

R. E. ADAM.
DOOR CLOSER.
APPLICATION FILED OCT. 4, 1910.

997,432.

Patented July 11, 1911.

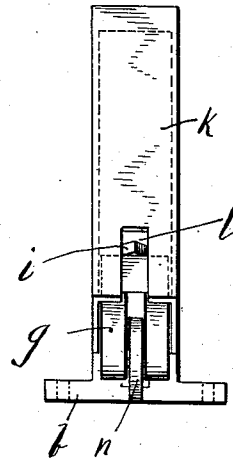
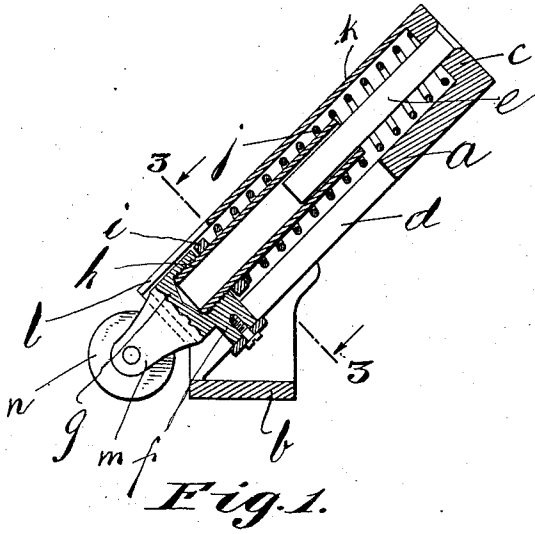


Fig. 3.

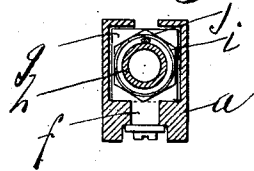


Fig. 4.

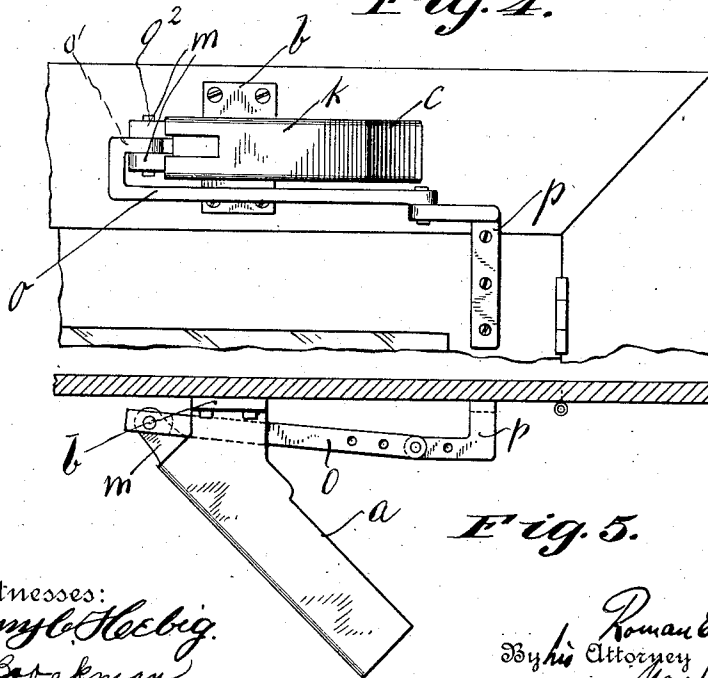


Fig. 5.

Witnesses:
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UNITED STATES PATENT OFFICE.

ROMAN EDWARD ADAM, OF CORONA, NEW YORK.

DOOR-CLOSER.

997,432.

Specification of Letters Patent.

Patented July 11, 1911.

Application filed October 4, 1910. Serial No. 585,168.

To all whom it may concern:

Be it known that I, ROMAN EDWARD ADAM, a citizen of the United States of America, residing at Corona, in the county of Queens and State of New York, have invented certain new and useful Improvements in Door-Closers, of which the following is a specification.

The present invention relates to door closers of the kind specified in my Patent No. 967,289.

