(No Model.)

M. C. MOHR.

DOOR SPRING.

No. 258,791. Patented May 30, 1882.

Fig. 1.

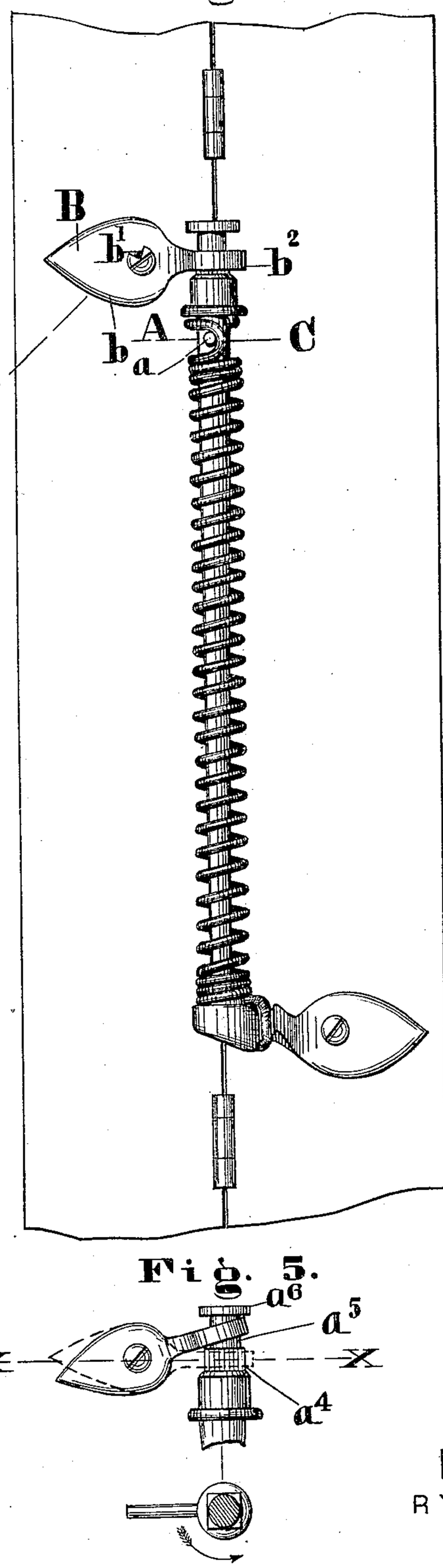

Fig. 2.

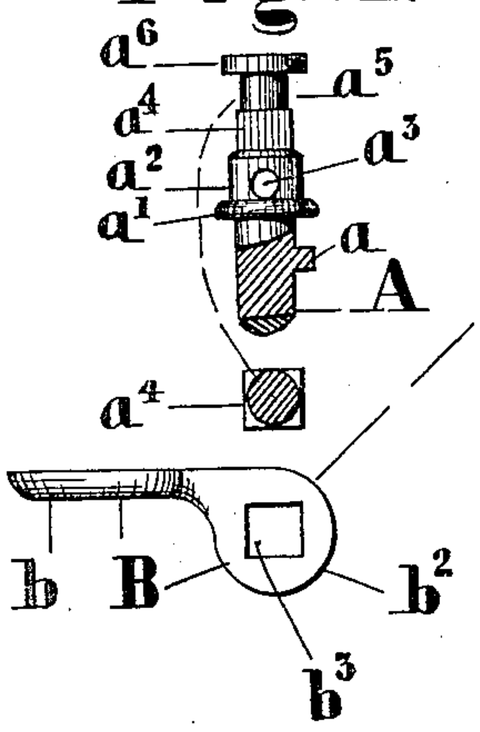

Fig. 3.

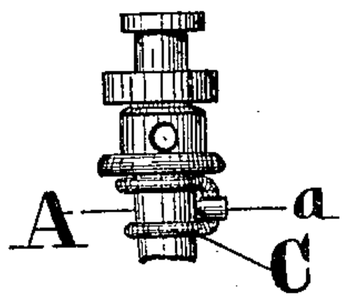

Fig. 4.

