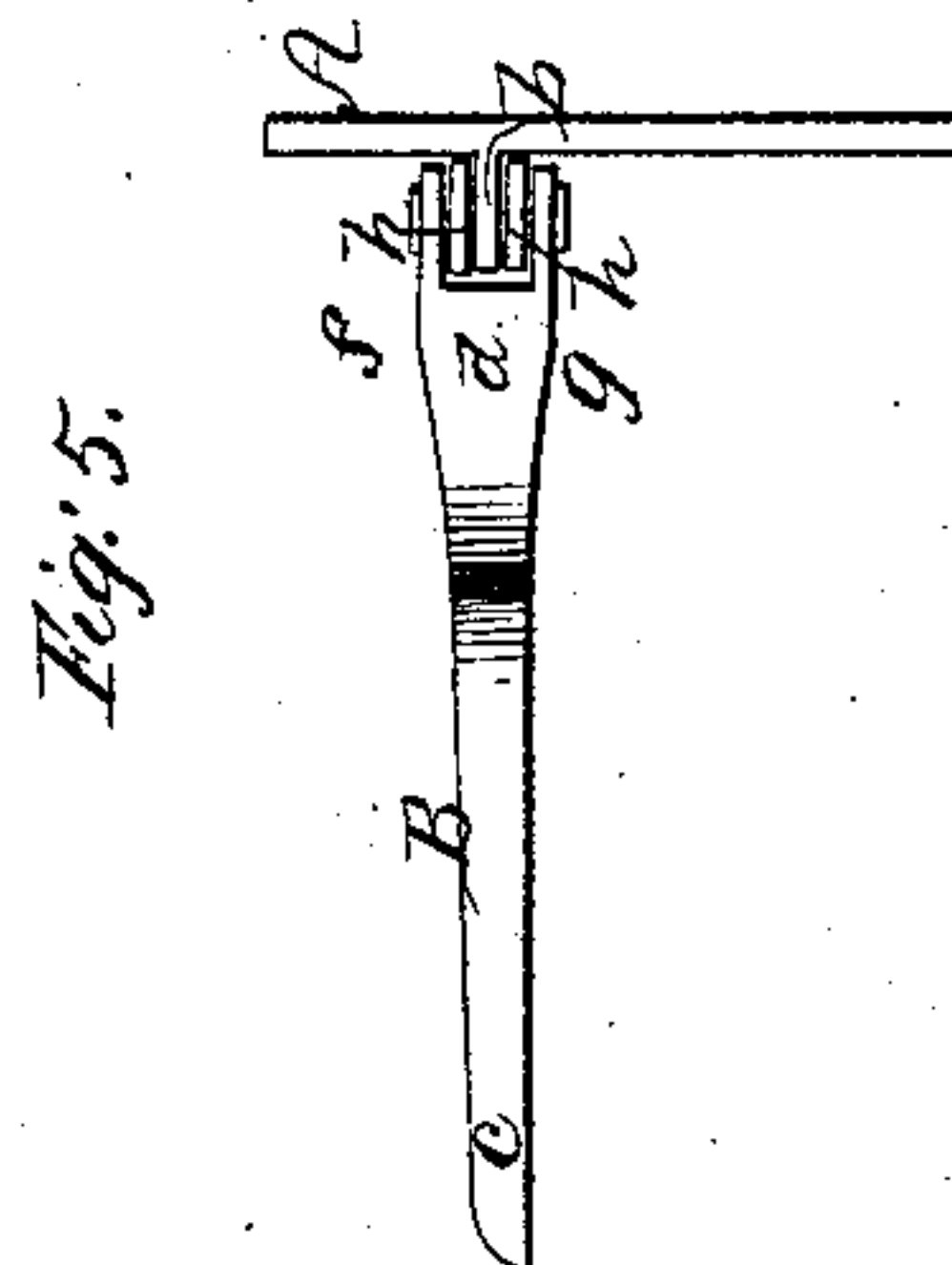
