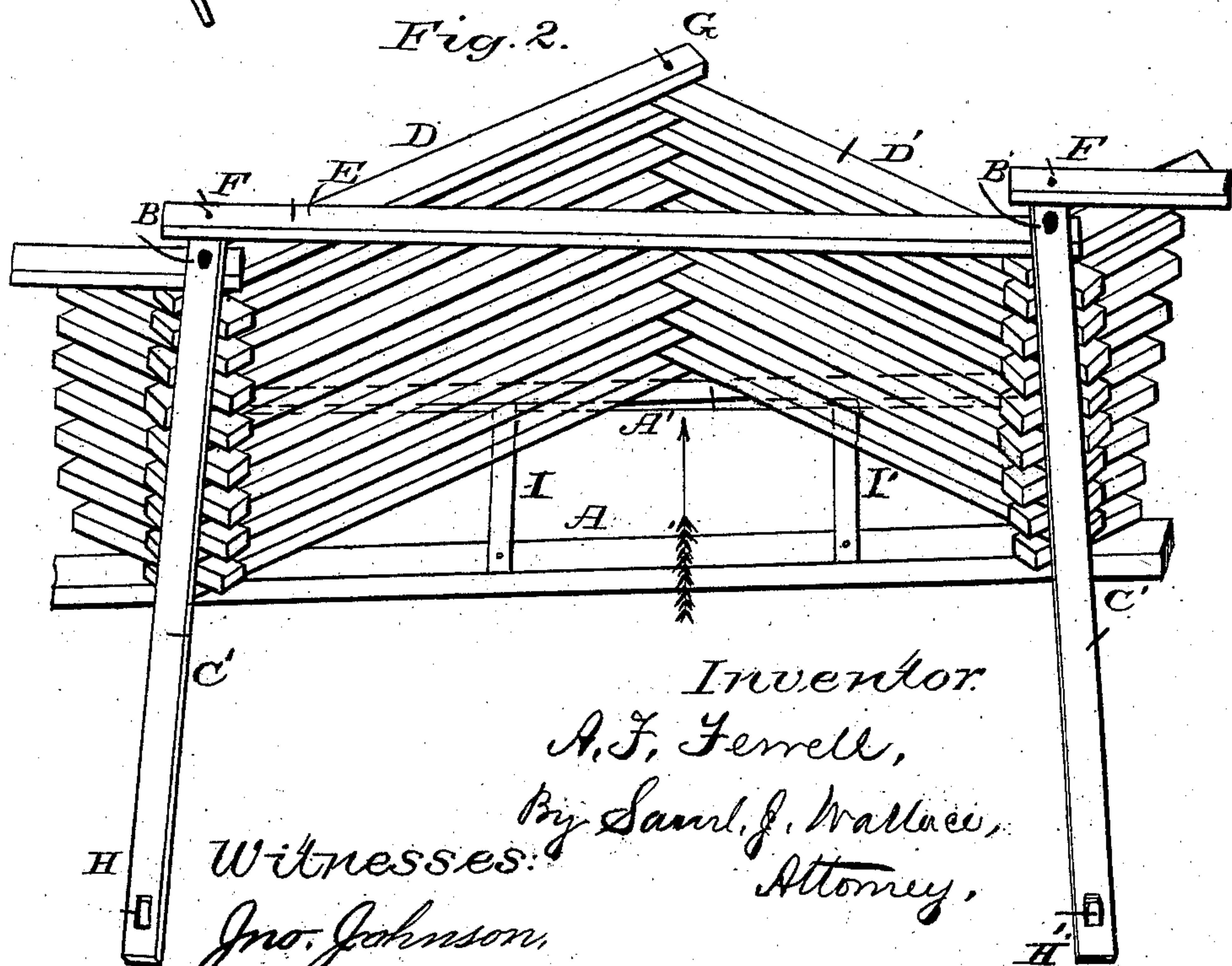
