

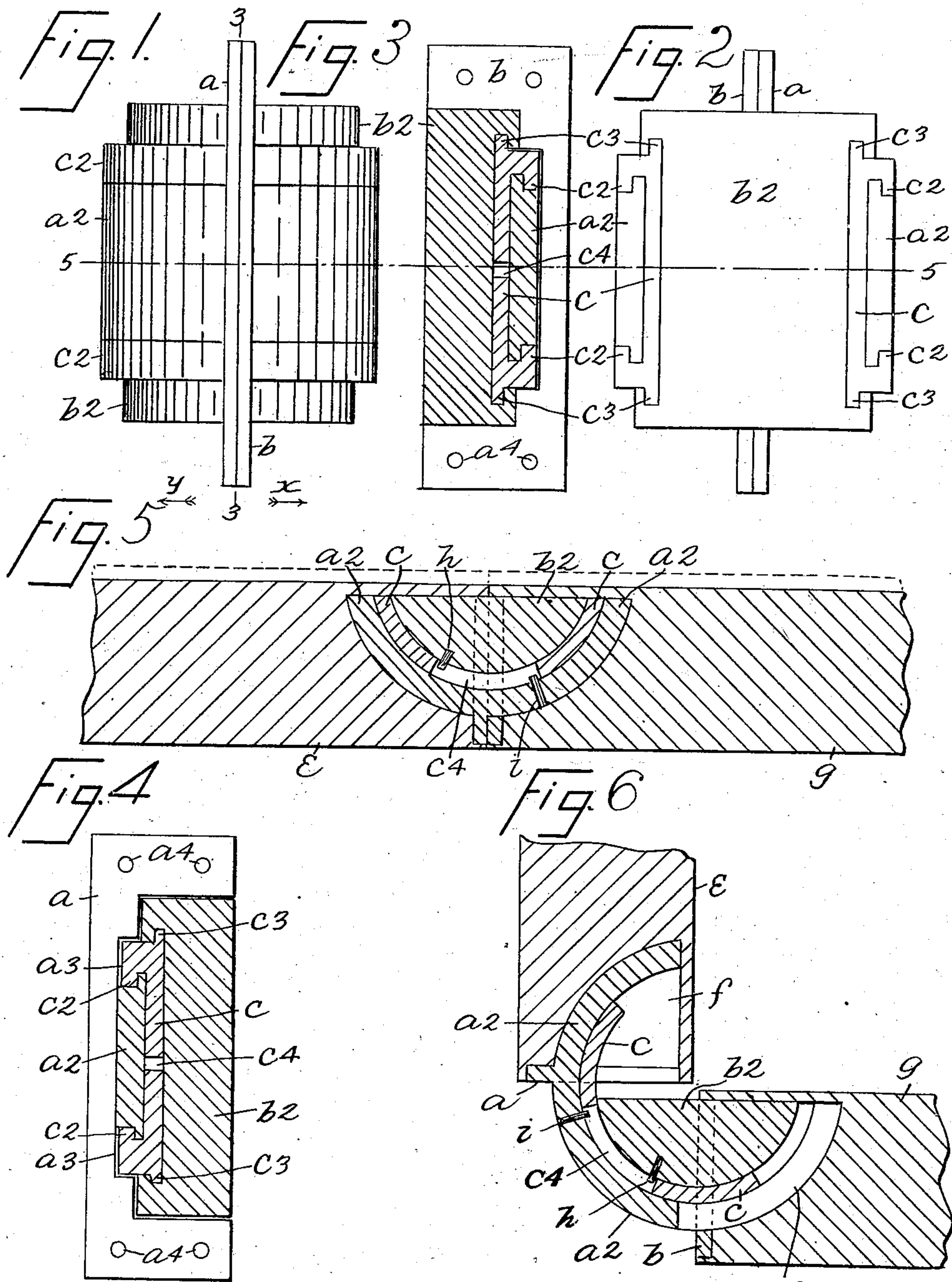
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PATENTED APR. 7, 1903.

J. SOSS.  
HINGE.

APPLICATION FILED AUG. 7, 1902.

NO MODEL.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## HINGE.

SPECIFICATION forming part of Letters Patent No. 724,962, dated April 7, 1903.

Application filed August 7, 1902. Serial No. 118,716. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH SOSS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Hinges, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

10 The object of this invention is to provide an improved hinge for doors which is concealed when the door is closed, and which is simple in construction and strong and durable, and which will not get out of order and  
15 which will not need repair; and with this and other objects in view the invention consists in a hinge of the class specified, constructed as hereinafter described and claimed, and which may also be used on gates, sashes, or  
20 other articles of this class.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated  
25 by suitable reference characters in each of the views, and in which—

Figure 1 is a back view of my improved hinge; Fig. 2, a front view thereof; Fig. 3, a section on the line 3 3 of Fig. 1 looking in the  
30 direction of the arrow  $x$ ; Fig. 4, a section on the line 3 3 of Fig. 1 looking in the direction of the arrow  $y$ ; Fig. 5, a section on the line 5 5, showing the hinge applied to a door, the door being closed; and Fig. 6, a section on the same line, but showing the door open.

