

A. H. HART.
Portable Fence and Gate.

No. 218,172.

Patented Aug. 5, 1879.

Fig: 1.

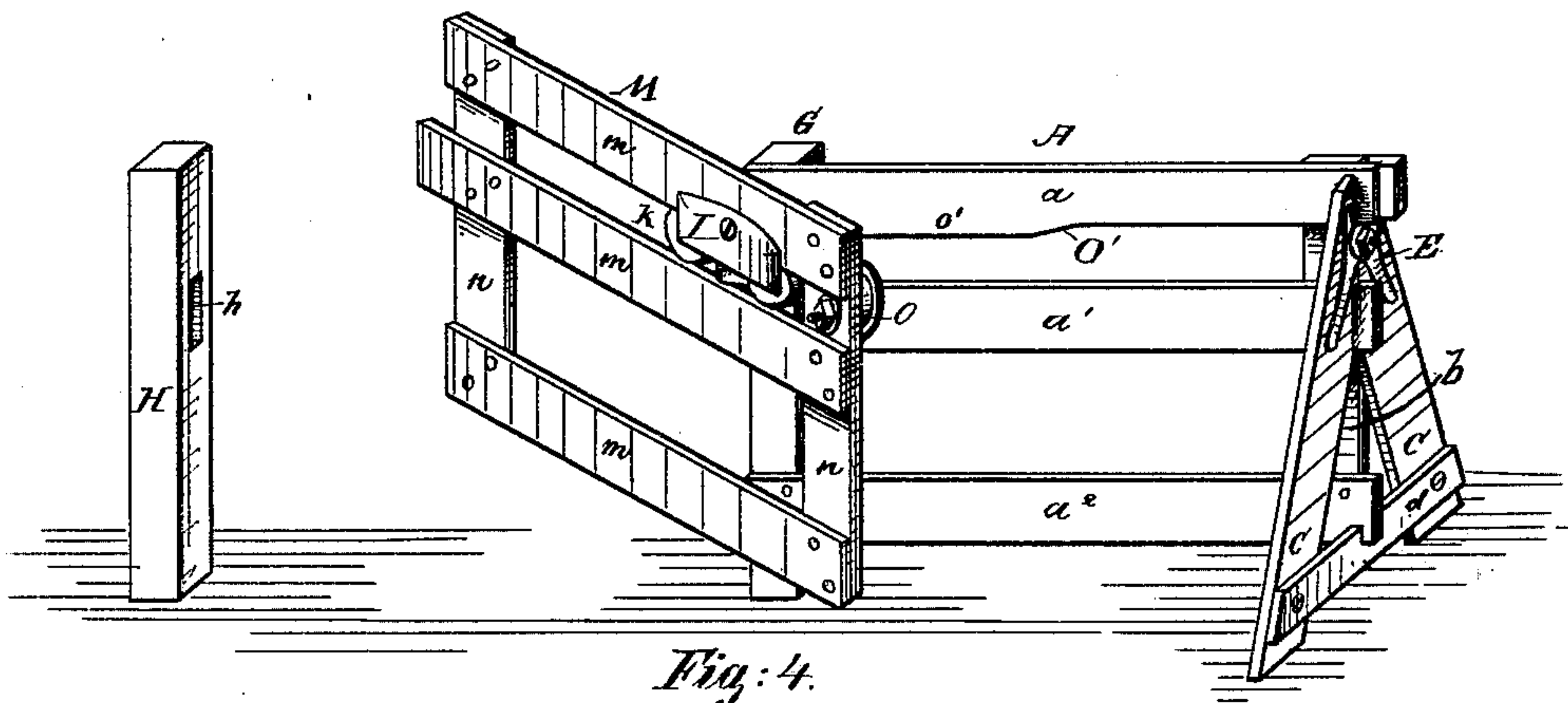


Fig: 4.

