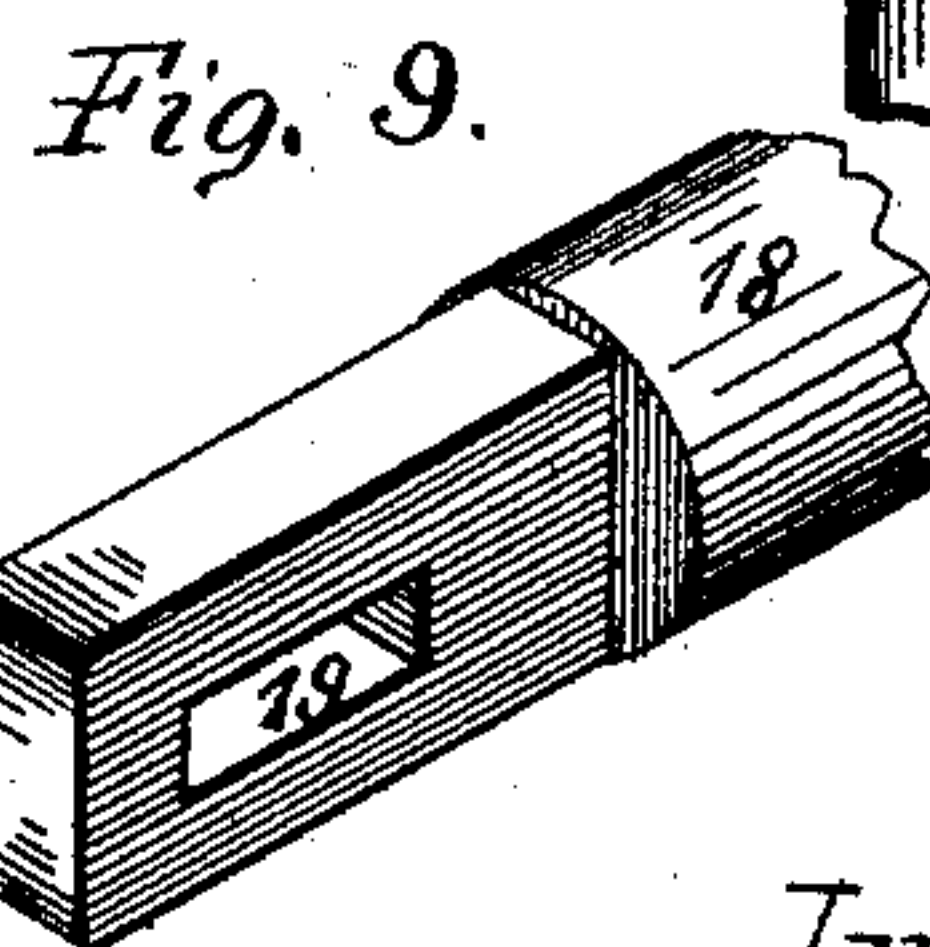
