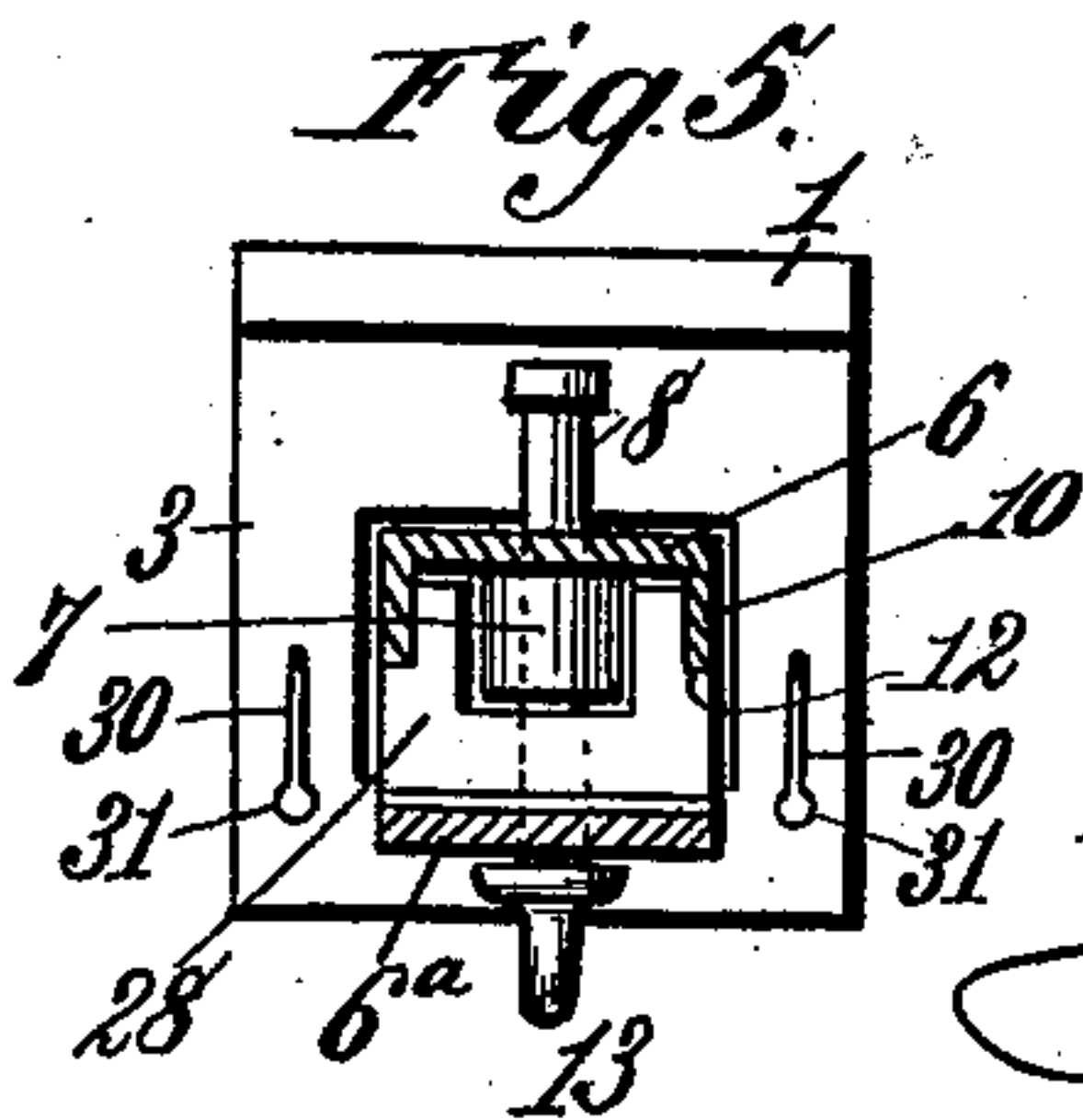
