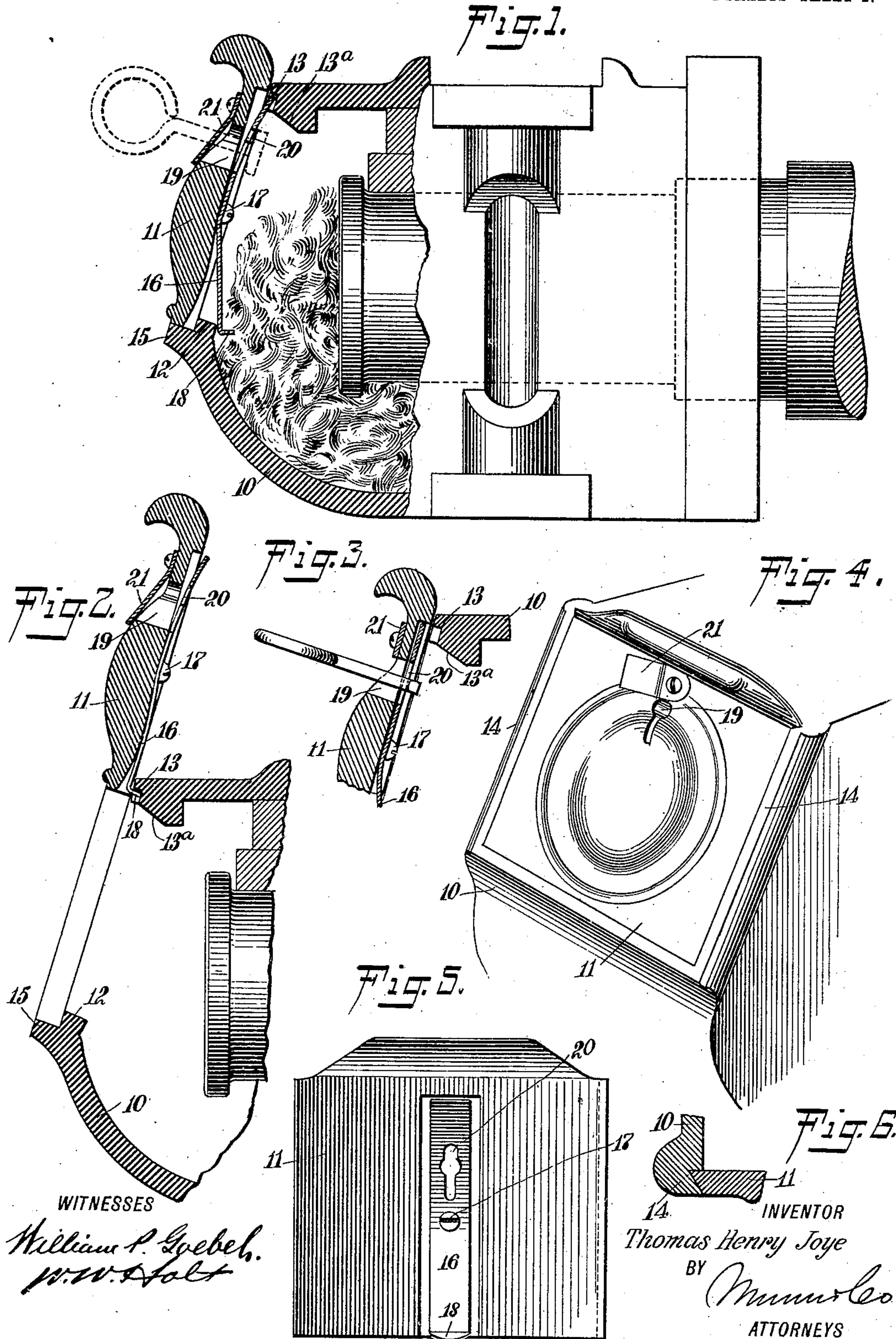


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APPLICATION FILED OCT. 26, 1909.

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2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 7.