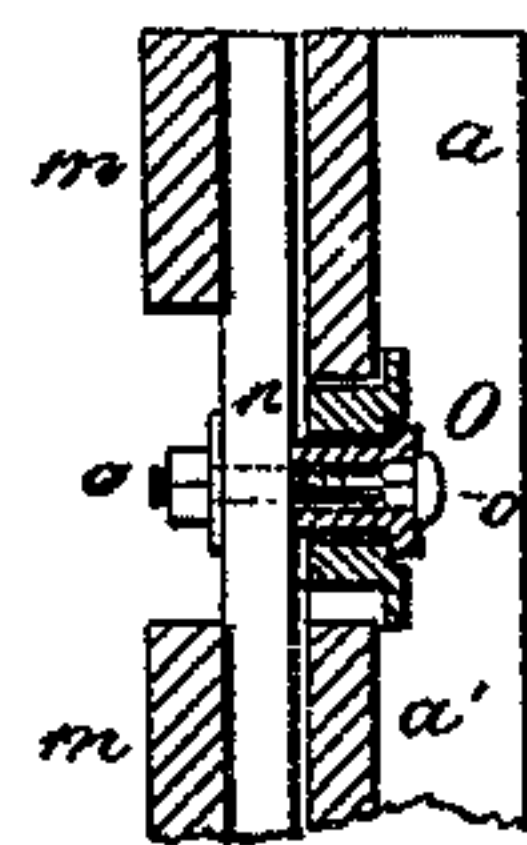
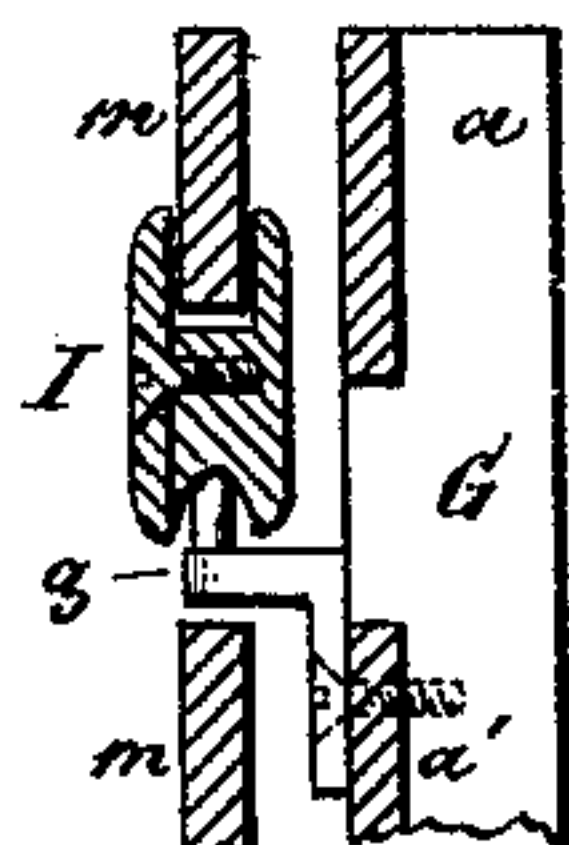
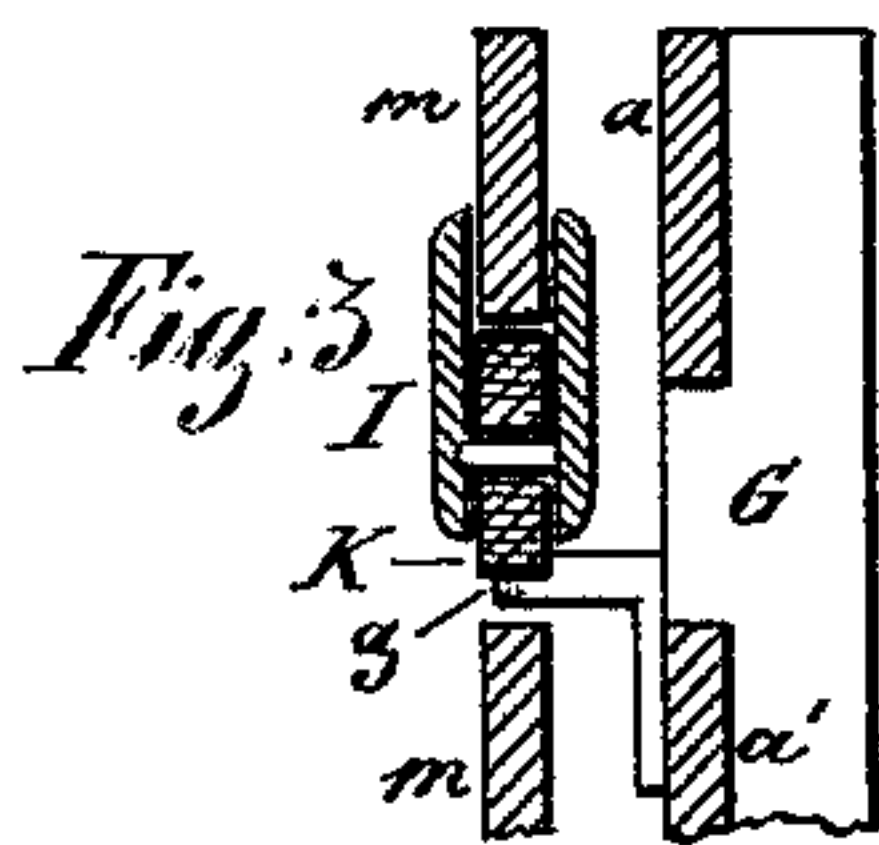


