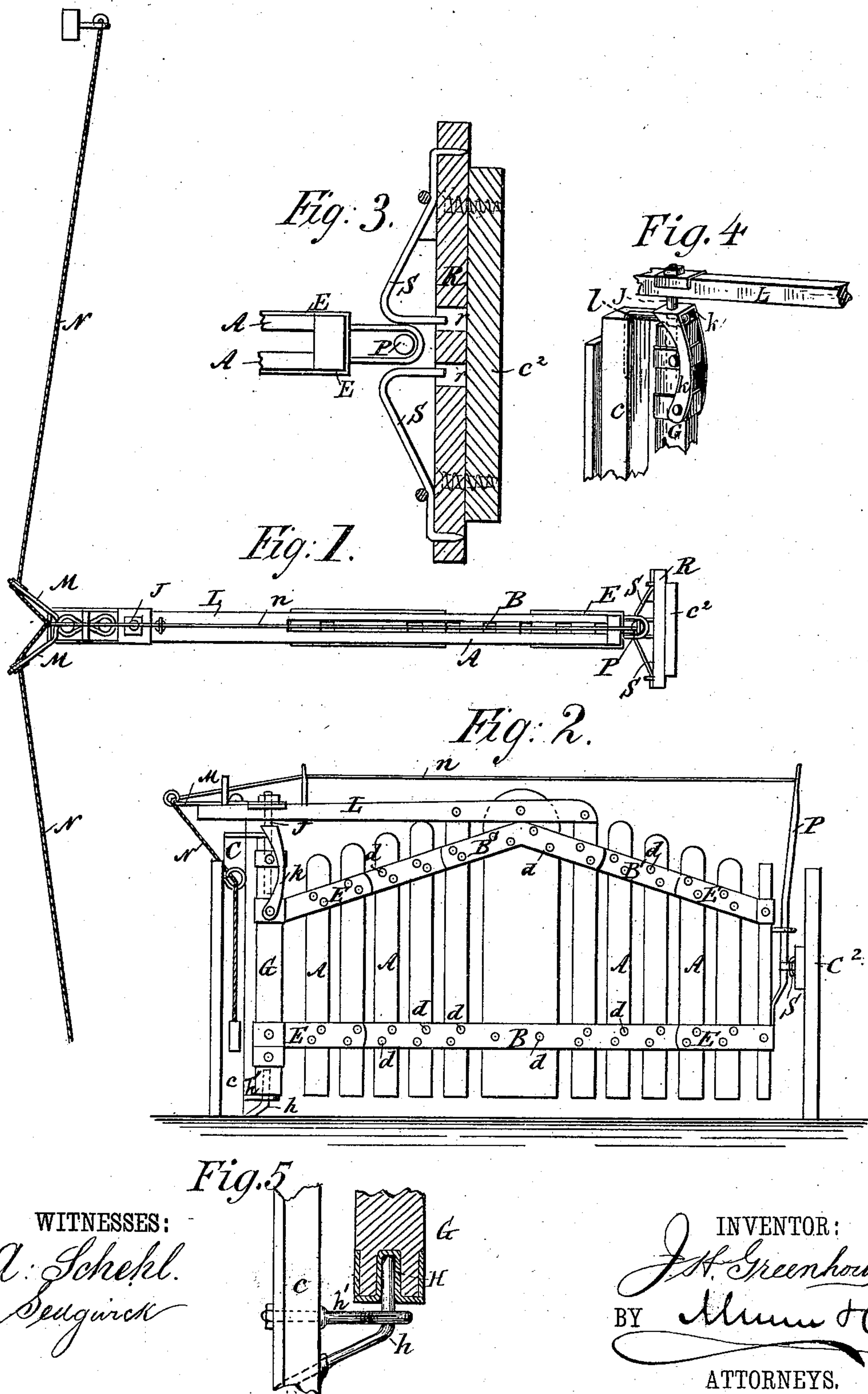


(No Model.)

J. H. GREENHOW.
Gate.

No. 230,477.

Patented July 27, 1880.



WITNESSES:

A. Schehl.
C. Seaguirch

INVENTOR:

J. H. Greenhow
BY *Mum & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES H. GREENHOW, OF ECKMANSVILLE, OHIO.

GATE.

SPECIFICATION forming part of Letters Patent No. 230,477, dated July 27, 1880.

