

J. D. KNEEDLER.

LOCK.

APPLICATION FILED DEC. 29, 1908.

917,615.

Patented Apr. 6, 1909.

2 SHEETS—SHEET 1.

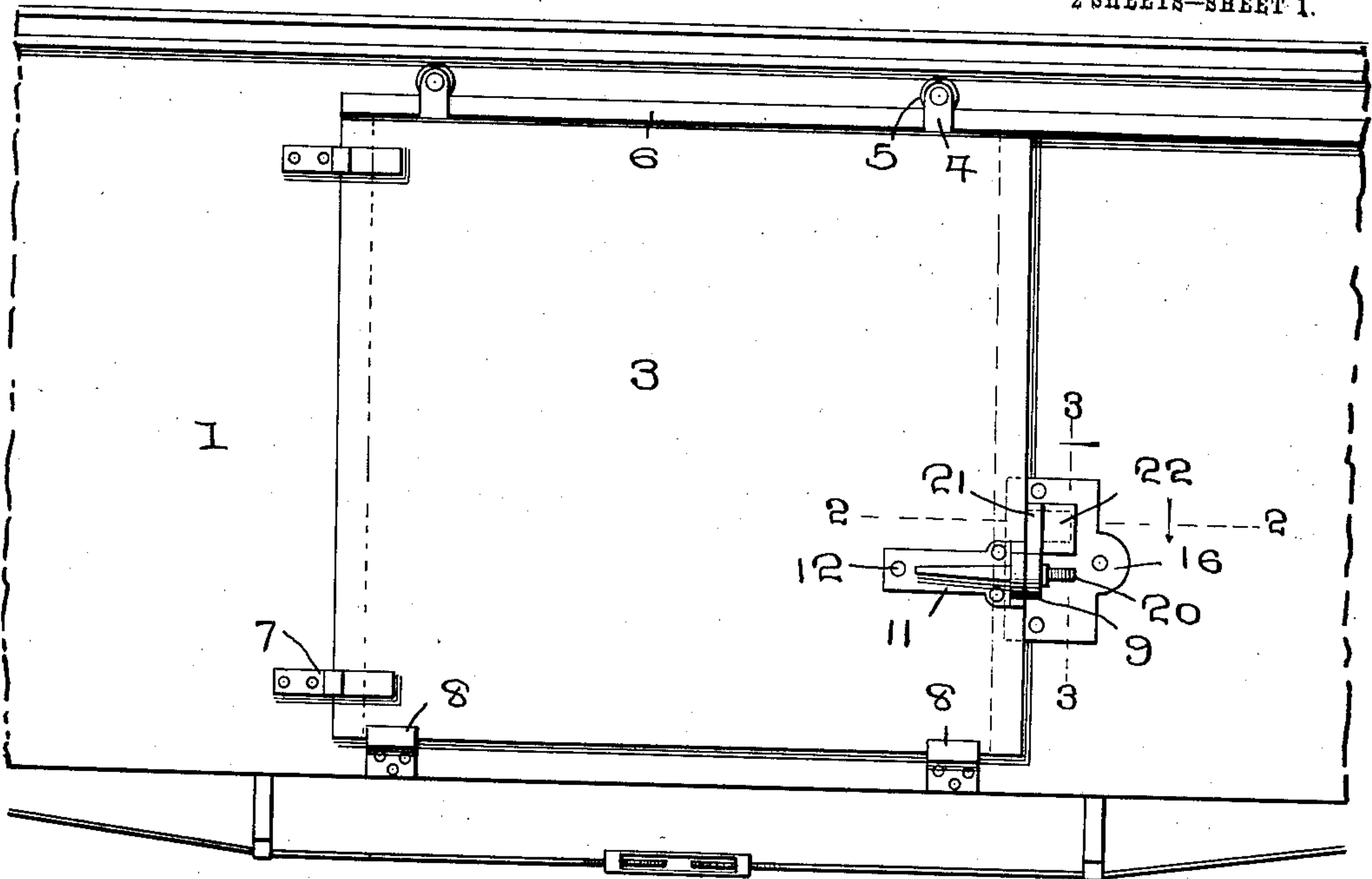


Fig. 1.

