the diagonally-secured batten-strips 5<sup>a</sup> 5<sup>b</sup>, said strips being arranged in pairs that are disposed oppositely on opposite sides of the rails, whereon they are attached by screws or other suitable means. As shown, the lower rail 5 is of greater width than the others. To insure stability and to enable the convenient arrangement of other details, there are three pairs of batten-strips 5<sup>a</sup> 5<sup>b</sup> employed,

two pairs 5<sup>a</sup> having a length greater than that of the third pair 5<sup>b</sup>, and, as shown, the longer pairs of batten-strips are disposed in inverted-V shape, while the remaining shorter pair 5<sup>b</sup> incline from the lower ends of one pair of the strips 5<sup>a</sup> upward and away from said strips. This zigzag arrangement of the batten-strips stiffens the gate structure and firmly secures the rails 5, spaced at an equal distance apart. The gate is further reinforced by the attachment of two upright batten-boards 6 6 oppositely at one end of the rails 5, these uprights having a width and thickness which gives a suitable weight thereto, for a purpose that will hereinafter be fully explained.

Near the opposite ends of the gate-rails 5 two similar upright strips 7 of scantling are affixed, and in the lower edge of each of the two intermediate rail portions 5<sup>c</sup>, that extend outside of the strips 7, a notch *a* is formed close to the outer edges of said strips.

At one side of a roadway A, which is extended through an opening in a fence B that is to be closed normally by the improved gate, two posts 8 8 are erected vertically near one termination of the fence, these similar posts being spaced apart and set diagonally—that is to say, one post at one side of the fence-line is nearer the termination of the fence than the other that is at the opposite side thereof, as is apparent in Fig. 1. The posts 8 at their upper ends are level, and upon said ends is secured a cap-piece 8<sup>a</sup> of suitable width and thickness. Adjacent to the opposite termination of the fence B two fence-posts 9 9 are erected, these similar posts being spaced apart sufficiently to loosely receive the end portions 5<sup>c</sup> of the gate-rails 5 between them, and thus held by a secured cap-piece 9<sup>a</sup>. The posts 8 8 are of a height that will permit the suspension of the gate between them and afford a proper space between the cap-piece 8<sup>a</sup> and the upper rail 5 of the gate.

At a suitable distance from the batten-boards 6 there is a perforation *b*, formed transversely in the lower intermediate gate-rail 5, and through said perforation is passed one end of a pliable wire rod or wire cord 10. The wire rod 10 is of such length as will adapt



it when bent at its center to serve as a hanger for the gate, to which end the wire is passed through the perforation *b* and bent upwardly, the two equal members of said wire rod being  
 5 extended upward, one at each side of the gate-rails 5, and passed through two spaced perforations *c* in the cap-piece 8<sup>a</sup>, the portions that are inserted therethrough being joined together by twisting, as at *c'*, or by other suitable means. The length of the doubled-wire  
 10 hanger 10 should be so proportioned that the gate will hang nearly horizontal, its lower edge clearing the road-bed a few inches, and to effect the balancing of the gate the weight  
 15 of the batten-boards 6 is such as to adapt the end portion of the gate they are secured upon to nearly counterbalance the portion that extends from the perforation *b* to the notched ends of the gate-rails.

20 At the lower edge of the lower gate-rail 5, upon each side thereof, a cleat 5<sup>d</sup> is secured, these extending from the batten-boards 6 6 to the lower ends of the inclined batten-strips 5<sup>b</sup>. An upright cleat 8<sup>b</sup> is secured upon the  
 25 side of each post 8 that is adjacent to the gate-rails 5, and these cleats 5<sup>d</sup> 8<sup>b</sup> coact to loosely support the gate in a vertical plane while closed.

A transverse latch-bar 9<sup>b</sup> is secured in or on  
 30 the sides of the posts 9 9, that face the posts 8, said flat latch-bar being so relatively disposed that the notched end 5<sup>c</sup> of the upper intermediate gate-bar 5 may be hooked thereon by introducing the ends 5<sup>c</sup> of the gate-bars  
 35 between the posts 9, and as the gate portion thus engaged is slightly heavier than the portion whereon the batten-boards 6 are secured it will be evident that the hooked engagement may be readily effected.

40 Between the top rail 5 of the gate and the rail next below it, or one having a hooked engagement with the latch-bar 9<sup>b</sup>, a keeper-button 9<sup>c</sup> is pivoted at its upper end, so that the main portion hangs pendent above the notched  
 45 end of the upper intermediate rail that is hooked upon the bar 9<sup>b</sup> and prevents said hooked end 5<sup>c</sup> from being unlatched until the button is manually turned away from the gate-rail sufficiently to permit it to be raised for  
 50 release of the same by a longitudinal swinging movement of the entire gate on the hanging looped support 10. The pendent hanger 10 loosely embraces the sides of the gate-rails 5 when sustaining the gate, and, as shown in  
 55 Fig. 2, the hanger-wire rod inclines toward the posts 9 somewhat when the gate is latched upon the cross-bar 9<sup>b</sup>, which facilitates the release of the gate from the posts 9.

