

No. 622,567.

Patented Apr. 4, 1899.

W. M. THOMAS.

DOOR SPRING.

(Application filed Sept. 8, 1898.)

(No Model.)

Fig. 1.

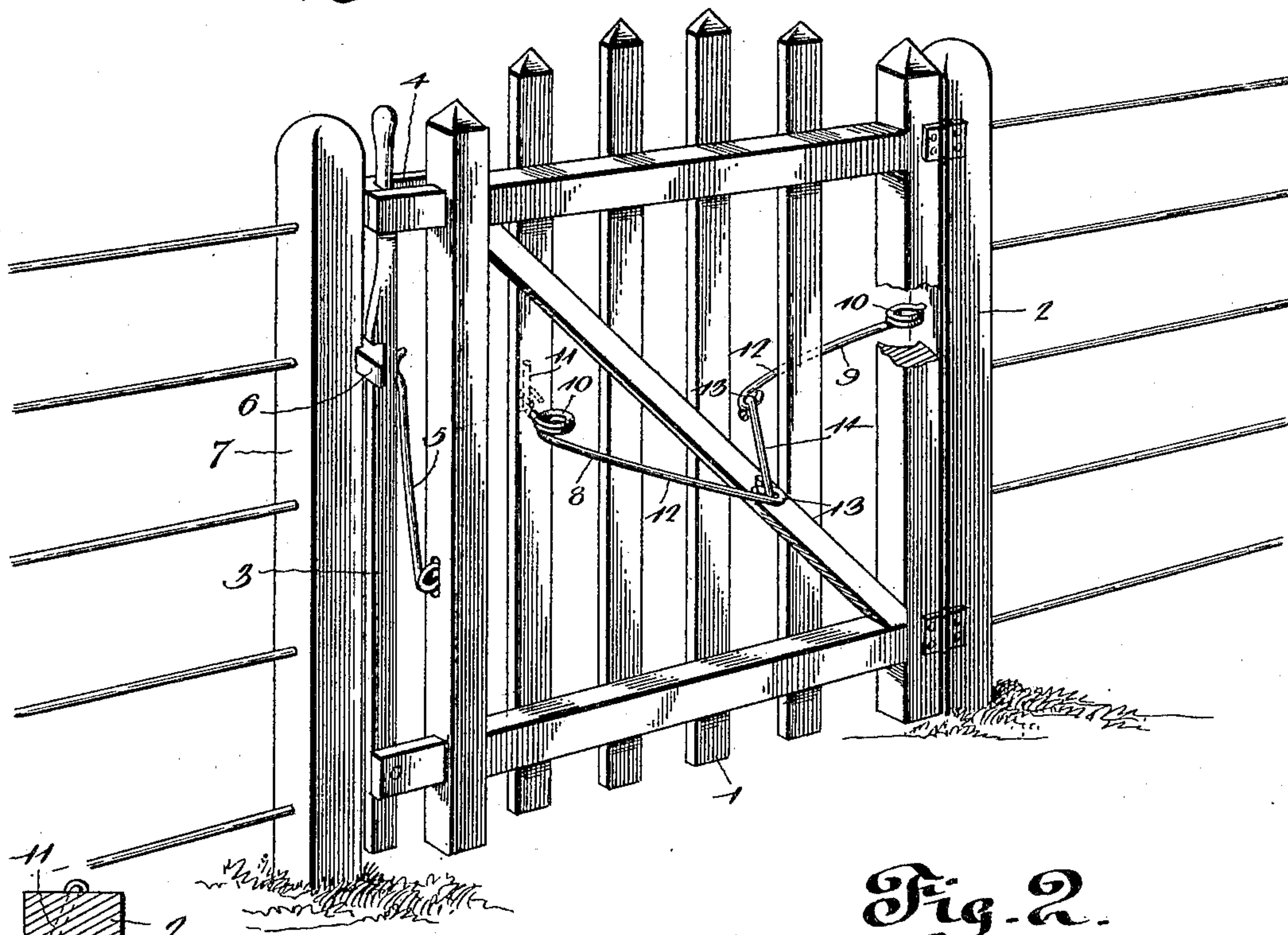


Fig. 2.