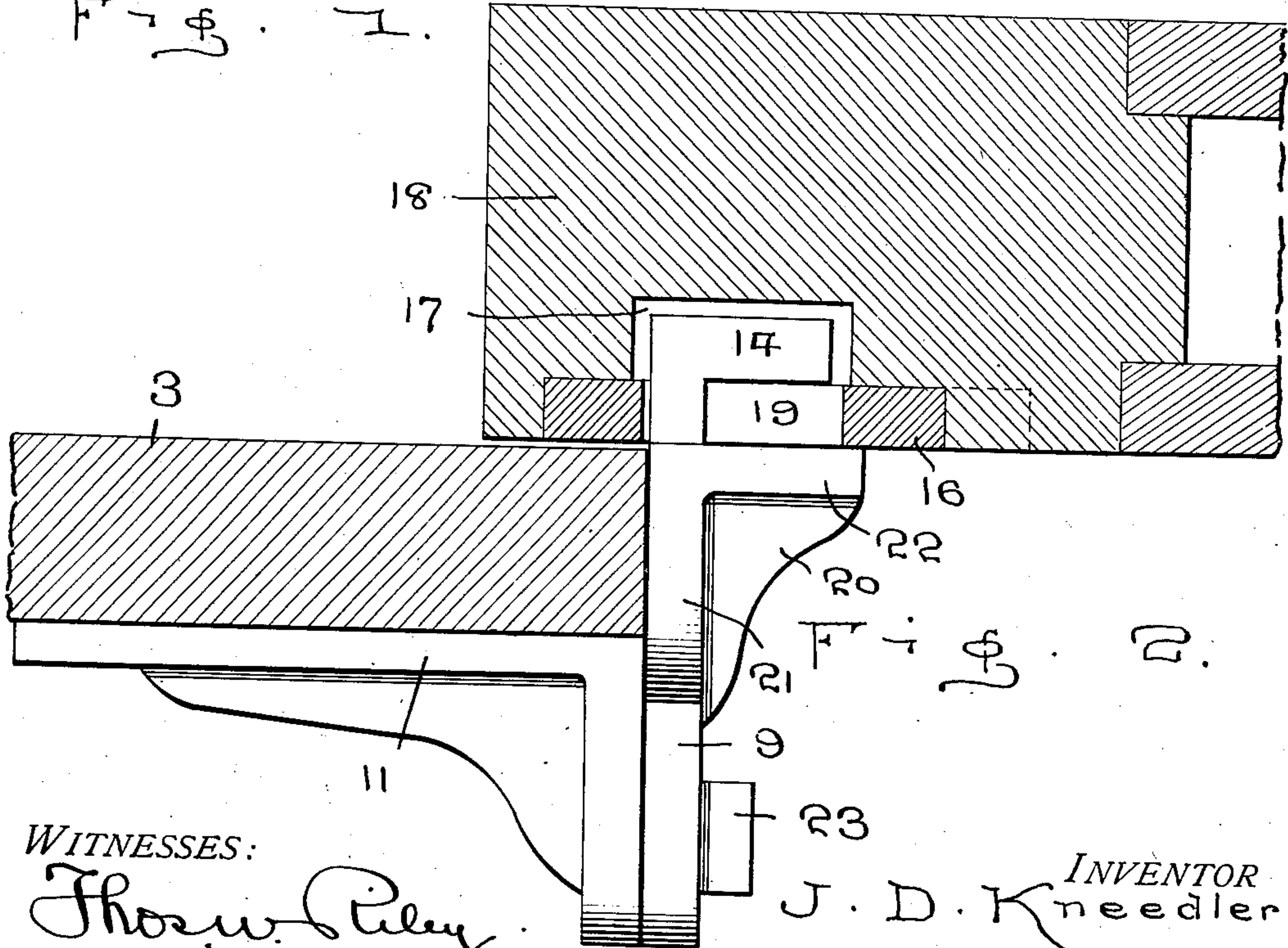


Fig. 2.