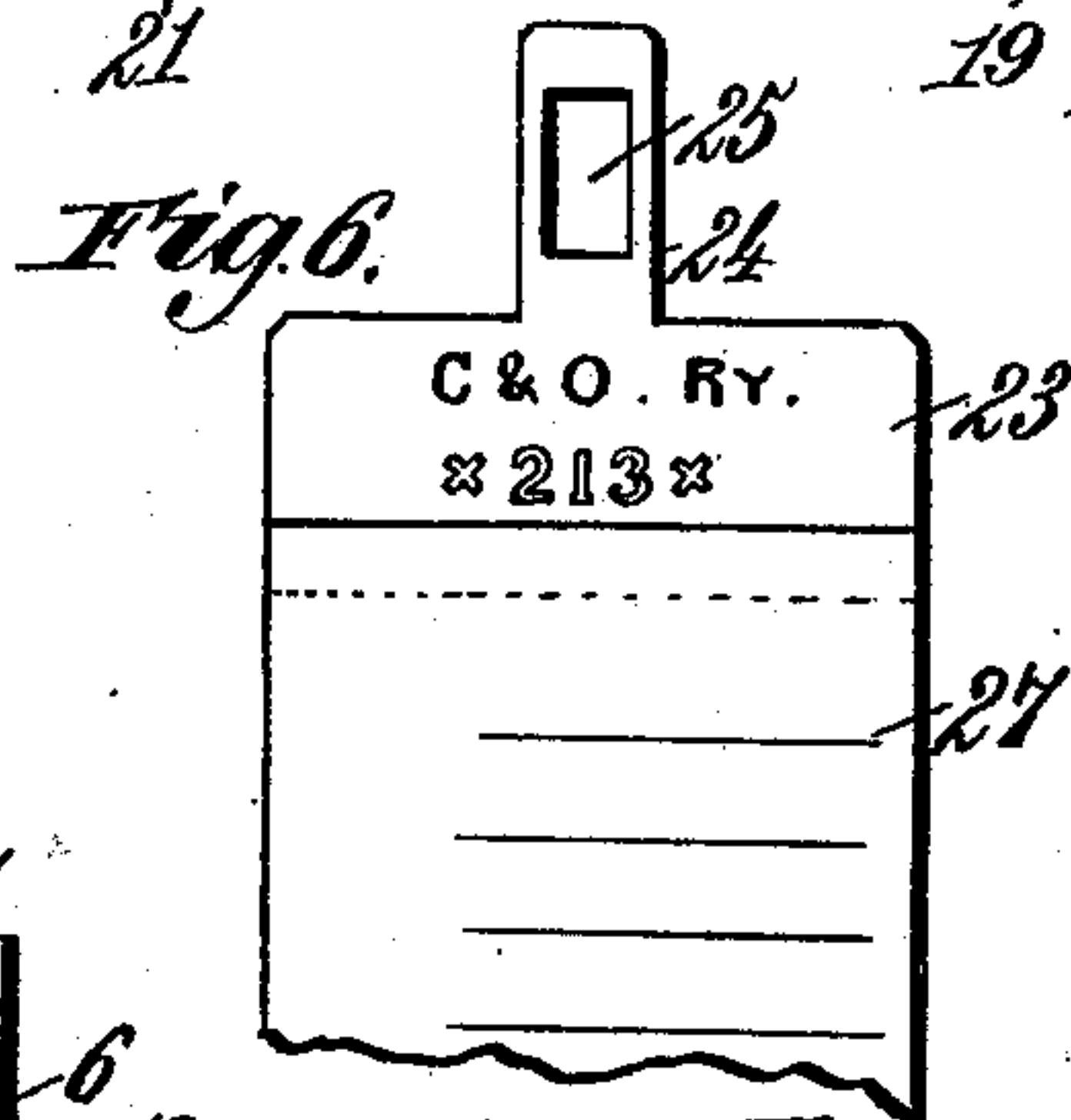
