

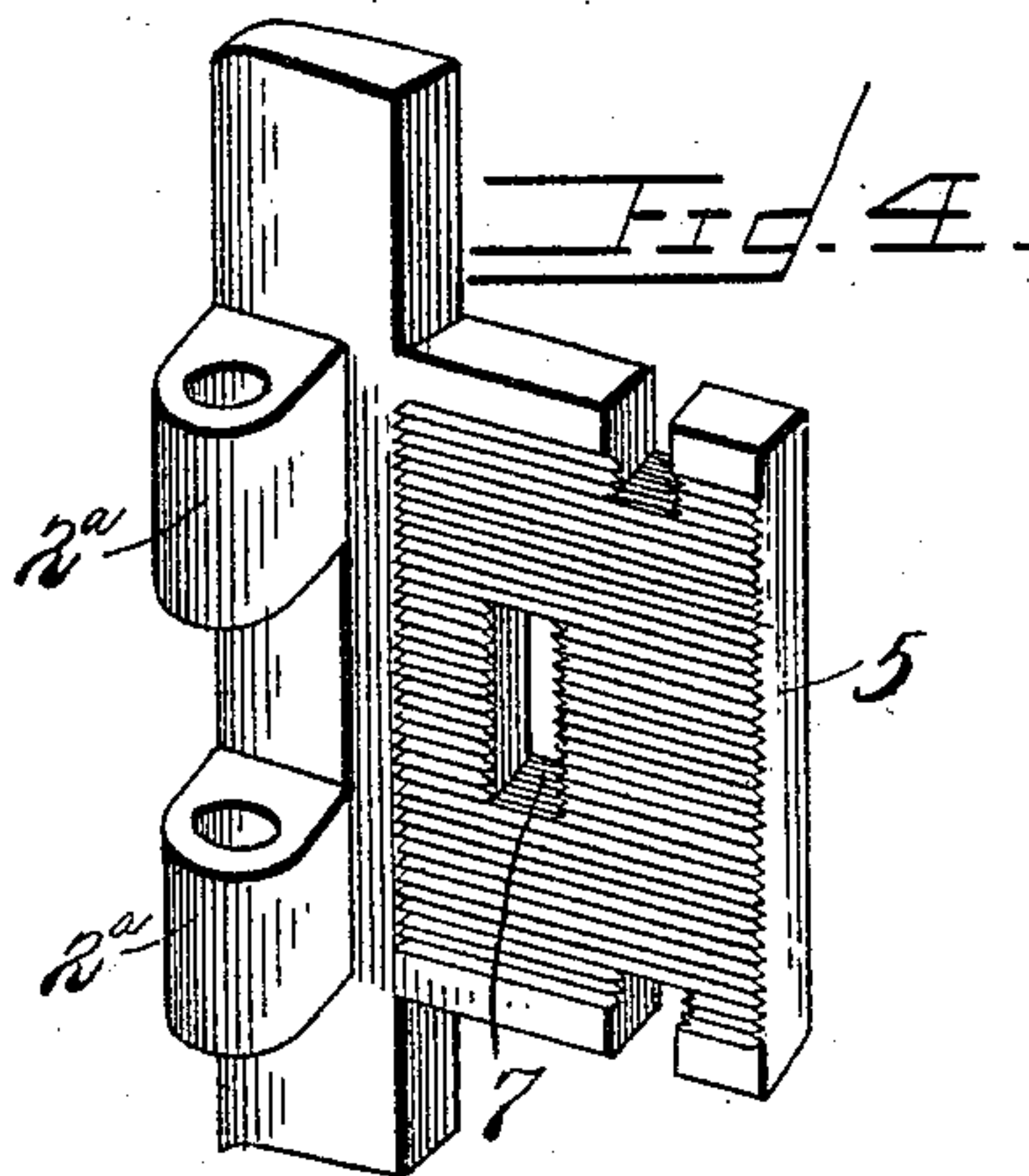
