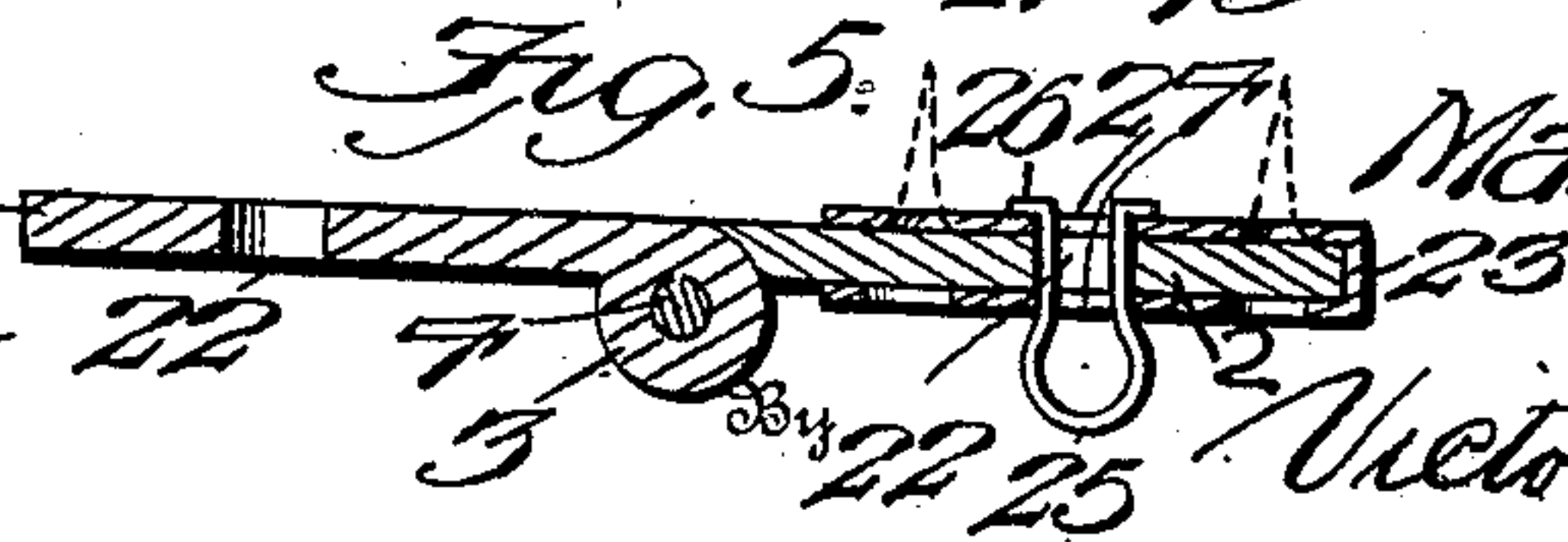
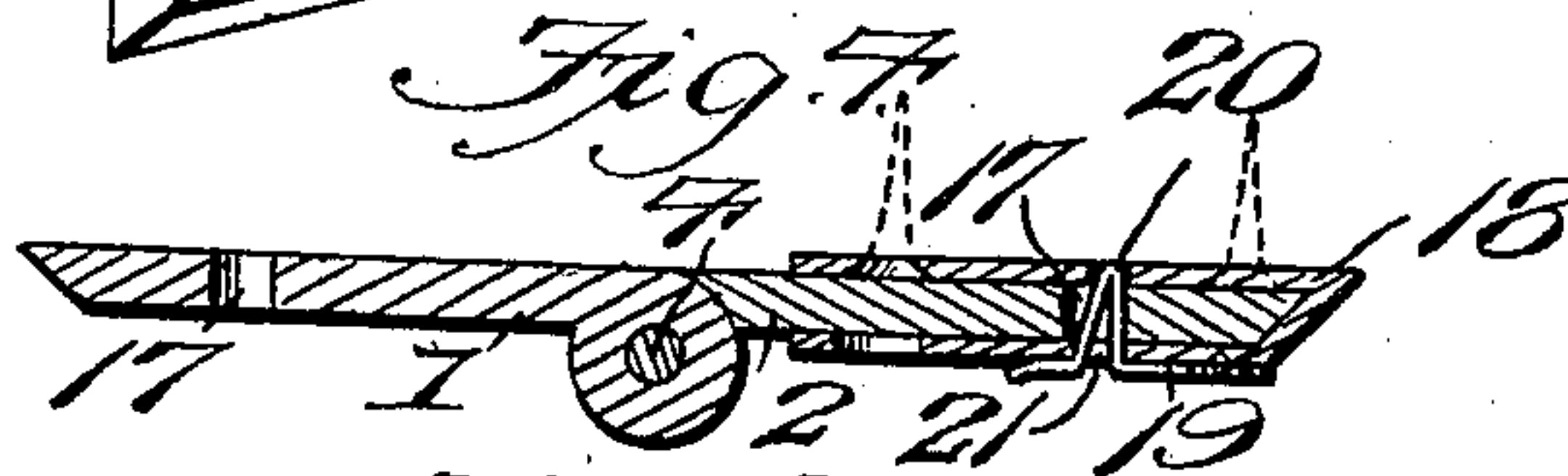