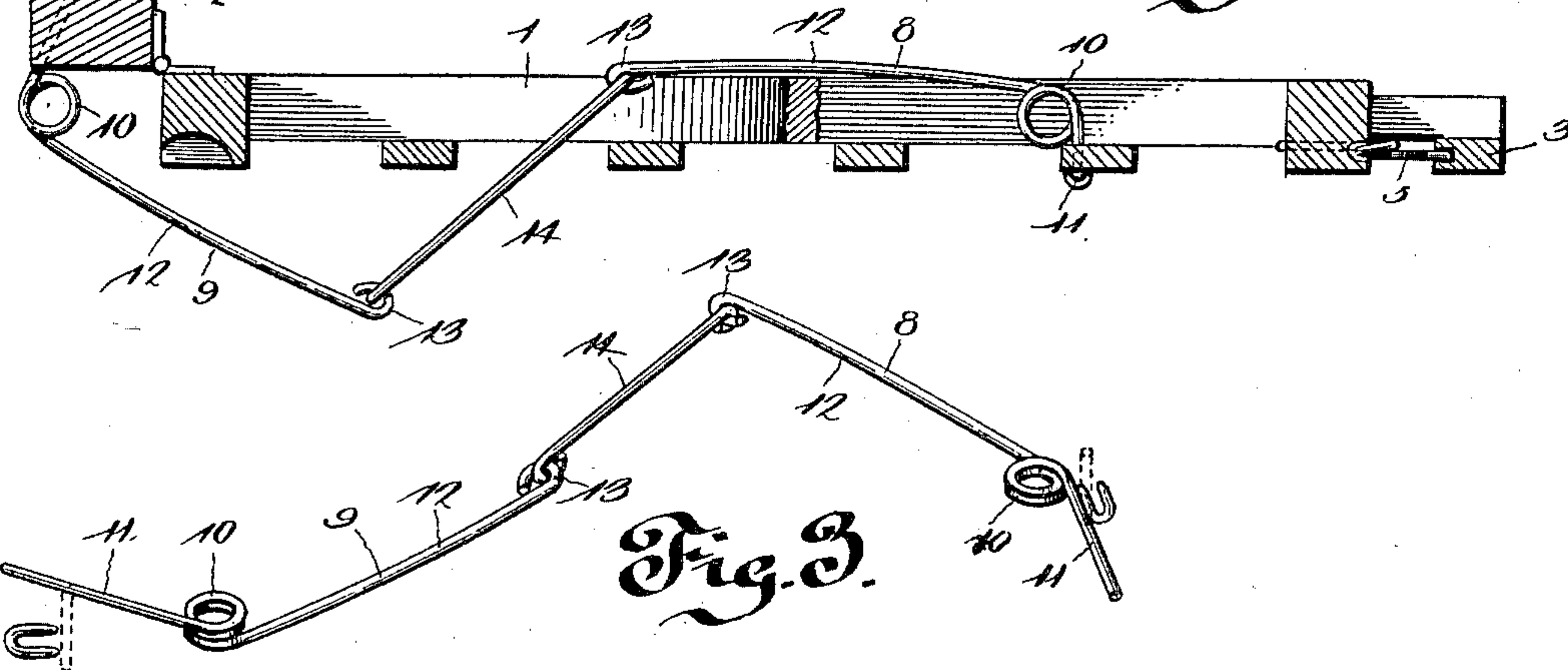


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

WARREN M. THOMAS, OF ENGLISH, IOWA.

DOOR-SPRING.

SPECIFICATION forming part of Letters Patent No. 622,567, dated April 4, 1899.

Application filed September 8, 1898. Serial No. 690,523. (No model.)

