(No Model.)

J. W. HARLAND.

GATE.

No. 368,207. Patented Aug. 16, 1887.

Fig. 1

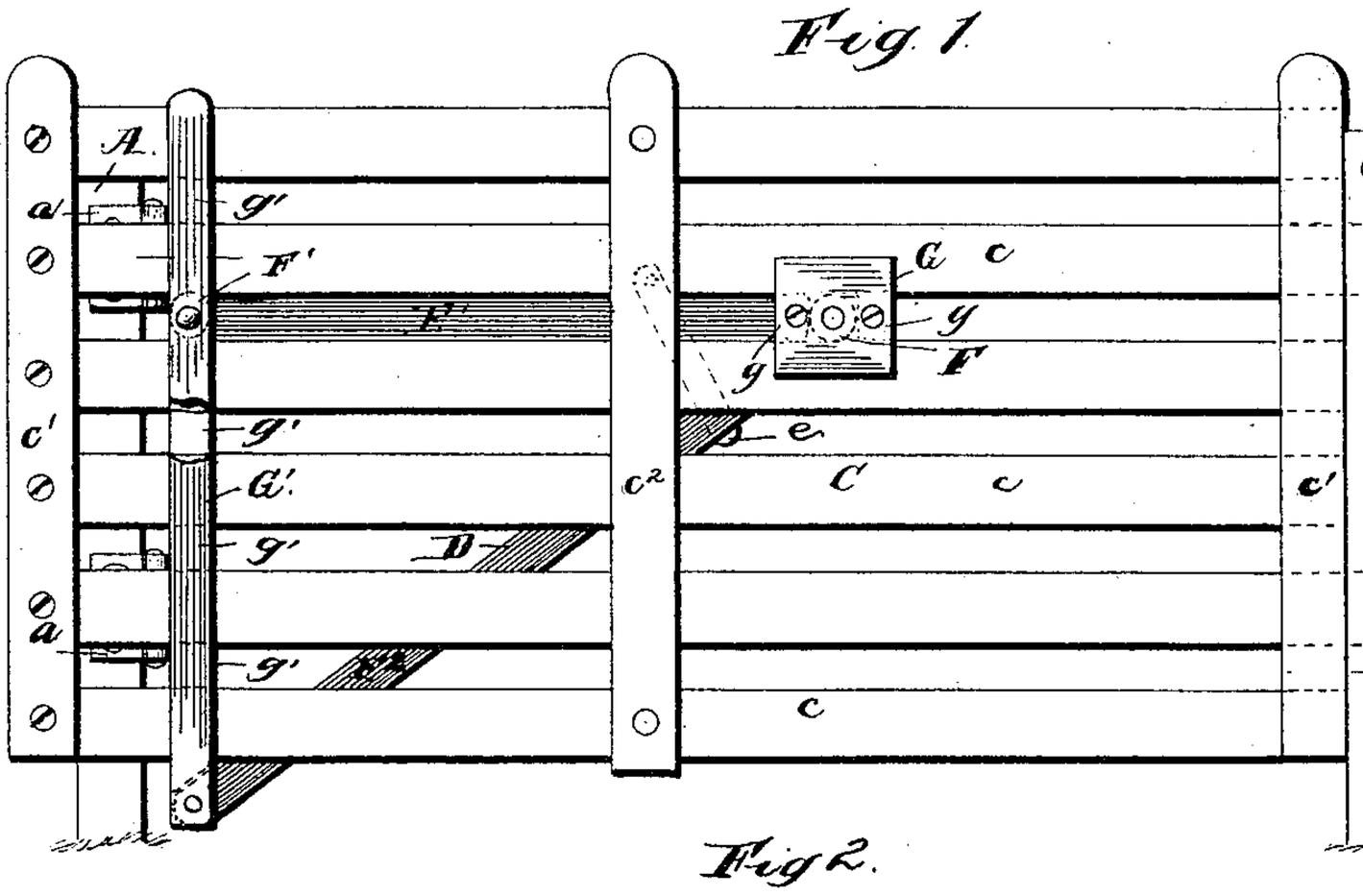


Fig. 2.

Fig. 4.