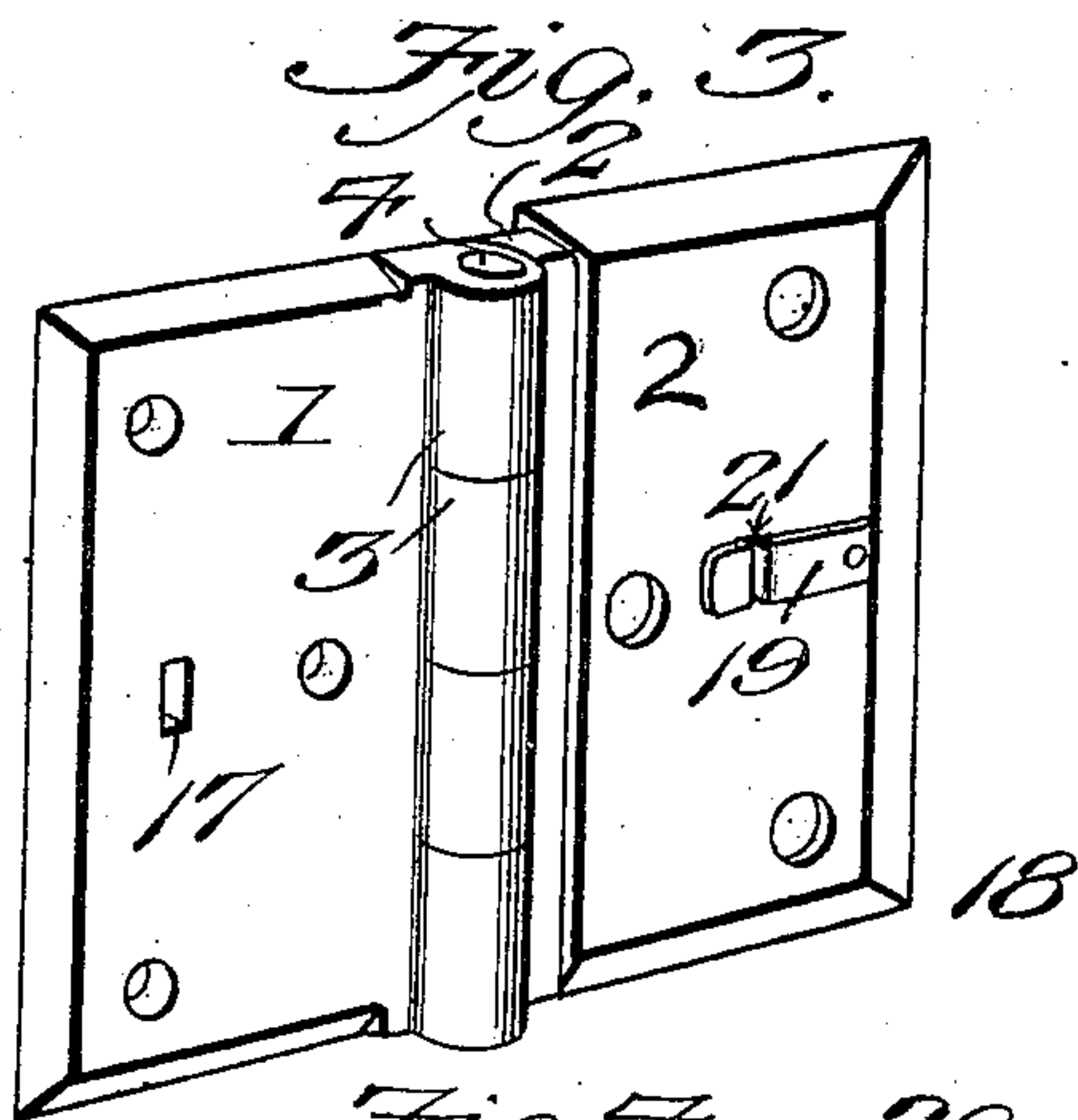