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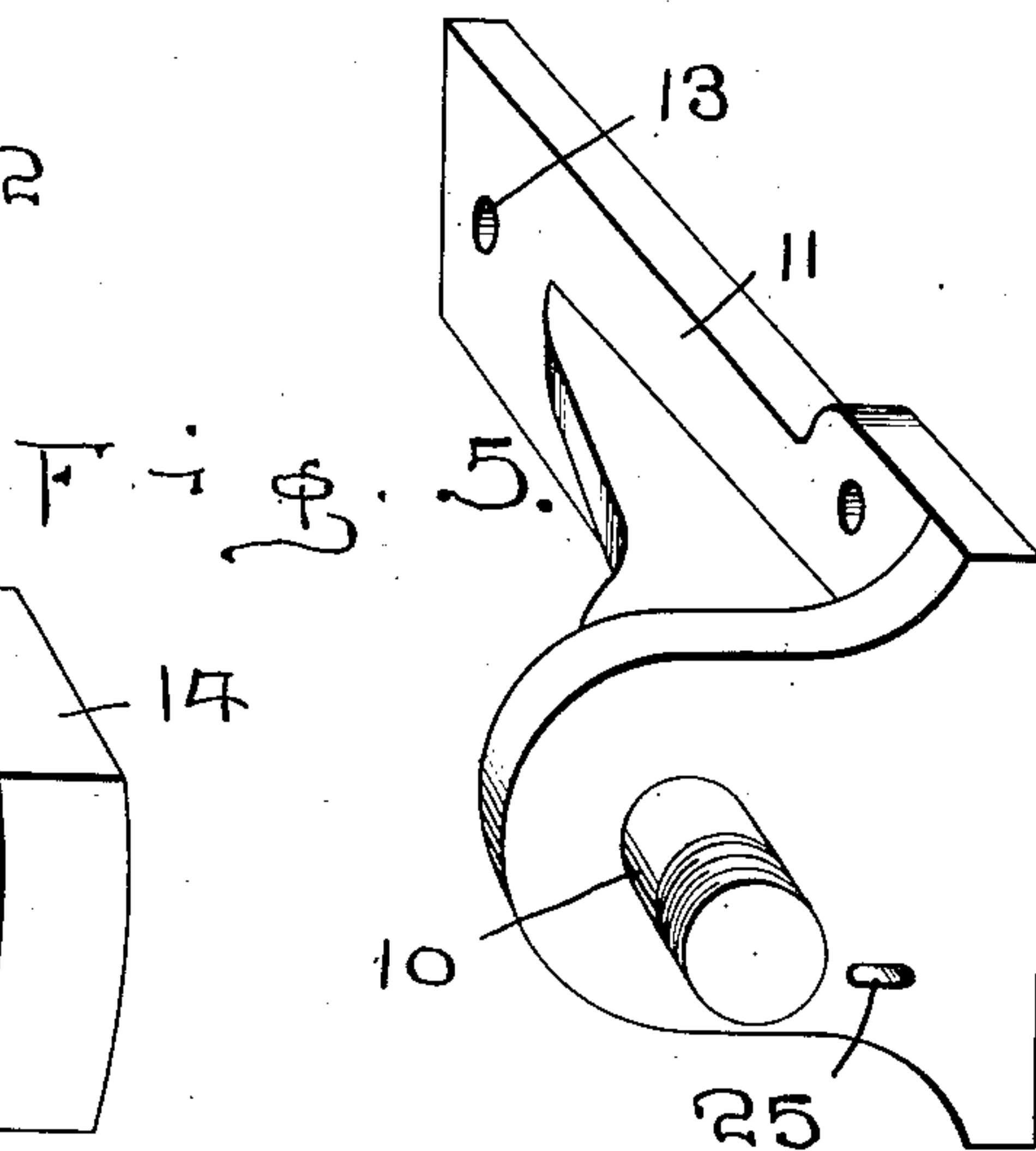
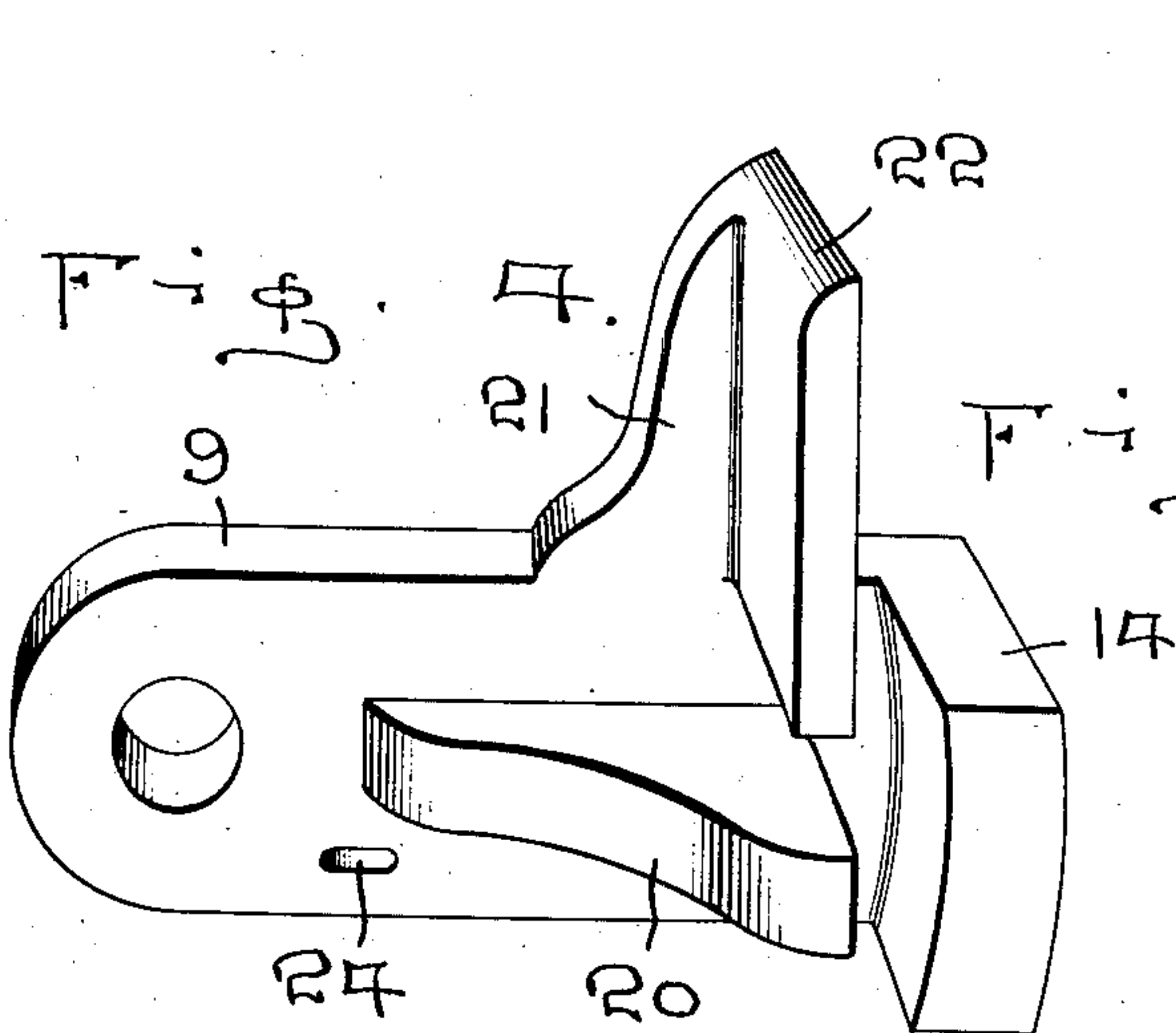