Application filed March 18, 1880. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. GREENHOW, of Eckmansville, in the county of Adams and State of Ohio, have invented a new and useful
5 Improvement in Gates, of which the following is a specification.

This invention consists in certain novel details of construction of the gate and devices connected therewith, and of means for opening and closing it, as hereinafter particularly
10 described.

The accompanying drawings illustrate the invention, Figure 1 being a top view, Fig. 2 a side view, and Fig. 3 a horizontal section
15 through the gate-post, catch-latch, and section of the end of the gate upon an enlarged scale; Fig. 4, a perspective view of the upper hinge-connection between the heel-stile and post; and Fig. 5, a detached view of the lower hinge-
20 joint connection between the said parts upon an enlarged scale, with the lower end of the stile in section.

Similar letters of reference indicate corresponding parts.

25 The gate is here shown as composed of vertical palings A, horizontal rails B, and inclined rails B'.

If desired, horizontal rails may be substituted for the palings without materially changing the character of the invention; but I will
30 here describe it with reference to palings.

The rails B B' and palings A are secured together to form the gate by bolts d, passed through both the rails and the palings, and
35 the end pieces and rails are secured together by means of iron straps E, passed around the end pieces and bolted in place. By this means I dispense with mortises and tenons and provide for the replacing of parts which may be-
40 come broken.

The heel or hinge stile G is provided with a recess in its lower end, in which is fitted a steel thimble, H, forming a socket for the spindle of the lower hinge, which spindle h consists of a
45 bent rod with its inner end secured in the gate-post c and its outer and upper end passing through an eyebolt, h', which is also secured in said post. By means of the thimble the wear on the wood of the stile is avoided. A strong
50 and very simple hinge is thus formed entirely of wrought-iron, the triangular form of the

post-eyebolt and spindle h giving great strength and security.

The upper hinge is formed by a removable rod, J, passing through a loop-shaped brace, 55 k, attached to the upper end of the stile G, thence through an eyebolt, l, secured in the gate-post c, and thence into a socket in the upper end of the stile G. The brace k serves to hold the rod J firmly at a point immediately 60 above the eyebolt l, which will prevent the rod J from working loose, as the rod will thus be held both above and below the eyebolt l. As the whole weight of the gate comes upon the rod J, its tendency would be to become loose if sup- 65 ported from below only in a wooden socket. The rod J also passes through the opening-lever L, and forms the fulcrum thereof. This lever extends from a point near the middle of the gate to a distance slightly beyond the gate- 70 post c, and carries at the last-mentioned end a forked arm, M, with eyes at the ends of the branches. A rod, cord, or wire, n, is attached to the upper end of the spring-latch P, and passes thence along the top of the gate and on 75 the lever L to the crotch of the arm M, where it is connected to the inner ends of two cords, N N. These cords pass through the eyes at the ends of the branches of the arm M, and thence to posts at a distance from the gate- 80 post c equal to or greater than the width of the gateway.

By pulling on one of the cords N the gate is unlatched and opened in one direction, and by pulling on the other cord the gate is closed, and 85 vice versa.

The catch for the engagement of the spring-latch P is made in two parts, each of which consists of an elastic metallic bar, S, bent so as to form two sides of a triangle. The end of 90 one of the sides is secured to a plate, R, attached to the striking-post c², and the end of the other side works in a recess, r, in said plate R. (See Fig. 3.)

When the spring-latch P is pulled back the 95 gate is free to swing in either direction. When the gate is in the act of closing, the latch P, riding on the inclined side of one of the triangular bars S, pushes the end of the other side into the recess r, so as to allow said latch P 100 to spring outward and strike the abrupt side of the opposite bar S, which arrests the gate

and prevents it from swinging beyond the striking-post.

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

- 5 1. In a gate-hinge, the combination of the heel-stile G and thimble H with the post C, eyebolt *h'*, and spindle *h*, secured at an angle to the post and passing up into the thimble,
10 substantially as and for the purpose specified.
2. The combination, with the heel or stile G

and the opening-lever L, of the rod J and brace *k*, as herein shown and described.

3. The catch for gate-latches, consisting of the elastic angular bars S and bar R, recessed at *r* to receive the ends of the bars S, in combination with the latch P, as herein shown and described. 15

JAMES HENRY GREENHOW.

Witnesses:

S. D. HOGUE,

J. M. LOCKHART.