35 My improved hinge, as shown in the drawings, consists of three separate parts  $a$ ,  $b$ , and  $c$ , one of which consists of a plate  $a$ , which is adapted to be set into the door  $e$ , and the segmental plate  $a^2$ , connected with the plate  $a$ , is formed integrally therewith, said plate  $a$  being cut out at one side, as shown in Fig. 4, and at the top and bottom of the plate  $a^2$  are  
40 rabbet-grooves  $a^3$ , formed partially in the plate  $a^2$  and partially in the plate  $a$ , and the plate  $a$  is adapted to be secured to the edge of the door  $e$  and for this purpose is provided with holes  $a^4$ , through which may be passed screws in the usual manner. When the plate  $a$  is  
45 secured to the door, one-half of the supplemental plate  $a^2$  fits in a corresponding cavity

formed in the door, as shown in Fig. 6, and the other half projects therefrom.

The part  $b$  consists of a plate adapted to be secured to the frame of a door, which is shown  
55 at  $g$ , and this plate carries a supplemental member  $b^2$ , formed integrally therewith and segmental on one side and flat on the other and one half of which fits in a corresponding recess  $g^2$ , formed in the door-frame, and the  
60 other half of which is adapted to enter a corresponding recess  $f$ , formed in the door.

The part  $c$  consists of a segmental plate placed between the parts  $a^2$  and  $b^2$  and provided at its top and bottom edges with inter-  
65 locking members  $c^2$ , adapted to enter the rabbet-grooves  $a^3$  and also at its top and bottom edges with flanges  $c^3$ , adapted to enter corresponding grooves in the part  $b^2$  of the plate  $b$ , as clearly shown in Fig. 4. 70

In assembling the parts of my improved hinge the plate  $c$  is slipped onto the plate  $a^2$ , to which it is locked by the locking members  $c^2$ , which operate in the rabbet-grooves  $a^3$ , and said plate  $c$  is provided with a slot  $c^4$ , and a  
75 pin  $h$  is driven through the slot  $c^4$  into the member  $b^2$  of the plate  $b$ . Another pin  $i$  is secured in the segmental plate  $a^2$  and passes into the slot  $c^4$  in the plate  $c$ , and these pins limit the movement of the parts of the hinge,  
80 as hereinafter described. After the parts  $a$  and  $c$  have been connected, as described, the member  $b^2$  of the plate  $b$  is slid onto or passed onto the plate  $c$ , the flanges  $c^3$  entering the corresponding grooves in the part  $b^2$ , as shown  
85 in Fig. 4. When the parts of the hinge are thus connected, the plates  $a$  and  $c$ , respectively, are secured to the door  $e$ , and the frame  $g$  and the door may be swung freely, as will be readily understood. In Fig. 5 the  
90 door is shown as closed, while in Fig. 6 it is opened at an angle of ninety degrees, and it will be apparent that by increasing or decreasing the radius of the part  $b^2$  of the plate  $a$  the door  $e$  may be held nearer to or farther from  
95 the frame when the door is open. When the door is closed, the parts of the hinge are entirely concealed, as indicated in Fig. 5, and when the door is open the hinge can only be seen from one side thereof. 100

It will be observed that the segmental plate  $a^2$  is arranged transversely of the plate  $a$ , with



which it is connected, and the supplemental member  $b^2$  is arranged longitudinally of the plate  $b$ , with which it is connected, the convex surface thereof being directed outwardly, and  
 5 that part of the segmental plate  $a^2$  which projects from the door is adapted to enter the cavity or recess  $g^2$  in the frame when the door is closed, and at the same time the projecting portion of the member  $b^2$  of the plate  $b$   
 10 enters the corresponding recess  $f$  in the door, and the plate  $c$  is free to swing or slide between the plate  $a^2$  and the member  $b^2$  of the plate  $b$ , as will be readily understood, and the length of the slot  $c^4$  in said plate  $c$  will limit  
 15 the swing of the door, and by employing a number of the plates  $c$  and locking them together by means of pins and slots the door  $e$  may be made to swing through a half-circle.

My improved hinge may be used in connection with gates, sashes, and other articles of this class, as well as in connection with doors, but is particularly adapted for use in connection with doors in dwellings and also in connection with the doors of safes.

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

A hinge comprising a plate adapted to be

secured to a door and provided with a supplemental segmental plate arranged longitudinally and transversely thereof, another plate adapted to be secured to the frame of a door and provided with a longitudinal supplemental member segmental on one side, and a central segmental plate placed between  
 35 said supplemental member and said first-named segmental plate, the central segmental plate being provided with a transverse slot, and the first-named segmental plate and the supplemental member of the plate adapted  
 40 to be secured to a door being provided with pins which enter said slot, the first-named segmental plate, the supplemental member and the central segmental plate being interlocked together but adapted to move one  
 45 upon the other, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 5th day  
 50 of July, 1902.

JOSEPH SOSS.

Witnesses:

F. A. STEWART,  
 C. E. MULREANY.