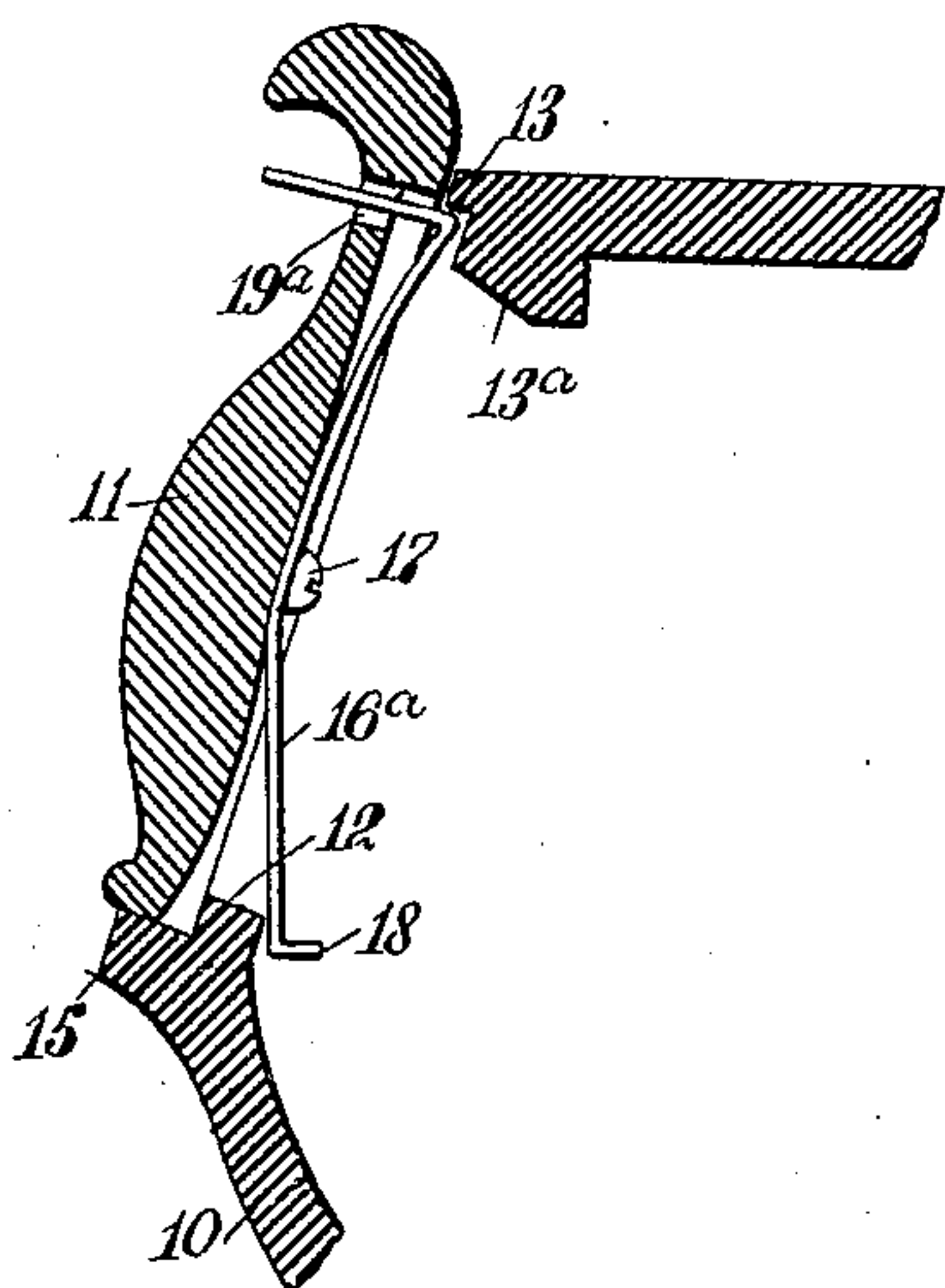


Fig. 8.