Fig: 5.

Fig: 7.

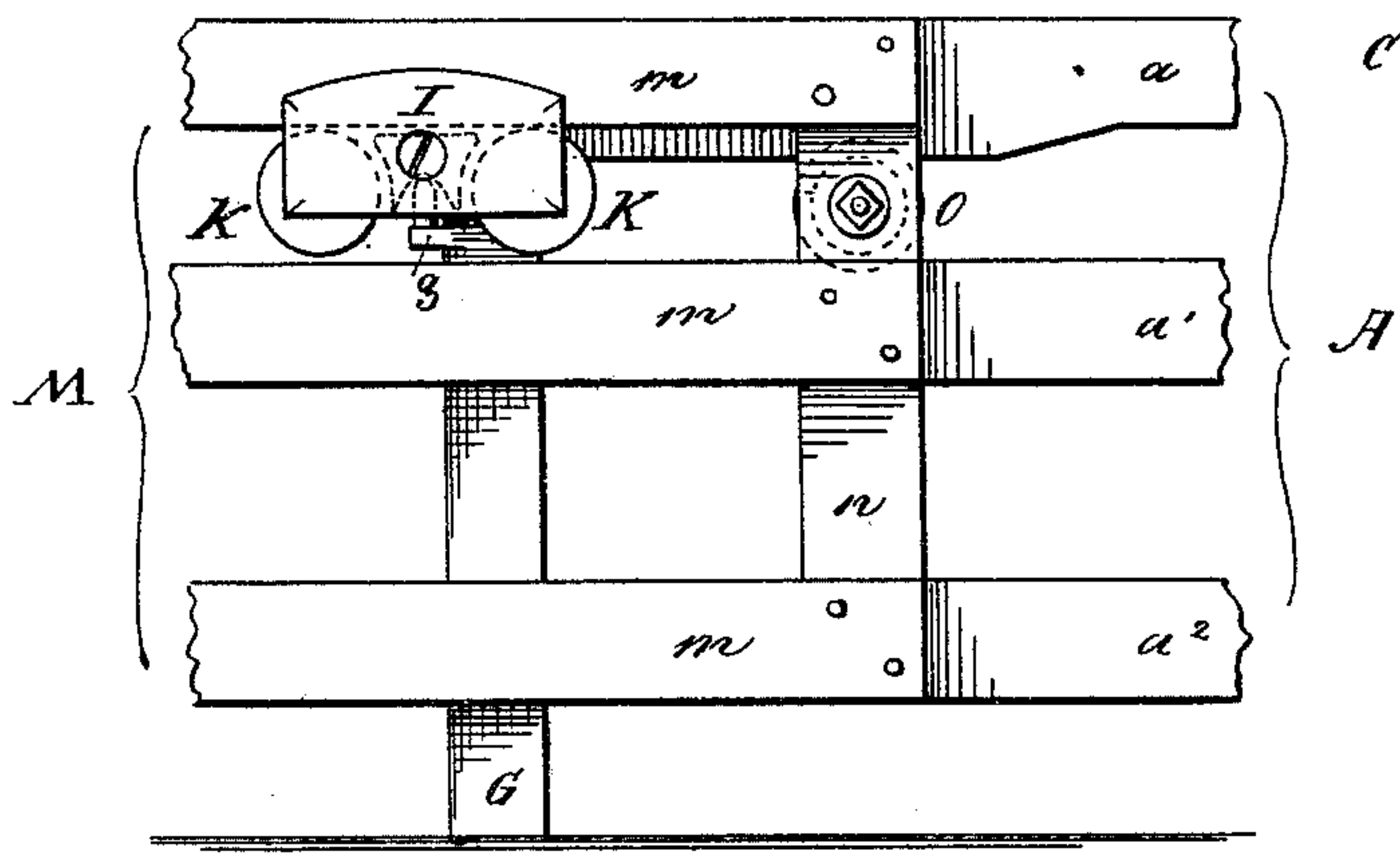


Fig: 2.

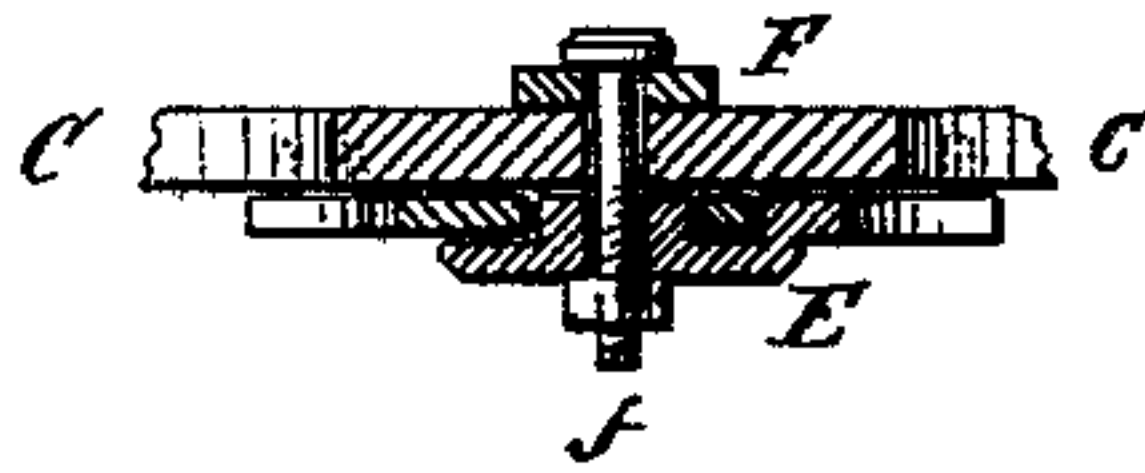


Fig: 6.

Witnesses.
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UNITED STATES PATENT OFFICE

ALEXANDER H. HART, OF APPLETON, WISCONSIN, ASSIGNOR OF ONE-HALF HIS RIGHT TO ANSIL SIDMORE AND ADALBERT A. BABCOCK, OF SAME PLACE.

IMPROVEMENT IN PORTABLE FENCES AND GATES.

Specification forming part of Letters Patent No. **218,172**, dated August 5, 1879; application filed February 20, 1879.

To all whom it may concern:

Be it known that I, ALEXANDER H. HART, of Appleton, in the county of Outagamie and State of Wisconsin, have invented certain new and useful Improvements in Portable Fences and Gates; and that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification.

The nature of my invention relates to the construction of portable board fences, and to the peculiar device of arranging the gate therewith.

My invention consists, first, in the manner of securing the fence-panels to the buttress-stays by doweled crutch-plates and bolts; and, secondly, in the peculiar devices for supporting the sliding and swinging gate, as fully hereinafter explained.