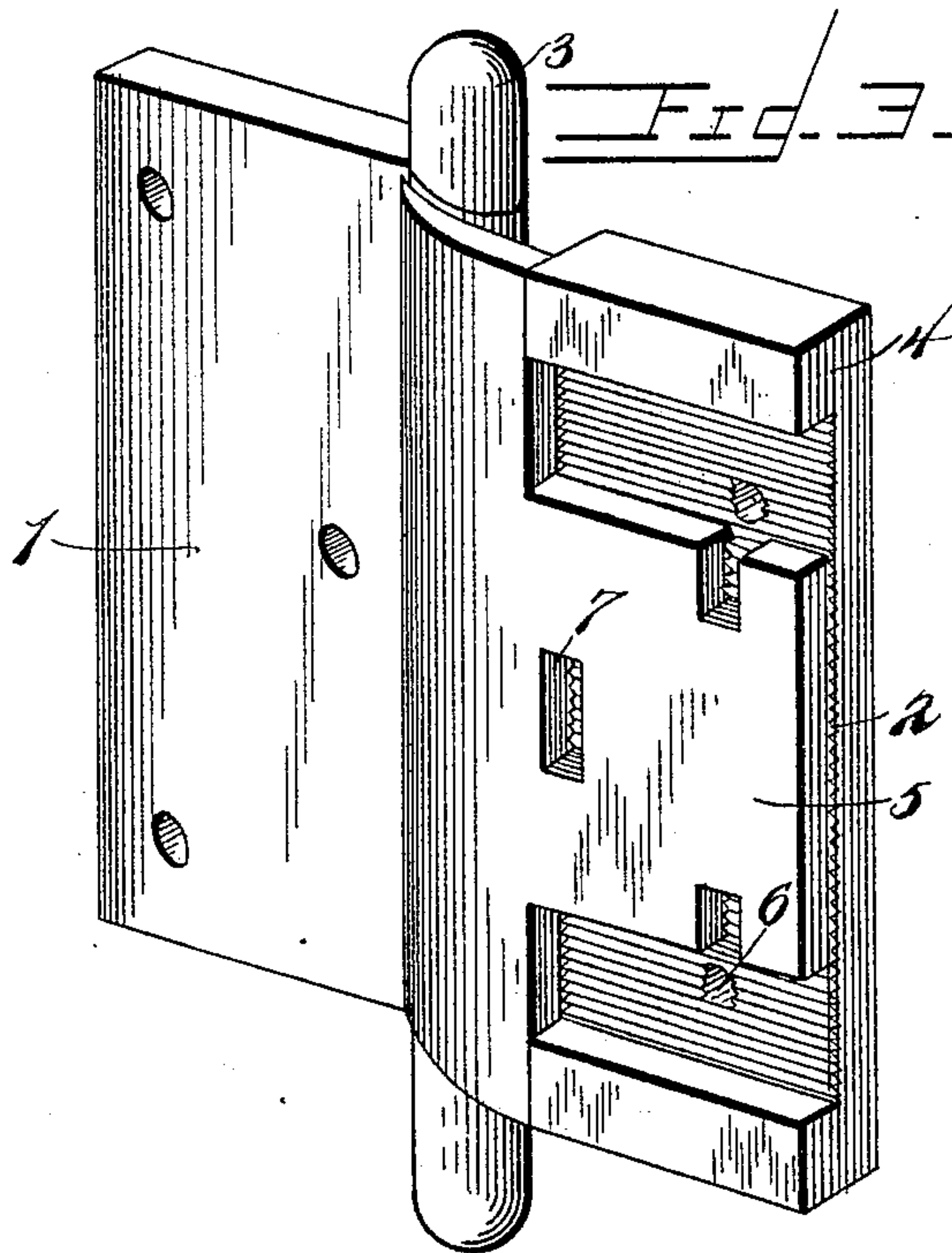
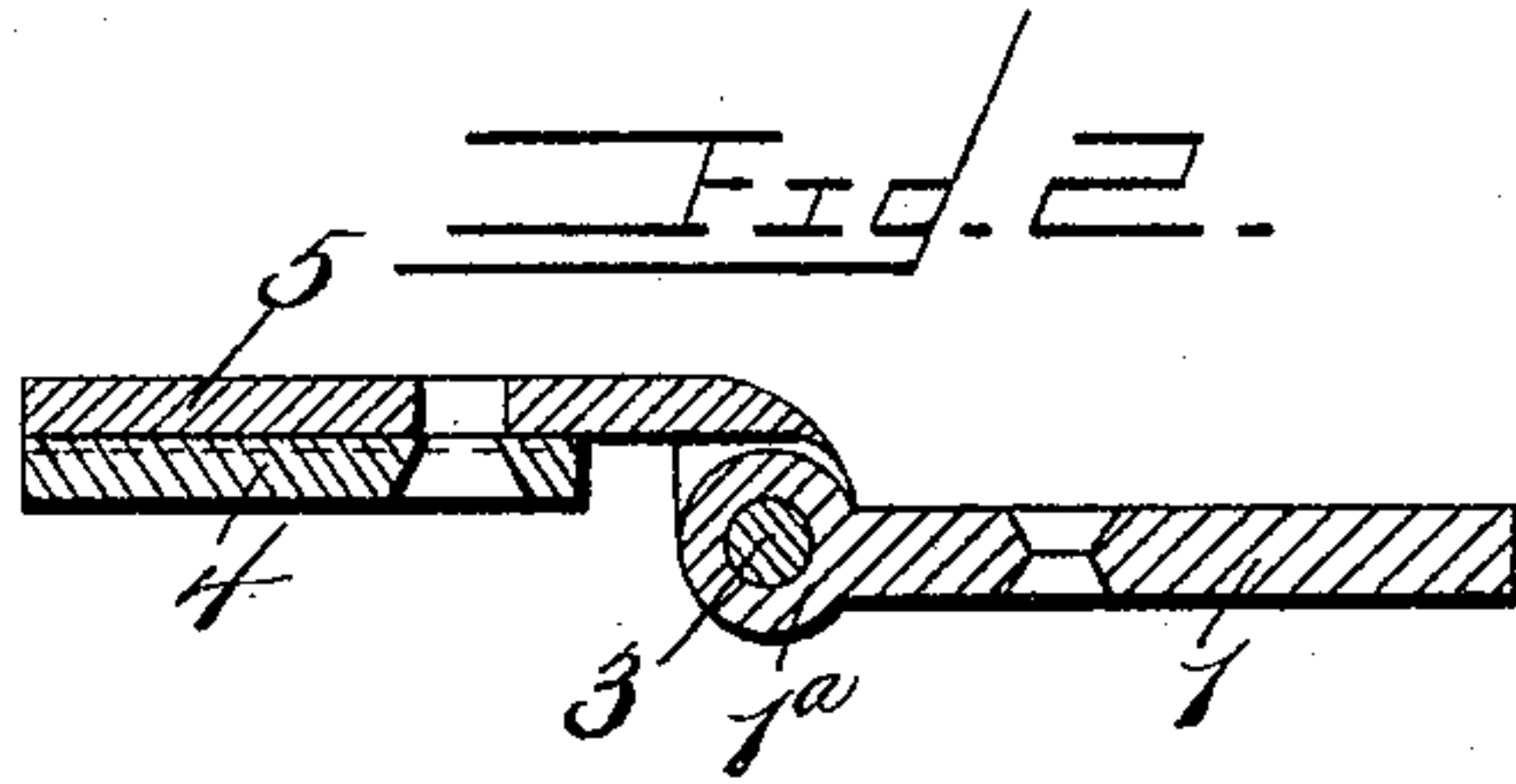
