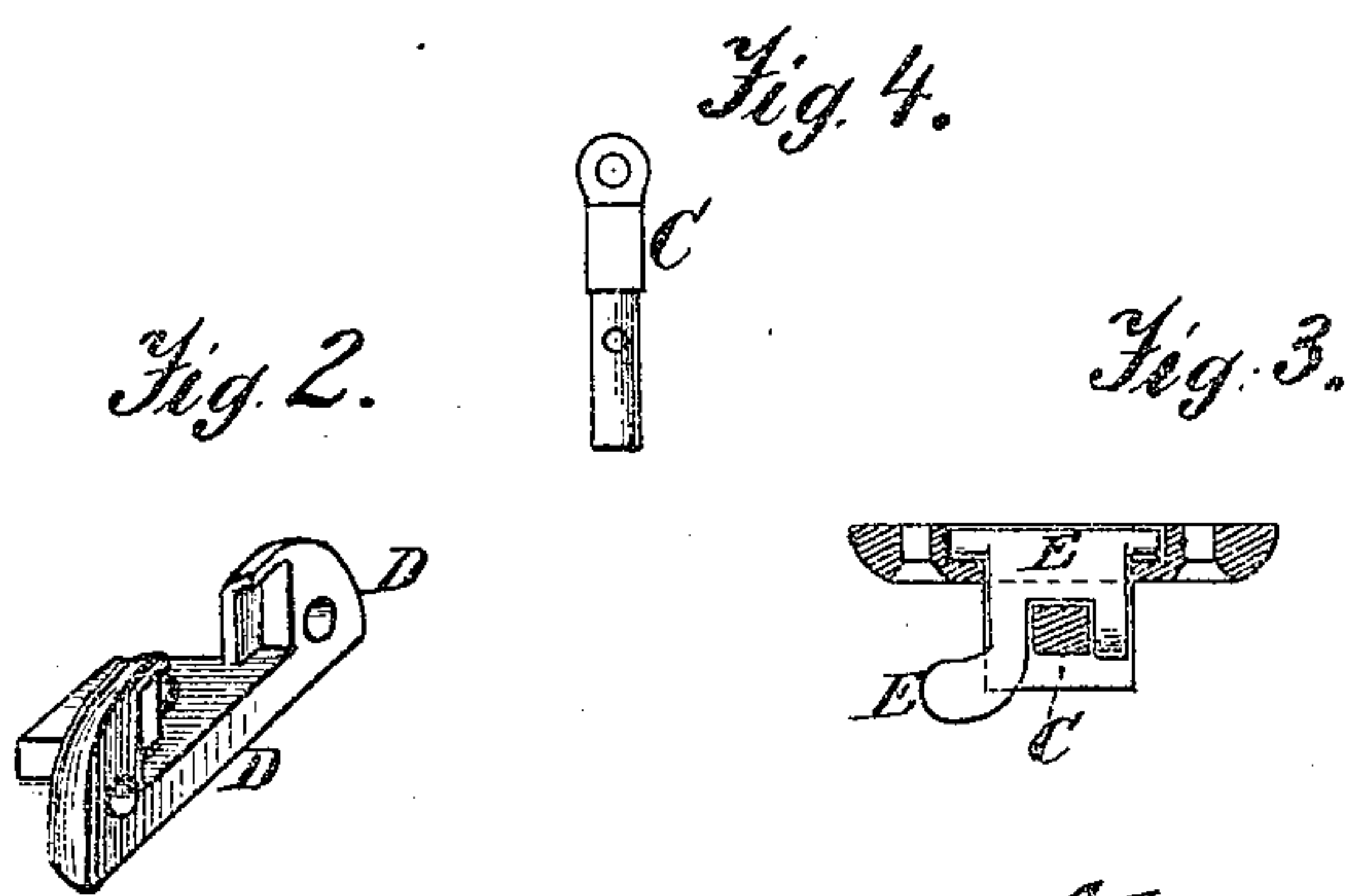
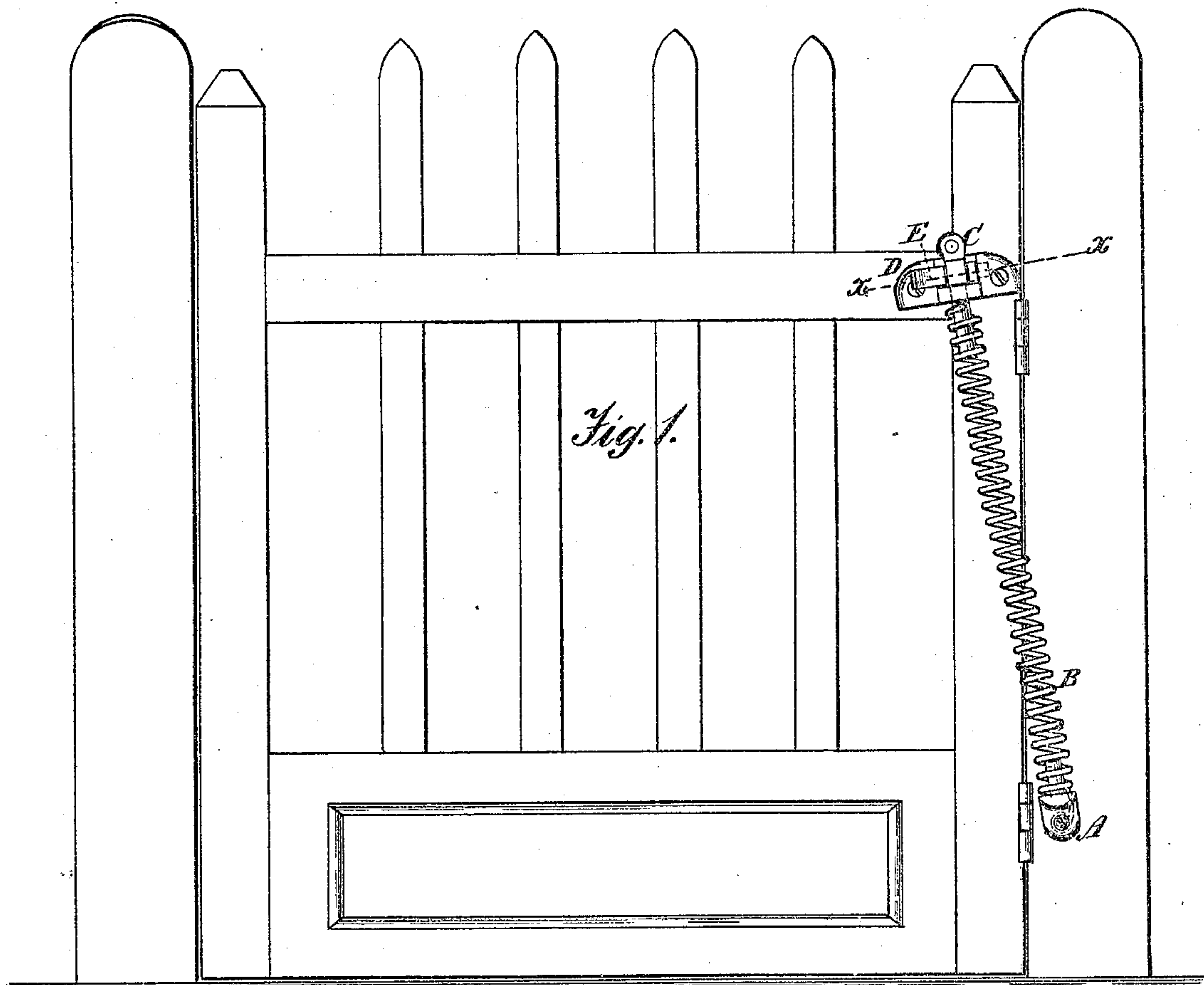


