

(No Model.)

J. B. PUGH.
GATE HINGE.

No. 377,910.

Patented Feb. 14, 1888.

Fig. 1.

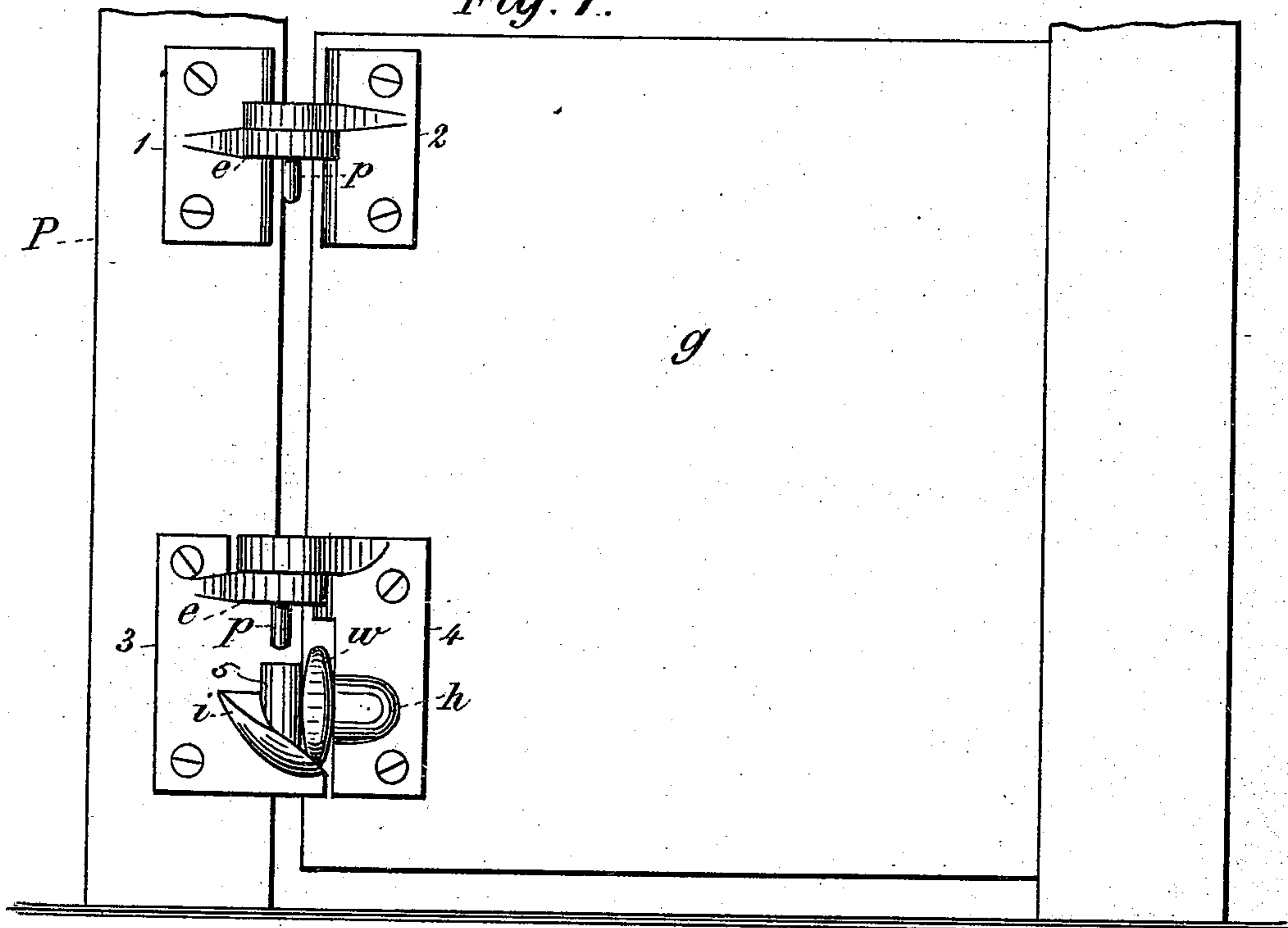


Fig. 2.