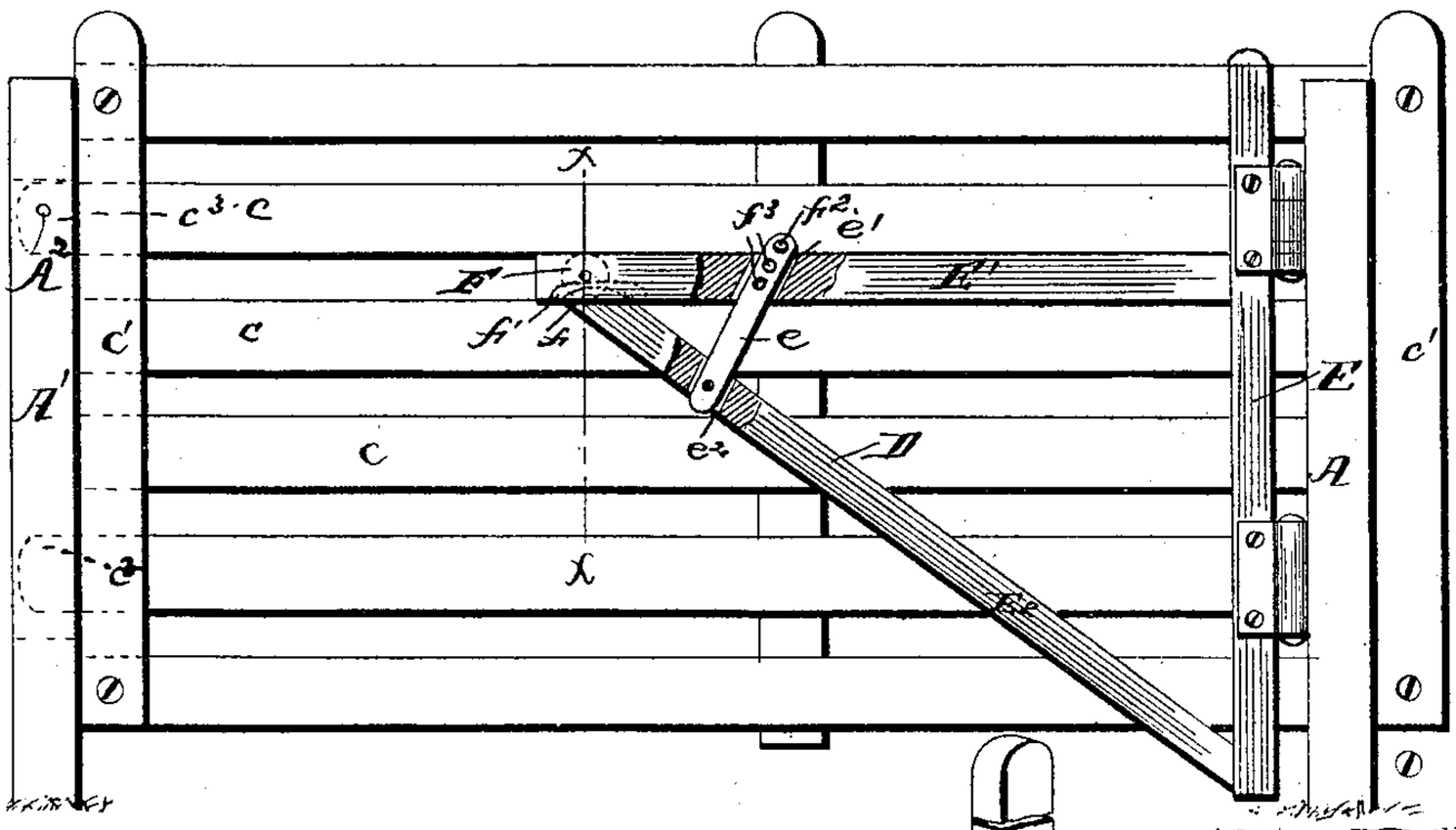


Fig. 3.

