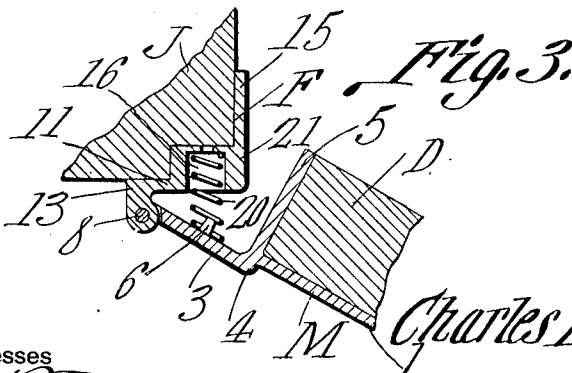
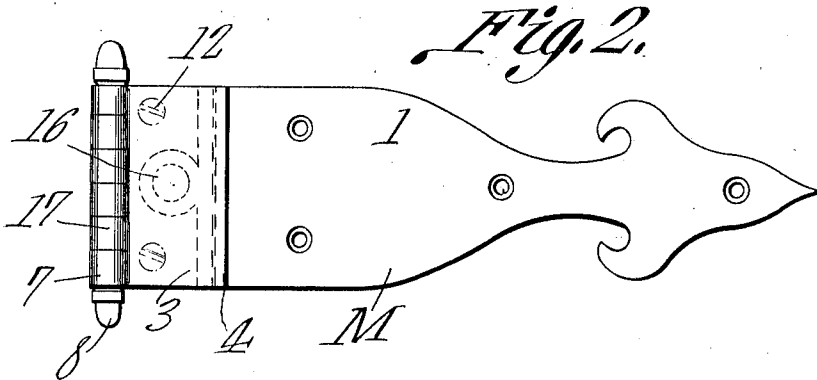
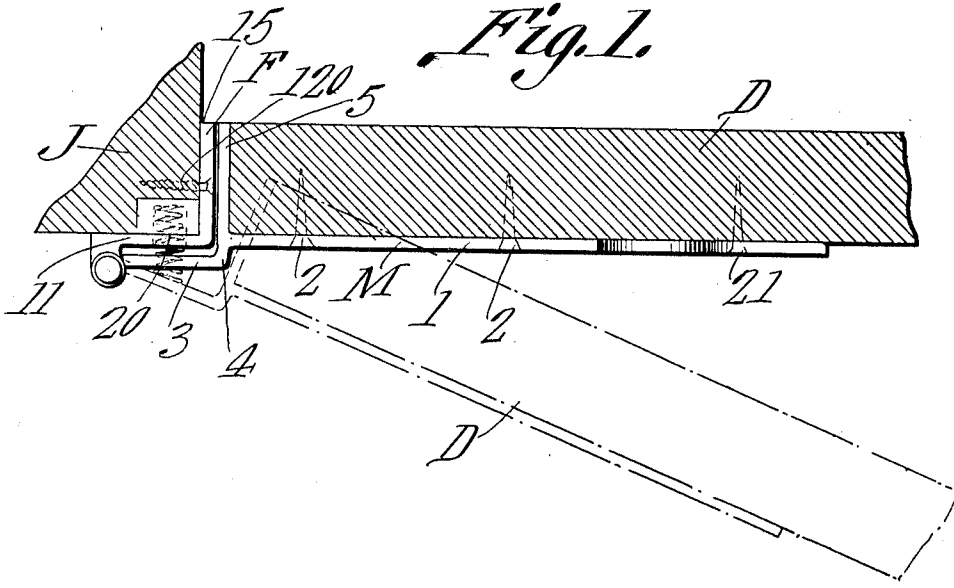


C. E. BERRY.
 SPRING OPENING HINGE.
 APPLICATION FILED NOV. 21, 1910.

1,019,940.

Patented Mar. 12, 1912.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES E. BERRY, OF SOMERVILLE, MASSACHUSETTS.

SPRING-OPENING HINGE.

1,019,940.

Specification of Letters Patent.

Patented Mar. 12, 1912.

Application filed November 21, 1910. Serial No. 593,554.