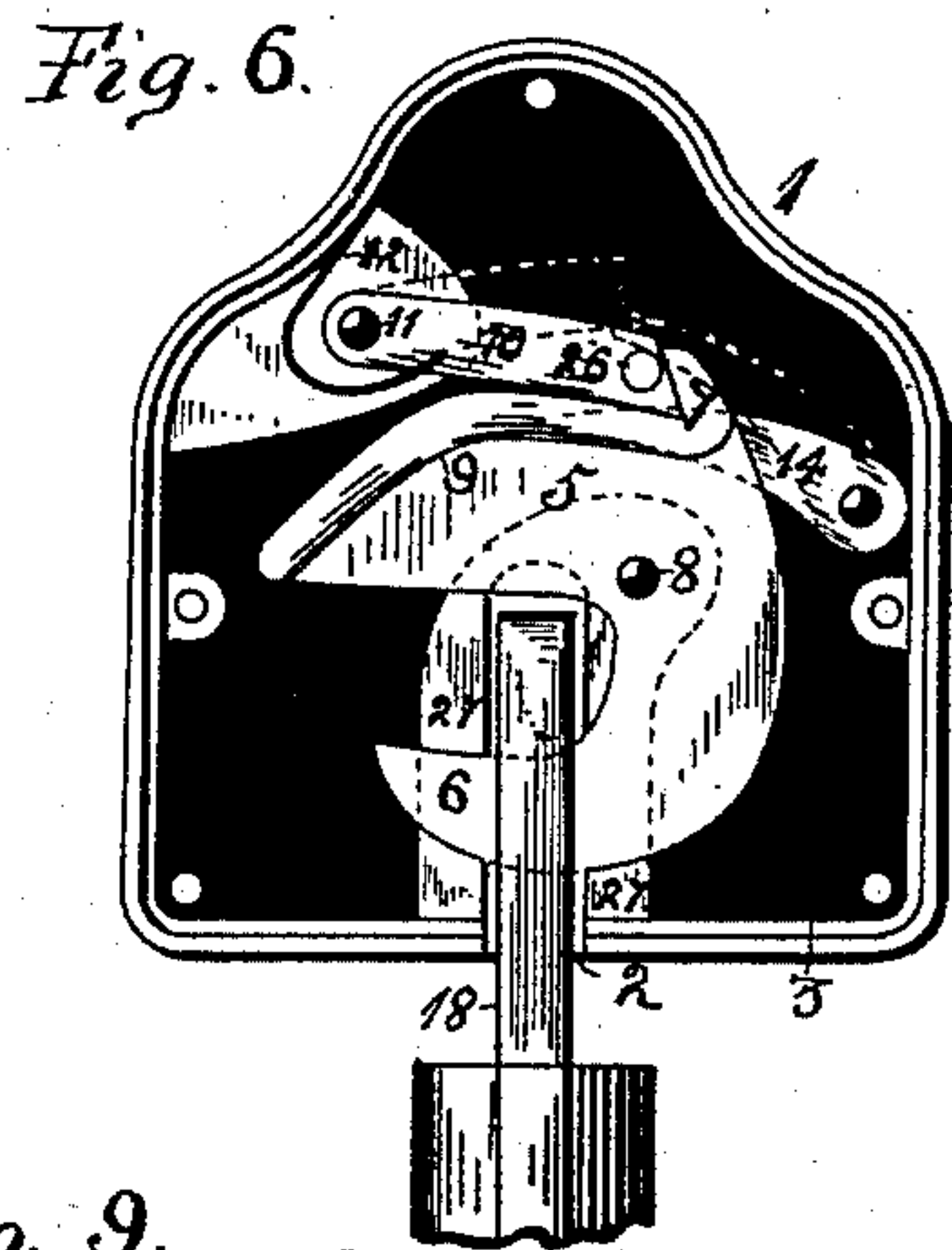
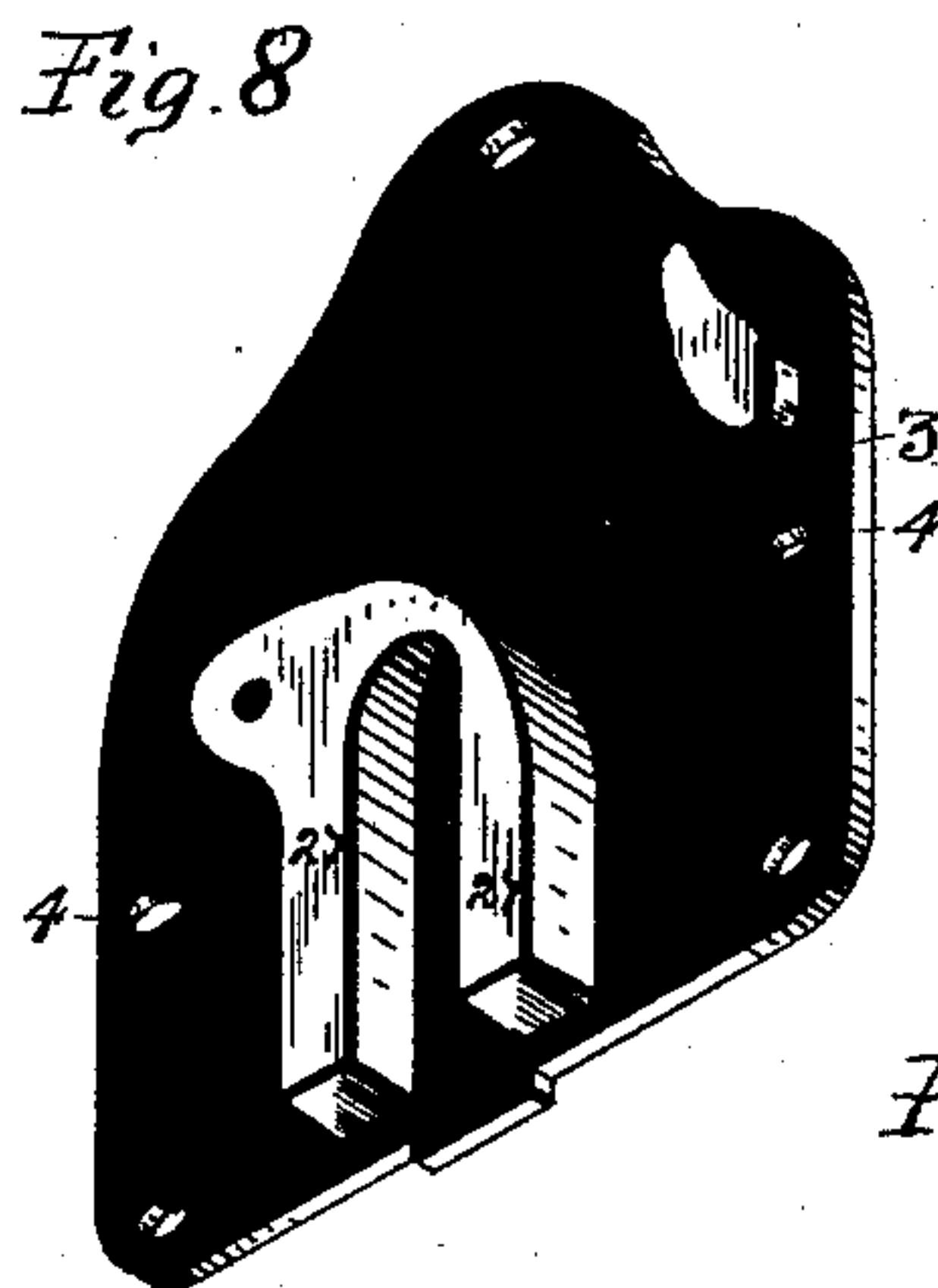