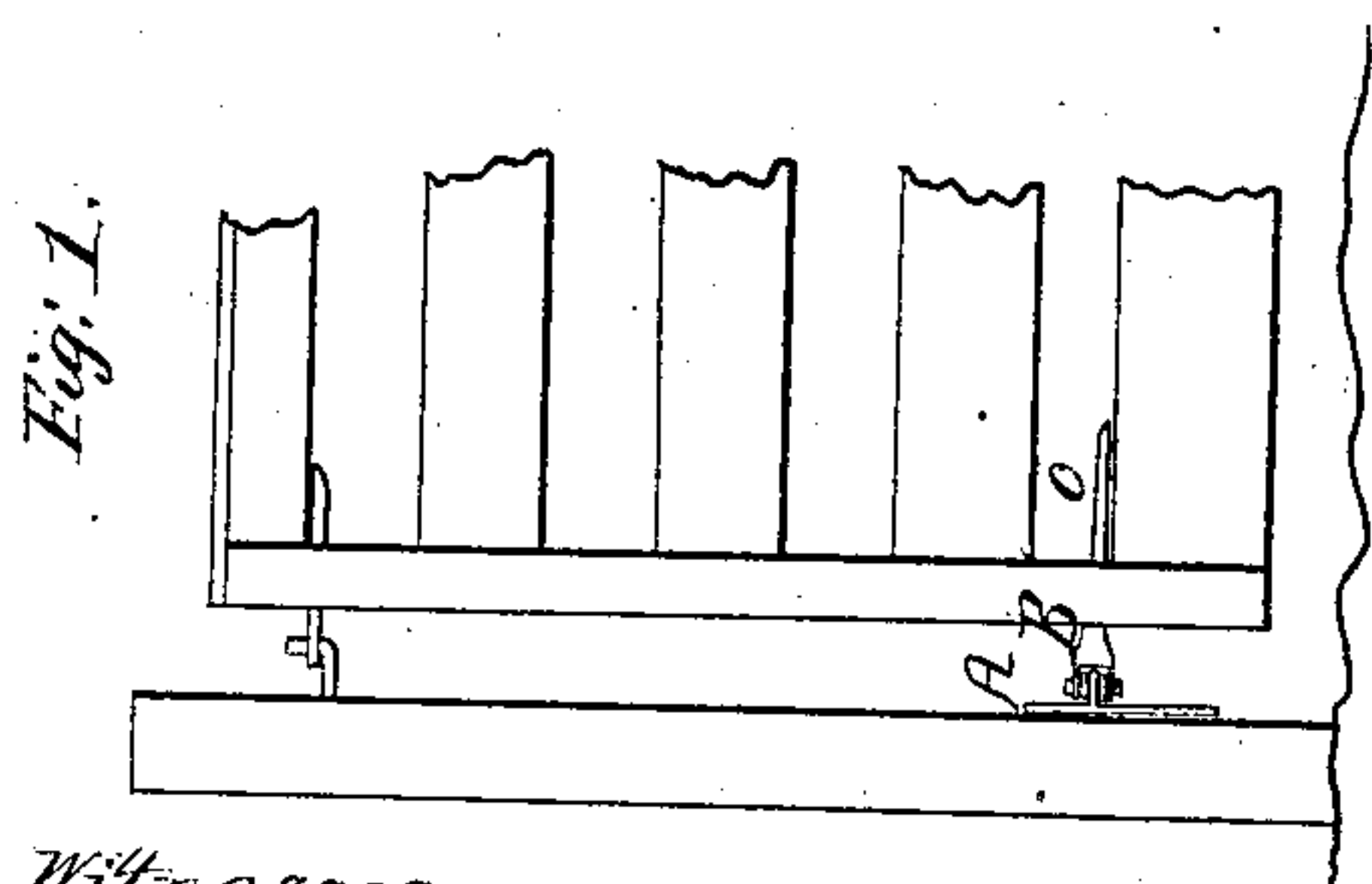
