

C. A. MILLER.
SELF-CLOSING HINGE.

No. 170,486.

Patented Nov. 30, 1875.

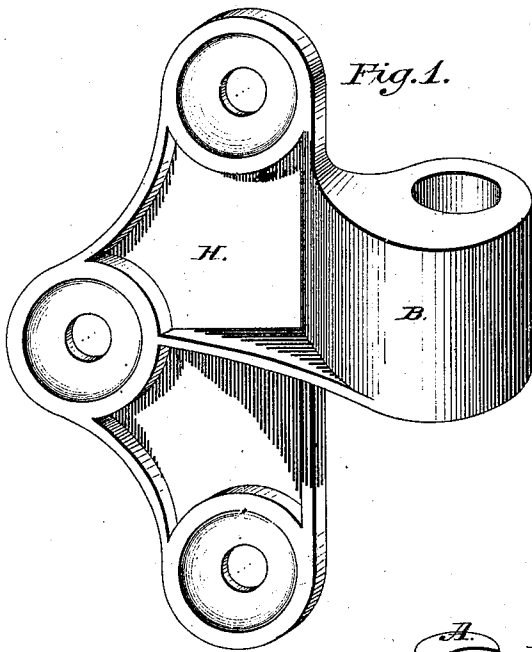


Fig. 1.

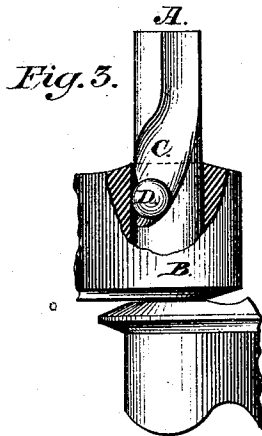


Fig. 3.

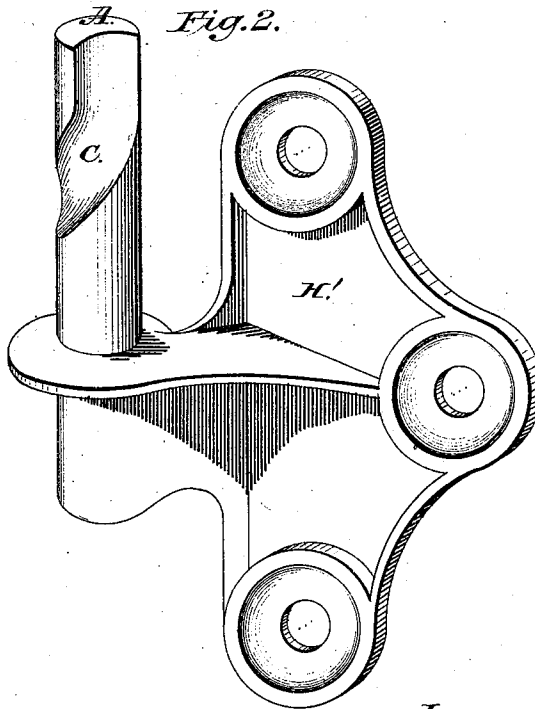


Fig. 2.

Attest:

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Inventor:

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UNITED STATES PATENT OFFICE

CHARLES A. MILLER, OF URBANA, OHIO.

IMPROVEMENT IN SELF-CLOSING HINGES.

Specification forming part of Letters Patent No. **170,486**, dated November 30, 1875; application filed August 26, 1875.

To all whom it may concern:

Be it known that I, CHARLES A. MILLER, of Urbana, in the county of Champaign and State of Ohio, have invented a new and Improved Self-Closing Hinge; and I do declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is to provide a hinge that will work smoothly and easily without lubricating, and so arranged that it will automatically close by gravity alone.

My invention consists in a novel construction and arrangement of a hinge, that, when used on a door or gate, will close when opened by its own weight. I accomplish this by providing two plates, H H'—one of which carries a spirally-grooved projecting pin or pintle, A, and the other, an enlarged spirally-chambered head or knuckle, B, exactly corresponding with the spiral groove on pintle A, into which is put a small metal ball, D, which, when the hinge is opened, rolls up the spirally-inclined channel made by the grooves of both knuckle B and pintle A, raising up or elevating knuckle B, and, when left to itself, its weight will bring it back to its lowest position by rolling back upon ball D, thus working smoothly and easily with but little friction.

In the drawing, Figure 1 is a side elevation, showing one plate of my improved hinge with its enlarged head or knuckle. Fig. 2 is a like view of the other plate, with its projecting spirally-grooved pin or pintle; and Fig. 3 is a sectional view of both knuckle and pintle, having a part of the knuckle broken away, to show its chamber or recess and the metal ball in position.

Like letters of reference, as above, indicate like parts, and the mode of operation is very simple and easily understood.

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

An improved self-closing hinge, consisting of plates H H', one carrying the projecting pin or pintle A, having a spiral groove, C, and the other an enlarged and spirally-chambered head or knuckle, B, in which is confined a metal ball, D, running upon the grooved pintle, all substantially as herein shown and described.

CHARLES A. MILLER.

Witnesses:

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