My invention is illustrated in the accompanying drawing, in which similar reference letters denote corresponding parts, and in which—

Figure 1 is a longitudinal section of the door closer, Fig. 2 a front view thereof, Fig. 3 a cross section on line 3—3 of Fig. 1, Fig. 4 a front view of a modification and Fig. 5 a top plan view thereof.

With reference to the drawing, which forms a part of the specification, *a* denotes a bar or plate, which at one end is formed with a base *b* and at the opposite end with a knee portion *c* arranged at a right angle to the plate or bar *a*. The plate *a* is provided with a slot *d*, which extends from the base portion *b* toward the knee portion *c* and terminates at an intermediate point thereof. Rigidly secured in the knee portion *c* and extending parallel to the plate *a* is a rod or pin *e*. Engaging by means of a guide piece *f* in the slot *d* of the plate *a*, so as to be capable of sliding to and fro thereon, is a shoe *g*, from the inner end of which a tubular projection *h* extends toward and is adapted to telescopically engage the rod or pin *e*. This tubular projection, which may be integral with the shoe *g* or be suitably attached thereto, is at the end adjacent to the shoe *g* screw threaded on its circumference to receive an adjusting nut *i*. A coil spring *j* is arranged around the tubular projection *h* and the pin or rod *e*, so as to rest with one end against the knee portion *c* and with its other end against the nut *i*. A shield *k* may be provided to extend from the knee portion to envelop the spring and other working parts of the door closer. This shield may be, as shown in the present example, an integral part of the knee portion *c* or secured thereto in suitable manner. The shield at the end near the shoe *g* may be slotted, as at *l* to allow access to the nut *i*, whereby the tension of the spring may be adjusted as desired. The shoe portion *g* is

formed at its outer end with flaps or ears *m*, to receive a roller *n* (Fig. 1), or as will be hereinafter specified, the end of an angular lever (Fig. 4).

When provided with a roller, as in Figs. 1-3, the door closer is adapted to be secured with its base *b* to the post, to which the door is hinged, in such a manner that the roller *n* will bear against the door or rail (not shown) attached to the latter and extending in the path of the roller, so that upon the opening of the door, the shoe *g* will be forced against the tension of the spring toward the knee portion *c* and the compressed spring *j* will counteract the opening movement of the door and tend to close the same.

In case of lack of space, it may be necessary to attach the door closer above the door, in which case the modification shown in Fig. 4, is used, in which for the roller *n* other means are substituted, which will transmit the movement of the door to the shoe *g*. In this modification, I have shown such means to consist of a lever *o*, one end of which has a double bend, of which bend *o'* is substantially parallel to the main part *o* of the lever and is formed with an eye, adapted to fit between the flaps or ears *m* of the shoe *g* and to be pivoted therein at *o''*. The door closer, when attached above the door, extends with its reciprocating parts crosswise to the door and has the outer end of the shoe directed away from the hinges of the door. The main part *o* of the lever *o*, *o'* when attached to the shoe extends below the door closer and above the upper edge of the door and has its end opposite to the shoe pivoted to the upper end of a bar *p*, which upper end has a double bend, one bend extending perpendicularly and the other parallel to the door. This angular lever is secured to the door at a suitable place near and parallel to the hinge edge of the door and is adapted to project above the upper edge of the door. It will be seen that when the door is swung open, the angular lever *p* will swing the lever *o*, so that the shoe *g* will be forced toward the knee portion *c* of the plate against the tension of the spring, compressing the latter, which in its turn, will counteract the movement of the door and tend to close the same.

What I claim and desire to secure by Letters Patent is:

In combination with a door and door

frame, of a door closer, comprising a frame
fixed to the door frame above the door and
extending at an angle thereto, a spring ac-
tuated sliding shoe guided in said frame, a
5 bar fixed to the door and projecting above
the upper margin thereof, said bar having
at the upper end a double bend, one bend
extending perpendicularly and the other
parallel to the door and an arm having at
10 one end a double bend, one end of said arm

being pivoted to the last named bend of the
bar and the double bent end of the arm being
pivoted to the said sliding shoe.

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

ROMAN EDWARD ADAM.

Witnesses:

JOHN T. CARMODY,
MAX D. ORDMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