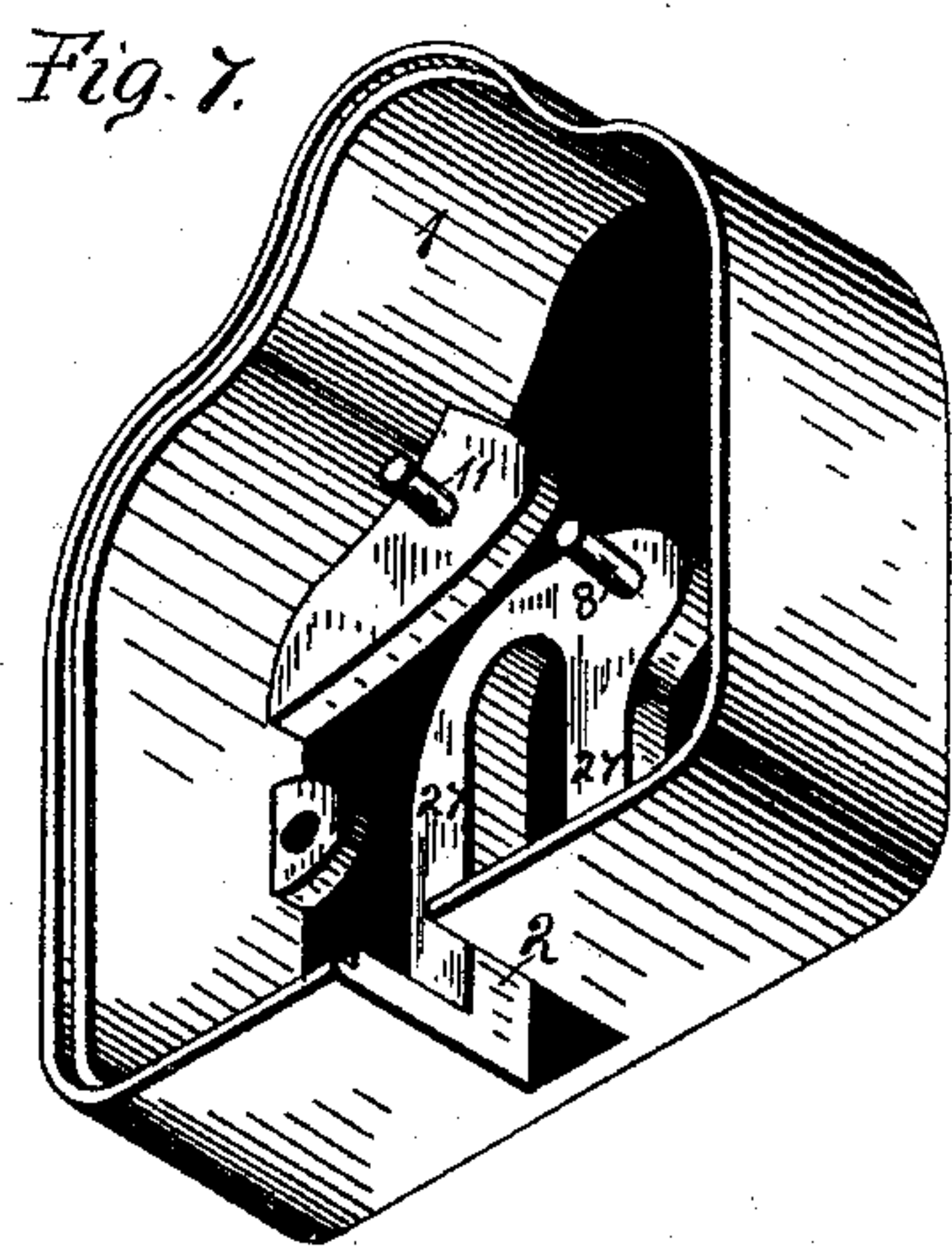