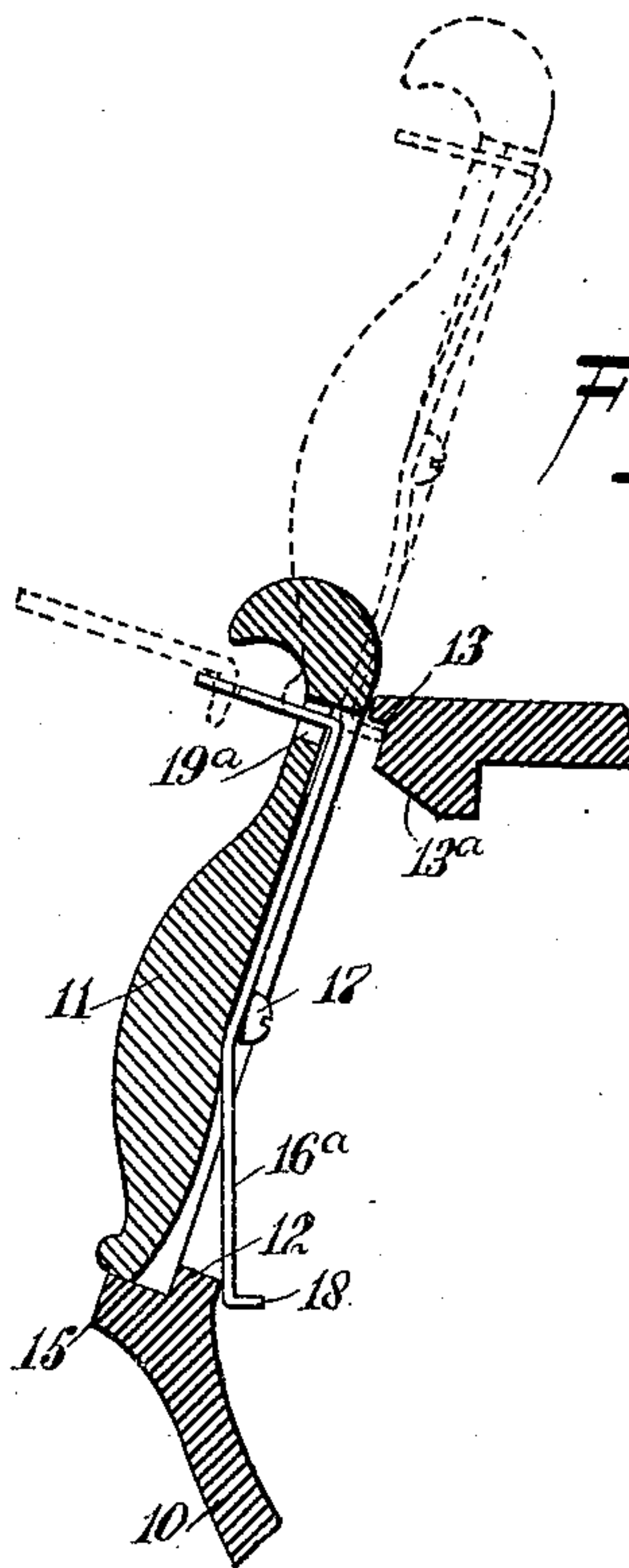
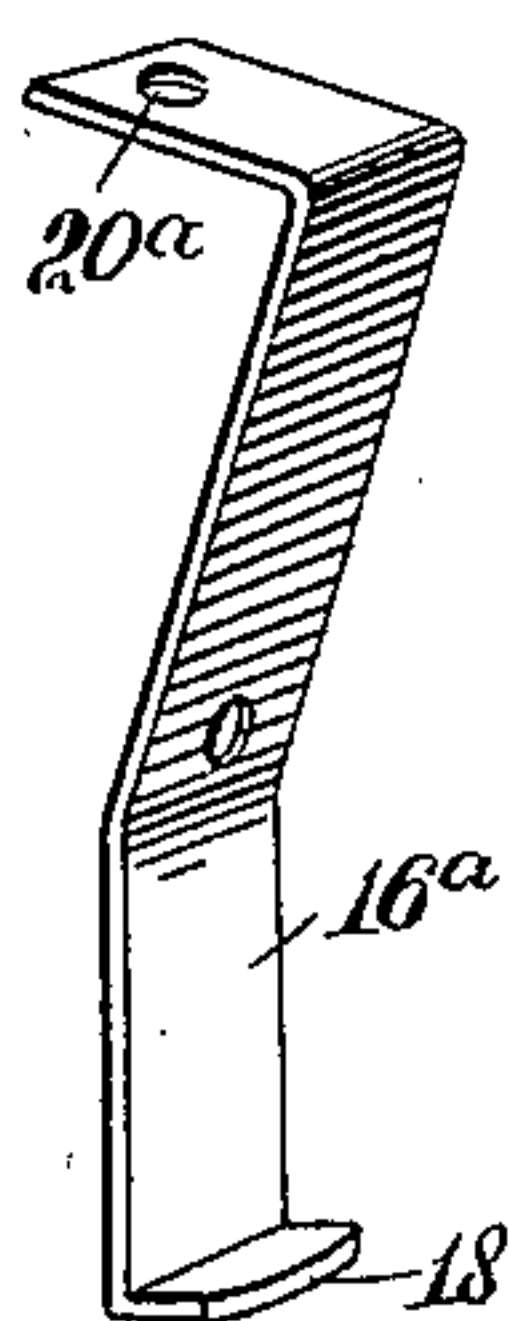