To all whom it may concern:

Be it known that I, WARREN M. THOMAS, a citizen of the United States, residing at North English, in the county of Iowa and State of Iowa, have invented a new and useful Spring for Gates and the Like, of which the following is a specification.

This invention relates to springs for gates, doors, shutters, and the like; and the object thereof is to provide a spring composed of two members and a link connecting the members, whereby each spring is greatly relieved of strain, thereby giving longer life thereto.

Further objects and advantages of a gate-spring constructed in accordance with the present invention will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a gate having my invention applied thereto. Fig. 2 is a sectional plan view of the gate in open position. Fig. 3 is a detail perspective view of the spring.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

Referring to the accompanying drawings, 1 designates any common or ordinary gate hinged to the usual gate-post 2.

Any form of latch may be used to lock the gate, but I prefer to use that shown in the drawings, comprising the end picket 3, pivoted to the lower rail, the upper end thereof working through a slot 4 in the upper rail. A spring 5 is secured to the next picket and bears against the latch to force it outward to engage a suitable stop 6 upon the other gate-post 7.

The spring for closing the gate is composed of two spring members 8 and 9 of substantially the same form. They are each formed from a single length of spring-wire twisted intermediate its ends and near one end into a spring-coil 10. The short end 11 of the wire forms a means of attachment, while the other end extends in approximately the opposite direction, forming a long spring-arm 12, which is bent or formed into an eye 13 at its outer end. One of the springs thus formed is mounted upon the gate, near the center there-

of, by means of the short attaching end 11; and the other is attached to the hinge gate-post on the opposite side of the gate and in the same horizontal plane, with the long arms extending toward each other. A link 14 connects the ends of the arms 12 by means of the eyes 13. This link, it will be observed, passes between two of the pickets and causes a strain upon each of the spring members as the gate is opened.

Fig. 1 shows the gate in closed position, with the spring in its normal position and exerting no strain. In this position the spring-arm 12 of the gate member extends outward from the gate and the post member is approximately parallel therewith; but when thrown open, as indicated in Fig. 2, the link 14 holds the ends of the springs in the same normal position, which draws the gate member alongside the gate and the post member across in front of the post, which brings a tension upon the members with a tendency to close the gate.

I have shown and described my invention as applied to a gate, but it is obvious that it may be applied to a door, shutter, or other hinged object.

The spring is preferably attached to about the center of the gate, which disposes the same so as to act evenly upon the gate and not twist it to any degree.

Changes in the form, proportion, and minor details may be made without departing from the spirit and scope or sacrificing any of the advantages of the invention, and therefore I do not wish to be understood as limiting myself to the precise construction and arrangement as herein set forth.

Having thus described the invention, what is claimed is—

1. A spring for gates and the like, comprising two spring members having their opposite ends rigidly connected, respectively, to the gate and to the hinge gate-post, and a link connecting the adjacent ends of the springs and extending transversely therebetween, substantially as shown and described.

2. A spring for gates and the like comprising two spring members, one being attached to the gate and the other to the gate-post and on the opposite side of the gate, and a link

connecting the spring members and extending through the gate from front to rear, substantially as shown and described.

3. A spring for gates and the like comprising two duplicate spring members, each being
5 formed from a single length of spring-wire twisted intermediate its ends into a spring-coil and adapted to be attached respectively to the gate and to the gate-post, upon opposite sides of the gate, and a link connecting
10 the spring members and extending through the gate from front to rear, substantially as described.

4. A spring for gates and the like comprising two duplicate spring members, each being
15 formed from a single length of spring-wire twisted intermediate its ends into a spring-

coil, one end of the wire forming an attaching means and the other end a spring-arm, and an eye provided at the extremity of the spring-arm, the members being attached respectively to the gate-post and the gate upon opposite sides thereof, and a link hooked into the eyes of the spring-arms and connecting the same through the gate, substantially as
25 described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WARREN M. THOMAS.

Witnesses:

E. C. MAHANNAH,
H. LONGSTRETH.