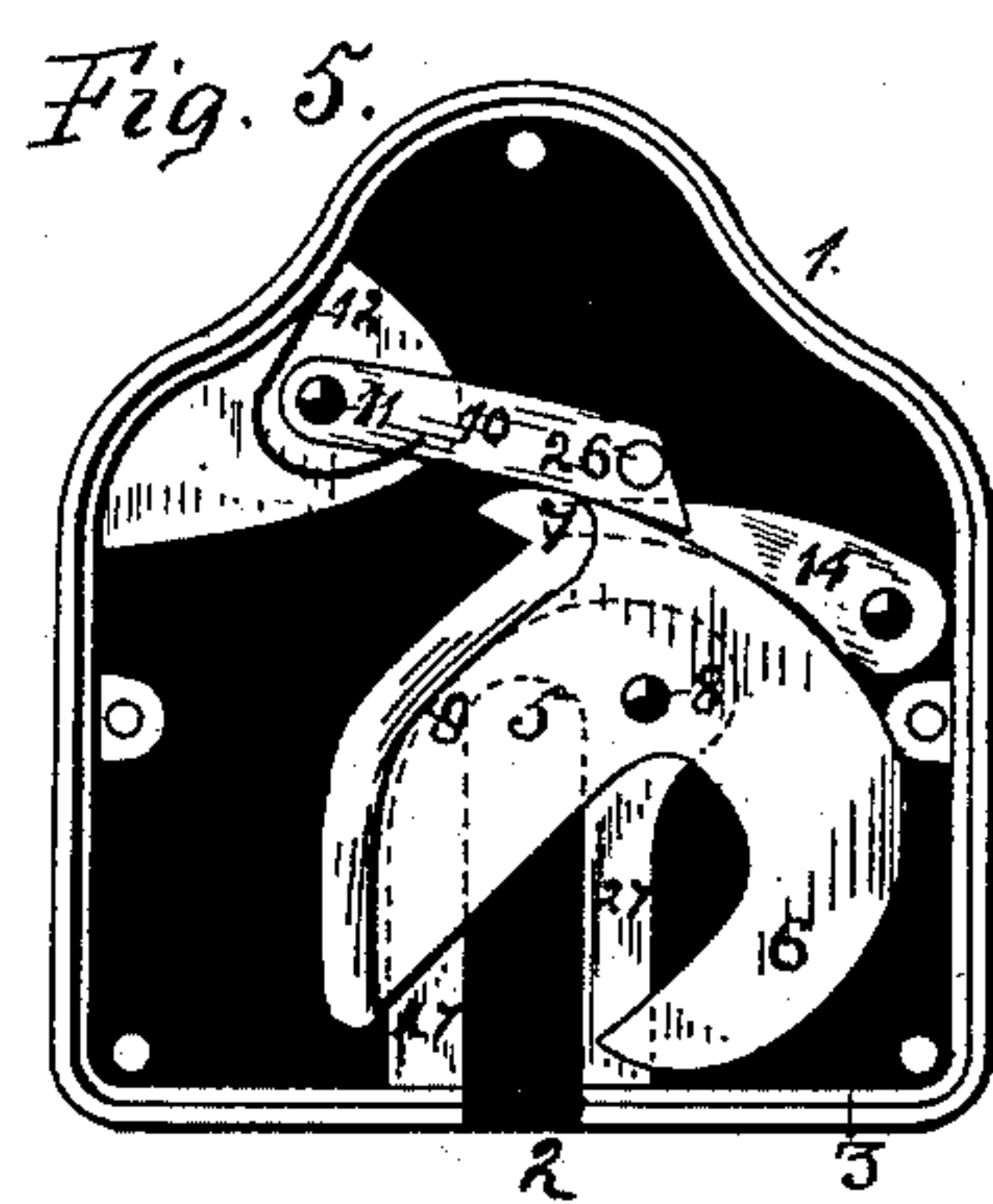