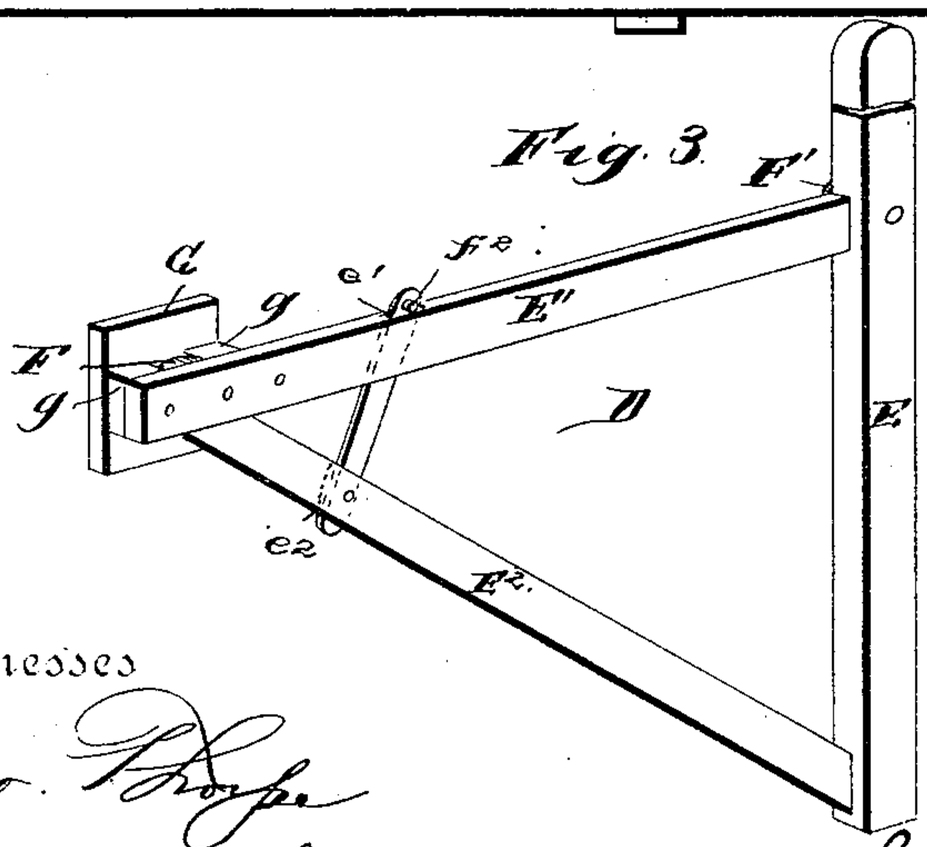
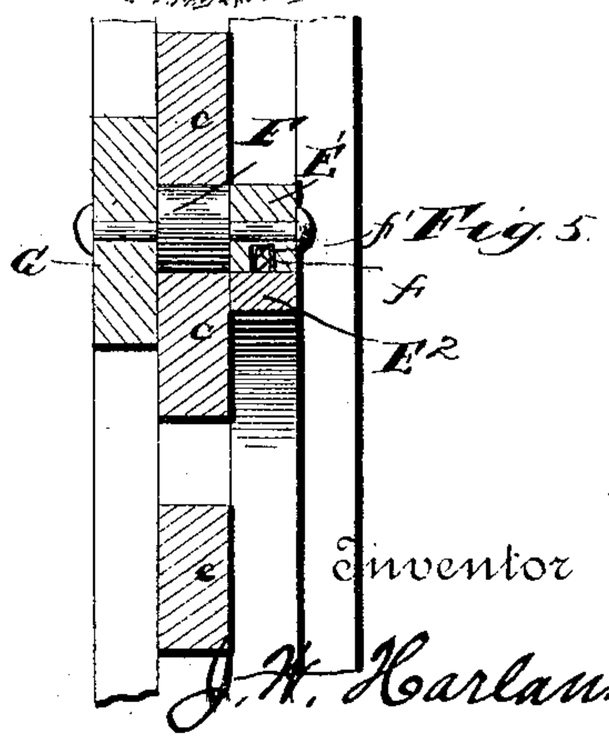


Fig. 5.



Witnesses

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JOEL WRIGHT HARLAND, OF FRANKFORT, INDIANA.

GATE.

SPECIFICATION forming part of Letters Patent No. 368,207, dated August 16, 1887.

Application filed June 17, 1887. Serial No. 241,653. (No model.)

To all whom it may concern:

Be it known that I, JOEL WRIGHT HARLAND, a citizen of the United States, residing at Frankfort, in the county of Clinton and State of Indiana, have invented a new and useful Improvement in Gates, of which the following is a specification.

My invention relates to gates; and it consists in a certain novel construction and arrangement of parts fully set forth hereinafter, and specifically pointed out in the claims.

In the drawings, Figure 1 is a side view thereof. Fig. 2 is a similar view of the opposite side. Fig. 3 is a detail perspective view of the crane. Fig. 4 is an end view of the gate. Fig. 5 is a detail view on line *x x* of Fig. 2.

Referring by letter to the drawings, A designates the hinge-post, and A′ the latch-post, the latter being provided with a vertical slot, *a′*, and a transverse perforation near the upper end, and the former post is provided with hinges *a a* of any preferred and suitable pattern.

C designates the gate comprising the horizontal rails *c c*, the vertical end rails, *c′*, secured on opposite sides of the rails at the ends thereof, and the vertical central brace, c^2. The ends of two or more of the horizontal rails are extended slightly beyond the end pieces, *c′*, to form the tongues c^3, and the said tongues are passed into the slot *a′*, for a purpose hereinafter explained. A perforation is formed in one of the tongues to align with the perforation before mentioned in the post A′, and a pin, A^2, is passed through the said aligned perforations.

D designates the crane on which the above-described gate is hung; and E is the main vertical post thereof, which is secured to the hinges *a a*, before mentioned, thus hinging the crane to the gate-post.