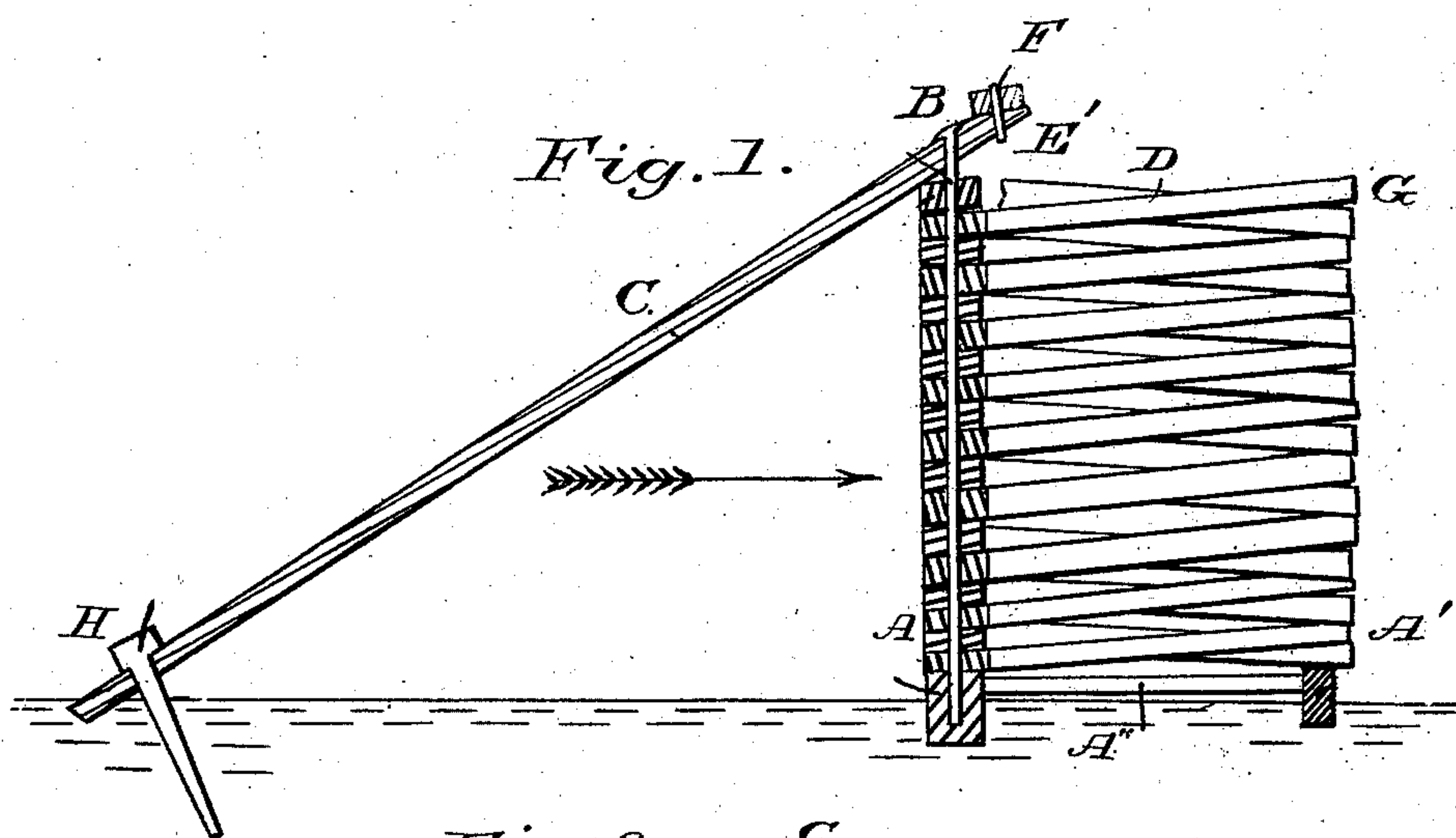