In the drawings, Figure 1 represents a perspective view of the fence with the gate swung open. Fig. 2 represents an elevation of the gate while longitudinally traversing on the fence. Fig. 3 is a vertical section through the center of one of the wheels of the pivotal gate-supporting shoe. Fig. 4 is a similar section through the center of the pivotal gate-supporting shoe. Fig. 5 is a section through the gate end wheel. Fig. 6 is an end view of the upper end of the fence-buttress, and Fig. 7 is a horizontal section through the bolt and plate connection of the same.

Like letters in the several figures of the drawings indicate like parts.

A represents one of the fence-panels, composed of three (more or less) horizontal boards or rails, a a^1 a^2 , secured together by vertical boards b^x , which are placed not quite to the ends of said rails a , so as to have them sufficiently project for lap-jointing the rails of the next adjoining panel-rails therewith.

C C are the diagonal buttress-stays, jointed at their top ends to the proper angle, and cut out for admitting the ends of the top and middle rails, a a^1 , of two adjoining fence-panels. At near their base these stays C are connected by a brace, d , notched in the center of its top edge for receiving the ends of the lower rails, a^2 .

E is the crutch-plate, placed against one side of the buttress-stays, and having projecting dowels to the ends of its extensions, which enter sockets in said stays, and hold the same laterally in position; and F is a washer, placed against the opposite side of the buttress-stays, and having a notched flange to one end, which embraces the lower edge of the uppermost fence-rail, a , and a bolt, f , being passed through holes in the plates E and F will secure the same rigidly in their positions, and will thereby firmly hold the fence-panels to the buttresses.

G is a post to one side of the gateway, holding a fixed pivot-hook, g ; and H is the opposite post to the gateway, provided with a socket or mortise, h , for admitting one of the gate-rail ends while the gate is closed.

I is the gate-supporting shoe, consisting of two plate-like sections, which, when secured together by a screw, will form an oval socket in the bottom center of said shoe for receiving the pivot-hook g of the fence-post G, so as to be supported thereon. Between the plates of the ends of the shoe I are journaled two wheels, k , upon which and between these plates the upper rail of the gate will rest for sliding thereon.

The gate M is composed of three (more or less) horizontal rails or boards, m , rigidly connected with their ends to vertical boards n , and with the middle rail end sufficiently projecting for entering the socket h in post H when the gate is closed. The uppermost rail of this gate, as heretofore explained, rides in shoe I, and a flanged wheel, O, rotating upon a pin, o , which, with its screw end and a nut, is secured to the rear vertical board, n , of gate M, rides upon the upper edge of the middle rail, a^1 , of the fence, and holds the gate longitudinally in line with the same; and the uppermost rail, a , of said fence-section, on the end toward the gateway, is downwardly widened, as shown by o' , for the wheel O to roll against its lower edge and retain the gate in a horizontal position while its center of gravity is carried beyond the pivot-hook g .

It will be seen that when the gate is opened

it must be pushed back till the wheel O has passed the downward projection *o'* before it can be swung on the pivot *g*, and then the gate will be balanced, or nearly so, upon said pivot, so that it can be swung easily.

With the above-described arrangement a very strong and durable fence is obtained, which can be readily taken apart, so as to be loaded upon wagons for transportation, to be erected again within a very short time; and the gate, by being supported upon the pivotal wheel-shoe, and by having the flanged guide-wheel to one end, will longitudinally slide on said fence with great ease; or, when the gate-way is required to be unobstructed to its full width, the wheel O may be lifted off the rail *a'*, when the gate can be swung on a curve until it occupies a rectangular position with the fence.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The herein-described portable fence, consisting of panels A and buttress-stays C C, connected by crutch-plate E, washer F, and bolt *f*, substantially in the manner set forth.

2. The combination, with the fence A, having horizontal rails, of the gate M, sliding in a shoe, I, pivoted to the post G of the fence, and provided with flanged wheel O on its rear vertical stile, sliding upon a rail of the adjoining panel of the fence, and adapted to be lifted off of said rail to swing the gate when the gate is balanced on its pivot, constructed and arranged substantially as described and shown.

ALEXANDER H. HART.

Witnesses:

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