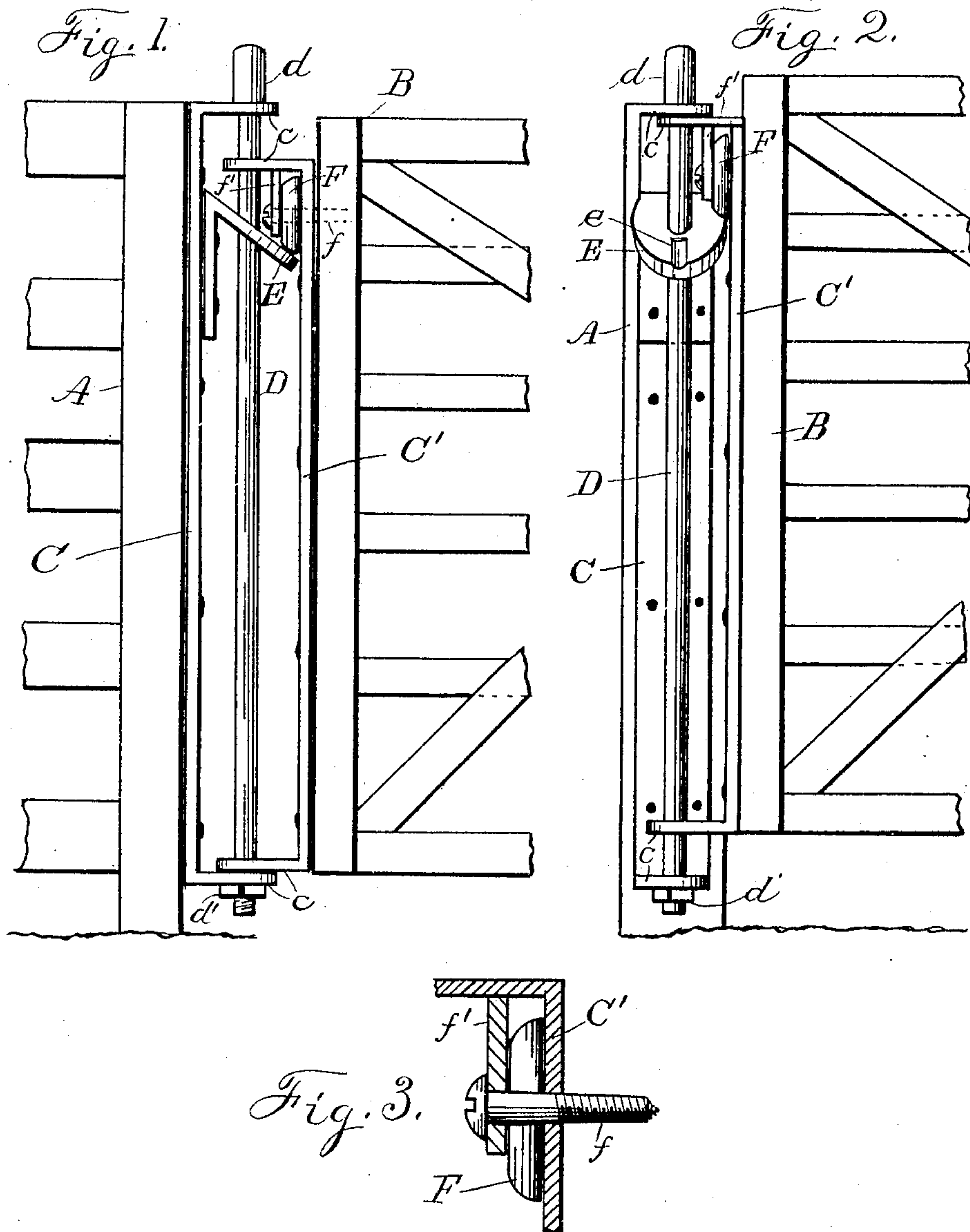


No. 869,553.

PATENTED OCT. 29, 1907.

C. W. COOK.
HINGE.

APPLICATION FILED DEC. 10, 1906.



Inventor

Witnesses

C. P. Smith

Monroe Kaufman

Christian W. Cook.

By

Chas D Smith

Attorney

UNITED STATES PATENT OFFICE.

CHRISTIAN W. COOK, OF PROVO CITY, UTAH.

HINGE.

No. 869,553.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed December 10, 1906. Serial No. 347,220.

To all whom it may concern:

Be it known that I, CHRISTIAN W. COOK, a citizen of the United States, residing at Provo City, in the county of Utah and State of Utah, have invented new and useful Improvements in Hinges, of which the following is a specification.

This invention is designed to facilitate the opening and closing of gates and doors, and to stop the gate or door automatically in any desired part of the circle in which it swings. In this application the device is shown attached to a gate, and is adapted to stop the gate in a closed position.

The accompanying drawing illustrates the device Figure 1 being a side elevation thereof with connecting portions of a fence and gate. Fig. 2 is an elevation with the gate open at a right angle to its closed position, and Fig. 3 is an enlarged vertical section of the roller and connections.

The letter A designates a fence post, and B a portion of a gate; these being connected by my hinge. A single hinge is here shown to be employed, but two or more hinges may be used with shorter reach, if the gate is unusually heavy. The leaves C, C', of the hinge stand opposite to each other when the gate is in a closed position, as seen in Fig. 1. Holes are provided in the leaves for their attachment to opposing faces of the post and the gate. On each leaf are the overlapping projections c, c', having vertical holes to receive the vertical bolt D. This bolt is provided with a head d, and a threaded end with nut d'. To the inner face of the leaf C is attached a downwardly inclined plate E which extends around the bolt D. The upper surface of this plate E serves as a track for a loose roller F on a screw shaft f, which is supported by the leaf C' and a hanger f' depending from a projection c on said leaf. A ra-

dial groove e in the lowest part of the plate E acts as a stop or rest for the roller F.

When the gate is opened, its weight is thrown, through the roller F, upon the plate E, and it is carried up the inclined plane, as seen in Fig. 2. When released the gate is carried by gravity, down the incline, and the roller occupies the rest e, and holds the gate in the closed position.

This hinge is applicable in a great variety of places where hinges are used, and I do not limit myself to the exact form illustrated, the principle of the invention consisting in the movement of the opening door or gate on a roller up an inclined plane, and its automatic return by gravity to a closed position. Furthermore it is evident that the incline and the roller may exchange places and produce the same result as now, so that the principle involved includes all such modifications.

What I claim and desire to secure is—

In a hinge having an inclined track on the upper part of its fixed leaf and a roller on the upper part of its swinging leaf adapted to move upon said track, a perforated projection at the top and a perforated projection at the bottom of said fixed leaf, a single vertical rod whose lower end is threaded occupying said perforations, a head on the upper end of said rod, and a threaded nut on the lower end of said rod, a horizontal perforated projection on said swinging leaf engaged by said rod below said projection at the top of said fixed leaf and covering said track and roller, and a horizontal, perforated projection at the lower part of said swinging leaf engaged by said rod above said bottom projection of said fixed leaf, as herein set forth.

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

CHRISTIAN W. COOK.

Witnesses:

FRANK A. LANGE,

WILLIAM C. GREEN.