

October 20, 1913.

DRAWING

5,515

A careful search has been made this day for the original drawing or a photolithographic copy of the same, for the purpose of reproducing the said drawing to form a part of this book, but at this time nothing can be found from which a reproduction can be made.

Finis D. Morris, .

Chief of Division E.

AWK

# UNITED STATES PATENT OFFICE.

LUCIUS EVANS, OF FAYETTEVILLE, NEW YORK.

## SPRING FOR CLOSING DOORS.

Specification of Letters Patent No. 5,515, dated April 18, 1848.

*To all whom it may concern:*

Be it known that I, LUCIUS EVANS, of the village of Fayetteville, county of Onondaga, and State of New York, have invented a new and useful Improvement in Door-Springs for Shutting Doors; and I do declare that the following as a full and exact description.

The nature of my invention consists in so fixing and adapting an eccentric semicircle revolving on a pivot a little removed from the center of the circular movement as to act upon the door spring for shutting doors and cause the door to shut in a very even and regular manner.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

I construct a spring of steel of suitable length for the size of the door which is to be secured at one end to the wall over the top of the door and nearly over the door hinges so as to be placed a little above the door and reaching as far over the door from the end of the spring fastened to the wall as shall be required to act upon and be acted upon by the eccentric semi-circle hereinafter described. I then construct the eccentric semi-circle of the size required varying according to the size of the door. For a common sized door this eccentric semi-circle is about five inches in diameter. I construct a common brace for inserting a pivot on which is to revolve the eccentric semi-circle—the said brace being fixed to the wall over the door spring above described. To the semi-circle and forming one piece with the same I attach a lever of the form used in common door springs, which runs in a groove of a roller revolving on a shaft fixed to and projecting above the door.

My eccentric circle I construct with a projection or flange upon the edge of the semi-circle for the purpose of acting and being acted upon by the spring on a roller which is fixed upon the end of the door spring before mentioned. The eccentric semi-circle is hung and revolves on a pivot secured

and fixed about three fifths of the diameter from the end of the same which when the door is shut is nearest the door and to which is attached the lever above described. In opening the door the said semicircle is made to revolve upon the said pivot fixed in the brace above described and in turning on the pivot it moves around or revolves so as to move the spring outward from the wall and by means of the flange of the semi circle the end of the semicircle two fifths of its distance from its pivot is drawn toward the door—and thus as the force of the spring is increased by the opening of the door the lever power of the semi circle is relatively decreased—so as to render the force acting upon the door in closing it very nearly uniform.

In the accompanying drawing the section A, B, Figure 1, represents the steel spring to be secured to the wall over the door at the end A. The figures 1, 2, 3, 4, represent the door. The section D, E, F, G, represent the eccentric semi circle and lever attached. C, represents the roller revolving on the end of the spring at B. H, represents the shaft projecting above the door on which revolves the roller I. F, G, represent the lever attached to the semicircle acting upon the roller I. J, K, L, represent the brace on which revolves on the pivot at L, the semicircle as above described. In opening the door the spring A, B, is bent back from the wall and carried with the door the roller C, passing along the flange of the semicircle from F, to D.

In Fig. 2 the sections are combined.

What I claim as my invention and desire to secure by Letters Patent is—

The application of the eccentric semicircle to the door spring, said semicircle turning on a pivot so as to secure a uniform force in shutting the door as above described.

LUCIUS EVANS.

Witnesses:

HICKS WORDEN,  
ARAD EVANS.