The gate when hung as shown in Figs. 1  
 60 and 2 clears the ground enough to permit its free movement over the road-bed when the latter is not obstructed by an accumulation of snow, and to enable the gate to be operated in case a deep snow is on the road the notch *a*

in the lower intermediate rail 5 is utilized, as  
 65 shown in Fig. 4. To this end a prop-block 11 is provided for holding the gate raised from the ground a proper distance, and, as represented in Fig. 4, said block, that may be  
 70 a billet of wood having its ends concaved, is seated upon the cap-piece 8<sup>a</sup> and receives the bight of the duplicate and connected upper portions of the hanger-piece 10. It will be noted in said figure that the gate, when thus  
 75 supported, may be locked fast upon the cross-bar 9<sup>b</sup> by passing all of the end portions 5<sup>c</sup> of the gate-rails 5 between the posts 9 9, except the upper rail 5, which will by elevation of the gate be disposed above the posts 9.

To distinguish the posts 8 and 9, it is preferred to term the first named "hanger-posts" and the posts 9 "holder-posts," as they retain the gate in closed condition.

At the side of the roadway A toward which the gate is to be swung open a single post 12  
 85 is set at such a distance from the hanger-posts 8 that the gate-rails 5 will flatly rest against it near their ends 5<sup>c</sup> when the gate is fully opened. A latch-hook *d* is projected from the side of the post 12, on which the gate im-  
 90 pinges, and said hook is designed for a hooked engagement with the lower edge of the top rail 5 of the gate when the latter is swung toward the post, so as to open the roadway A.

To open the gate, it is only necessary to  
 95 turn the button 9<sup>c</sup> into a horizontal position, then raise the gate, and simultaneously push it endwise, so as to remove the rail ends 5<sup>c</sup> from between the posts 9. The gate may now be turned toward the post 12 and readily  
 100 latched fast thereon, as is clearly shown in Fig. 3, and to close the gate a release of the same from the hook *d* will permit said gate to be swung on the hanger-wire 10 toward the  
 105 holder-posts 9 and the ends of the rails 5 to be introduced between said posts, whereupon the button 9<sup>c</sup> will be automatically rocked, so as to permit the rail ends to be introduced between the posts and the latch-bar 9<sup>b</sup> to be re-  
 110 ceived into the upper notch, which will close and secure the gate in closed condition. As the turning movement of the gate to open it partially twists the two strands of the hanger wire or rope 10 together, it will be obvious  
 115 that the torsional strain thus produced will aid in returning the gate to a closing position, and it will be evident that to effect this advantageous result the hanger must be of pliable material—that is, either a wire or wire  
 120 rope.

It will be seen that a stud-like projection *e* is formed or secured in or on a cleat 8<sup>b</sup> at such a point as will dispose it above and near the top rail of the gate when the latter is closed, which will prevent the elevation of the gate  
 125 by animals pressing upward on the lower rail of the same.

It will be noted that the provision of means,



as shown and described, for the adjustment and temporary support of the gate at a proper height above the road-bed is not only of advantage to permit the gate to be readily swung  
5 open and closed while the road is obstructed by snow, but it is also advantageous from the fact that at times it is essential to permit hogs or sheep to travel from one field to another, but prevent cattle from roaming at will  
10 through different fields or upon a roadway that is guarded by the improved gate, and it will be seen that when the gate is in a raised condition it is maintained horizontal, is locked, and that the stud *e* prevents a further elevation of the gate for the passage of cattle  
15 through the gateway.

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

1. The combination with a gate having rails,  
20 means for spacing the rails apart, and batten-pieces at one end of the rails, that are counterweights, of two spaced upright hanger-posts having their upper ends joined together with a transverse cap-piece, a doubled hanger  
25 formed of wire, one doubled end of the wire having looped engagement with a rail of the gate near the lower rail thereof, the upwardly-trending ends of said doubled wire loosely passing through spaced perforations in the  
30 cap-piece and connected above it, and a prop-block introduced between the loop formed by

connecting said ends and the cap-piece, thus raising the gate and holding it suspended above the ground.

2. The combination with spaced hanger- 35 posts, a gate formed of rails spaced apart by batten-pieces, two of said battens at one end of the gate serving as counterweights, and means for supporting the gate nearly level and free to turn between the hanger-posts, 40 said means comprising a pliable hanger which depends from the upper ends of the posts and engages the gate below its transverse center near the end that is counterweighted, and a stud projecting from the inner side of one 45 hanger-post above but near the gate, of holder-posts, spaced apart and receiving the unweighted end of the gate between them, a transverse latch-bar on these holder-posts, the intermediate rails of the gate each having a 50 notch in the lower edge which may receive the latch-bar, and a weighty button pivoted by one end on the inner side of one of the holder-posts for loose engagement with the upper edge of one of the notched gate-rails. 55

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JACOB J. HINER.

Witnesses:

W. F. LANG,  
H. C. VOGT.