(No Model.)

A. KELLER.

SPRING HINGE.

No. 496,160. Patented Apr. 25, 1893.

Fig. 1.

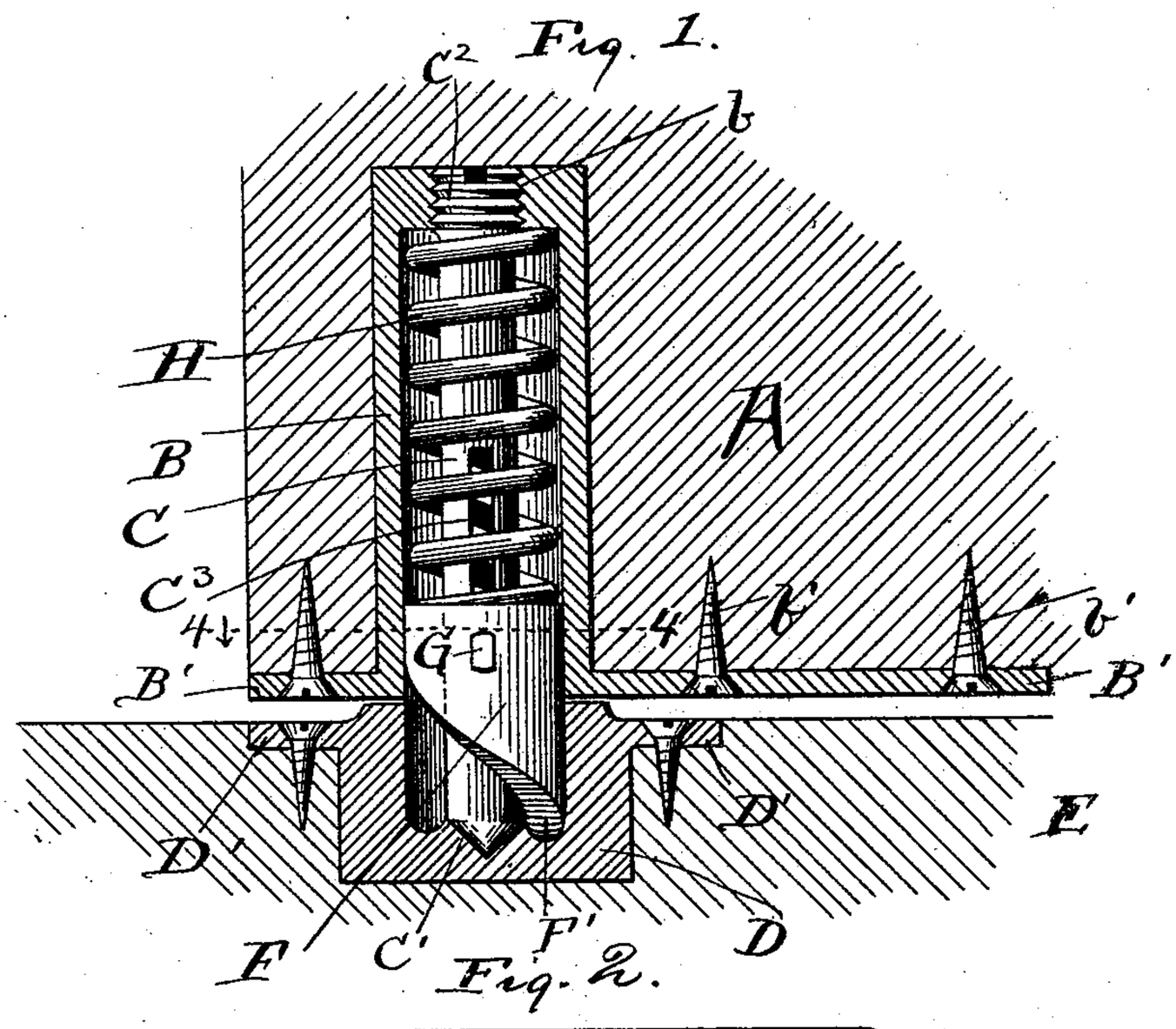


Fig. 2.

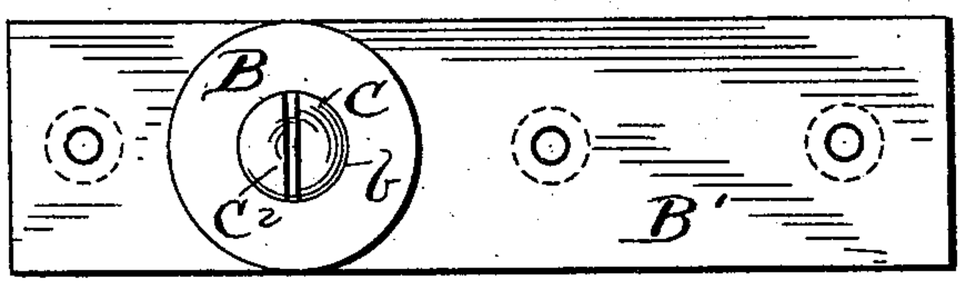


Fig. 3.