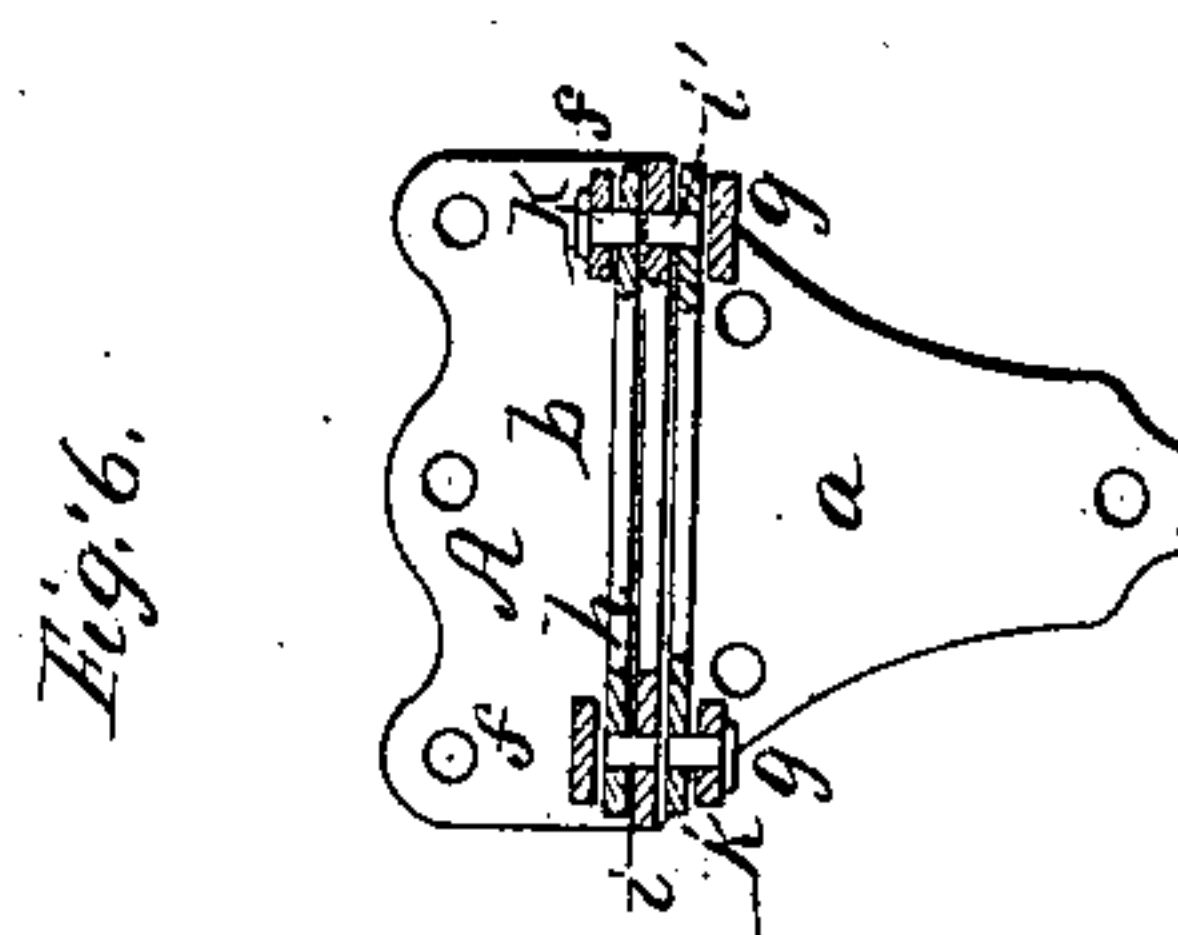