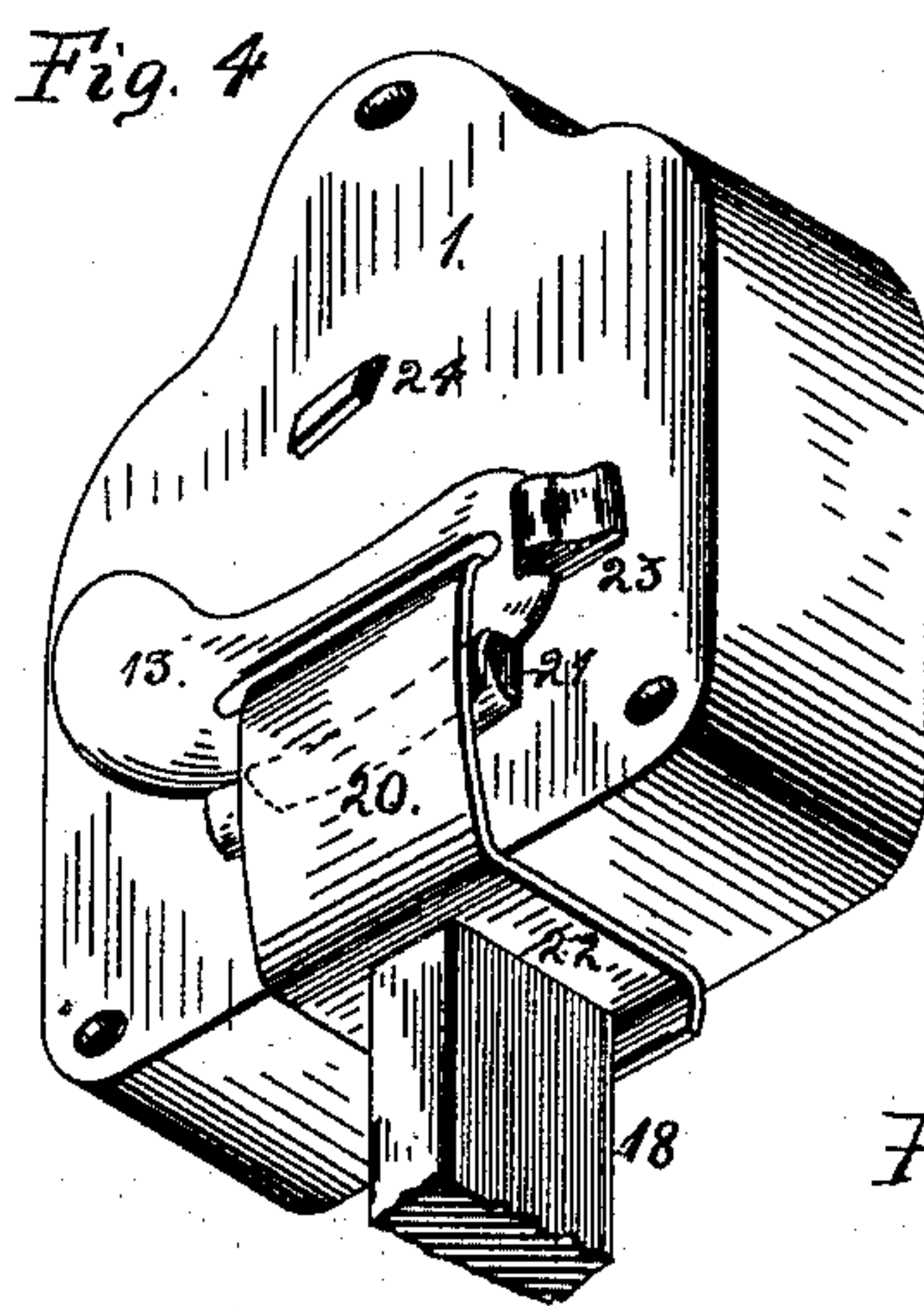
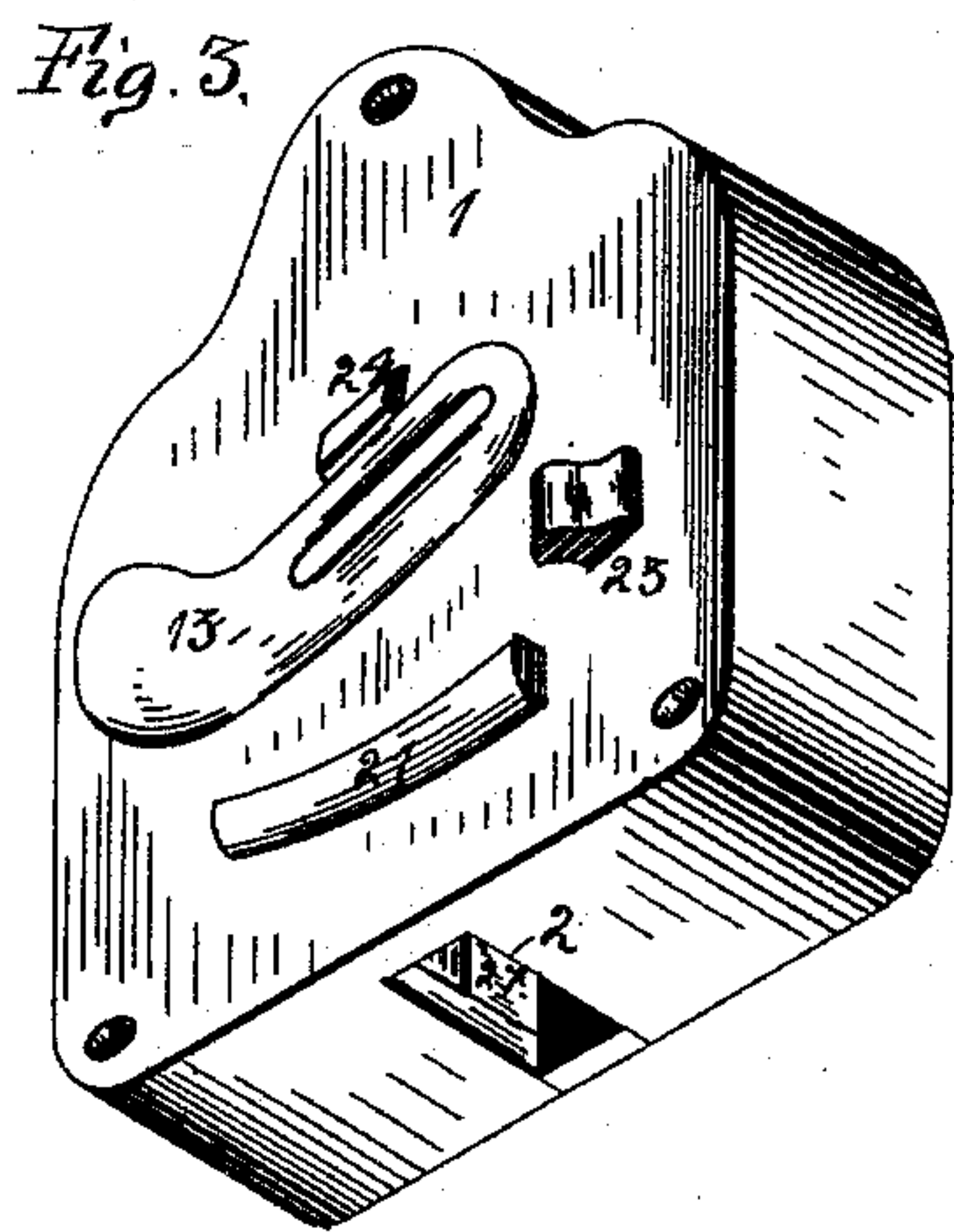