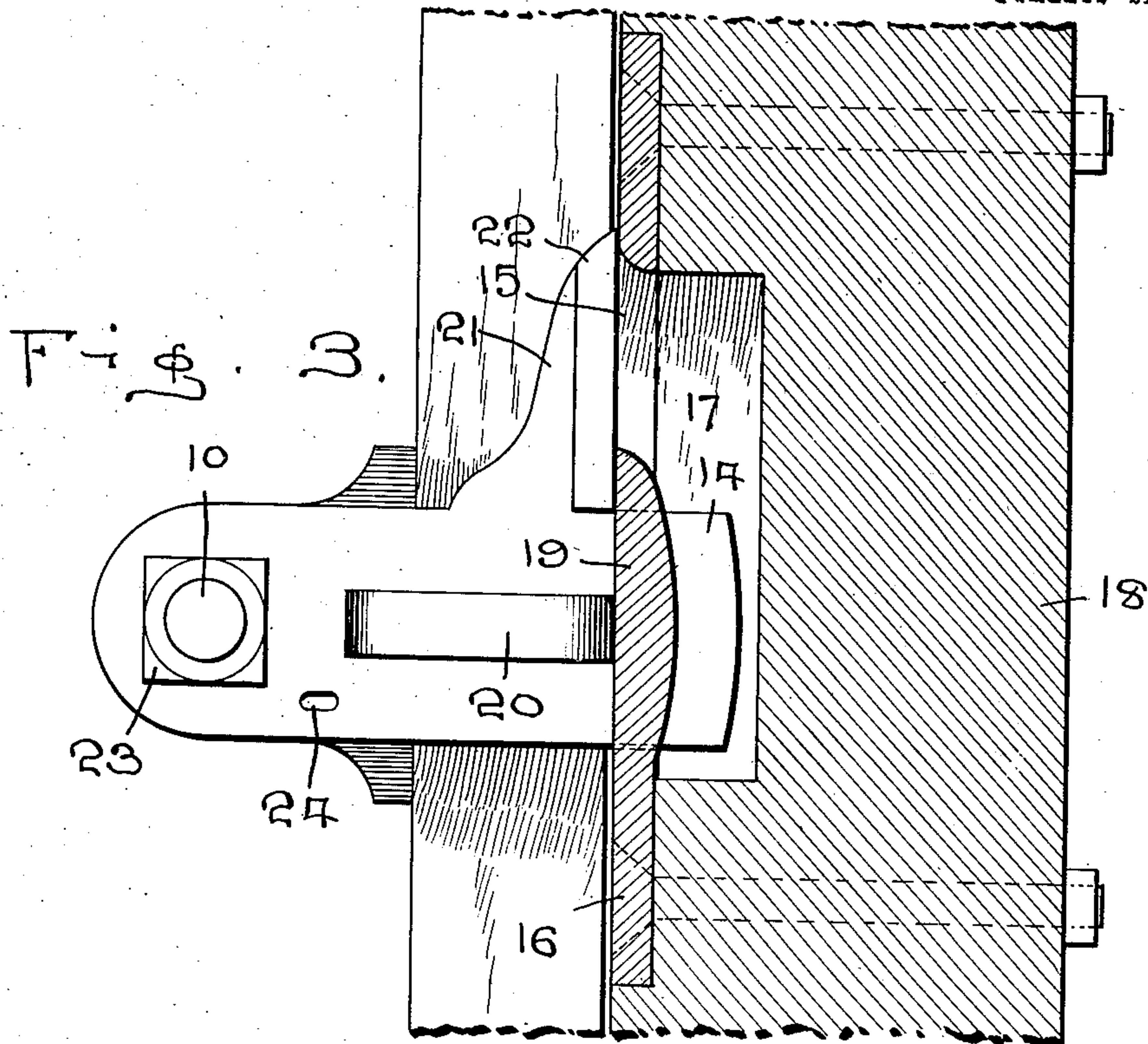
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UNITED STATES PATENT OFFICE.