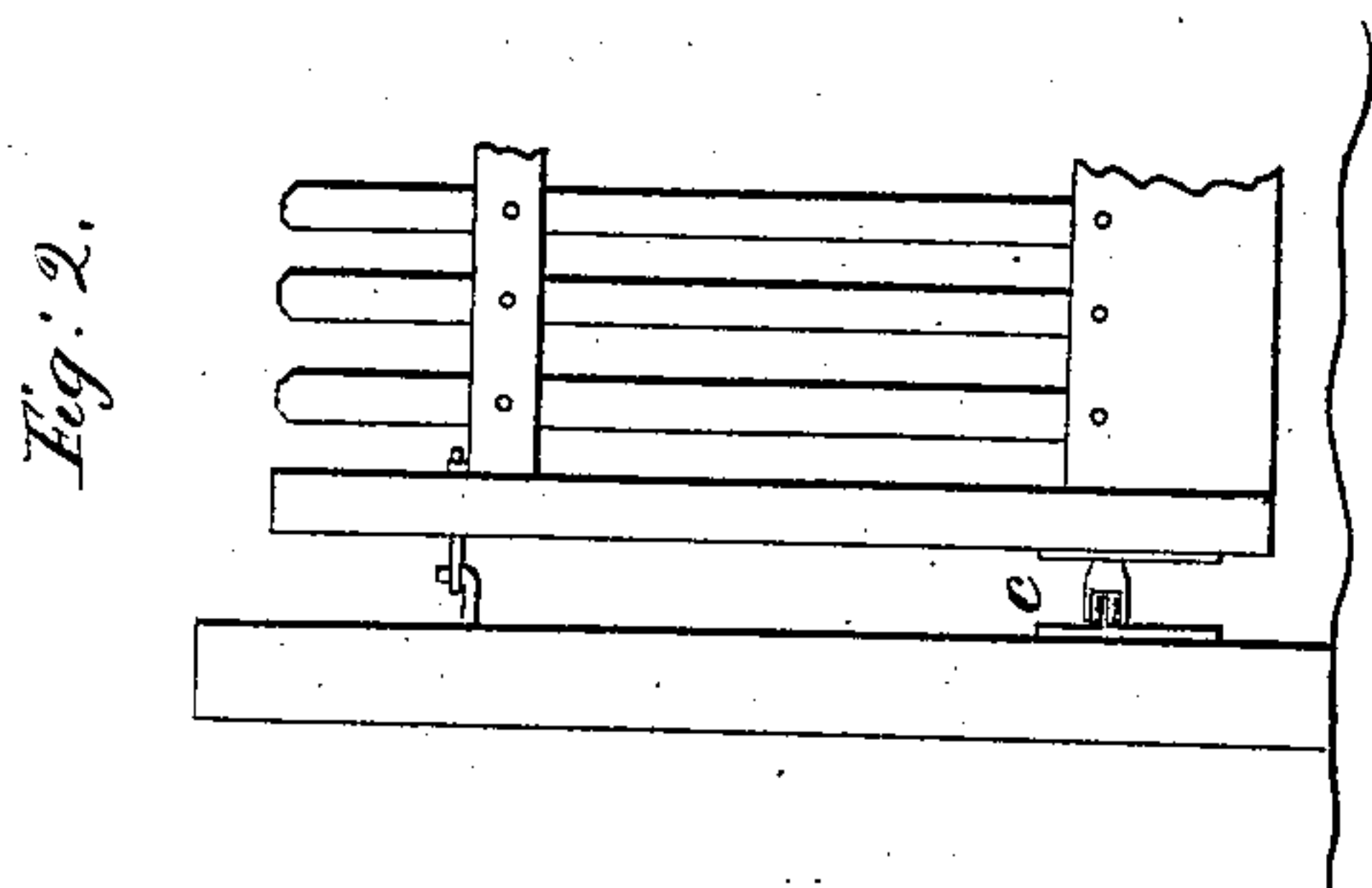