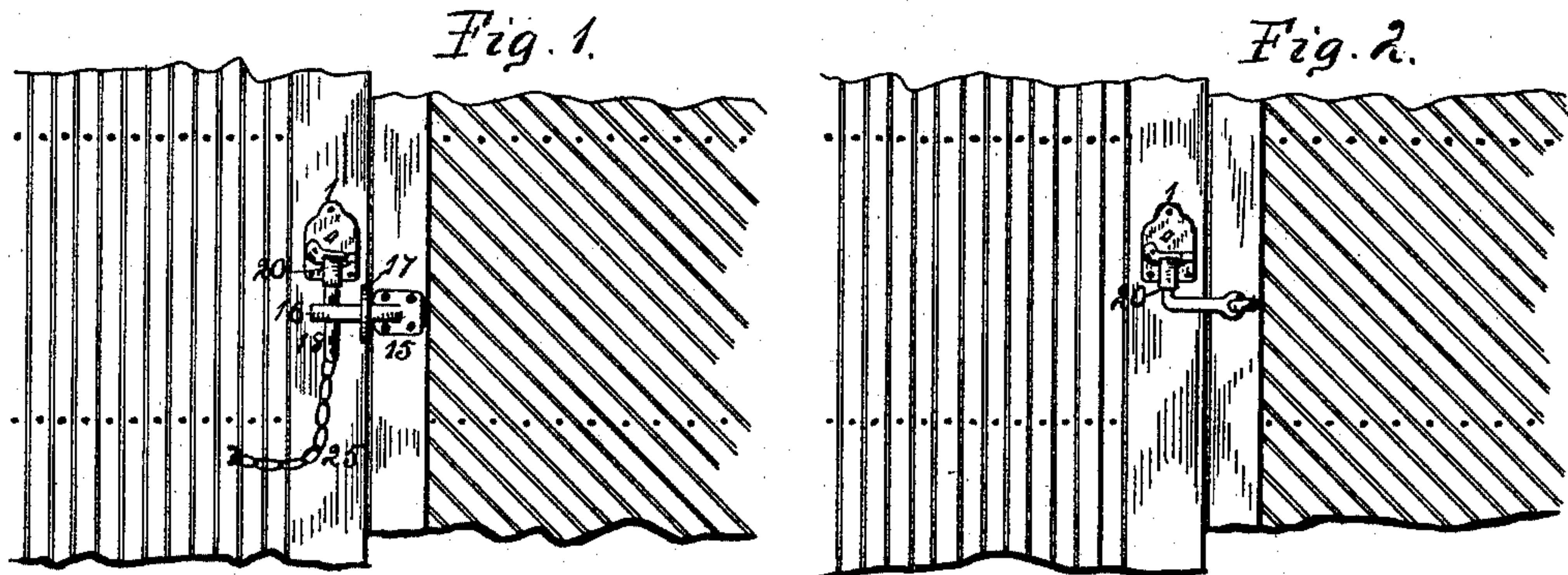