E′ represents the horizontal top rail of the crane, secured at one end to the post E, near the upper end thereof; and E^2 represents the inclined brace of the crane, which is secured at one end to the lower end of the post E, and is provided at the other end with the tongue *f*, adapted to fit into a slot, *f′*, in the under side of the outer end of the top rail, E′.

e designates a thin (preferably metallic) brace, which is passed at the ends through apertures e' e^2 in the rails E′ E^2, respectively, near the outer ends thereof. The lower end of the said brace is passed into the aperture in the brace E^2, and secured therein by a pin passed through the said rail and a perforation in the end of the brace *e*, and the upper end of the brace *e* is passed through the aperture e' in the top rail, E′, and a pin, f^2, is passed through any one of the series of perforations, f^3, in the upper end of the said metallic brace. The ends of the said pin f^2 are allowed to rest on the edges of the aperture e' and hold the top rail and the brace E^2 in their proper relative positions.

If the outer end of the crane should for any reason sag, the same is raised, thereby causing the tongue on the end of the brace E^2 to move along the slot *f′* in the outer end of the top rail, and also causing the metallic brace *e* to pass farther through the aperture e^2, and project at the end above the same. The pin f^2 is withdrawn from the perforation in which it has been placed and inserted in one which is lower down, thus holding the outer end of the crane in the elevated position.

F designates a roller journaled on one side of the outer or free end of the crane, and the said roller is designed to be disposed between two of the rails of the gate; and F′ designates a similar roller journaled on the side of the post E at the same height as the roller F. Thus it will be seen that when the gate is placed on the side of the crane, with one of the rails thereof resting on the rollers F F′, it may be moved forward and backward with perfect ease on the said rollers.

G designates a cap wider than the distance between two of the rails of the gate, and having the blocks *g g* on the inner side, adapted to be disposed on each side of the roller F when the cap is put in place, and the same is screwed or otherwise removably secured to the crane on the opposite side of the gate, thus holding the gate from slipping off of the roller F.

G′ designates a vertical rail having blocks *g′ g′* thereon to pass between the rails of the gate, and the said rail or cap G′ is adapted to be disposed on the opposite side of the gate from the post E, with the said blocks *g′* resting against the said post. The function of this rail, as will be readily seen, is similar to that

of the cap or block G—namely, to hold the gate properly on the roller F′ to enable it to be easily moved forward and backward.

The tongues c^3 are designed to perform the function of a latch to prevent the gate from being accidentally swung open. To disengage the said tongues from the slot in the post the entire gate is rolled back slightly. The width of the post E is such that when the gate, which rests against the edge thereof, is swung around at right angles to its normal position it will pass in rear of the post A, the post E in this position resting against the post A, as will be readily seen.

The gate, as will be seen, is placed on the crane in such a manner that the weight of the rear end (or portion in rear of the roller F) is equal to or greater than that of the front or free end. This construction prevents a strain upon the hinges of the crane.

The clamps or caps G G′ are detachable, and thus allow of the easy removal of the gate.

The construction of the crane is such that it is adapted to support a very heavy weight with no liability of straining the parts thereof. The short metallic brace *e* is designed to strengthen the angle between the outer ends of the rail E′ and the brace E^2, and also to render the elevation of the outer end of the crane adjustable.

Having thus described the construction of my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with a gate having horizontal rails, of the hinged crane D, comprising the post E, horizontal rail E′, having the aperture *e′* near the outer end, inclined brace E^2, secured at the outer end to the rail E′ and having the aperture e^2 therein, the short brace *e*, secured at the ends in the said apertures, the rollers F F′ on the side of the said crane disposed between the rails of the said gate, cap G, having blocks *g g* on the inner side secured to the said crane, with the blocks between the rails of the gate on opposite sides of the roller F, and the rail or cap G′, having blocks *g′ g′* thereon to pass between the rails of the gate and bear against the post E, all constructed and arranged substantially as described.

2. The combination of the post A, post A′, having the slot *a′* therein, crane D, hinged to the post A and comprising the vertical post E, horizontal rail E′, inclined brace E^2, and the short brace *e*, rollers F F′ on the side of the said crane, and the gate comprising the vertical end pieces, *c′*, horizontal rails *c*, secured thereto, tongues c^3, formed by extending the said horizontal rails beyond the vertical rails *c′* at the free end of the gate, and the caps G G′, secured to the crane to hold the said gate in place on the same, all constructed and arranged substantially as and for the purpose set forth.

3. The crane for supporting the gate, comprising the horizontal rail E′, the inclined brace E^2, connected at its outer end to the rail E′, and the adjustable brace *e*, connecting the brace E^2 to the rail E′ at intermediate points, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOEL WRIGHT HARLAND.

Witnesses:
SAMUEL L. GALLAHER,
WILLIAM ARMSTRONG.