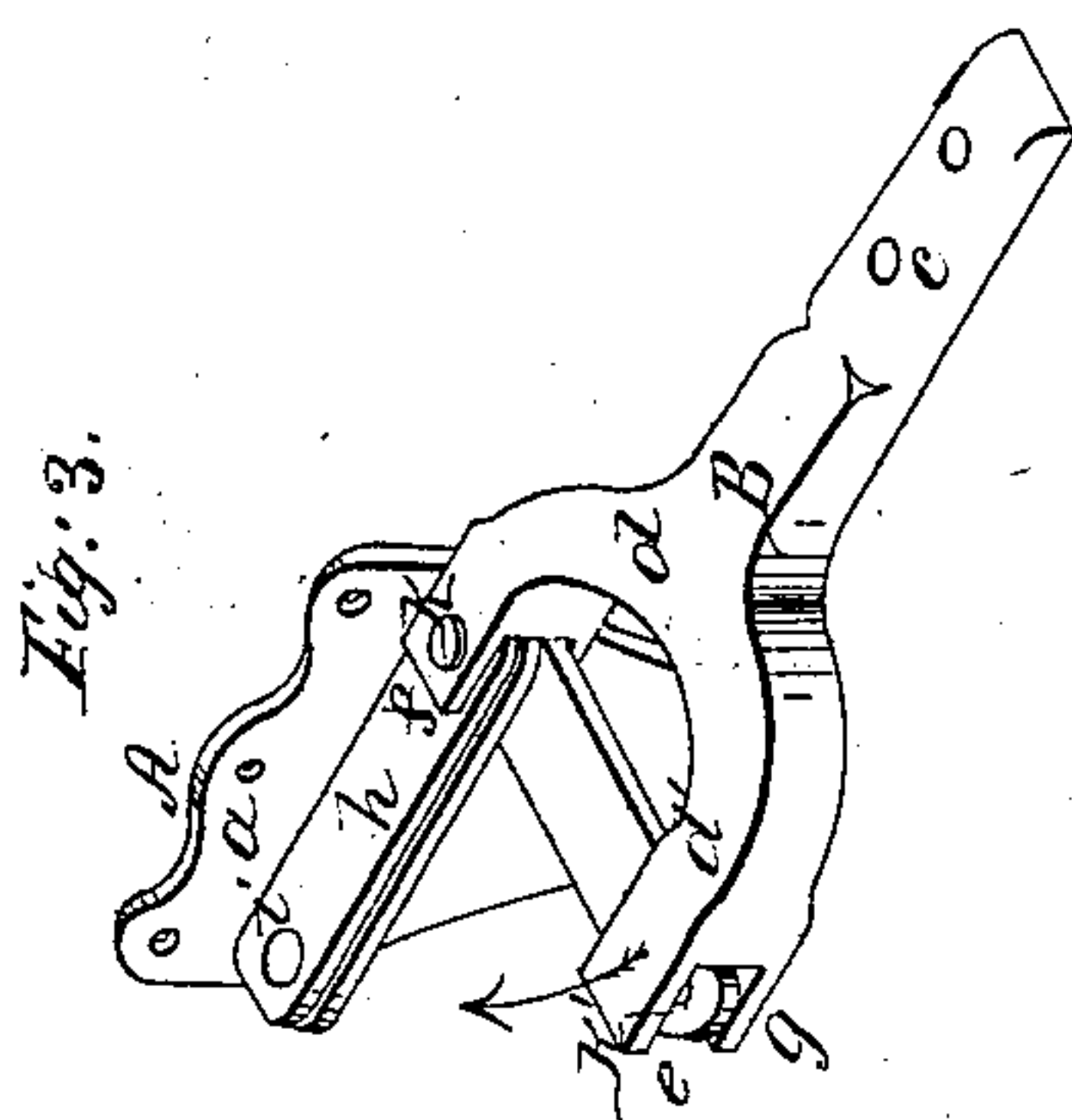