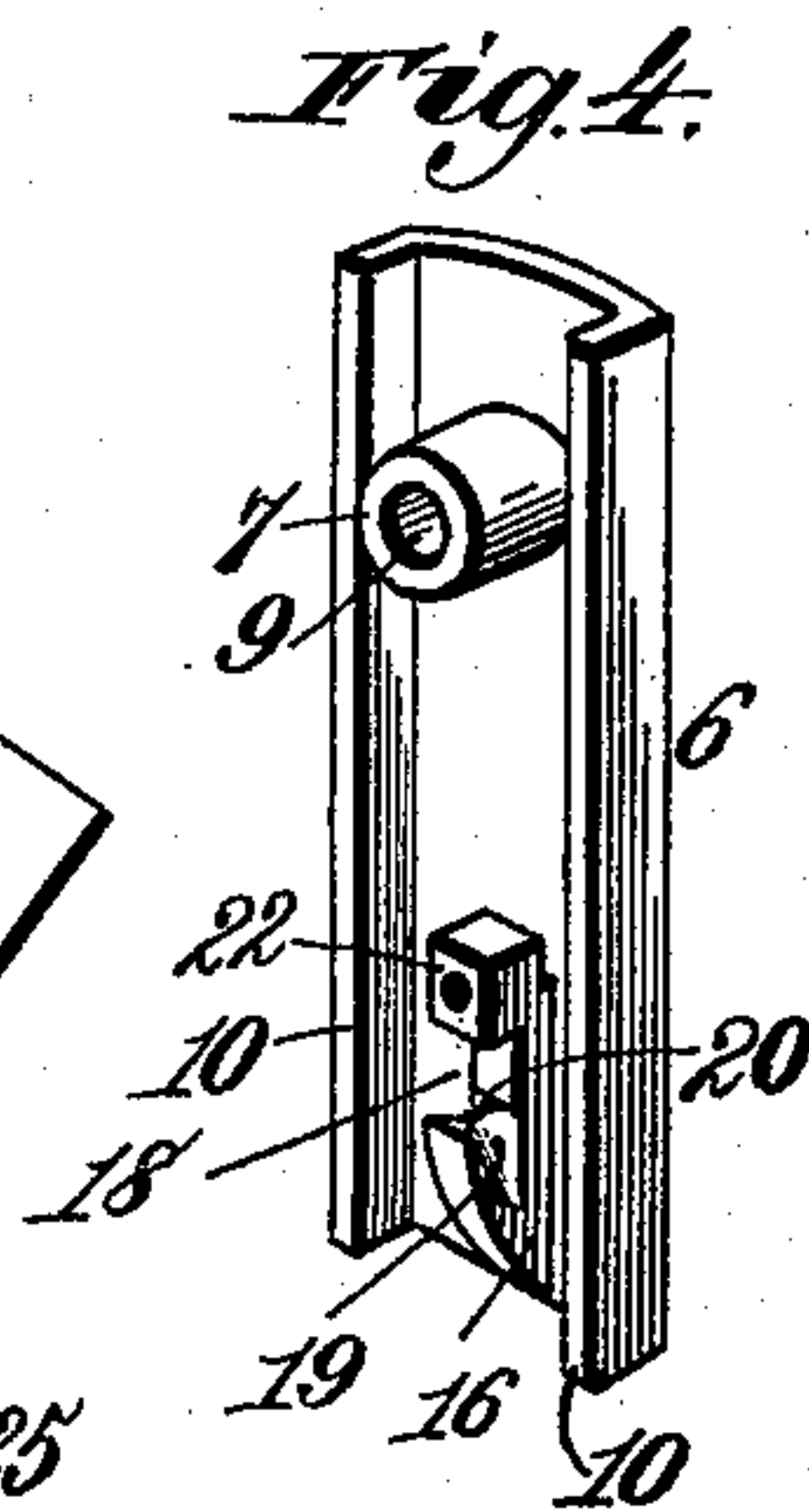