J. PALMER.

Improvement in Springs for Gates and Doors.

No. 129,584.

Patented July 16, 1872.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN PALMER, OF CINCINNATI, OHIO.

IMPROVEMENT IN SPRINGS FOR GATES AND DOORS.

Specification forming part of Letters Patent No. 129,584, dated July 16, 1872.

Specification describing certain Improvements in Springs for Gates and Doors, invented by JOHN PALMER, residing at Cincinnati, in the county of Hamilton and State of Ohio.

Figure 1 is an elevation of a gate having my improved spring attached thereto. Fig. 2 is a perspective view of the bracket which holds the upper end of the spring in position. Fig. 3 is a horizontal section of the bracket on line *xx* of Fig. 1, showing also the latch which holds the rod to which the spring is attached and such rod in section; and Fig. 4 is an elevation of the rod to which the upper end of the spring is attached.

Corresponding letters refer to corresponding parts in the several figures.

This invention relates to that class of springs which are designed to be used upon gates and doors for the purpose of holding them in an open or in a closed position; and it consists in the combination, with a spring of a bracket and a hinged latch which locks the head of the spring after it has been properly wound up, as will be more fully explained hereinafter.

In constructing and applying my improved spring I attach to the post of the gate, or to the frame of the door, a bracket, A, which is so constructed as to be readily attached thereto, as shown, while upon its upper surface there is a cylindrical projection, which enters the space within the coils of the spring, and to which its lower end is attached. The spring B consists of a coil of steel, iron, brass, or other suitable wire, which is to be of sufficient diameter to give it the requisite amount of force, and of such length as to adapt it to the position in which it is to be used. Into the upper end of the spring there is inserted a rod, C, the lower portion of which is rounded for that purpose, while that portion which is above the rounded portion is made square, as shown in Figs. 1 and 3, its extreme upper end being provided with an aperture, into which a rod may be inserted for the purpose of winding up the spring. D is a bracket, which is attached to the gate or door, as is shown in Fig. 1, it being so constructed as to be readily secured thereto, and so as to receive and hold in position the latch E, as shown in Fig.

3, said latch having journals upon its sides and a recess in its front side for allowing it to be turned down and hold the rod C and the spring in position when said spring has been arranged for holding the door or gate open or closed, it being so arranged that it may be swung or turned up when it is desired to give the spring more or less tension, or when it is desirable to turn the spring from a position in which it will hold the gate or door in a closed position to one in which it will hold it in an open one.

The operation of this spring, its parts having been constructed, combined, and arranged substantially as shown, is as follows: The bracket A having been properly secured, the spring B is attached to it in such a manner as to prevent it from rotating thereon; the rod C being inserted into the upper end of said spring and secured therein, the spring is wound up by turning the rod C until the tension is sufficient to hold the gate or door open or closed, when the latch E is turned down and the spring is prevented from changing its force or its action; but when it is desired to change the position of the gate or door from the closed or open position and to hold it in such position, the latch E is reversed or turned up, and the rod C is turned until the force of the spring is made to act in a reverse position, when said latch is again turned down and the spring is thus retained in its new position.

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

The combination, with a spring for holding gates and doors in position, of the bracket D having in it bearings for the reception of the journals upon the latch E, and such latch arranged to clasp the rod C and be turned up so as to allow said rod to be rotated, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN PALMER.

Witnesses:

A. RUPPERT,
W. BRADFORD.