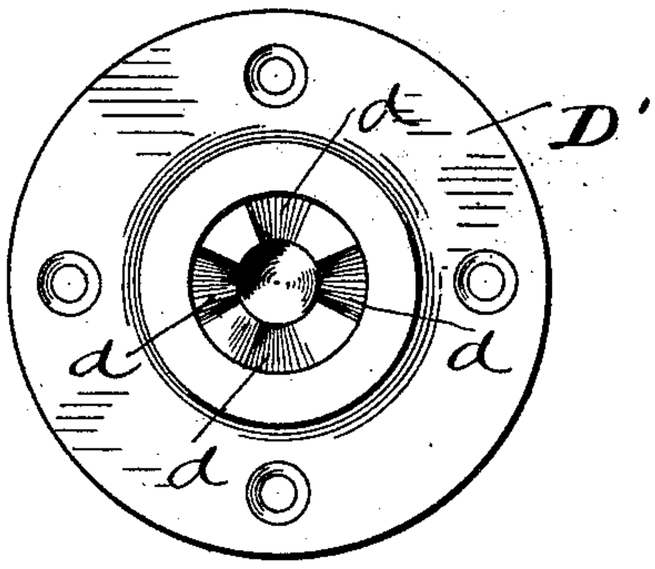
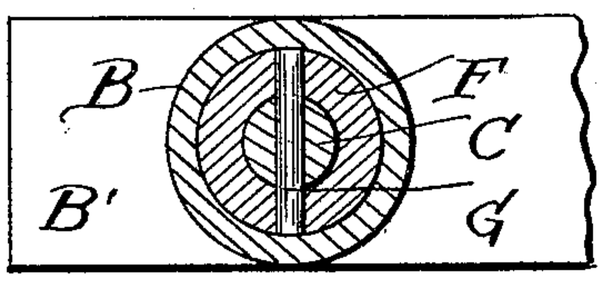


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

AUGUST KELLER, OF CLEVELAND, OHIO.

SPRING-HINGE.

SPECIFICATION forming part of Letters Patent No. 496,160, dated April 25, 1893.

Application filed May 3, 1892. Serial No. 431,692. (No model.)

To all whom it may concern:

Be it known that I, AUGUST KELLER, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Double-Acting Pin-Hinges; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to improvements in double-acting pin-hinges, for doors, the object being to provide a hinge that will not only permit the door to be swung in either direction, but will retain the door in position open as well as in the position closed.

With this object in view, my invention consists in certain features of construction and in combination of parts, hereinafter described and pointed out in the claims.

A preferable construction of my improved hinge is shown in the accompanying drawings, wherein—

Figure 1 exhibits my improved hinge applied, the hinge being shown in central vertical section. Fig. is a plan of member B. Fig. 3 is a plan of member D. Fig. 4 is a plan in section on line 4—4, Fig. 1.

A represents the bottom-rail or back-hanging-stile of a door, the same having seated within it, a tubular metallic member or socket, B, inserted from the lower edge of said stile or rail, member B, at the lower end, having a lateral flange or flanges, B′, perforated for the reception of screws *b′* adapted to secure member B to the said rail or stile flush with the bottom of the latter.

Member B is closed at its upper end and has centrally located within it and rigid therewith, a pin, C, the latter extending below the door and being stepped, as at C′, in the bottom and centrally of a metallic socket D secured to the floor E below, pin C having preferably a screw-threaded portion, as at C^2, adapted to engage a correspondingly screw-threaded hole *b* in the top of the metallic socket or member B.

Member D, at its upper end, has a lateral flange, or flanges, D′, flush with the top surface of the floor and provided with countersunk holes adapted to receive the heads of the securing-screws flush with the top surface thereof.

The bottom floor of socket D is inclined as shown, and, at opposite sides of the incline, (and at intermediate points if desired) has a notch or depression, *d*, adapted to receive the lowermost end of depending member F′ of a sleeve F that is loosely mounted on pin C, but caused to turn with said pin by means of a pin G secured to and extending transversely of sleeve F through a longitudinal slot C^3 in pin C.

Sleeve F fits nicely but easily within member B, and between the upper end of sleeve F and the top of socket or member B and mounted on pin C, is confined a spring, preferably a coil-spring, H, that is adapted to act in the direction to hold the lower projecting end of sleeve F in engagement with the desired notch or depression *d* in the bottom wall or floor of socket D and also in the direction to retain the door in its closed position.

As the door is swung in either direction, pin C and sleeve F turn with the door, and sleeve F, by means of the inclined floor or bottom wall of socket D, is elevated or lowered on pin C according as the door is swung in the direction to close or open the same, slot C^3 in pin C accommodating pin G that, as aforesaid, operatively connect sleeve F with pin C, and the door is retained in its open or closed position by the engagement of the lower projecting-end of sleeve F with the respective notch or depression *d* in the floor of socket D. However, not more than one notch or depression *d*,—namely, for the desired open position of the door,—is required, if spring H is adapted to act in the direction to retain the door closed as hereinbefore indicated.

The device is simple in construction and comparatively inexpensive.

What I claim is—

1. The combination with a pair of socket pieces, one secured to a stationary part and the other to a movable part, a slotted pin pointed on one end and screw threaded on the other, screwed to one of the socket pieces whereby it may be adjusted endwise, and bearing in the other, of a sleeve loosely mount-

ed on the pin and provided with a transverse pin passing through the slot in the main pin, and a spring mounted on the main pin and bearing on the sleeve, substantially as set forth.

2. The combination with a pair of socket pieces one having a threaded hole in one end and the other a bearing in its bottom end, of a pin adjustably secured in the threaded hole and bearing at is lower end in the bearing in the bottom of the other socket piece, the bottom having notches formed around the bearing and concentric therewith, and a spring actuated sleeve loosely mounted on the pin and having sliding connection therewith, said sleeve pointed at one end, said pointed end operating in connection with the notches around the bearing, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 23d day of March, 1892.

AUGUST KELLER.

Witnesses:
C. H. DORER,
WARD HOOVER.