A. F. FERRELL.
Flood-Fence.

No. 209,537.

Patented Oct. 29, 1878.

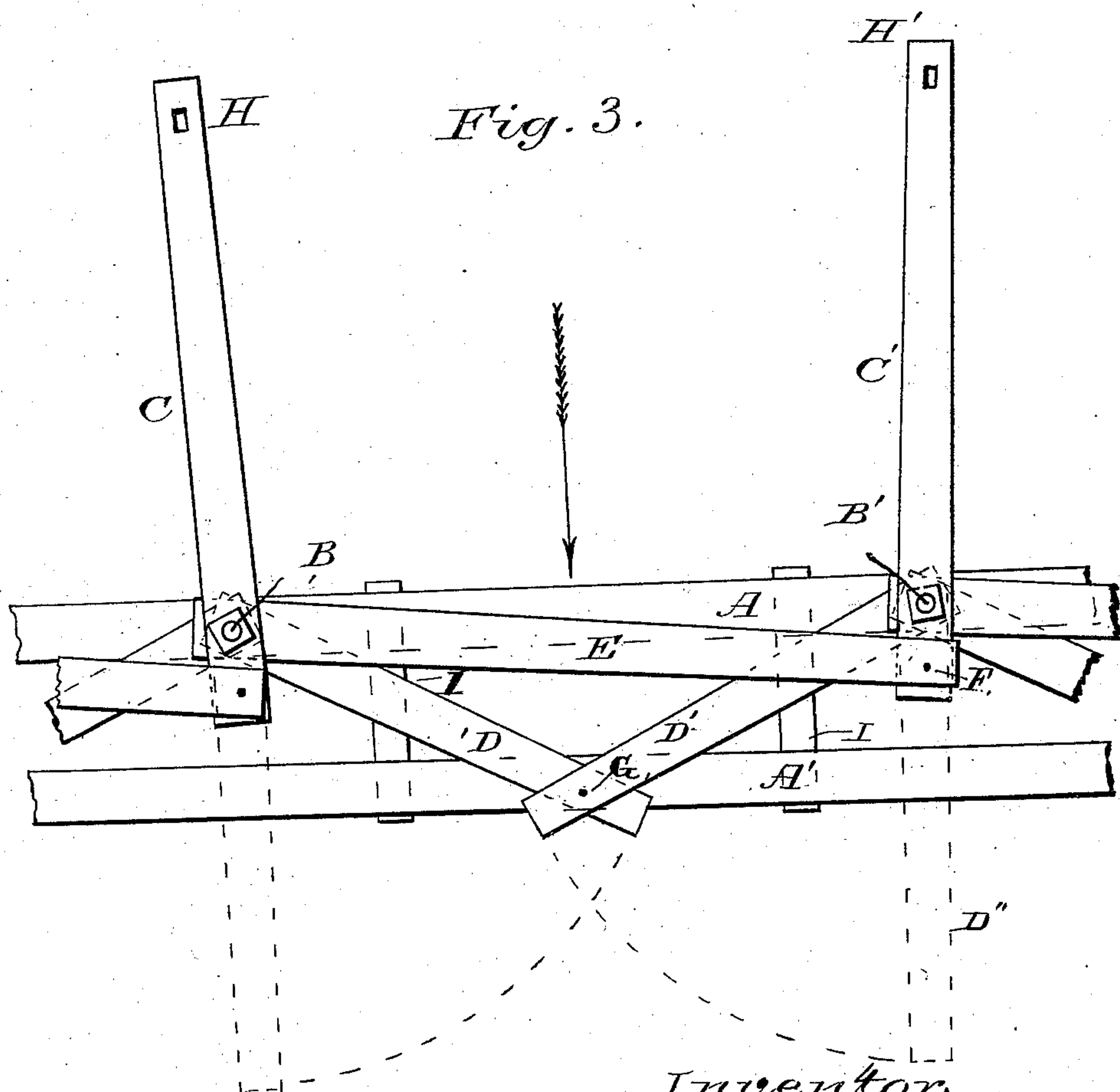


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UNITED STATES PATENT OFFICE.

