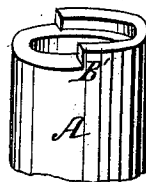
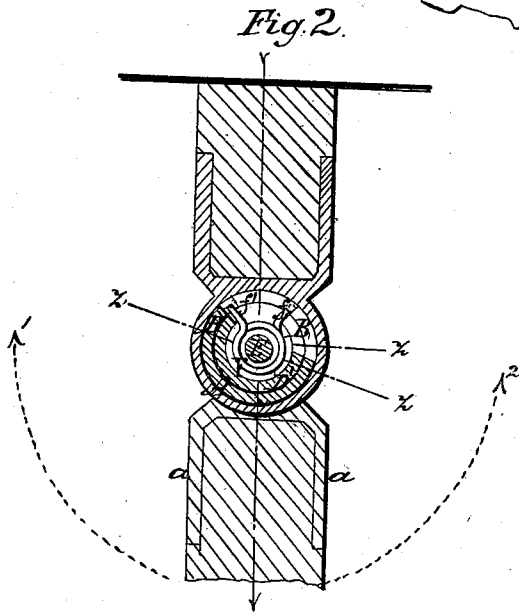
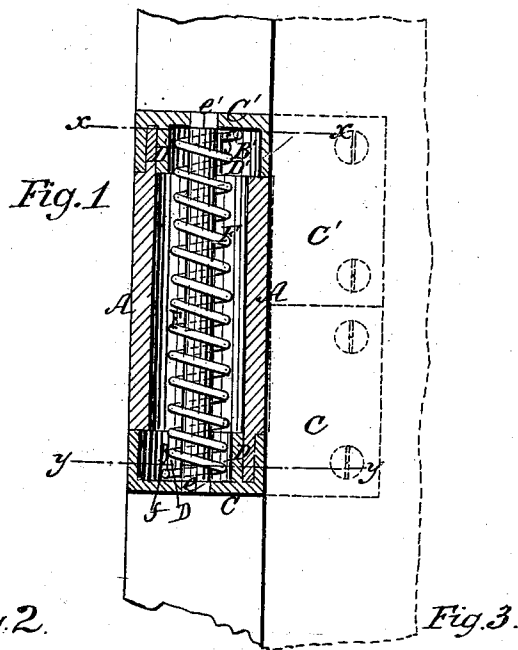


V. S. Herzog.

Spring Hinge.

No. 88,567.

Patented Apr. 6, 1869.



Witnesses

John Herzog.
Victor Hagmann.

Inventor.

V. S. Herzog.

United States Patent Office.

V. S. HERZOG, OF BALTIMORE, MARYLAND.

Letters Patent No. 88,567, dated April 6, 1869.

IMPROVEMENT IN SPRING-HINGES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, V. S. HERZOG, of the city and county of Baltimore, and State of Maryland, have invented a new and useful Double-Acting Spring-Hinge; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a sectional view, taken in the line *v v*, fig. 2, showing the spindle surrounded by the actuating-spring.

Figure 2 is a sectional view, taken in the line *x x*, fig. 1.

Figure 3 is a perspective view of one end of the cylindrical casing.

Figure 4 is a sectional view, taken in the line *y y* of fig. 1.

The nature of my invention consists in constructing a double-acting spring-hinge, with a single pintle, or spindle; also, the peculiar manner of attaching the actuating-spring; and also, the peculiar form of construction of the cylindrical casing enclosing the pintle, or spindle and the actuating-spring.

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

In the drawings—

A represents the cylindrical casing, which is provided with a flange, *a*, for securing it to the door by screws.

The ends of the casing A have shoulders B B' formed on them, by cutting away a portion equal to about one-third of the circumference, as shown in fig. 3.

C C' are caps, provided with flanges *c c'*, for securing them to the door-frame, or jamb.

In these caps, and cast or formed with them, are projections D D', each of which forms an arc equal to about two-thirds of a circle.

E is the pintle, or spindle, one end of which, *e*, is rigidly attached to the cap C; the other end, *e'*, passing through a hole in the cap C'.

F is a spiral spring, the ends of which, *f f'*, are turned out, so as to engage with the arcs D D'.

To place the several parts in position for use, the spring F is arranged around the spindle E, so that its lower projecting end *f* will rest against the arc D, as shown in fig. 4.

The casing A is then placed over the spring, so that the shoulder B will rest against the lower end *f* of the spring.

The upper end *f'* is then forced around until it engages with the shoulder B'. The cap C' is then placed in position, and the end *e'* of the spindle secured by riveting, or by a nut and screw-thread, as may be desired, so as to hold the several parts in proper position, as shown in fig. 2, the lower end *f* of the spring F resting against the arc D and shoulder B, and the upper end *f'* resting against the arc D' and shoulder B'.

The operation is as follows :

When the door is opened to the left, (as indicated by arrow 1, fig. 2,) the shoulder B' presses the end *f'* toward the line *v v*, which tends to wind up, or tighten the spring, the shoulder B leaving the end *f* resting against the arc D, in the position shown in fig. 4.

When the door is opened to the right, (as indicated by arrow 2,) the shoulder B engages the end *f*, leaving the end *f'* resting against the arc D'.

In either case, when the door is released, the position of the ends *f f'*, and the tendency of the spring F to unwind itself, serve to retain the parts in the position shown in fig. 2, and keep the door closed.

Having thus fully described my invention,

What I claim therein as new, and desire to secure by Letters Patent, is—

The combination and arrangement of the casing A and shoulders B B', the caps C C' and arcs D D', with the pintle E and spring F, when constructed and operating as herein shown and described.

Witnesses :

STEPHEN A. MORSE,
HENRY McCAFFRAY.

V. S. HERZOG.