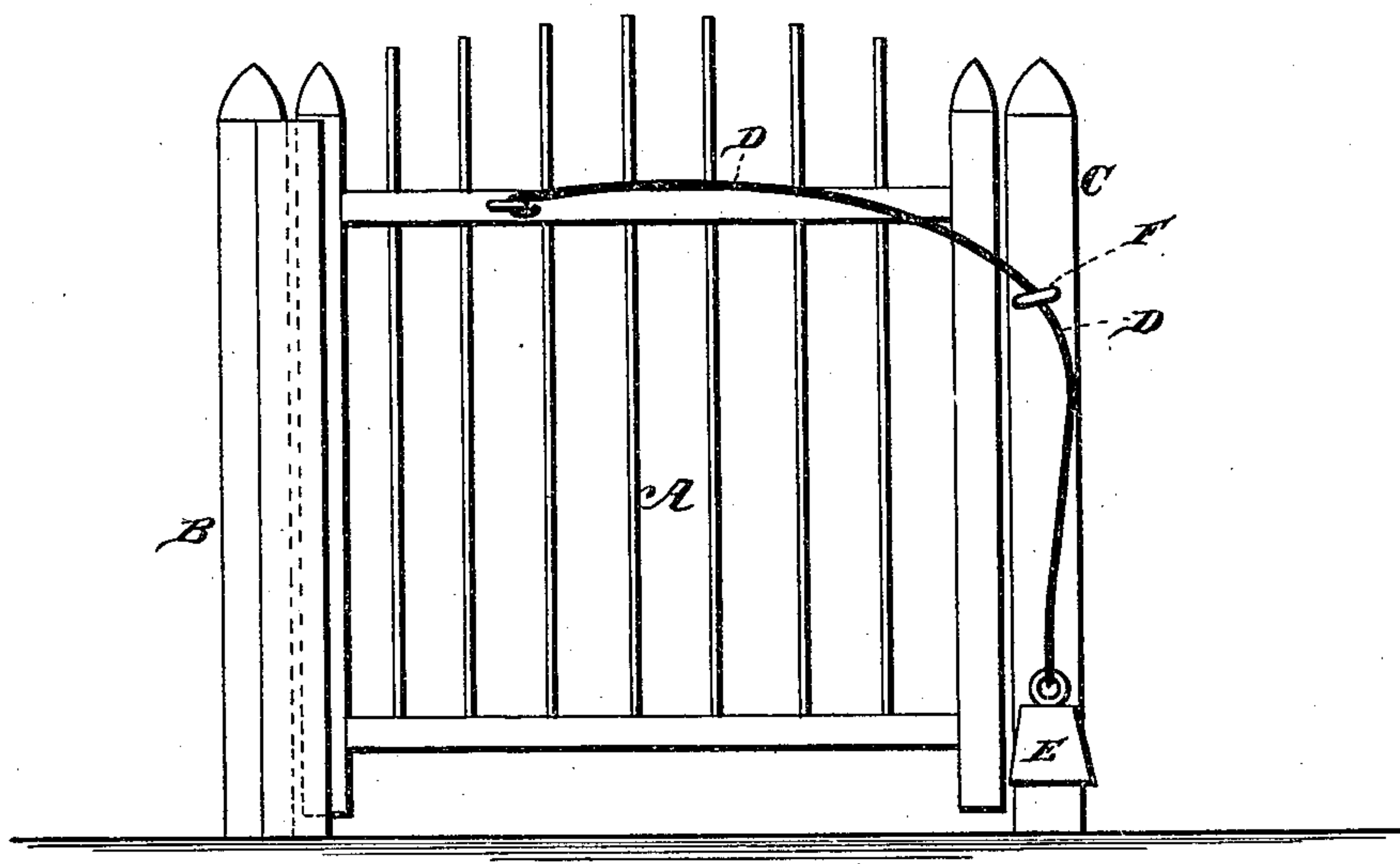


(No Model.)

C. D. SAWYER.  
Gate Closer.

No. 231,107.

Patented Aug. 10, 1880.



WITNESSES  
*Robert Everett*  
*Jas. J. Sheehy*

INVENTOR  
*Charles D. Sawyer*  
*J. Clement Smith*  
ATTORNEY

# UNITED STATES PATENT OFFICE.

CHARLES D. SAWYER, OF VINCENNES, INDIANA, ASSIGNOR OF ONE-HALF  
OF HIS RIGHT TO JOHN K. CASE, OF SAME PLACE.

## GATE-CLOSER.

SPECIFICATION forming part of Letters Patent No. 231,107, dated August 10, 1880.

Application filed May 20, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES D. SAWYER, of Vincennes, in the county of Knox and State of Indiana, have invented certain new and useful Improvements in Automatic Gate-Closers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

The drawing is a representation of a side elevation of my automatic gate-closer.

My invention relates to an automatic gate-closer.

It consists in a spring-wire secured at one end to a gate and provided at its other end with a weight, the said wire being guided by an eyebolt, or its equivalent, secured to the hinge-post, as hereinafter set forth and claimed.

Heretofore a rope and weight have been employed for closing doors and gates.

Instead of a rope, I employ spring-wire. This involves several advantages over a rope or cord. When the gate is suddenly opened the stiffness of the wire prevents the weight from swinging in front of the gate, as will generally occur when rope is used. The wire being spring-wire, will, when the gate is thrown wide open, have sufficient resiliency to bring the gate round the moment the gate is left free, thus always insuring the closing of the gate and serving as a valuable auxiliary to the weight, which may be made much smaller than where a rope or cord is used. Also, the wire does not rot, and it will not wear and become ragged, like a rope, so as to catch in the eyebolt on the latch-post.

In the drawing, A designates an ordinary gate. B represents the latch-post, and C the hinge-post, all constructed in any ordinary manner.

D designates the spring-wire, one end of which is secured to the gate and its other end provided with a weight, E. The wire passes through the eye of an eyebolt, F, which con-

stitutes a guide for the wire. This eyebolt is secured to the hinge-post a little below the level of the top rail of the gate. Other forms of guides may, however, be used and connected to the hinge-post—as, for instance, I may connect a glass eye therewith in any suitable way.

When the gate is opened the wire will be bent in the direction of a spiral line, thus adding to the efficiency of the spring.

I am aware that metal bands or straps have been used to operate the sashes in sash-balances; but in such cases the bands are flat, and either run over pulleys or are coiled within a case. In these instances there can be no spiral twist given to the flat band to cause it to operate, as does my spring-wire, to close the gate when wide open by the resiliency of the spring, which at such time is in a measure independent of the weight, the weight serving at such time to hold the twist in the spring. As soon as the wire begins to untwist by the swinging of the gate the weight begins to descend, and continues to descend until the gate is closed. Neither the rope nor the flat metallic bands can operate in this way. Besides, such an operation is unnecessary in sash-balances, while it is essentially necessary in gates and doors.

What I claim, and desire to secure by Letters Patent, is—

As an improvement in gate-springs, the spring-wire D, provided with the weight E at one end, passed through the eye F in the hinge-post C, and secured to the top rail of the gate A at the other end, and adapted to automatically close the gate, partly by the resiliency of the wire spring itself and partly by the weight E attached to said spring, as herein set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES DELANEY SAWYER.

Witnesses:

WILL C. JOHNSON,  
JOHN W. BREWER.