To all whom it may concern:

Be it known that I, CHARLES E. BERRY, a citizen of the United States, residing at Somerville, in the county of Middlesex and State of Massachusetts, have invented a new and useful Spring-Opening Hinge, of which the following is a specification.

This invention relates to builders' hardware, and more especially to spring hinges; and the object of the same is to produce a door hinge of the spring type which will open automatically when the door latch is released, for use on stall doors in fire engine houses and under other conditions where a hinge of this type is desired.

The invention consists in the specific details of construction described and claimed below, and shown in the drawings wherein:—

Figure 1 is a plan view of the hinge attached to the jamb and the door which latter are shown in section. Fig. 2 is a front elevation of the hinge alone. Fig. 3 is a horizontal section through the parts, showing the hinge slightly open.

In the drawings the letter J designates the jamb and D the door, and these members are to be connected by my improved type of spring hinge. The latter comprises the fixed leaf F and the movable leaf M, both preferably of metal and of detailed configuration and proportions which form no part of the present invention.

The movable leaf M is herein shown as having a long strap 1 secured by screws 2 or the like to the face of the door D, and its inner end 3 is deflected slightly as at 4 for a purpose to appear below. From a point near the deflection 4 a web 5 projects to the rear at right angles to the strap 1. This web is intended to pass across the edge of the door D so as to strengthen all parts of the hinge, but the web itself is not actually necessary to the successful operation of my invention. The inner end 3 is provided on its inner face with a stud 6, and at its inner extremity it has knuckles 7 through which passes the pintle 8 as usual.

The fixed leaf F has a substantially L-shaped body when viewed from above as best seen in Fig. 1, and said body comprises a web 15 intended to pass over the inner face of the jamb J if employed and receive screws 120, although this web is not absolutely essential to the successful operation of my de-

vice. The leaf also comprises a flat strap 11 secured to the face of the jamb by screws 12 as usual, and the inner end 13 of this strap projects outward at right angles to it as best seen in Fig. 3 and is formed with knuckles 17 alternating with those numbered 7 on the outer member of the hinge and pivotally connected therewith by the pintle 8. It follows that when the hinge is closed as seen in Fig. 1 the offset inner end 3 of the movable leaf lies over the strap end 11 of the fixed leaf, the webs 5 and 15 stand practically in contact with each other, and the hinge point is through the axis of the pintle; and as the door is swung open it moves bodily around said point so that when it reaches an extreme open position the inner end 3 of the movable leaf M will lie over the front face of the jamb J.

The spring feature of this hinge consists in a strong coiled expansive spring 20 whose outer end engages the stud 6 on the movable member M and whose inner end passes into a socket 16 cast or formed in the angle of the L-shaped fixed member F at about the position seen in dotted lines in Fig. 2. The expansive force of this spring is sufficient to throw the door open when its latch is released, and yet the depth of the socket is sufficient to permit the spring to be compressed therein when the door is closed. If the web 15 on the fixed member F is omitted, the socket will be formed with a closed outer side or wall at the point 21 in Fig. 3, but when said web is employed as shown it will itself close said socket. The latter does not extend the entire height of the hinge, but preferably occupies an intermediate position as seen in dotted lines in Fig. 2. The uses of such a hinge need not be elaborated here.

Having described the invention, what is claimed as new and useful is:—

The combination with a door and door casing, of a hinge, composed of two members, one member being substantially L-shaped in edge elevation and provided with a recessed portion to be counter sunk within the door casing, and with bolt receiving knuckles, said member being attached to the corner of the casing, the other member being a long door engaging terminal and a right angled plate intermediate of its ends, to receive the portion of the door adjacent the casing, the terminal having the hinge knuckles being out of plane with the long terminal and piv-

oted to the knuckle of the other member of
the hinge, a pintle projecting from the inner
side of the said terminal, and a coiled spring
mounted in the recessed portion and covered
5 by the short terminal of the door carrying
member of the hinge, its pintle retaining the
outer end of the spring in place, the right
angled plate of the door carrying member
abutting, when the door is closed, the plate

of the other member attached to the inner 10
face of the door casing.

In testimony that I claim the foregoing as
my own, I have hereto affixed my signature
in the presence of two witnesses.

CHARLES E. BERRY.

Witnesses:

GEORGE W. SNOW,
L. G. GREEN.

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