

(No Model.)

J. KÖHNMANN.
Device for Closing Gates.

No. 227,794.

Patented May 18, 1880.

Fig. I.

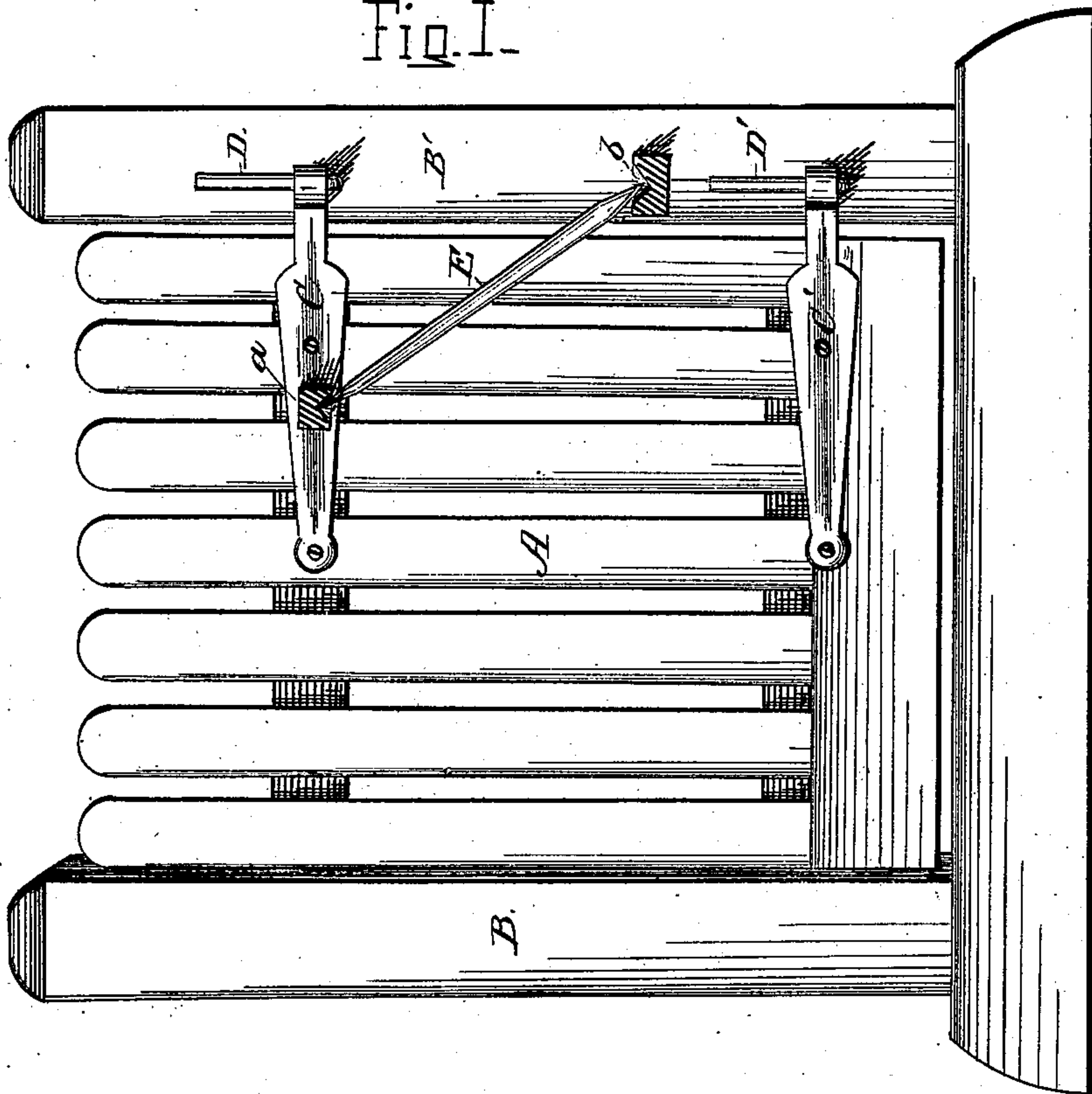
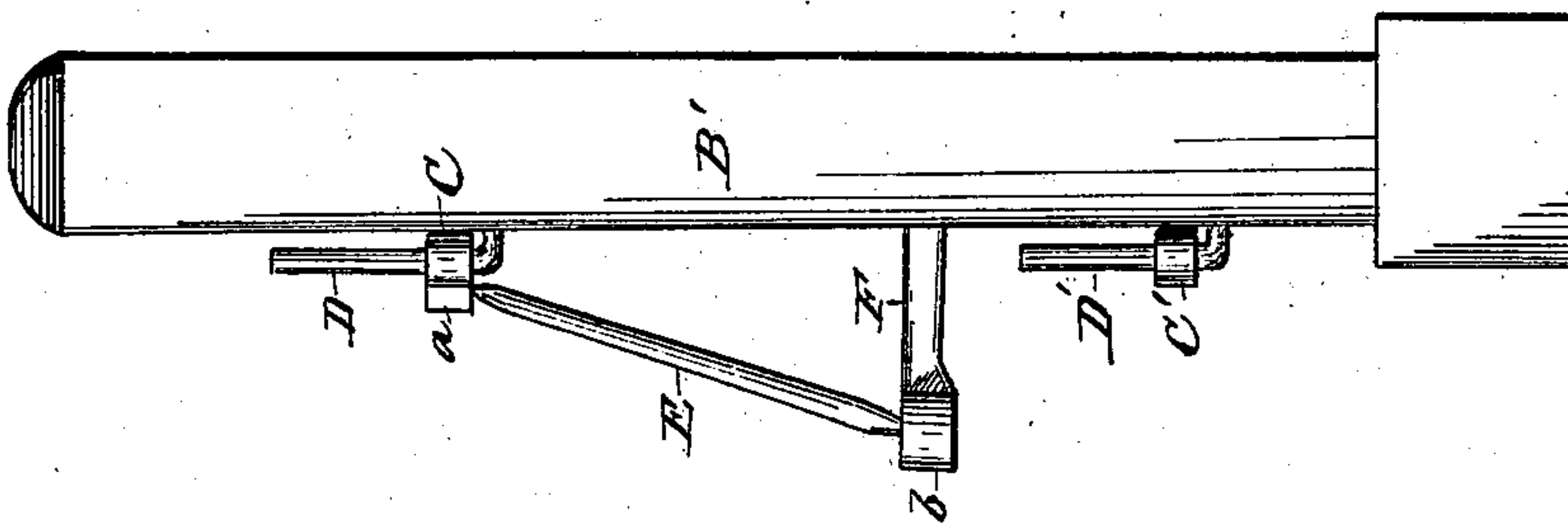