A. FRANKLIN FERRELL, OF HANCOCK TOWNSHIP, HANCOCK COUNTY, ASSIGNOR OF ONE-HALF HIS RIGHT TO W. H. EARLS, OF CARTHAGE, ILLINOIS.

IMPROVEMENT IN FLOOD-FENCES.

Specification forming part of Letters Patent No. **209,537**, dated October 29, 1878; application filed July 12, 1878.

To all whom it may concern:

Be it known that I, A. FRANKLIN FERRELL, of Hancock township, Hancock county, Illinois, have invented a new and useful Improvement in Water-Fences, &c., of which the following is a specification:

This invention relates to improvements in flood-fences intended to be used on water-courses and on low land subject to overflow.

The great objections arising in flood-fences hitherto in use are, that they do not allow a free action of their parts in times of flood and high water; that they catch the drift, are not securely anchored, and are torn from their moorings and washed off by the sweeping waters, and when at rest are not securely enough fastened to resist the attacks of breachy stock.

My invention overcomes all the objections, as has been proved by experience in its use, and as will readily appear from an examination and description of the accompanying drawings, of which—

Figure 1 is a side view of my device. Fig. 2 is a front view of the same. Fig. 3 is a top view.

The letters designate the same parts in all. The arrows show the direction of the current.

My invention consists of the horizontal base-frame A A' I I', firmly set in the ground or bed of the stream, into the front beam of which, A, the upright iron posts B B' are solidly set, at suitable distances from each other and the ends of the beam to allow a free action of the swinging portions of the gate, afford a broad passage for the water, and allow any fastening that may be desired at the ends of the frame. The rails D D' are attached to these posts by means of holes at one end, through which the posts pass, forming a pivotal arrangement and allowing the rails to swing free at the rising of the water, while the other end of the rails rests upon the beam A' of the frame when at rest. These rails are laid upon each other, alternating like the rails of an ordinary worm-fence, and the top rail on either side is provided with an additional hole at its swinging end, through

which holes passes a breaking-pin, G, which holds the fence firmly at ordinary times, but gives way when the waters rise and permits the rails to swing down stream, leaving an open passage for the water. The brace-bars C C' are attached to the tops of the posts B B', like the rails D D', and extend up stream, inclined down at any angle that may be most suitable, until they reach the ground, where they are securely anchored by means of the strong pins H H', which pass through holes provided for them into the ground beneath, thus resisting the action of the flood. Their inclination also allows the drift to pass over them without any serious obstruction, and so saves the perpendicular portions of the fence. A rider, E, is pivoted to one of the posts B B', and extends to the opposite post, where it is fastened, on the lower side of such post, to one of the brace-bars C C' by means of holes and the breaking-pin F. This arrangement, like the breaking-pin and the rails, allows the rider to swing when the water bears against it.

Now, it will be seen that the fence is securely fastened to the ground or bed of the stream by means of the frame A A' I I' and the brace-bars C C'; that the frame forms a solid bed for the insertion of the iron posts B B' and affords a permanent support for the swinging ends of the rails D D', which remain securely in position, when no flood disturbs them, by force of their own weight and the assistance of the breaking-pin G. The brace-bars and swinging rails and rider are held securely down by means of screw-threads and nuts, with which the posts are provided.

When a flood bears against the rails and the rider they swing free, the breaking-pins give way, and a broad opening is afforded for the passage of the water, and no obstacle is presented to catch the drift except the posts at the side. It will also be observed that the rider E forms a lateral brace for the posts B B', and at the same time may be used as a foot-bridge.

I am aware that rails used in a manner similar to mine have been known in flood-fences; but they lack many of the essential

features herein set forth. They have no support or fastening at the top on the swinging ends.

What I claim is—

A flood-fence consisting of the frame or bed A A' I I', the posts B B', the brace-bars C C', provided with the anchor-pins H H', the swinging rails D D', provided with the break-

ing-pin G, and the rider E, provided with the breaking-pin F, all substantially as and for the purpose set forth.

A. FRANKLIN FERRELL.

Witnesses:

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