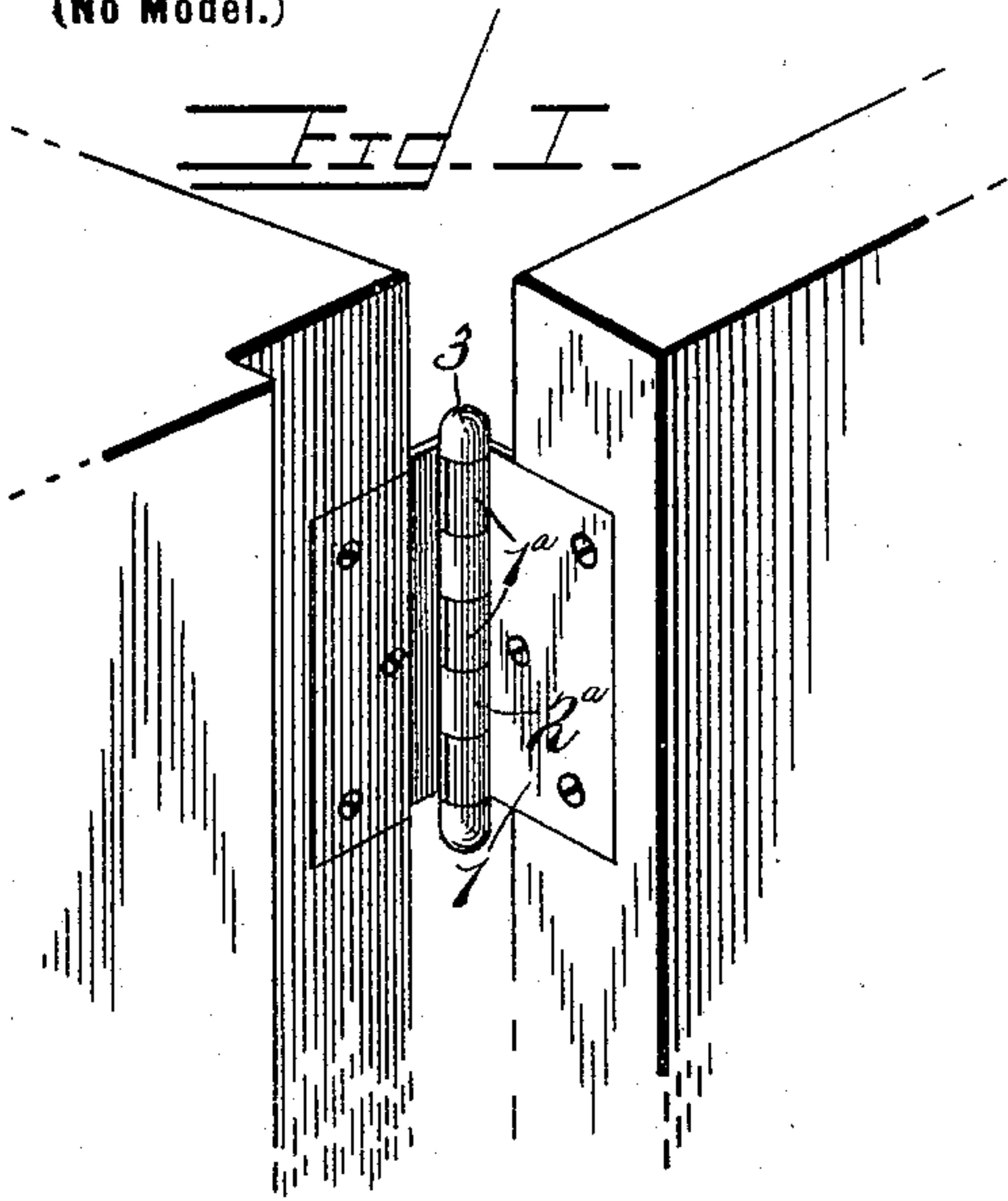
No. 611,742.

