

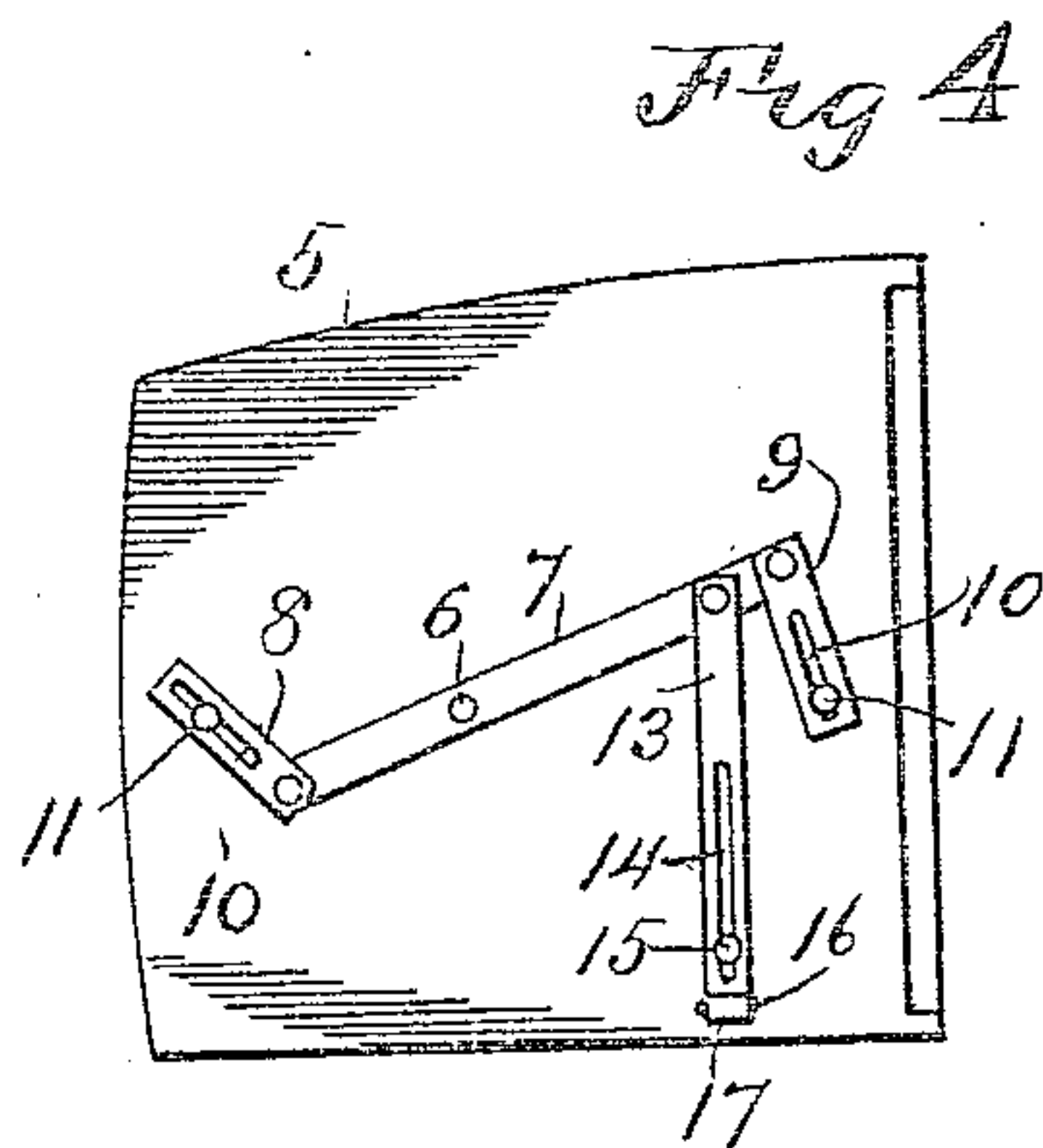
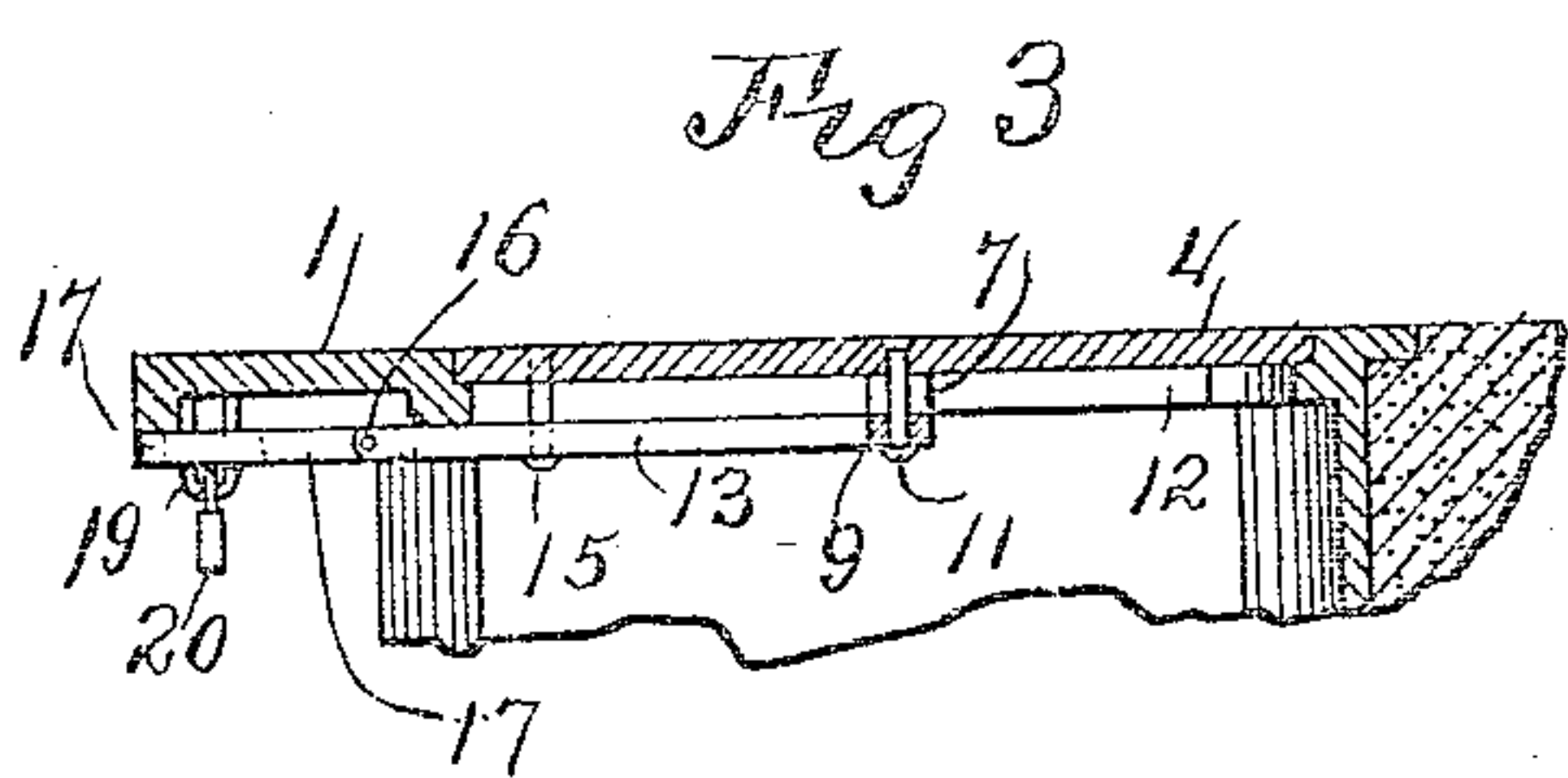