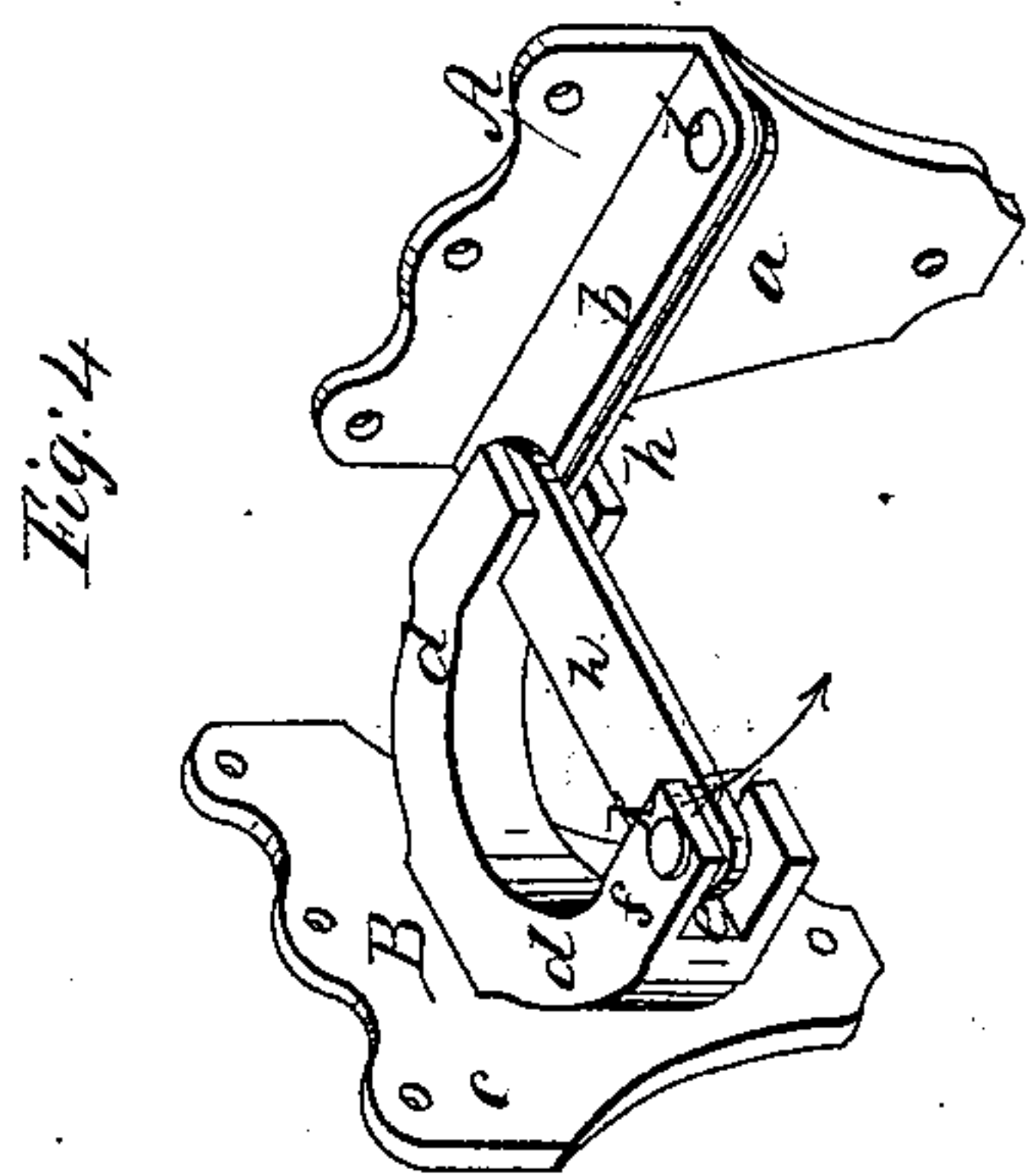


