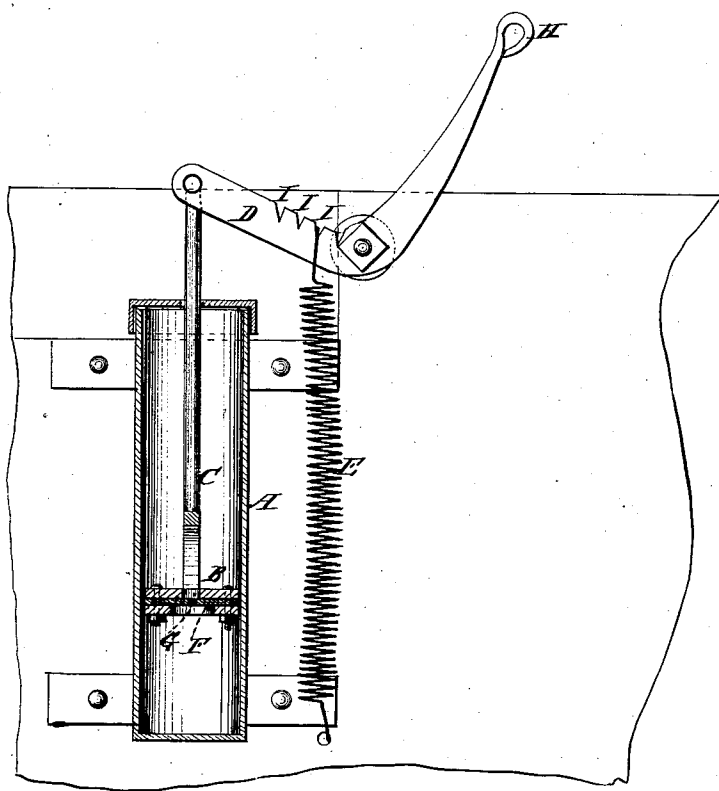


C. W. OLDHAM.
Door-Springs.

No. 140,638.

Patented July 8, 1873.



Witnesses:

P. C. Dietrich
A. J. G. G. G.

Inventor:

C. W. Oldham

Per

M. M. M.

Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES W. OLDHAM, OF LEIPSIC, INDIANA.

IMPROVEMENT IN DOOR-SPRINGS.

Specification forming part of Letters Patent No. **140,638**, dated July 8, 1873; application filed May 24, 1873.

To all whom it may concern:

Be it known that I, CHARLES W. OLDHAM, of Leipsic, in the county of Orange and State of Indiana, have invented a new and useful Improvement in Door-Springs, of which the following is a specification:

My invention consists of a hollow vertical cylinder partly filled with liquid, and containing a piston with a valve, which opens freely to allow the piston to rise unobstructedly when the door opens, and raises the arm of an elbow-lever, to which the piston is connected by a rod, but which closes the passage, except a small orifice, when the door closes and forces the piston down, so that the closing of the door by a spring attached to the arm to which the piston is attached is retarded so as to prevent slamming.

The drawing represents a sectional elevation of the cylinder and piston, and side elevation of the elbow-lever and spring.

A is the cylinder; B, the piston; C, the piston-rod; D, the elbow-lever; E, the spring; F, the valve of the piston; and G, the orifice through the valve.

The cylinder is attached in an upright position to the wall at the side of the door. The lever is pivoted to the wall, and the upper end H is connected to the door by a rod, and the

spring is fastened at the lower end to the wall and at the upper end to the arm of the lever, to which the piston is connected near the pivot. A series of notches is provided in the arm for connecting the spring more or less distant from the pivot, to vary the leverage according to the quickness required in closing the door. The large central opening in the lower plate of the piston allows the valve to give considerably when the piston rises; but the upper plate, having only a small opening, prevents it from opening upward, so that it is only through the small orifice G that the fluid can pass, which limits the time of closing the door to that required for the liquid to rise above the piston.

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

The valved piston B F, having two plates, of which the upper has a small and the lower a large aperture, and operating, in connection with the parts A C D E, to prevent the slamming of doors in the manner described.

CHARLES W. OLDHAM.

Witnesses:

ROBERT R. R. STEWART,
JAMES Q. STEWART.