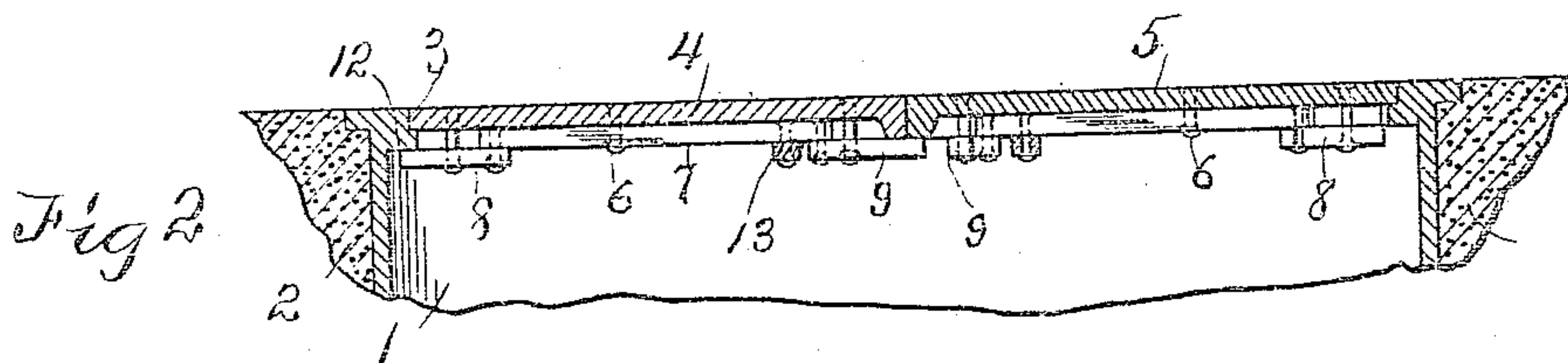
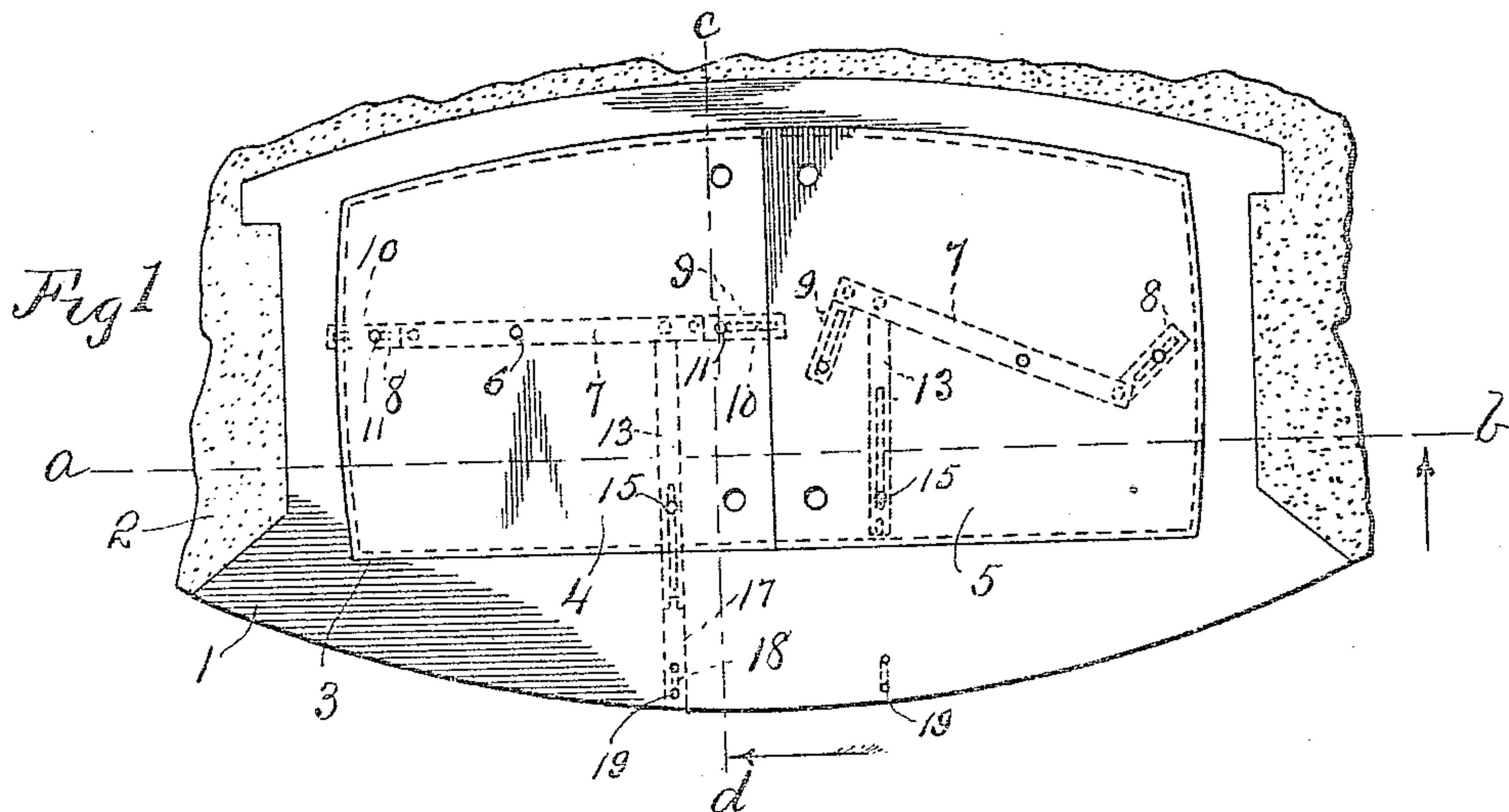
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SEWER MANHOLE COVER.