(Model.)

E. L. CHURCH.
SEAL LOCK.

No. 441,936.

Patented Dec. 2, 1890.



Witnesses:
J. A. Southworth.
E. Behl.

Inventor:
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UNITED STATES PATENT OFFICE.

EUGENE L. CHURCH, OF HARVARD, ILLINOIS.

SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 441,936, dated December 2, 1890.

Application filed May 24, 1890. Serial No. 352,979. (Model.)

To all whom it may concern:

Be it known that I, EUGENE L. CHURCH, a citizen of the United States, residing at Harvard, in the county of McHenry and State of Illinois, have invented certain new and useful Improvements in Car-Door Seals, of which the following is a specification.

The object of this invention is to provide a fastening for freight-cars in which a seal is employed, and in which it will be necessary to break the seal in order to gain an entrance to the car.

This invention consists of a locking device, substantially as hereinafter set forth, which is secured to the side of the freight-car adjacent to the door thereof, and a device connected to the door and engaging the lock, said device held in its connection with the lock by a seal, which when broken will permit the door to be opened.

In the accompanying drawings, Figures 1 and 2 are side elevations of a portion of a freight-car and its doors, illustrating the application of my improved car-door-fastening device. Fig. 3 is an isometrical representation of my lock as seen from its face in the position the parts occupy before the seal is connected therewith. Fig. 4 is an isometrical representation of the face side of the lock with the parts in the position they occupy when the seal is in position. Fig. 5 is a rear face view of the lock with the rear plate removed, showing the parts in the position they occupy when the door is unlocked. Fig. 6 is a similar view to that shown at Fig. 5, illustrating the parts in the positions they occupy when the door is locked. Fig. 7 is an isometrical representation of the casing as seen with the rear plate removed. Fig. 8 is an isometrical representation of the rear plate as seen from its inner face. Fig. 9 is an isometrical representation of the bolt employed to engage the locking device.

The outer casing 1 of my lock may be of any form to contain the parts located therein, and is provided with an opening 2 in its lower end. A removable back 3 is held to the casing by screws passing through openings 4 in the back plate and screw-threaded into the casing. Within the casing is located a plate 5, having its lower end 6 in hook form, and its upper end 7 is also in hook form. This

plate has a pivotal connection with the casing on the stud 8. The upper end of the plate is provided with a flange 9, on each side of its center web, for a purpose to appear hereinafter. To the casing above the plate 5 is pivoted a pawl 10 on a stud 11, projecting from the casing. The free end of this pawl is beveled to receive the hook 7 of the pivoted plate when the parts are in their locked position. A spring 12 acts upon the pawl holding it in contact with the pivoted plate. On the outside of the face-plate of the casing is located a slotted plate 13, which has a pivotal connection therewith, and an arm 14 is located within the casing and connected to the plate, so that they move in unison.

