

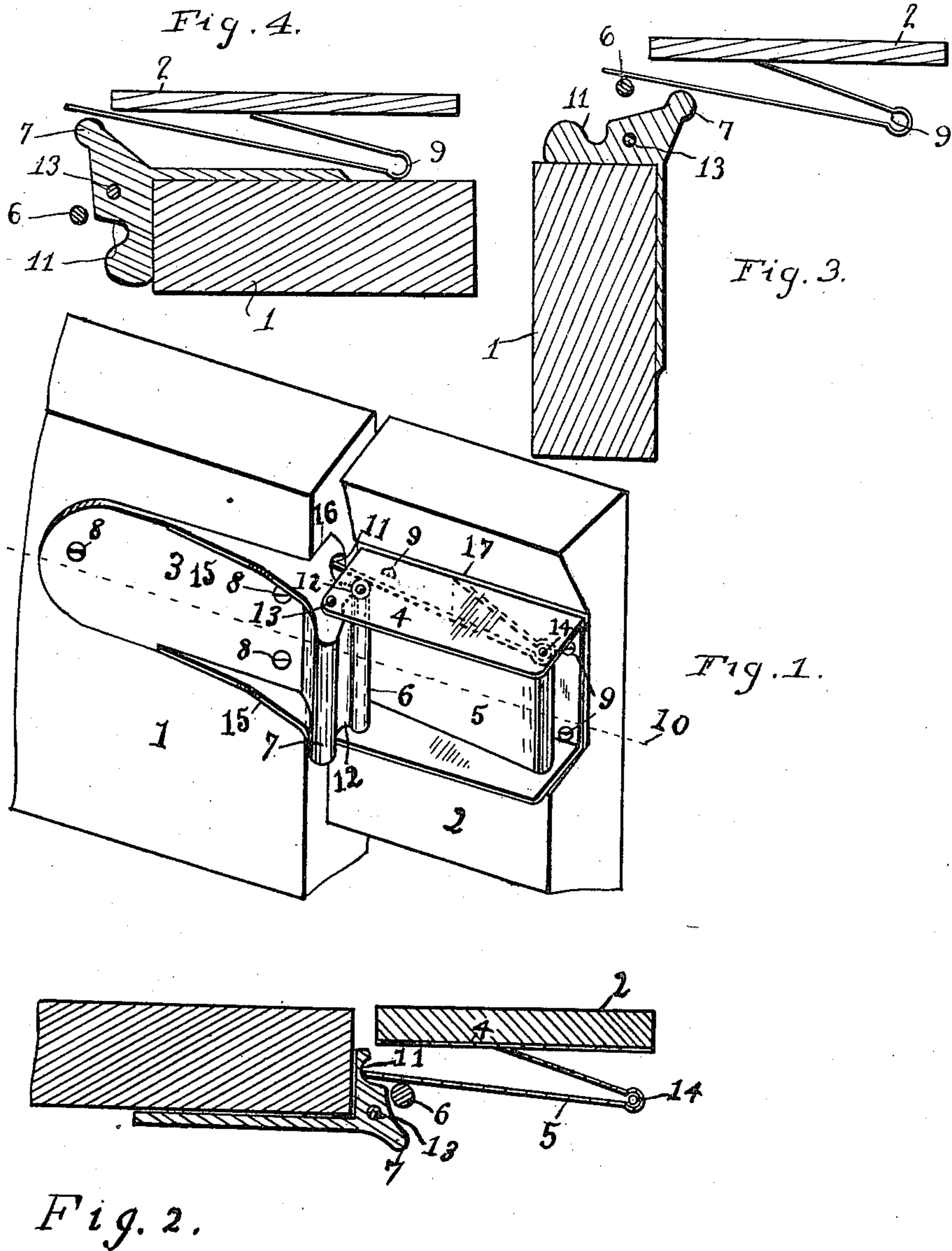
P. E. HOWARD.

DOOR HINGE.

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974,794.

Patented Nov. 8, 1910.



WITNESSES:

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PERKINS E. HOWARD, OF WICHITA, KANSAS.

DOOR-HINGE.

974,794.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, PERKINS E. HOWARD, a resident of Wichita, in the county of Sedgwick and State of Kansas, have invented
5 certain new and useful Improvements in Door-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 ap-
10 pertains to make and use the same.

My invention relates to door hinges and has for its object the production of a cheap and durable hinge, one easily applied.

15 Another object is to provide a hinge having a spring to continually urge the door to a closure.

Another object is to provide means to hold the door open at right angle to the door frame and when opened to the limit of
20 its swing, to retain it.

To the accomplishment of these objects and others subordinate thereto, the preferred embodiment of my invention comprehends the construction and arrangement of
25 parts illustrated in the accompanying drawings described in the specification and succinctly defined in the appended claim.

Referring to the drawings, Figure 1, is a perspective view of my device as applied to
30 a door. Figs. 2, 3, and 4, are horizontal sections of the hinge, door and casing taken on the dotted line 10—10. Fig. 2, showing the door closed. Fig. 3, the door opened to 90 degrees. Fig. 4, open to 180 degrees.

35 1, is a section of a door. 2, a section of a door casing, to which said hinge is applied, the hinge being in two sections 3 and 4, section 3, will be hereinafter referred to as the movable section and section 4, as the fixed
40 section. The fixed section in the present instance comprises in its construction a base plate and is preferably formed from sheet metal and having flanges 17, projecting outwardly from its upper and lower edges at
45 right angles thereto, to form a seat for the two armed spring 5, which is secured therebetween by a pin 14, said flanges having perforations at their outer corners whereby
50 the same is pivotally connected to the movable section 3, by the pintle 13. The mov-

able section 3, comprises in its construction a right angled plate adapted to be secured to the door 1, the edge bearing portion having an extension or projection 7, formed on its outer face with a curved recess and is pro- 55
vided with flanges 15, connecting said part 7, with the base plate 3, and is also provided with lugs 12 (not distinctly shown as such) between which is rotatably mounted a roller 6, the flange being also provided with a 60
groove 11 as shown in Fig. 1. One arm of the spring 5, bears against the base plate of section 4, and the other contacts with the roller 6, until the door is nearly closed when it is thrown out of action and is finally 65
seated in the groove 11, of the part 16. When the door is opened to 90 degrees the spring 5, bears against both the roller 6, and the projection 7, and holds the door in the position shown in Fig. 3, when the movable 70
section is opened to 180 degrees it is held open by the spring 5, pressing against the projection 7, as illustrated in Fig. 4.

What I claim is:

The combination with a hinge comprising 75
a fixed and movable member pivotally connected, said fixed member having a base plate carrying laterally extended parallel flanges and adapted to be secured to the door frame, said movable section consisting 80
of an angle plate adapted to be secured to the face, and inner edge of a door and having on said edge portion a curved and grooved projection of a two armed spring pivotally
85 mounted in the flanges of said fixed member, a roller also mounted therein, said spring adapted to bear against the roller and the base of said hinge and the projection on the movable member whereby said
90 spring may automatically close the door from a given point and hold it open at 90° or at 180°.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

PERKINS E. HOWARD.

Witnesses:

E. GLOVER,
ROSS S. EMMONS.