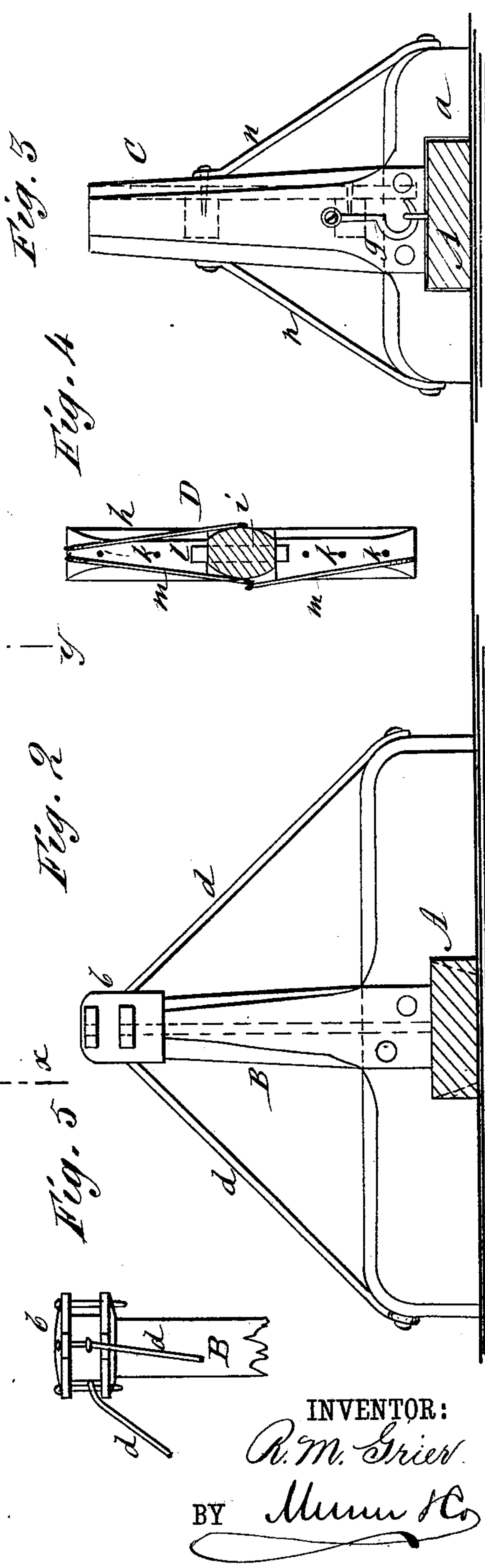
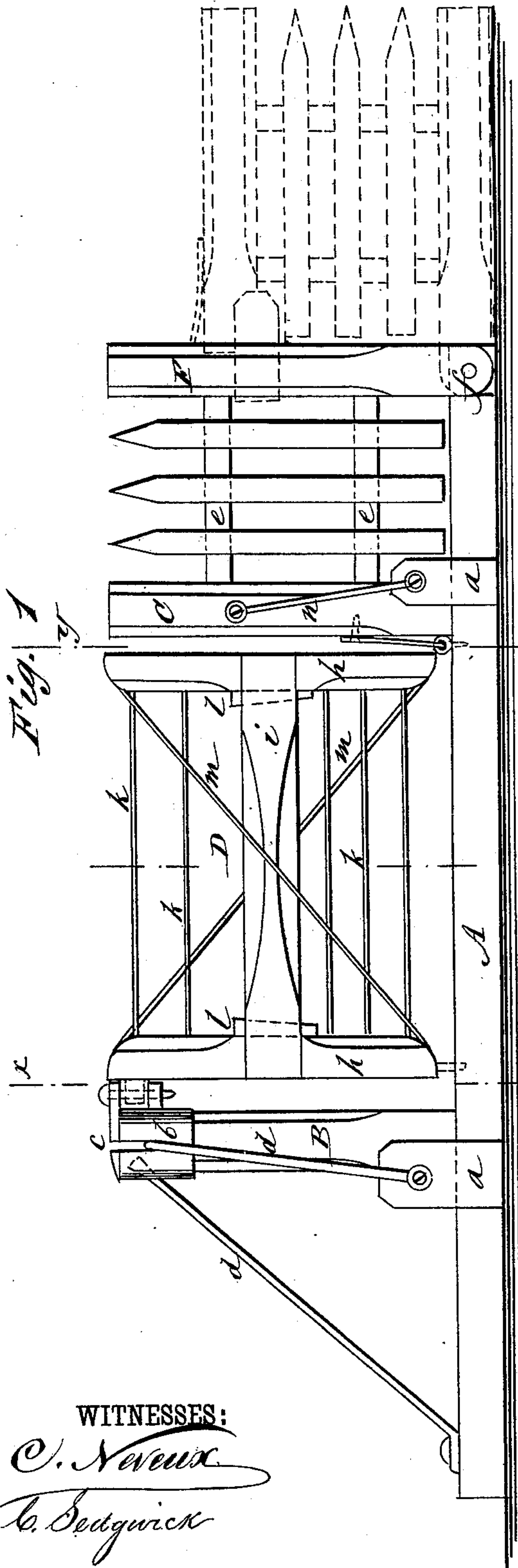