Fig. 9.



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# UNITED STATES PATENT OFFICE

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## JOURNAL-BOX-LID FASTENER.

946,227.

Specification of Letters Patent.

Patented Jan. 11, 1910.

Application filed October 26, 1909. Serial No. 524,641.

*To all whom it may concern:*

Be it known that I, THOMAS HENRY JOYE, a citizen of the United States, and a resident of Charleston, in the county of Charleston and State of South Carolina, have invented a new and Improved Journal-Box-Lid Fastener, of which the following is a full, clear, and exact description.

The invention is an improvement in journal boxes for railway stock, and resides in the construction of the lid and the parts of the body coöperative therewith to lock the lid in closed position, limit its sliding movement in the opening of the box, force the lid when closed, in a direction to bind the lid to the box body, and when open to frictionally retain the lid in an open position, and, further, in constructing the journal box so that the locking means can be disengaged only by a special key.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side view, partly in central vertical section, of a journal box constructed in accordance with my invention; Fig. 2 is a vertical longitudinal section through the outer portion of the box, showing the lid open; Fig. 3 is a fragmentary section similar to Fig. 1, showing the locking spring or member carried by the lid engaged by a key and retracted from the shoulder of the box body; Fig. 4 is a perspective view of the outer portion of the box; Fig. 5 is an inner face view of the lid; Fig. 6 is a section through one side of the lid and box body. Fig. 7 is a vertical longitudinal section through the outer portion of the box, showing a slightly modified form of construction; Fig. 8 is a similar section, showing the locking spring or member carried by the lid engaged by a hook and retracted from the shoulder of the box body; and Fig. 9 is a perspective view of the locking spring.

The journal box comprises a box body 10 and a lid 11, the former being of any conventional or preferred construction except at the outer portion, where it is constructed with an upwardly-projecting flange or lip 12 arranged at the bottom, and a notch or shoulder 13 arranged at the top, with a cam surface 13<sup>a</sup> inclining upwardly and outwardly to the notch. Both the shoulder and