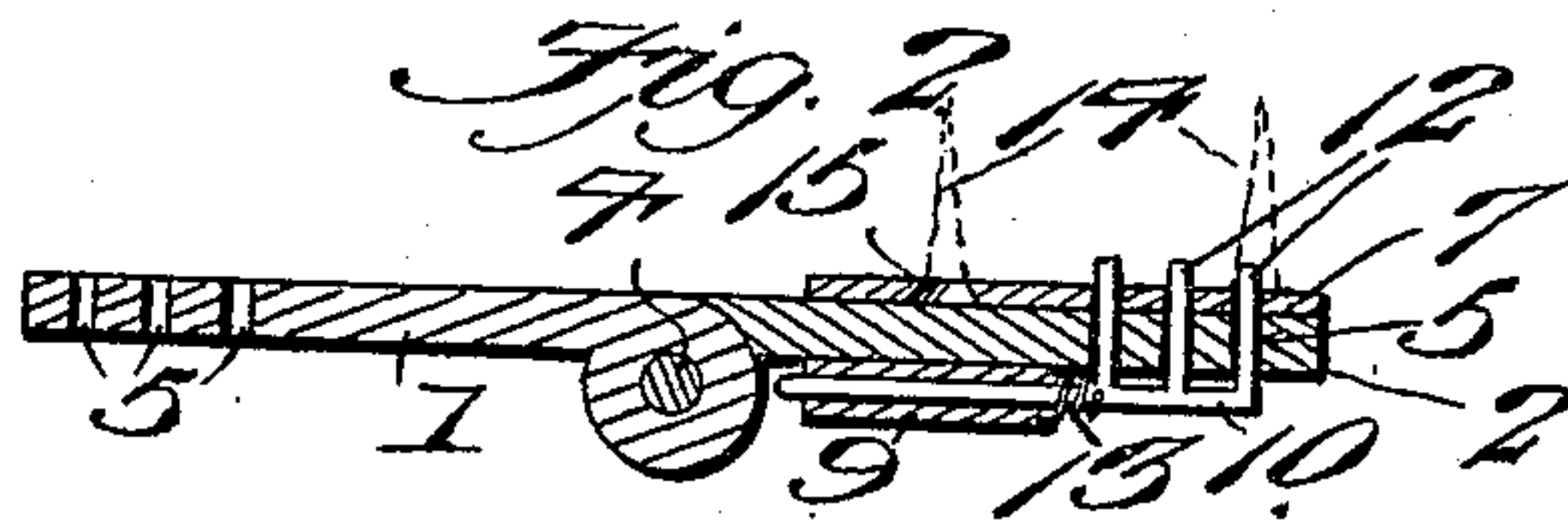
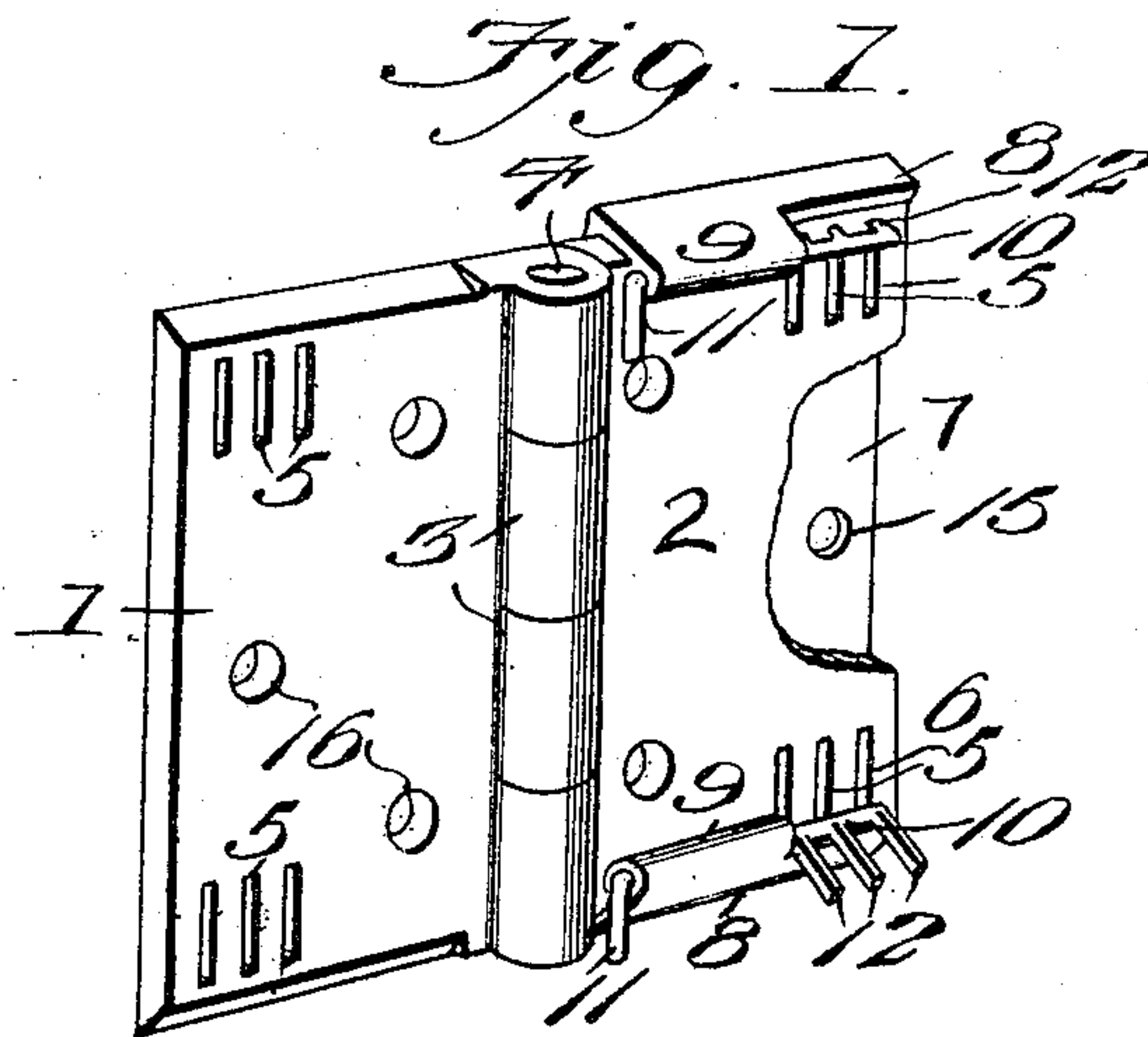