R. M. GRIER.
Gates.

No. 231,560.

Patented Aug. 24, 1880.



WITNESSES:

C. Verneux
C. Sedgwick

INVENTOR:

R. M. Grier

BY

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

ROBERT M. GRIER, OF O'FALLON, MISSOURI.

GATE.

SPECIFICATION forming part of Letters Patent No. 231,560, dated August 24, 1880.

Application filed February 4, 1880.

To all whom it may concern:

Be it known that I, ROBERT MONROE GRIER, of O'Fallon, in the county of Charles and State of Missouri, have invented a new and useful Improvement in Gates, of which the following is a specification.

The objects of my invention are, first, to prevent the trouble arising from sagging of gate-posts; second, to provide for widening the gate-entrance when an unusual width is required; and, third, to furnish a gate of durable construction and requiring but a small quantity of lumber for its manufacture.

In the drawings, Figure 1 is a side elevation of my improved gate-posts and gate. Fig. 2 is a vertical transverse section on line *x x* of Fig. 1. Fig. 3 is a similar view on line *y y* of Fig. 1. Fig. 4 is a vertical transverse section of the gate. Fig. 5 represents a modification in the device for attaching the braces to the post.

Similar letters of reference indicate corresponding parts.

A is the sill of the gateway. B and C are the gate-posts. The sill A consists of a wooden plank or piece of timber long enough to extend beyond the gate-posts to give a firm bearing. The posts B C are mortised to cross-pieces *a*, and attached to such pieces more firmly by pins or bolts, and the pieces *a* are mortised upon the sill A at right angles thereto and held by pins or screws, if desired. The post B, on which the gate D is hung, is fitted with a metal cap-piece, *b*, that is formed with vertical slots *c* for receiving the T ends of braces *d*, that extend to and are connected to the outer ends of sill A and the cross-piece *a*, by which braces the post is held firmly and prevented from moving, except with the sill A. The cap *b* is also formed with lugs for receiving the hinge-pin of the gate.

The cap *b* may be formed, as shown in Fig. 5, with projecting lugs that receive pins, to which the braces *d* are connected. The post C is braced by rods *n*.

By this construction the gate-posts are firmly supported upon the sill, and the gateway is in a portable form for use where re-

quired. In case the sill settles both posts settle with it, and the gate will not be thrown out of line with the post.

This construction may be applied in connection with a gate of any usual length; but I prefer to use a gate of the usual width for wagons, and fit an auxiliary gate or swinging section at one side, which may be swung upward to widen the opening as required. The swinging section consists of the gate-post C, the cross-bar *a*, to which it is attached, and the post F, that is hung by a knuckle-joint to the outer end of sill A, and is connected by top and bottom rails, *e*, to post C. The lower end of post F is mortised to set upon sill A, and held in place by a cross-pin, *f*, on which it swings in a vertical plane. By this construction the post F can be turned outward and post C swung upward to a horizontal position, as shown in dotted lines in Fig. 1, and the gateway widened.

A suitable hook may be fitted to the bottom of post C, as at *g*, for holding the swinging section down when closed.

The gate D consists of vertical end bars, *h*, fitted by a mortise-and-tenon joint on the horizontal bar *i* and connected by horizontal wires *k*. The bar *i* is slotted next to the bars *h* to receive keys or wedges *l*, that are forced in to spread the bars *h* apart and tighten the wires *k*.

m m are wire braces extending diagonally from one bar *h* to the other.

This gate requires but a small quantity of lumber for its construction, and is both strong and light.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

In a gate, the vertical bars *h*, connected by the horizontal wires *k* and cross-wires *m*, in combination with the long bar *i*, slotted at each end to allow the use of tightening-wedges, as specified.

ROBERT MONROE GRIER.

Witnesses:

FRED JACOBY,
JOSEPH LUCAS.