

No. 848,712.

PATENTED APR. 2, 1907.

E. J. WELLS.
DOOR SPRING.

APPLICATION FILED AUG. 30, 1906.

Fig. 1.

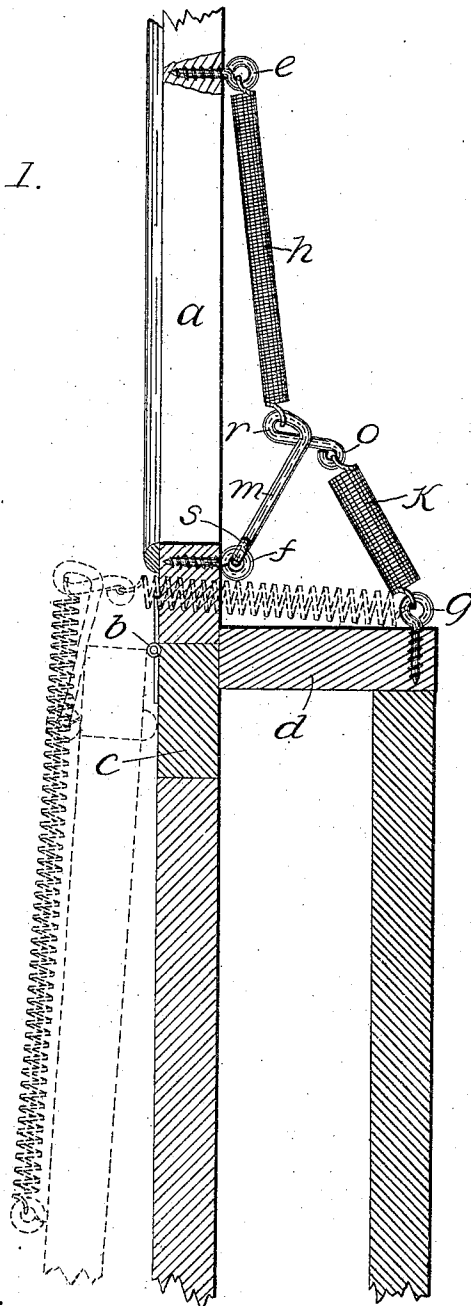
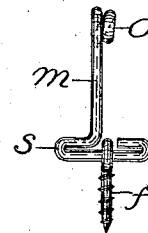


Fig. 2.



WITNESSES:

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ELMER J. WELLS, OF NASHUA, IOWA, ASSIGNOR OF ONE-HALF TO GEORGE F. SCHLUTZ, OF SALT LAKE CITY, UTAH.

DOOR-SPRING.

No. 848,712.

Specification of Letters Patent.

Patented April 2, 1907.

Application filed August 30, 1906. Serial No. 332,667.

To all whom it may concern:

Be it known that I, ELMER J. WELLS, a citizen of the United States of America, and a resident of Nashua, Chickasaw county, Iowa, have invented certain new and useful Improvements in Door-Springs, of which the following is a specification.

My invention relates to door-springs; and the object of my invention is to provide a door-closing device having springs so arranged that they cannot bind against the edge of the door and will always exercise a straight pull and constant tension upon the door.

This object I have accomplished by the means which are hereinafter described and claimed and which are illustrated in the accompanying drawings, in which—

Figure 1 is a horizontal section of a portion of a door and its casing, showing in the full lines my improved closing device in the position it assumes when the door is closed and by the dotted lines the relative positions of the springs and other parts of the device when the door is open; and Fig. 2 is a detail view and side elevation of the intermediate lever connection.

Similar letters refer to similar parts throughout the several views.

The door *a* is swung from its casing-plate *c* by means of hinge connections *b* in the usual manner. The screw-eyes *e* and *f* are fixed to the door *a* in the same horizontal line and at proper distances from the edge thereof. The screw-eye *g* is affixed to the inner side of the door-casing *d* near its outer corner. *m* is a lever connection having its inner end *f* pivoted in the eye of the screw-eye *s*, while its

outer end is provided with the eyes *n* and *o*. A coiled spring *k* is connected between the screw-eye *g* and the eyelet *o* of the lever *m*, while a longer coiled spring *h* is connected between the screw-eye *e* and the eyelet *n* of the same lever *m*.

When the door *a* is thrown open to the position shown by the dotted lines in Fig. 1, the lever *m* and the springs *h* and *k* slightly shift their relative positions; but it will be seen that at all times during the change of position of said parts the tension upon both springs is always direct and that there is no possibility of either spring binding against any part of the door or its casing.

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

1. The combination with a door-casing and a door hinged thereto of tension-springs connected respectively to said casing and door, and a spacing-lever pivoted to said door and connected to the inner ends of said springs.

2. The combination with a door-casing and a door hinged thereto, of coiled springs connected respectively to said casing and said door, and a spacing-lever having one end pivoted to said door and its other end supplied with eyelets, the inner end of each spring connected to a separate eyelet.

Signed at Richardton, North Dakota, this 11th day of August, 1906.

ELMER J. WELLS.

Witnesses:

FRED KOESEL,
AUGUST KOESEL.