No. 856,112.

PATENTED JUNE 4, 1907.

M. A. TIECK.
HINGE.

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Witnesses

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HINGE.

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To all whom it may concern:

Be it known that I, MAX A. TIECK, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented new and useful Improvements in Hinges, of which the following is a specification.

The invention relates to an improvement in hinges, and particularly to a detachable hinge in the use of which the hinged structure may be removed as desired from the support without separating the hinge leaves.

The main object of the present invention is the provision of a hinge designed to be connected to a door or the like and adapted to cooperate with a keeper secured to the support whereby to removably secure the hinge to the support to permit the convenient detachment of the door without the necessity of separating the hinge leaves.

The preferred details of construction will be described in the following specification, reference being had particularly to the accompanying drawings, in which:—

Figure 1 is a perspective view of a hinge constructed in accordance with my invention, Fig. 2 is a transverse central section of the same, Fig. 3 is a perspective view of a modified form of hinge, Fig. 4 is a transverse central section of the same, Fig. 5 is a transverse central sectional view of another form of hinge.

Referring particularly to the drawings my improved hinge comprises two leaves, 1 and 2, which may be of any form or size desired, being for the purposes of the present invention identical in construction. Each leaf is formed with the usual pintle bearings 3 designed to be connected by the hinge pivot or pintle 4.

Referring particularly to Figs. 1 and 2, wherein is shown the preferred form of the invention, each hinge leaf is formed with a series of spaced parallel arranged slotted openings 5, disposed respectively adjacent to the upper and lower edges of said leaf. A keeper 6 is designed for cooperation with either leaf of the hinge, comprising a plate 7 approximating in size the size of the leaf, and formed on the upper and lower edges with forwardly projecting flanges 8 designed to receive between them the hinge leaf, as clearly shown in Fig. 1. Adjacent the relatively inner edge of the keeper plate each flange 8 is continued and bent to form a bearing 9, within which is rotatably mounted a locking rod 10.