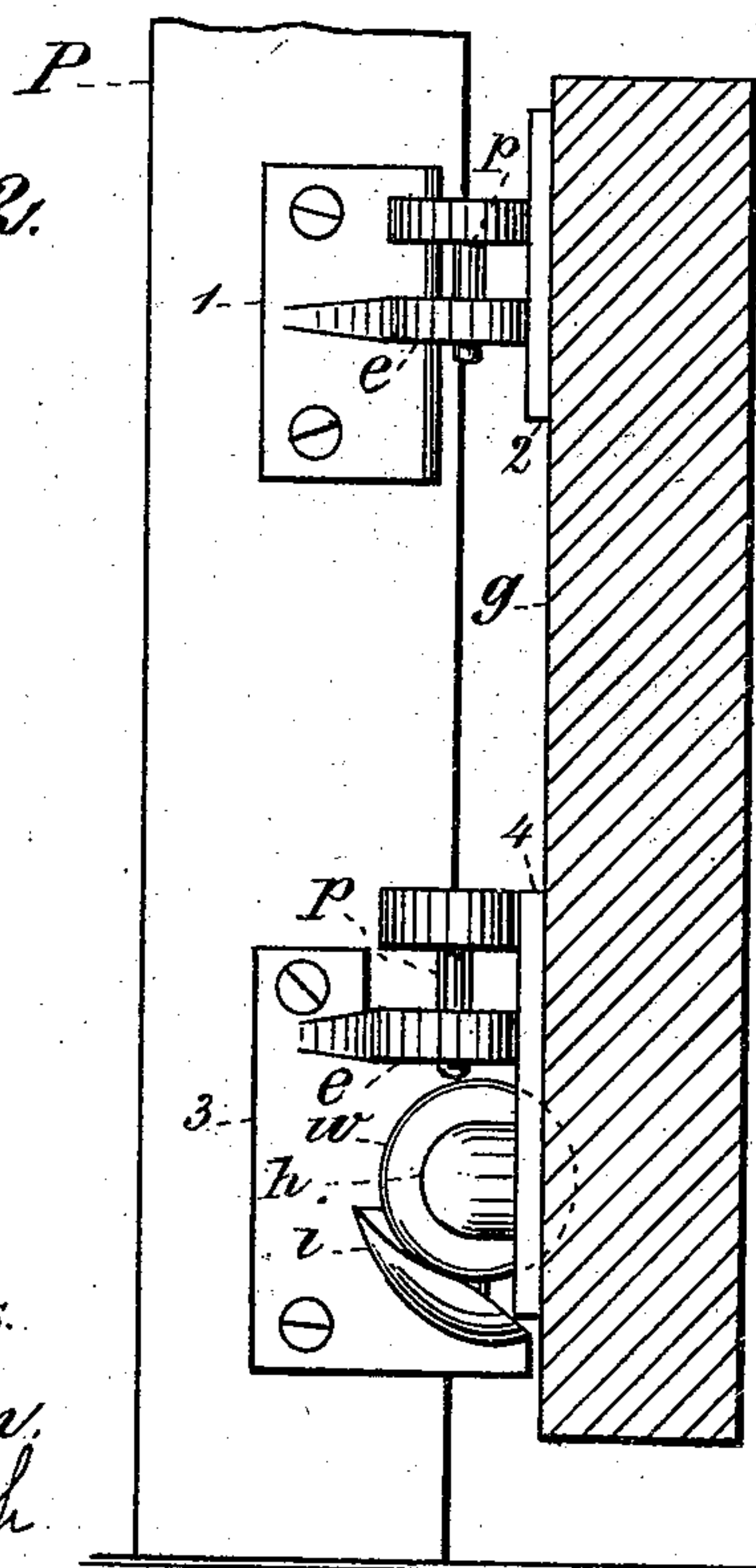
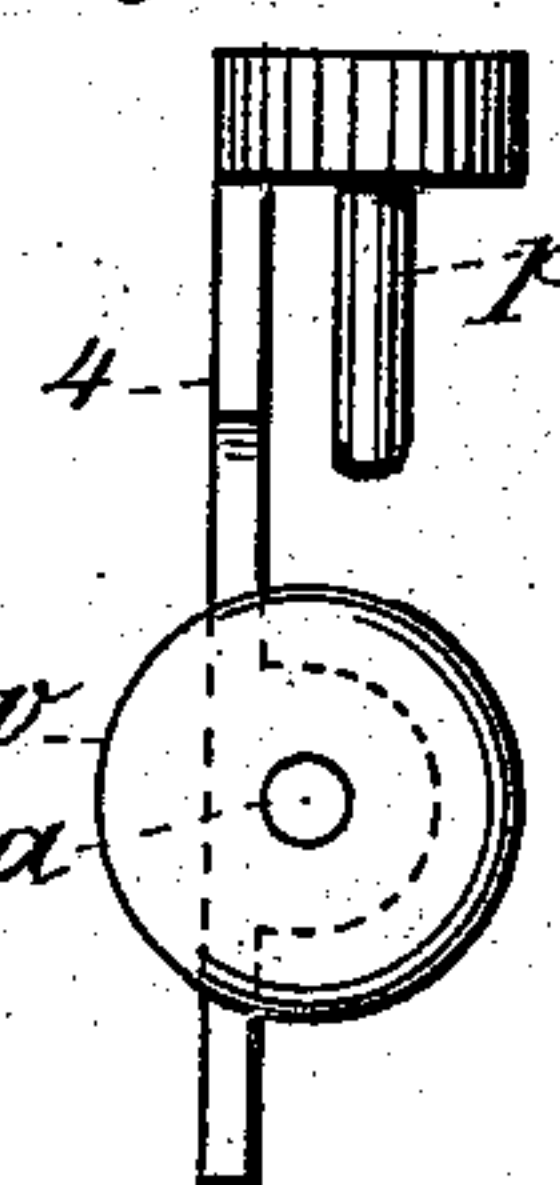


Fig. 3.