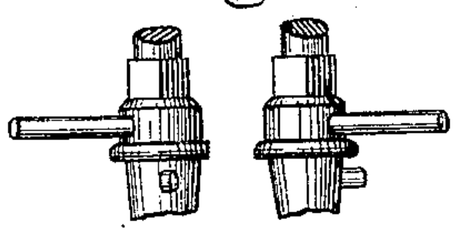

Fig. 5.

WITNESSES:
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UNITED STATES PATENT OFFICE.

MARTIN C. MOHR, OF MANCHESTER, IOWA.

DOOR-SPRING.

SPECIFICATION forming part of Letters Patent No. 258,791, dated May 30, 1882.

Application filed June 30, 1881. (No model.)

To all whom it may concern:

Be it known that I, M. C. MOHR, of Manchester, county of Delaware, and State of Iowa, have invented new and useful Improvements in Door-Springs; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to that class of door-springs in which a spiral coil is employed, in connection with a vertical shaft or spindle; and it consists mainly in certain details of construction relating to the upper end of the spindle and the upper bearing-bracket, by means of which the cost of production is reduced and the efficiency of the spring as a whole is increased.

In the drawings, Figure 1 represents a front elevation of my improved spring; Fig. 2, views of the upper end of the spindle and the upper bearing-bracket detached; Figs. 3 and 4, views of the upper end of the spindle and the coil-spring inclosing the same; and Fig. 5, a view illustrating the manner of swinging the bracket for the purpose of releasing or securing the spring.

To enable others skilled in the art to make my improved spring, I will proceed to describe fully the construction of the same.

A, Fig. 2, represents the vertical shaft or spindle, which is provided at its upper end with a pin or stud, *a*, cast thereon to form a solid portion of the same, an annular flange portion, a', a round portion, a^2, with transverse opening a^3, an angular portion, a^4, a round portion, a^5, of reduced diameter, and cap a^6, as shown.

B, Fig. 2, represents the upper bearing-bracket, consisting of the plate portion *b*, with screw-opening b', Fig. 1, and the eye portion b^2, having the angular opening b^3, corresponding with the angular portion of the spindle, as shown, the latter being secured to the spindle by riveting the end of the latter, or by the use of other proper means.

C, Figs. 1 and 3, represents the spring, the upper end of which is provided with a loop adapted to engage with the stud *a* of the spindle, as shown. The eye portion of the upper bracket is slipped over the end of the spindle before the cap a^6 is secured in place.

The manner of applying the spring to the door and frame is substantially as follows: The lower bearing-bracket having been rigidly secured in place, the upper bracket, which is loosely secured to the upper end of the spindle by the cap a^6, is moved into such position that a horizontal line, *x x*, extending through the center of the plate portion *b*, will extend also through the angular portion a^4 of the spindle, the eye portion of the bracket at the same time encircling the round portion a^5 above the angular portion a^4, as shown in Fig. 5. The parts being in this position, the fastening-screw may be inserted into the opening b' and be screwed nearly but not quite down to place. The spindle now being revolved to obtain the desired tension by inserting a lever in the opening a^3, the same may be properly secured in place by swinging down the angular eye portion of the bearing-bracket over the angular portion of the spindle into the position shown in dotted lines, Fig. 5, and in full lines, Fig. 1. The fastening-screw then being driven home, the spring is ready for action.

By means of the described construction the use of the loose pins is entirely avoided, so that the spring has no part whatever which is easily lost.

If desired, the round portion for holding the angular eye portion of the bearing-bracket, when it is desired to revolve the spindle, may be located below the angular portion instead of above the same, as shown.

The construction of the door-spring as a whole is very simple, and it can be readily applied to the door and frame by an unskilled person.

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

In combination with the spindle having the round and angular portion, as described, the bearing-bracket B, with angular portion, as described, and the cap a^6, securing the bracket to the spindle, as set forth, whereby by rotating the bracket or its screw the tension of the spring may be regulated as desired, substantially as described.

This specification signed and witnessed this 23d day of June, 1881.

M. C. MOHR.

Witnesses:
CHAS. HUSTED,
S. S. EVANS.