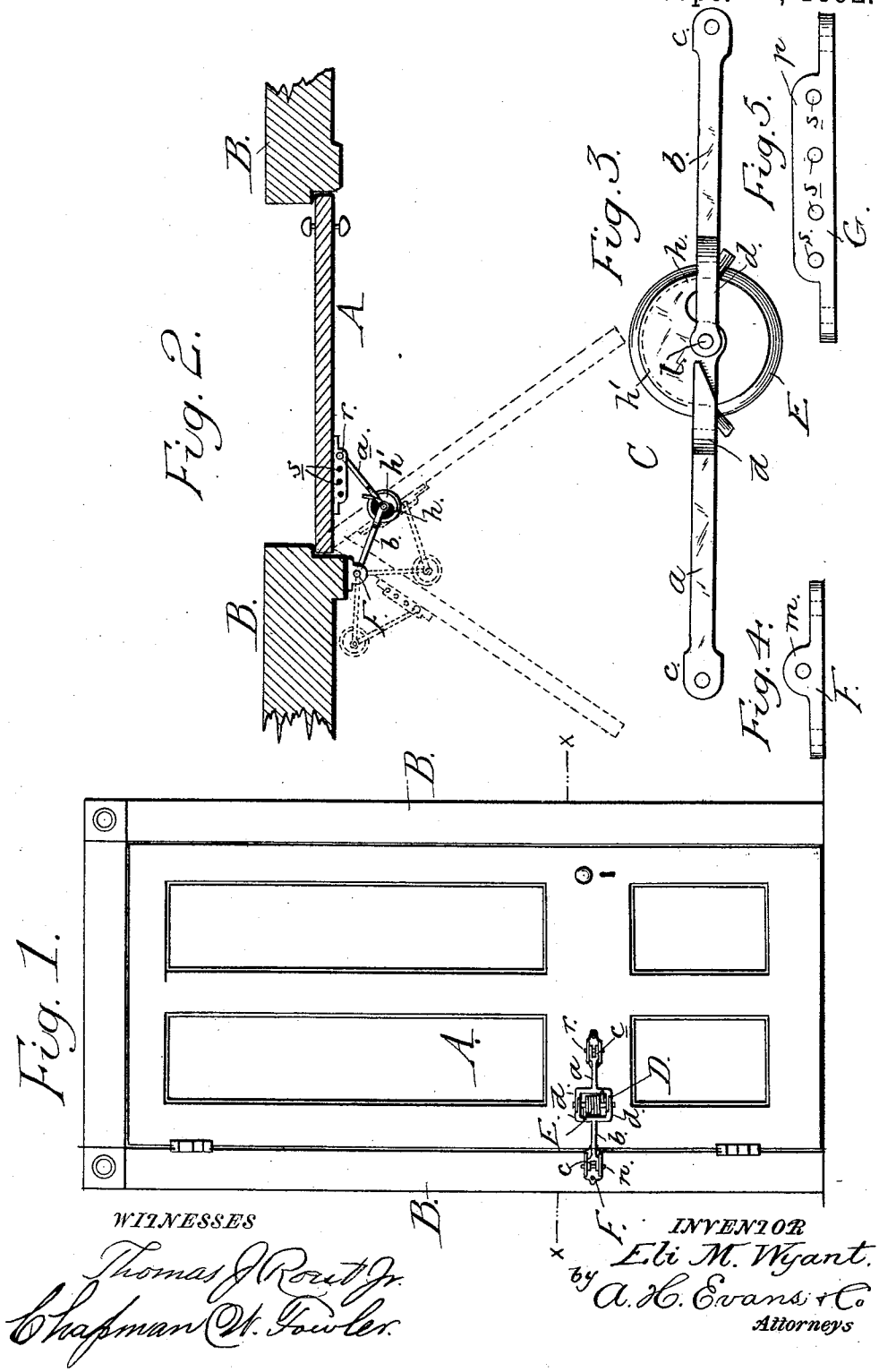
(No Model.)

E. M. WYANT.

DOOR CLOSER.

No. 482,836. Patented Sept. 20, 1892.



WITNESSES

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ELI M. WYANT, OF WATERLOO, IOWA.

DOOR-CLOSER.

SPECIFICATION forming part of Letters Patent No. 482,836, dated September 20, 1892.

Application filed January 13, 1892. Serial No. 417,966. (No model.)

To all whom it may concern:

Be it known that I, ELI M. WYANT, a citizen of the United States, residing at Waterloo, in the county of Black Hawk and State of Iowa, have invented certain new and useful Improvements in Door-Closers, as set forth in the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front view of a door, showing my invention applied thereto. Fig. 2 is a cross-sectional view of the same on the line *x x* of Fig. 1, the dotted lines showing several positions of the parts when the door is open. Figs. 3, 4, and 5 are enlarged views of parts of the device.

My invention relates to certain new and useful improvements in springs for attachment to doors, window-shutters, and like devices for the purpose of closing them when standing open; and my invention consists of the constructions and combinations of devices which I shall hereinafter fully describe and claim.

To enable others skilled in the art to which my invention appertains to make and use the same, I will now describe its construction and indicate the manner in which the same is carried out.

In the drawings, A represents a door, and B is its frame or casing, both of the usual construction.

The improved spring-closer is represented generally by C, and it consists of two arms *a* and *b*, each having its outer end formed with spaced lugs or ears *c* and its inner end bifurcated to form the forks *d*, separated from each other a considerable distance and constituting a yoke or encircling frame D, open at its center. The forks of the arm *a* are formed with lugs *h*, adapted to bear upon the top surfaces of the forks *d* of the arm *b* to form a stop for limiting the movement of the arms, and the adjoining ends of said arms are pivotally secured by a bolt *l*, passing through them. Upon this bolt and confined within the open center of the yoke D and between the enlarged curved portions *h'* on the forks of the arm *a* is a coiled spring E, having its free ends bearing one upon each of the arms, so that the spring is coiled when the arms are moved in opening the door.

Secured to the door-frame or to some adjacent fixed portion is a plate F, having ears or lugs *m*, through which and the ears *c* of the arm *b* a pivot-bolt *n* is passed, and to the door or movable portion is also secured a plate G, having ears or lugs *p*, between which the ears of the arm *a* are confined by a pivot-bolt *r*, passing through them and the ears *p*.

In order that the tension or power of the spring may be regulated at pleasure, the plate G has its ears *p* formed with a series of holes *s*, and the pivot-bolt *r* is made removable and adapted to engage said holes. If it is desired to increase the tension or power of the spring, the bolt *r* is removed and placed in one of the holes nearer the pivotal junction of the arms, thereby bending the arms to greater angles and coiling the spring more tightly. A movement in the opposite direction causes the power of the spring to be reduced. A device having this adjustment is of advantage in that the power of the spring may be adjusted at all times to accommodate the weight or size of the door and it will cause the door to close from any angle between full open and closed. This device may also be placed in any position upon the door between its top and bottom and requires no particular fitting.

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

The combination, in a door-closer, of two pivotally-united arms having forked inner ends, forming an open yoke or frame, the ends of one arm having the curved portions *h'*, provided with lugs *h*, adapted to engage the ends of the other arm and form a limiting-stop, and a coiled spring in said yoke or frame having its opposite ends bearing against the arms, a plate adapted to be fixed to the door frame or casing and having one of the arms pivotally secured to it, a plate adapted to be secured to the door and having ears or lugs provided with a series of holes, and a removable bolt connecting the outer end of the other arm with said holes, whereby the tension and power of the spring are regulated, substantially as herein described.

ELI M. WYANT.

Witnesses:
O. J. FULLERTON,
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