Fig. 4.



WITNESSES.

Gustav Bohn.
E. B. Griffith.

INVENTOR.

Jesse B. Pugh.
By C. F. Jacobs.
att'y.

UNITED STATES PATENT OFFICE.

JESSE B. PUGH, OF INDIANAPOLIS, INDIANA.

GATE-HINGE.

SPECIFICATION forming part of Letters Patent No. 377,910, dated February 14, 1888.

Application filed September 12, 1887. Serial No. 249,425. (No model.)

To all whom it may concern:

Be it known that I, JESSE B. PUGH, of Indianapolis, county of Marion, and State of Indiana, have invented certain new and useful Improvements in Gate-Hinges; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

My invention relates to improvements in the construction of gate-hinges, and will be understood from the following description.

In the drawings, Figure 1 represents a side view of a gate mounted on hinges of my construction, the gate being closed. Fig. 2 is a similar view showing the gate opened and one part of the hinge at right angles to the other. Fig. 3 is an edgewise view of the female portion of the hinge. Fig. 4 is a similar view of the male portion of the hinge.

In detail, P is the gate-post, and g the gate. The upper hinge is constructed in the ordinary manner, the pintle being long enough to permit the gate to rise some distance without disengaging it from the eye in the other part of the hinge.

The lower hinge embodies my particular invention, and is constructed of two leaves, 3 and 4. The leaf e has an ear with an opening to receive the pintle p, formed upon a projection from the opposite leaf, the pintle being long enough to permit the lifting of the gate without disengaging it from the other parts of the hinge, and is similar in this respect to the upper hinge. Near the bottom part of the leaf is formed a spiral incline, i, upon a projection, 5, from the leaf of the hinge, its top part forming a flat track for a friction-wheel, w, which is loosely mounted on a stub-axle, a, projecting from the hub h, formed on the lower part of the leaf 4. This wheel is kept in place by the inner face of the hub on one side and the projection connected with the incline i on the opposite side of the hinge, as shown in Fig. 3.

The device operates as follows: When the gate is shut, the friction-wheel is at the lower end of the incline i, as shown in Fig. 1, and as the gate is opened this wheel moves up the track of the incline i, lifting the gate upward until the wheel reaches the top of such incline, when the parts are in the position shown in Fig. 2, and the gate is then open, the pintles of the hinge being lifted by the

movement of the gate, as shown in Fig. 2; but, as before stated, being made long enough will not be disengaged from their sockets. The friction-wheel w, as will be seen, is also parallel with the edge of the gate, and its movement up the incline is gradual and easy; and, if desired, the upper end of the incline may be slightly flattened, forming a rest for the wheel and preventing its falling downward and closing the gate, unless pressure is applied thereto.

The wheel w, as will be seen, is confined between the hub h and the projection 5, and the pintle p is of such length that when the gate is lifted the periphery of the wheel w will strike against the under side of the ear e before the pintle will be freed from the opening in such ear. Consequently the gate cannot be lifted from its hinges until the screws in one of the leaves which secure it to the wood are removed.

I am aware that hinges having friction-wheels connected with one of the leaves and moving upon a spiral incline connected with the other parts have been heretofore known and used and I do not broadly claim the same as my invention.

As will be seen, the wheel w, in traveling up the incline i, is always beneath the ear e, formed on the leaf 3. Consequently the gate cannot be entirely lifted off its hinges until the screws are loosened and the leaf 4 removed.

What I claim as my invention, and desire to secure by Letters Patent, is the following:

A gate-hinge composed of a pair of leaves connected by a pintle and socket at their upper ends, and supported near their lower by a friction-wheel mounted on a stub-axle connected with one leaf, resting upon and adapted to ascend an incline connected with the other, the upper pintle being of sufficient length to remain in the socket of the ear until the periphery of the friction-wheel strikes the under side of such ear, preventing the gate from being lifted from its hinges until the screws are removed, substantially as shown and described.

In witness whereof I have hereunto set my hand this 8th day of September, 1887.

JESSE B. PUGH.

Witnesses:

C. P. JACOBS,

E. B. GRIFFITH.