APPLICATION FILED JULY 10, 1909.

Patented Apr. 5, 1910.

953,858.



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SEWER-MANHOLE COVER.

953,858.

Specification of Letters Patent.

Patented Apr. 5, 1910.

Application filed July 10, 1909. Serial No. 506,994.

To all whom it may concern:

Be it known that we, MATHEW C. RICE and MICHAEL J. PENDERGAST, citizens of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Sewer-Manhole Covers, of which the following is a specification.

Our invention relates to improvements in sewer manholes.

It relates particularly to means for releasably locking the covers to the manhole boxes for the purpose of preventing displacement and possible loss or breakage of the covers.

The novel features of our invention are hereinafter fully described and claimed.

In the accompanying drawings illustrative of the preferred form of our invention—Figure 1 is a plan view of a sewer manhole provided with our invention, the two locking mechanisms being shown in dotted lines, one in the locked and the other in the unlocked position. Fig. 2 is a vertical section on the dotted line *a—b* of Fig. 1. Fig. 3 is a vertical section on the dotted line *c—d* of Fig. 1. Fig. 4 is an under view of one of the cover members and the locking mechanism connected therewith, the latter being shown in the unlocked position.

Similar reference characters denote similar parts.

In the form of our invention shown in the drawings, 1 denotes an ordinary manhole box shown mounted in cementitious materials, such as concrete, denoted by 2. The manhole box 1 is provided with the usual top opening 3, adapted to be closed by two horizontal cover members 4 and 5, which in the closed position are disposed edge to edge. Preferably two locking mechanisms are provided for respectively securing the cover members 4 and 5 in the closed positions. As said locking mechanisms are alike, a description of one will suffice for each.

Pivoted by means of a vertical pin 6, to the cover member 4, and located below the said cover member, is a bar 7. Two locking bolts 8 and 9, are respectively pivoted to the bar 7, at opposite sides of the pivot pin 6 and are respectively adapted, when the bar 7 is swung to the proper position, to engage the cover member 4 with the box 1 and the other cover member 5. Preferably the locking bolts 8 and 9 are provided with longitudinal slots 10, best shown in Fig. 4, in which are respectively located two pins 11, which

are secured to and project downwardly from the cover member. The locking bolts 8 and 9 are adapted, when the bar 7 is swung to and fro, to slide to and from a position below a horizontal flange 12 provided in the box 1 around the opening 3 and below the opposite cover member. For so swinging said bar it has pivoted to it a horizontally slidable locking bolt 13, provided with a longitudinal slot 14, in which is disposed a vertical pin 15, which extends downwardly from the cover member. Said locking bolt 13 is adapted to be moved to and from a position below the flange 12. To the outer end of the locking bolt 13 is pivoted, by means of a horizontal pin 16, shown in Fig. 3, a lever 17 which is preferably provided with a slot 18, shown in dotted lines in Fig. 1, thereby forming a hasp adapted to engage a staple 19 secured to and projecting downward from the box 1. Any ordinary padlock 20 may be used to secure the hasp 17 to the staple 19.