Fig. 2.



WITNESSES

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JOHN KÖHNMANN, OF DYERSBURG, TENNESSEE, ASSIGNOR TO HIMSELF
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DEVICE FOR CLOSING GATES.

SPECIFICATION forming part of Letters Patent No. 227,794, dated May 18, 1880.

Application filed March 26, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN KÖHNMANN, of Dyersburg, in the county of Dyer and State of Tennessee, have invented a new and Improved Device for Closing Swinging Gates; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation with the bearings for the rod E in section. Fig. 2 is an edge view from the hinge-post side.

The object of my invention is to provide a simple and effective device for causing horizontally-swinging gates to close automatically without the use of additional weights or springs. It belongs to that class of gates in which the gate is raised bodily as it is opened, so that its own gravity constitutes the force which closes the same.

It is an improvement more particularly upon that form of gate in which an inclined rod has a bearing at its upper end against the gate, and at its lower end rests upon a bearing fixed to the post eccentrically to the pintle of the hinges, so that the opening of the gate causes it to rise bodily by throwing the inclined rod into a more nearly vertical position. In this particular form of device the upper end of the rod has had its bearing directly against the wood-work of the gate by rigid attachment thereto, or against a set-screw held in a piece attached to the wood-work of the gate, in either of which cases the great leverage and strain on the upper bearing incident to the raising of the gate bodily from a single point of suspension causes the connection of this bearing to wear loose in the wood-work of the gate and finally split the same.

In obviating this objection my invention consists in constructing the upper gate-hinge with a lug rigidly attached to the same, against which the inclined rod is made to bear, and by which arrangement the great strain on the upper bearing is distributed throughout the hinge, which, in the nature of its connection, is made strong enough to bear this strain

by reason of its broad bearing and several points of attachment to the wood, as well as by the bracing effect of the pintle to which it is always connected, the said construction serving also to simplify the mechanism, all as hereinafter fully described.

In the drawings, A represents the gate and B B' the two posts, B being the latch-post and B' the hinge-post.

C C' are the two straps of the hinges, fastened by screws to the top and bottom of the gate, and encircling and sustained upon the pintles D D', which are made long enough to allow for the rise in the gate. Upon the upper hinge-strap, C, is formed a lug, *a*, having upon its underneath side a recessed or hollow pivotal bearing, under which rests the upper pointed end of the detachable rod E. The lower end of this rod is also made pointed, and rests in a recessed step or pivotal bearing, *b*, formed on the end of the lower support, F, for the rod. This support consists of a metal bar driven or otherwise secured in the gate-post, and having its bearing *b* offsetting from the post, so that the lower end of the rod is eccentric to the pintles of the hinges. Now, when the gate is opened it will be seen that the rod E is thrown into a more nearly vertical position, and the gate is lifted, and by its weight is immediately swung to again by the thrust of the rod.

Having thus described my invention, what I claim as new is—

A device for closing swinging gates, consisting of the detachable and double-pointed rod E, the upper hinge having a lug, *a*, formed in one piece therewith, and a recessed or pivotal bearing underneath the same, and the support F, having a corresponding recessed or pivotal bearing, *b*, at its outer end, offset from the line of the pintles, all combined with each other substantially as described, and for the purpose set forth.

JOHN KÖHNMANN,

Witnesses:

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