I can apply my improved lock and seal to freight-cars equipped with a certain fastening, which is shown at Fig. 1. This fastening consists of a plate 15, secured to the door of the car, having an arm 16, passing through a staple or loop 17, secured to the door-jamb. The free end of this arm 16 is provided with a vertical perforation through which a pin 18 is passed. This pin is passed down through the arm, having a slot 19 in its lower end, through which is passed the strip known as the "seal." The fastening so far described is a well-known means of sealing cars and in daily use. I have given the above description to show the application of my improved device. To the door-jamb of the car above the arm 16 is secured my lock, as shown in Fig. 1, and the manner of sealing the same will now be explained. The pin 18 is represented in a detached view at Fig. 9. With the door closed the opening in the free end of the arm 16 will come directly under the opening 2 of the casing. Through the slot in the plate 13 is passed a sealing-strip 20, in this instance of sheet metal. The plate is then moved down, so that the end of the strip will be held between the plate and stop 21, causing a kink to be made, thereby holding it firmly in position. The free end of the strip is bent under the lower side of the casing and a slot 22 therein connected with the opening in the casing, the free end of the plate 13 passed under a projection 23, which prevents it from being pried up, and a stop 24 limits the upward movement of the plate. The pin 18, which is connected to the car by

a chain 25, is passed upward through the arm 16, slot 22 of the seal 20, and into the opening 2 in the casing, where it comes in contact with the pivoted plate 5, moving it from the position it occupies at Fig. 5 to that shown at Fig. 6. In thus moving the plate its hooked end 6 will pass through the opening 19 in the pin. This movement will also allow the pawl 10 to drop and engage the hook 7 of the plate, thereby preventing the plate from returning to its original position, and holding the pin 18 in contact with the hook 6, when all the parts will assume the positions shown at Fig. 6. It will be seen that before the pin 18 can be extracted from the lock the pawl 10 must be raised to release the plate 5, and which cannot be accomplished without breaking the seal-strip 20, which when broken will allow the plate 13 to be raised, which will also cause the arm 14 to move in unison therewith. This movement of the arm will cause its free end to engage a stud 26, extending from the free end of the pawl 10, thereby raising it and releasing the plate 5, which will move on its pivot and release the pin and permit the door to be opened. It will be noticed that the under side of the face-plate of the casing and inside of the back plate are constructed with a rising bead 27, which, when the parts are placed together, will leave space enough for the web portion of the plate 5, and the flange 9 of the plate 5 will extend beyond the beads. The object of this arrangement is to prevent the picking of the lock with a wire inserted upward through the opening in the lower side of the case, as it will be seen that the face of the plate 5, bounded by the flange 9, is wider than the thickness of the pawl 10, and said flange will turn the wire to one side, thereby preventing it from raising the pawl. This flange also increases the weight of that portion of the plate, and will be sufficient to hold the plate in position to receive the pin.

At Fig. 2 I have shown my improved lock in position on the side of a car, and in which the pin and bar connected to the door is of a single piece, having its free end slotted, as before described. At Fig. 9 I have also shown the pin of cylindrical form having a rectangular end; but it is evident that the form of these parts is immaterial, as a pin with a hooked end or an enlarged end would accomplish the same purpose and still be within the meaning of my invention. I have also shown the sealing-strip with one end only slotted,

which, with my construction of other parts, I find sufficient to make a secure fastening; but a double strip can be employed, passed through the slotted arm 13 and having the pin pass through both ends, and still retain the essential features of my invention.

I claim as my invention—

1. A seal-lock consisting of a casing having a catch located therein consisting of a slotted pivoted plate, a pin inserted through an aperture in the casing and engaging the wall of the slot, which causes the catch to swing and retain said pin, locking means for holding said catch in locked position, releasing means for said catch, and a seal connecting said pin with said releasing means, thereby preventing the withdrawal of the pin while the seal remains intact, substantially as set forth.

2. A seal-lock consisting of a casing, a catch pivoted therein, a pin which, when inserted into said casing, is engaged and retained by said catch, a pawl pivoted within said casing to control the movement of the catch, an arm on the outside of the casing, a tripping-dog located within said casing to release the pawl from said catch, said dog actuated by said arm, and a seal connected to said arm and pin, substantially as set forth.

3. A seal-lock consisting of a casing, locking mechanism inclosed within the same, a pin to be secured by said locking mechanism, a slotted arm on the outside of the casing for releasing the locking mechanism from the pin, a rib beneath and adjacent to said arm, and a seal having one of its ends inserted through said slot and bent down between the under side of said arm and over the rib and its other end connected with the pin, substantially as set forth.

4. A seal-lock consisting of a casing having an opening therein, a back plate removably secured to the casing, beads on the front and back pieces extending around the space occupied by the pin, a catch pivoted within the casing and located between the beads and having a flange in each side thereof at its upper edge when in locked position, a pawl for locking said catch, a pin, means for actuating said pawl, and a seal-connection between said means and pin, substantially as set forth.

EUGENE L. CHURCH.

Witnesses:

J. D. CLARK,
W. H. VAN SCHAICK.