Patented Oct. 4, 1898.

E. SCHMIDT.
HINGE.

(Application filed Apr. 27, 1897.)

(No Model.)



Inventor

Evert Schmidt.

Witnesses

R. A. Shepard
E. J. [Signature]

By *W. S.* Attorneys,

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UNITED STATES PATENT OFFICE.

EVERT SCHMIDT, OF WAUPUN, WISCONSIN, ASSIGNOR OF ONE-HALF TO
EDWIN B. PATTON, OF SAME PLACE.

HINGE.

SPECIFICATION forming part of Letters Patent No. 611,742, dated October 4, 1898.

Application filed April 27, 1897. Serial No. 634,102. (No model.)

To all whom it may concern:

Be it known that I, EVERT SCHMIDT, a citizen of the United States, residing at Waupun, in the county of Fond du Lac and State of Wisconsin, have invented a new and useful Hinge, of which the following is a specification.

My invention relates to hinges, and has for its object to provide a device of this class wherein vertical adjustment is possible without removing either leaf from the part to which it is attached and without changing the countersunk or cut-away portions of said parts.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a hinge constructed in accordance with my invention applied in the operative position. Fig. 2 is a transverse section of the same. Fig. 3 is a rear perspective of the hinge detached. Fig. 4 is a similar view of the adjustable leaf-plate and attached knuckles.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The hinge embodying my invention comprises a leaf 1, provided with knuckles 1^a, and a sectional leaf 2, having knuckles 2^a for alignment with the knuckles 1^a, a hinge-pin 3 being engaged with said knuckles when alined. The sectional leaf comprises two members, of which the securing-plate 4 is adapted to be countersunk into and fastened to a door or jamb, as in the ordinary practice, while the leaf-plate 5, which carries the knuckles 2^a, fits in a cut-away portion or recess of the securing-plate, and being of less length than said recess is capable of adjustment parallel with the hinge-pin to vary the position of the main portion of the hinge with relation to said securing-plate without necessitating the change of position of the securing-plate. The securing-plate is adapted to be fastened by means of screws 6 or their equivalents, as in the ordinary practice, and as the recess in said securing-plate is equal in depth with the thickness of the leaf-plate it is obvious that when said securing devices are tightened the

