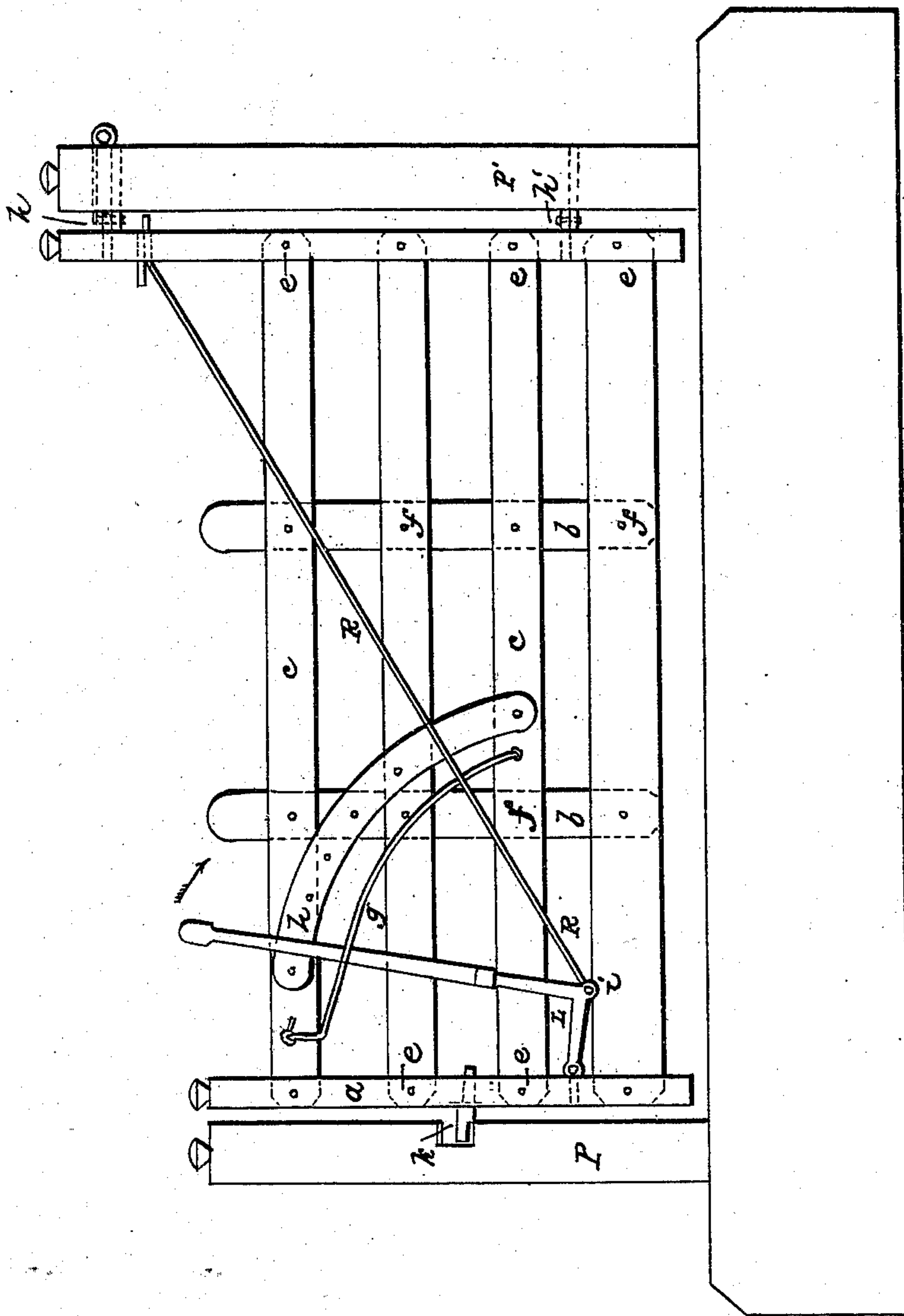


HARSEN & BRAILEY.

Gate.

No. 12,790.

Patented May 1, 1855.



UNITED STATES PATENT OFFICE.

CORNELIUS L. HARSEN AND MOSES R. BRAILEY, OF NORWALK, OHIO.

FARM-GATE.

Specification of Letters Patent No. 12,790, dated May 1, 1855.

To all whom it may concern:

Be it known that we, CORNELIUS L. HARSSEN and MOSES R. BRAILEY, of Norwalk, in the county of Huron and State of Ohio, have invented a new and useful Improvement in Gates; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, forming part of this specification, which represents an elevation of the gate.

The object of our invention is the construction of self supporting gates which shall be easily opened and closed and be made to pass readily over snowdrifts and other obstructions, which would render ordinary gates inoperative.

It consists in connecting by a rod the upper portion of the hinge stile with the elbow of a bent lever, one extremity of which is attached to the inner face of the latch stile, so that the attachment of the lever and rod shall form the fulcrum of the lever, the arrangement being such that a suitable movement of the long arm of the lever will by depressing the connection of the diagonal rod and lever draw the two stiles together and elevate the portion of the gate most remote from the hinges and thus free the catch from its cavity in the post and by the elevation of the gate, permit it to pass over an obstruction in opening; the construction and arrangement being such as will be hereafter fully set forth.

To enable others skilled in the art to make and use our invention we will proceed to describe its construction and operation.

In the drawing *a a'* are the stiles of the gate which are connected by the planks *c*, and strengthened at several points by the vertical boards *b*; the number depending on the width of the gate. The connection between the plank and stiles is made by rivets *e f*, or by bolts; so as to allow a free vertical movement to the stile *a*.

P P' are the posts between which the gate is hung.

h h' are the hinges, and *k* is the catch.

Attached to the stile *a* is the bent lever *L* which works against the plate *p* and under the guard *g*. The elbow of this lever is connected with the upper portion of the stile *a'* by the rod *R*, rendering the distance between the two points of attachment invariable and

converting the bent lever *L* into a lever of the first order, its fulcrum being at *i*, the attachment of the rod *R* and elbow of the lever. The effect of this system is as follows—When the lever *L* is moved in the direction indicated by the arrow the stile *a* will necessarily be raised and lift the catch *k* from the notch of the post *P* in which it rests when the gate is closed, the further movement of this lever, giving an elevation to the entire gate, to admit of its passing over an obstruction in opening.

The operation of this improved gate is as follows—The moving of the lever *L* as shown by the arrow will raise the stile *a* as above set forth, and allow the catch to clear the notch in the post *P*, when the gate is freely swung open. On closing the gate a reverse motion of the lever *L* permits the catch to drop into the securing notch. In this movement of the stile *a* the several boards of which the gate is composed, turn about the rivets or bolts *e f* by which they are connected; the attachment of the plate *p* and guard *g* moving in curved slots made in the board to which they are attached.

One of the great advantages of this gate is its power to support itself without the sinking of either stile, as from its peculiar construction no sag can take place in any of its parts, the gate when shut being supported by the hinges *h h'*, and the rigid catch *k*.

The principal advantage arising from this construction consists in the ability of the gate to pass over snow drifts and other obstructions to the opening of ordinary gates, the simple movement of the lever *L* carrying the gate above all obstacles.

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

The construction of farm gates with their several parts loosely connected, combined with the bent lever *L* and diagonal rod *R* arranged and operating so as to elevate the gate in opening for the passage of obstructions substantially as hereinbefore set forth.

In testimony whereof, we have hereunto signed our names before two subscribing witnesses.

CORNELIUS L. HARSSEN
MOSES R. BRAILEY.

Witnesses:

M. KELBLE,
O. TRUE.