To release the cover members 4 and 5 the padlocks 20 are removed from the staples 19, after which the hasps or levers 17 are swung downward to a vertical position, shown in Fig. 4. The locking bolts 13 are then forced rearwardly to the position shown in Fig. 4, in which position the locking bolts 9 will be released from the position in which they will engage the opposite cover members. The locking bolts 9, 8 and 13 will then be in the unlocked position, thereby permitting the cover members 4 and 5 to be raised so as to open the opening 3 of the box 1. To lock the cover members in position the operation just described is reversed.

We do not limit our invention to the precise structure described and illustrated, as various modifications, within the scope of the appended claims, may be made without departing from the spirit of our invention.

Having thus described our invention, what we claim and desire to secure by Letters Patent is:—

1. In a sewer manhole, the combination with a manhole box, of a cover member, a bar pivoted thereto, means actuated by said bar for releasably locking the cover member to the box, a locking bolt slidably mounted on the cover member and pivoted to said bar, a hasp pivoted to said bolt for sliding said bolt, and means for releasably locking said hasp to said box.

2. In a sewer manhole, the combination

with a manhole box, of a cover member, a bar pivoted to said cover member two bolts respectively pivoted to said bar and slidably engaging said cover member for releasably engaging the cover member with the box, and a lever pivoted to one of said bolts for sliding the bolt to operate said bar.

3. In a sewer manhole, the combination with a manhole box, of a cover member, a bar pivoted to the cover member, two bolts slidably engaging said cover member and pivoted to the said bar at opposite sides of the pivot point of said bar and adapted, when the bar is swung to the proper position, to lockingly engage the cover member with said box, a lever pivoted to one of said bolts for sliding the bolt, and releasable means for locking the lever to the box.

4. In a sewer manhole, the combination with a manhole box, of a cover comprising two members, two bars respectively pivoted to said cover members, two bolts respectively pivoted to said bars and movable thereby to and from positions in which they will respectively lock said two members to the box, two locking bolts respectively pivoted to said bars and movable to and from positions in which they will respectively lock said members to said box, two levers pivoted to the last named locking bolts respectively, and releasable means for locking said levers to said box.

5. In a sewer manhole, the combination with a manhole box, of a cover comprising two members, two bars respectively pivoted to said members, two bolts respectively pivoted to said bars and slidably and pivotally engaging said covers respectively for respectively locking said covers to said box,

two locking bolts respectively pivoted to said bars and pivotally and slidably engaging said members respectively for releasably locking the cover members together, two locking bolts respectively pivoted to said bars and movable to and from positions in which they will respectively releasably lock said cover members to said box, two hasps respectively pivoted to the two last named locking bolts, two staples secured to said box for respectively engaging said hasp, and releasable means for locking said hasps to said staples respectively.

6. In a sewer manhole, the combination with a manhole box, of a cover comprising two members disposed, when in a closed position, horizontally edge to edge, of two bars respectively pivoted to the underside of said members, two locking bolts respectively pivoted to said bars and movable thereby into and out of engagement with said box, two bolts respectively pivoted to said bars and movable to and from positions for releasably engaging together said members, two locking bolts respectively pivoted to said bars and slidably and pivotally connected to said cover members respectively for releasably engaging the cover members with the box, two levers respectively pivoted to the two last named bolts, and releasable means for locking said levers to said box.

In testimony whereof we have signed our names to this specification in presence of two subscribing witnesses.

MATHEW C. RICE.

MICHAEL J. PENDERGAST.

Witnesses:

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