frictional contact of the floor of the recess in the securing-plate with the contiguous surface of the leaf-plate will tend to bind the leaf-plate at the desired adjustment. In order to increase this frictional contact and cause a sufficiently positive engagement of the members of the sectional leaf to prevent displacement of the leaf-plate, I preferably serrate the contacting faces of the leaf-plate and securing-plate by forming transverse interlocking grooves therein. Hence when the securing devices of the securing-plate are tightened the serrations of the securing-plate interlock with those of the leaf-plate, and thus bind the latter, and hence the door or other closure, in connection with which the hinge is used, at the desired vertical adjustment. The leaf-plate is preferably slotted, as shown at 7, to allow vertical adjustment of the leaf-plate without obstruction by the securing devices of the stationary member 4 of the hinge. It will be understood, however, that the length, number, and disposition, or the use at all of these slots 7, will depend upon the number, disposition, and the interval between the securing-screws by which the plate 4 is held in place. For instance, by omitting the intermediate securing-screw and disposing the terminal screws at such an interval as to allow the desired intermediate adjustment of the leaf-plate 5 or the desired adjustment of said plate 5 between the spaced securing-screws the slotting of the leaf-plate may be avoided; but except when the securing-plate 4 is of such a thickness and material as to secure absolute rigidity the use of a plurality of securing-screws, one or more of which are located at intermediate points, is preferable.

From the above description it will be seen that after the securing-plate has been countersunk into and fastened to a frame or to a door vertical adjustment of the hinge may be accomplished without varying the position of said securing-plate, and hence without marking the frame or door. The leaf-plate which constitutes the adjustable member of the sectional leaf operates in the cut-away portion or recess in the rear side of the securing-plate or stationary member of the sectional leaf and is held from transverse displacement, after the screws or other fastening de-

vices of the securing-plate have been loosened, by reason of one or more of said screws or fastening devices passing through the longitudinal slots of the leaf-plate, and hence
5 when it is desired to give a door or other closure more play either at the top or bottom in order to avoid contact of its edges with the contiguous portions of the frame the fastening-screws may be loosened and the door adjusted vertically and then secured at the desired adjustment by tightening said screws to cause the interlocking engagement of the serrated faces of the members of the sectional leaf.

15 The efficiency of the clamping means herein described for maintaining the adjustable or leaf plate in the desired position with relation to the securing-plate depends upon the fact that when the securing-screws are tightened the leaf-plate is clamped by the pressure of the securing-plate in contact with the surface of a supporting object—such as a window-jamb, door-jamb, or the equivalent thereof. The leaf-plate is thus held by friction,
25 and in practice it is preferable to increase this friction by serrating the contacting surfaces of the securing and leaf plates.

Various changes in the form, proportion, and the minor details of construction may be
30 resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

35 1. A hinge having a sectional leaf comprising a permanently-positioned securing-plate, and a leaf-plate or adjustable member mounted in contact with the under or rear side of

said securing-plate, and securing-screws extending through the securing-plate for clamping the leaf-plate in contact with the surface of a supporting object, and maintaining said leaf-plate at the desired adjustment with relation to the securing-plate, substantially as specified. 40 45

2. A hinge having a sectional leaf comprising a permanently-positioned securing-plate, and a leaf-plate mounted for adjustment upon the concealed surface of the securing-plate and having slots parallel with the direction of adjustment thereof, and screws extending through openings in the securing-plate and said slots in the leaf-plate, for clamping the latter, by the pressure of the former, in contact with the surface of a supporting object, to maintain the leaf-plate at the desired adjustment, substantially as specified. 50 55

3. A hinge having a sectional leaf comprising a securing-plate adapted to be fastened in a fixed position and a leaf-plate arranged in operative relation with the securing-plate and capable of longitudinal adjustment with relation thereto, the contiguous faces of the securing and leaf plates being transversely serrated, and screws extending through the securing-plate and through slots in the leaf-plate for holding said members with their serrated faces in interlocking engagement, substantially as specified. 60 65

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses. 70

EVERT SCHMIDT.

Witnesses:

S. J. SUMNER,

D. J. FERGUSON.