JOHN DEAM KNEEDLER, OF SIOUX CITY, IOWA, ASSIGNOR OF ONE-HALF TO BUEL COUCH,
OF SIOUX CITY, IOWA.

LOCK.

No. 917,615.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed December 29, 1908. Serial No. 469,741.

To all whom it may concern:

Be it known that I, JOHN D. KNEEDLER, a citizen of the United States, residing at Sioux City, in the county of Woodbury and State of Iowa, have invented certain new and useful Improvements in Locks; 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 new and useful improvements in locks and more particularly to that class adapted to be employed for locking the doors of box cars or the like and my
15 object is to provide a latch which is adapted to be carried by the door and swing into engagement with a keeper carried by the car body.

A further object is to provide means for
20 covering the opening in the keeper after the latch has passed into engagement with the same.

A further object is to provide means for removably securing the latch to the car door
25 and a still further object is to provide means whereby a seal may be attached to parts of the lock.

Other objects and advantages will be hereinafter referred to and more particularly
30 pointed out in the claims.

In the accompanying drawings forming part of this application, Figure 1 is a detail side elevation of a box car, showing my improved lock applied to use thereon. Fig. 2
35 is an enlarged detail sectional view, as seen on line 2—2, Fig. 1. Fig. 3 is a vertical sectional view on an enlarged scale, as seen on line 3—3, Fig. 1. Fig. 4 is a detail perspective view of the latch removed from its fastenings, and, Fig. 5 is a detail perspective
40 view of the parts employed for holding the latch on the door.

Referring to the drawings in which similar reference numerals designate corresponding
45 parts throughout the several views, 1 indicates the car, which may be constructed in the usual or any preferred manner, which car body is provided in its side wall with an opening 2, over which is adapted to extend
50 the usual or any preferred form of door 3.