*Field & Carruthers,*

*Gate Hinge.*

*N<sup>o</sup> 59,202.*

*Patented Oct. 30, 1866.*



*Witnesses:*  
*Chas W. Spencer*  
*Jeff. Davis*

*Inventors:*  
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*Atty*

# UNITED STATES PATENT OFFICE.

WICKUM FIELD AND ROBERT CARRUTHERS, OF BERGEN, NEW YORK.

## IMPROVEMENT IN GATE-HINGES.

Specification forming part of Letters Patent No. 59,202, dated October 30, 1866.

*To all whom it may concern:*

Be it known that we, WICKUM FIELD and ROBERT CARRUTHERS, of Bergen, in the county of Genesee and State of New York, have invented a new and useful Improvement in Gate-Hinges; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is an elevation of the end of a heavy gate with our improvement applied thereto; Fig. 2, a similar view of a light gate; Fig. 3, a perspective view of the hinge as adapted to heavy gates, the swing portion being turned to the right hand; Fig. 4, a similar view of the hinge as adapted to light gates with the swing portion turned to the left hand; Fig. 5, a side view of the hinge; Fig. 6, a section in the plane of line *x x*, Fig. 5.

Like letters of reference indicate corresponding parts in all the figures.

There is a well-known class of gates in which the lower hinge is formed of two jaws, branching some distance apart and secured to the gate, and two corresponding bearings, against which the jaws strike, secured to the post. The jaws strike on opposite sides, and when the gate is thrown open either way the lower joint of the gate is removed to one side of the axis of the upper joint, which gives a tendency to the gate to swing back to the center. The difficulty with this arrangement is, that, owing to the loose connection of the parts of the hinge, the same frequently become disconnected or the bearings separated by any lifting or jarring action, or by the violent swinging of the gate.

It is the object of our improvement to remedy this difficulty; and our invention consists in the combination of swing-braces with the parts constituting the hinge proper, pivoted in such a manner as to allow a free swinging movement in either direction, but still prevent displacement.

In Figs. 1 and 2 are shown, respectively, a heavy and a light gate adapted to farm and yard use. The upper hinge is the same as in ordinary use. The lower hinge consists of two

principal parts, A and B, attaching, respectively, to the post and gate. The part A has simply a vertical flange, *a*, for securing, by screws or otherwise, to the post, and a horizontal bearing, *b*, made either in the extended form shown or with the central portion removed, leaving only flanges or bearings at each extremity, as may be desired.

The part B has a strap, *c*, Fig. 3, for securing to a heavy gate, or an equivalent flange, *c'*, Fig. 4, for securing to a light gate, and has branching or forking jaws *d d'*, as usual.

Slots *e e* are formed in the ends of the jaws, so as to leave upper and lower sides, *f g*, thereto.

Above the bearing *b* is situated a swing-brace, *h*, and beneath said bearing a similar brace, *h'*. These braces are pivoted at one end only to the bearing, but at opposite positions, as shown at *i* and *i'*, in which condition they can swing outward in opposite directions.

The loose or swing end of brace *h* is pivoted at *k* to the upper side, *f*, of jaw *d*, and the loose or swing end of brace *h'* is pivoted at *k'* to the lower side, *g*, of jaw *d'*.

Thus it will be seen that when the jaws close up, in shutting the gate, they inclose or embrace the parts *b h h'*, as clearly shown in Fig. 5.

Thus arranged, the part B has a free swinging movement upon the part A, and the bearings of the lower hinge will be thrown outside of the axis of the upper hinge, so that the gate will be self-closing, in which respect it has all the advantages of the ordinary corresponding hinge; but, in addition to this, the employment of the braces *h h'*, as described, always retains the parts A B of the hinge in their proper relative position.

No ordinary action—such as swinging the gate violently or raising it—will disconnect the parts, since the braces, by being pivoted directly to the bearing *b* and moving concentrically with the jaws around the pivots *k k'*, will at all times limit, guide, and control the said jaws.

It is obvious that various modifications of the arrangement might be made without de-



parting from the principle. For instance, instead of single braces *h h'*, double arms might be employed, pivoted each side of the sides *f g* of the jaws.

What we claim as our invention, and desire to secure by Letters Patent, is—

The combination of the braces *h h'* or equivalent with the bearing *b* and jaws *d d'*, operat-

ing substantially in the manner and for the purpose specified.

WICKUM FIELD.  
ROBT. CARRUTHERS.

Witnesses:

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