lip are located at the inside of ways 14, downwardly and outwardly inclined at the opposite sides of the box body, and in which the lid 11 is slidably retained, the box body having an outwardly-projecting flange 15 arranged below the lip 12, on which the lid 11 seats when the latter is in closed position, the lip operating to retain the waste and oil in the usual lubricating chamber at the front of the box when the waste and oil stand above the seat of the lid. The lid 11 is centrally grooved on its inner face to receive a flat spring 16, the groove extending through the bottom of the lid and reaching to the shoulder 13 when the lid is closed. The spring 16 is secured intermediate its length to the lid by a screw or other suitable means 17, with the two arms of the spring having a tendency to stand off from the lid, as shown in Fig. 2, and the lower arm having its extremity inwardly turned, as indicated at 18 and adapted to engage the inner edge of the lip 12 just before the lid seats on the flange 15, and force this arm of the spring inwardly, pressing the lid tightly to the face of the box body and making the box approximately air and dust-tight. When the lid is fully closed, the upper arm of the spring springs under the shoulder 13 and prevents the lid from being opened. The upper portion of the lid in that form of my invention shown in Figs. 1 to 5 inclusive, is constructed with a key-hole 19 which registers with a similar hole 20 formed in the upper arm of the spring. Through these holes is adapted to be passed a special key, as shown in dotted outline in Fig. 1 and in full lines in Fig. 3, and the key given a partial turn to engage the inner face of the spring arm, whereby the latter may be withdrawn from under the shoulder 13 by an outward pull on the key, enabling the opening of the lid. The key-hole of the lid is preferably covered at the outside by a pivoted key hole guard 21, which not only obscures the key-hole but prevents dust from passing within the box at this point.

In the form of the invention shown in Figs. 7, 8 and 9, the key-hole is omitted in the lid and an opening 19<sup>a</sup> is provided, through which extends the offset upper end of the spring 16<sup>a</sup>, corresponding to and applied to the lid the same as the spring 16. This offset end of the spring is preferably provided with an aperture 20<sup>a</sup> adapted to be



engaged by a hook, as shown in Fig. 8, or other equivalent device, in retracting the spring from the shoulder 13 of the box. Upon opening the lid after the locking arm of the spring has been retracted by either of the means shown in Figs. 3 or 8, the offset end or extremity 18 of the opposite and lower arm of the spring contacts with the cam surface 13<sup>a</sup>, forcing the spring arm slightly inwardly and directing the end 18 into the notch, where it engages with the shoulder 13 and prevents the lid from being entirely removed from the box body, the lid in this position being held open by reason of the slight outward pressure exerted by the lower spring arm. If the lid is to be entirely removed, this may be effected by pressing the lower spring arm farther inwardly at the inner face of the lid. With the box constructed as shown and described, the waste oil and brasses can only be removed by one in possession of the key, and the lid will be securely held to its seat and will not become unlocked or shaken in the ways by the swaying and bumping of the train.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A journal box having a lid slidably assembled with the body of the box, the body having a shoulder arranged adjacent to the lid, and a member carried by the lid and adapted to move into engagement with the shoulder when the lid is closed and lock the lid in closed position, the box having a key-hole through which the member is adapted to be engaged by the key and moved from engagement with the shoulder.

2. A journal box having a lid slidably assembled with the body of the box, the body having a shoulder arranged adjacent to the lid, and a spring inaccessible from the outside of the box when the lid is closed, and carried by the lid and arranged to spring under the shoulder when the lid is closed and lock the lid in closed position.

3. A journal box having a lid slidably assembled with the body of the box, the body

having a shoulder arranged adjacent to the lid, and a spring secured to the lid and inaccessible from the outside of the box when the lid is closed, arranged to spring under the shoulder when the lid is closed and lock the member in closed position, the lid and spring constructed with alining key-holes through which a key is adapted to be passed and engage with the spring and draw it from under the shoulder.

4. A journal box having a lid slidably assembled with the body of the box, the said body having a lip and a notch respectively arranged at the bottom and top adjacent to the lid, and spring arms carried by the lid, one of which is arranged to spring into the notch and prevent the opening of the lid when the latter is closed, and the other arranged to engage the said lip when the lid is closed, and force the lid against the box body and engage in the upper portion of the box body when the lid is open and retain the lid in an open position.

5. A journal box having a lid slidably assembled with the box body, the body having a lip and a notch respectively arranged at the bottom and top adjacent to the lid, the notch having a cam surface leading thereto, spring-arms secured to the lid, one of which is arranged to engage in the notch when the lid is closed and lock the lid in closed position, and the other having an inwardly-turned extremity arranged to engage the lip and force the lid to the box body when the lid is closed, with the said extremity arranged to engage the said cam surface and be directed thereby into the notch when the lid is open and retain the lid in open position and prevent its complete removal from the box body.

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

THOMAS HENRY JOYE.

Witnesses:

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