(No Model.)

W. B. NELSON.

GATE CLOSER.

No. 363,253. Patented May 17, 1887.

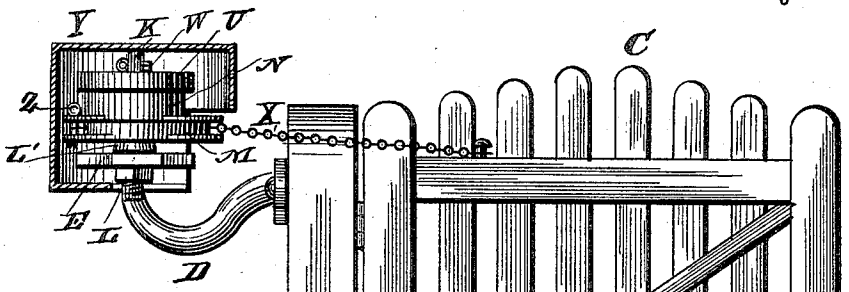
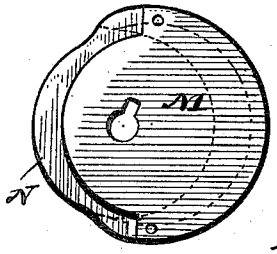


Fig. 1.

Fig. 7.



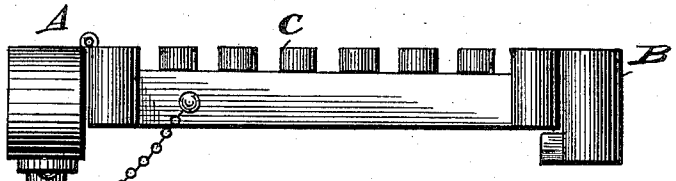


Fig. 2.

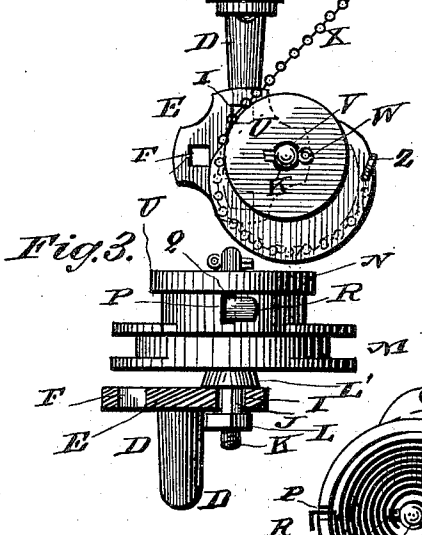


Fig. 3.

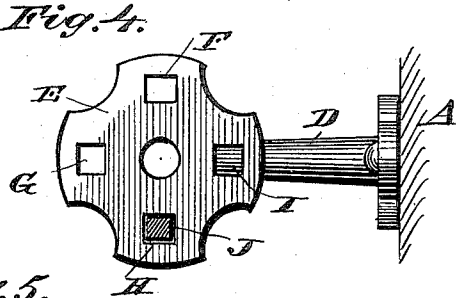


Fig. 4.

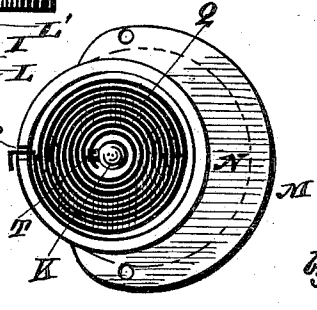


Fig. 5.

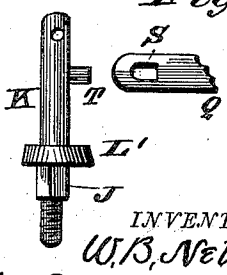


Fig. 6.

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UNITED STATES PATENT OFFICE.

WILLIAM B. NELSON, OF RICHMOND, INDIANA.

GATE-CLOSER.

SPECIFICATION forming part of Letters Patent No. 363,253, dated May 17, 1887.

Application filed February 7, 1887. Serial No. 226,819. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. NELSON, a citizen of the United States, and a resident of Richmond, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in Gate-Closers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a gate opened with my improvement attached, partly in section. Fig. 2 is a plan view of the same, showing the gate closed. Fig. 3 is an elevation of the closer, partly in section. Fig. 4 is a plan view of the bracket. Fig. 5 is a plan view of the cam and case, showing the spring. Fig. 6 is a view of the winding-post, and Fig. 7 is a bottom plan of the cam.

My invention relates to gate-closers and door-closers; and it consists in the construction and novel combination of parts, as hereinafter described and claimed.

Referring by letter to the accompanying drawings, A designates the hinge-post of a gate.

B is the stop-post, which occupies the place of the ordinary latch-post.

C is the gate, which is hung to the hinge-post in any of the ways commonly practiced.

Although the closer is equally applicable as a door-closer, a description and illustration of its application to a gate will enable any person familiar with this class of devices to apply it to a door.

D designates an arm or bracket, which is secured to the hinge-post A and extends outwardly, and is curved first downwardly and then upwardly, and is provided at its upper end with a plate, E, having four rectangular seats or openings, F G H I, either of which is designed to receive the rectangular portion J of the winding-post K. The lower end of the winding-post K is threaded, and when the gate-closer is in place is secured in its seat by a nut, L. The winding-post K is provided immediately above the threaded portion with an integral collar or shoulder, L', which forms a bearing upon which the grooved cam or eccentric M rests. A circular case, N, upon the upper face of the grooved cam is formed integrally therewith, and is provided in one side with a vertical slot, P. The outer end of the coil-spring Q is provided with a hook, R, which engages the material of the case N at one side of the vertical slot P. The inner end of the coil-spring is provided with a slot, S, which engages a laterally-projecting pin, T, on the winding-post K.

U is the cap or cover for the case N. This cap U is provided with a central aperture, V, through which the upper end of the winding-post K projects. The projecting end of the winding-post K is provided with a transverse key-seat, into which a split key, W, is passed to retain the cap U in place.

X is a chain, one end of which is secured between the flange of the grooved cam by a split key, Z, passed down through key-holes in said flanges. The flanges are provided at both ends with key-holes, so that the chain may be attached to the gate-closer at that end of the flanged groove that will cause it to be reversed in its action, and thereby to hold the gate or door open instead of closed, should it be desirable or necessary. The end of the chain not attached to the eccentric or cam is attached to the gate or door, so that the device will automatically operate upon the gate or door in the manner desired—that is, either to close it or to hold it open.

The tension of the spring is regulated by lifting the winding-post from its seat and turning one-fourth, one-half, three-fourths, or entirely around in the direction desired, and then replacing it in its seat and again securing it in place.

In order to protect the mechanism from rain or snow, I cover it with a removable shield, Y, which may be slipped on and off at the will of the owner or other person.

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

1. The combination, with the gate, of the bracket secured to the hinge-post and having the plate E secured to its outer end, said plate being provided with the adjusting-openings equally distant from the central opening there-

in, the winding-post provided with the pin T and squared part for insertion into any one of said adjusting-openings, the grooved cam provided with the circular case, the coiled spring attached to the winding-post within said case, and the chain connecting the gate and the grooved cam, substantially as specified.

2. The combination, with the gate, of the bracket secured to the hinge-post and provided with the adjusting-openings, the winding-post provided with the pin T and squared part for insertion into any one of the said adjusting-openings, the coiled spring secured to the winding-post, the grooved cam having openings in its flanges for attaching the chain, and the chain connecting the gate to the said cam, and capable of being shortened or lengthened between the gate and cam by means of the openings and a securing-key, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM B. NELSON.

Witnesses:

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