The door is provided on its upper edge with suitable hangers 4, said hangers having sheaves 5 thereon, which are adapted to engage a track 6 on the side of the car body,
55 said track being of sufficient length to permit

the door to travel a sufficient distance to clear the opening 2 in the car body.

The door 3 is limited in its movement in one direction, or when the door 3 is disposed over the opening 2 by means of stops 7, while
60 the door is held against outward swinging movement while being moved longitudinally of the track by means of guide members 8, which guide members are secured in any preferred manner to the car body 1 below the
65 opening 2.

After the door has been moved to cover the opening 2, I have provided means to securely fasten the door in its closed position and prevent movement of the same in any direction,
70 the locking device comprising a latch 9, one end of which is pivotally mounted on a stem 10 of a strap 11, said strap 11 being in turn secured to the door 3 in any preferred manner, as by introducing bolts or the like 12
75 through openings 13 in the strap and through the adjacent portion of the door.

The latch 9 is preferably rectangular in general outline and is of sufficient length to extend beyond the inner face of the door
80 when the latch is being employed for locking the door in its closed position, the extreme inner end of the latch being provided with an angular extension 14, which extension is adapted to enter a slot 15 in the keeper 16
85 and rest in a cavity 17 formed in the face of the door casing 18.

The angular extension 14 passes in the rear of a tongue 19, while a lug 20 extends outwardly from the face of the latch 9 and
90 engages the outer face of the tongue, thereby preventing outward swinging movement of the door, the latch at the same time preventing the door from moving bodily in either direction along the track-way from the fact
95 that the width of the vertical portion of the slot 15 is such as to snugly receive the latch 9. To permit the angular extension 14 to swing into or out of the slot 15, the inner face of the tongue 19 is curved, while the
100 angular extension 14 is similarly curved, the curvature of the tongue and extension being concentric with the pivotal point of the latch 9. The latch 9 is provided with a standard
105 21, from one face of which extends a plate 22, said plate being so arranged as to cover the enlarged portion of the slot 15 and thereby prevent snow, sleet and the like from entering the cavity 17 when the latch is in
110 engagement with the keeper.

The free end of the stem 10 is threaded to receive a nut 23, said nut being employed for holding the latch 9 in position on the stem and if it is desired to seal the lock after the latch has been engaged with the keeper, registering openings 24 and 25 are provided in the latch 9 and strap 11, respectively, through which is to be introduced any suitable form of sealing device and when the lock is properly sealed, the same could not be unlocked without detection.

In operation, the door is moved longitudinally of the track 6 until the straps 7 are encountered, when the latch 9 is swung upwardly and toward the keeper 16, the angular extension 14 entering the horizontal portion of the slot 15 and passing to the rear of the tongue 19, while the lug 20 engages the forward face of the tongue. This operation extends the latch across one end of the door and prevents movement in either direction, while by properly seating the latch, the plate 22 will cover the slot 15 and prevent snow or the like from entering the cavity 17. This operation also brings the openings 24 and 25 in alinement with each other, so that the seal can be introduced and the parts positively locked together.

This form of lock can be very cheaply constructed and readily applied to use and when the parts of the lock are properly attached together, the door will be rigidly held against movement and thereby prevent rocking of the same incident to the jar and movement of the car.

I claim:

1. In a lock of the class described, the combination with a keeper having a slot

therethrough and a tongue extending into said slot; of a latch having means thereon adapted to engage opposite sides of the tongue, means to pivotally mount said latch and additional means carried by the latch adapted to cover the slot in the keeper when the latch is in its locked position.

2. A lock of the class described, comprising the combination with a keeper having a slot therein and a tongue on the keeper having a curved rear face; of a pivotally mounted latch having a curved angular extension adapted to enter the slot and engage the curved face of the tongue, a lug on the latch adapted to engage the front face of the tongue and a plate carried by the latch adapted to cover the slot in the keeper when the latch is in its locked position.

3. A lock of the class described, comprising the combination with a keeper having a slot therein and a tongue on the keeper; of a latch, a strap having a stem thereon to receive the latch, means to secure the latch on the stem, an angular extension on the latch adapted to enter the slot in the keeper and engage the rear face of the tongue, a lug on the latch adapted to engage the forward face of the tongue and a plate carried by the latch adapted to cover the slot in the keeper when the latch is in its locked position.

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

JOHN DEAM KNEEDLER.

Witnesses:

WM. E. DAVIS,
A. F. ROUNDS.