At the inner ends the rod is turned laterally to provide a handle portion 11, and at the outer end beyond the bearing 9 is formed with a series of pins 12 designed when the parts are assembled to register with and enter the slots 5 in the hinge leaf. The locking rod 10 is normally projected into locking position through the medium of a coil spring 13, encircling the rod and secured thereto and to the bearing 9. The keeper is secured to the desired support through the medium of screws 14 passing through countersunk openings 15 in the keeper plate, the hinge leaf being formed with screw openings 16 designed to register with the openings in the keeper plate when said leaf is properly within the keeper, thereby facilitating the initial securing of the keeper in proper relative position. In this form of the invention the door or other article, with the hinge attached is secured to the support by inserting the free leaf of the hinge within the keeper, said leaf resting between the flanges 8 and against the keeper plate. The locking rods which have been previously turned against the tension of the springs 13 to project the locking pins 12 outwardly from the keeper, are permitted to return to normal position, entering the slots 5 in the hinge leaf within the keeper and securing said hinge as firmly to the support as necessary to support the door.

Figs. 3 and 4 illustrate a slightly modified form of the invention wherein the hinge leaves 1 and 2 are each formed adjacent their free vertical edge with a slotted opening 17. The keeper with this form of hinge is in the form of a casing 18 arranged to receive and completely inclose the hinge leaf, said casing being open only throughout one longitudinal edge for the reception of the hinge leaf. The casing is provided on its outer surface with a spring strip 19 bent intermediate its ends to form a locking projection 20, designed to be operative through an opening 21 in the face of the casing and to enter the opening 17 in the hinge leaf within the casing. The manner of assembling the hinge leaf within the keeper will be obvious from the above description taken in connection with the drawings, it being noted that the locking projection 20 serves to effectively retain the hinge leaf within the casing against possibility of accidental displacement.

In Fig. 5 is illustrated a further form of hinge wherein each leaf 1 and 2 is formed with a comparatively larger opening 22 than

in the forms previously described. The keeper with this form of hinge constitutes a casing 23 open throughout one longitudinal edge for the insertion of the hinge leaf, and formed in both front and rear walls with openings 24 designed when the hinge leaf is within the keeper to register with the opening 22. The securing or locking means is in the form of a U-shaped spring member 25 having its terminal ends laterally projected to form offsets 26. With the hinge leaf in place within the keeper the locking member is compressed and passed through the aligned openings 24 and 22, until the offsets 26 are beyond the rear plate of the keeper. Pressure upon the branches of the locking member are then released causing the offsets 26 to engage the rear surface of the keeper to prevent accidental withdrawal of the locking member. The hinge leaf is thus secured within the keeper, and locked against possibility of disconnection except after proper manual operation of the locking member in an obvious manner.

It is to be particularly noted in connection with the above described hinge structures that the hinge leaves are of identical construction, therefore, rendering it immaterial as to which leaf is arranged for coöperation with the keeper.

In the form shown in Fig. 1 it will be noted that the bearings 9 are disposed inwardly beyond the outer surfaces of the flanges 8, whereby said bearings act to prevent the independent outward movement of the hinge leaf relative to the keeper.

In Figs. 1, 3 and 5 the keeper plate in the rear of the hinge leaf supported may, if preferred, be formed to receive the particular locking means, being for this purpose in the form shown in Fig. 1 provided with slotted

openings to register with the openings 5 in the hinge leaf; and in the form shown in Fig. 3 formed with an opening to receive the rear end of the locking projection 20.

In the use of the invention described the hinge may be readily connected to and disconnected from its keeper, providing for the connection to or disconnection from the support of the door or other article to be hinged.

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

1. The combination with a hinge having leaves of identical structure, of a keeper arranged to receive either of said leaves, and spring operated locking means carried by the keeper to engage the leaf therein.

2. The combination with a hinge having a leaf formed with a series of parallel arranged slots, of a keeper arranged to receive said leaf, and a locking pin carried by the keeper and formed to engage the slots in the leaf.

3. The combination with a hinge having a leaf formed with a series of spaced slots, of a keeper designed to receive said leaf, and a locking rod revolubly supported by the keeper, said rod being provided with a plurality of pins to enter the slots in the leaf.

4. The combination with a hinge having a leaf formed with a series of spaced slots, a keeper arranged to receive the leaf, a locking rod revolubly supported by the keeper, said rod being provided with a plurality of pins to engage the slots in the leaf, and means for normally maintaining said rod in locking position.

In testimony whereof, I affix my signature in presence of two witnesses.

MAX A. TIECK.

Witnesses:

JAMES F. DUHAMEL,
H. G. HOSE.