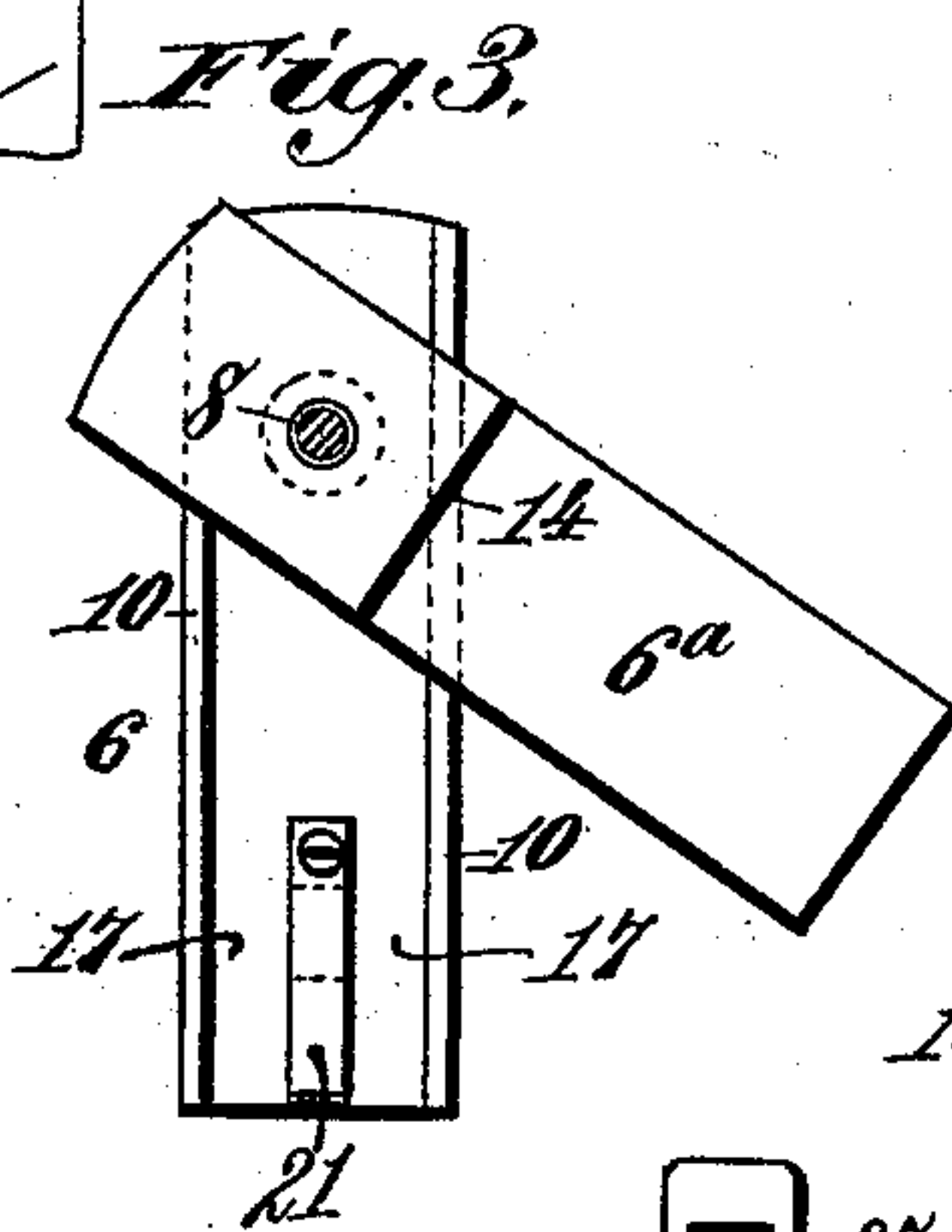
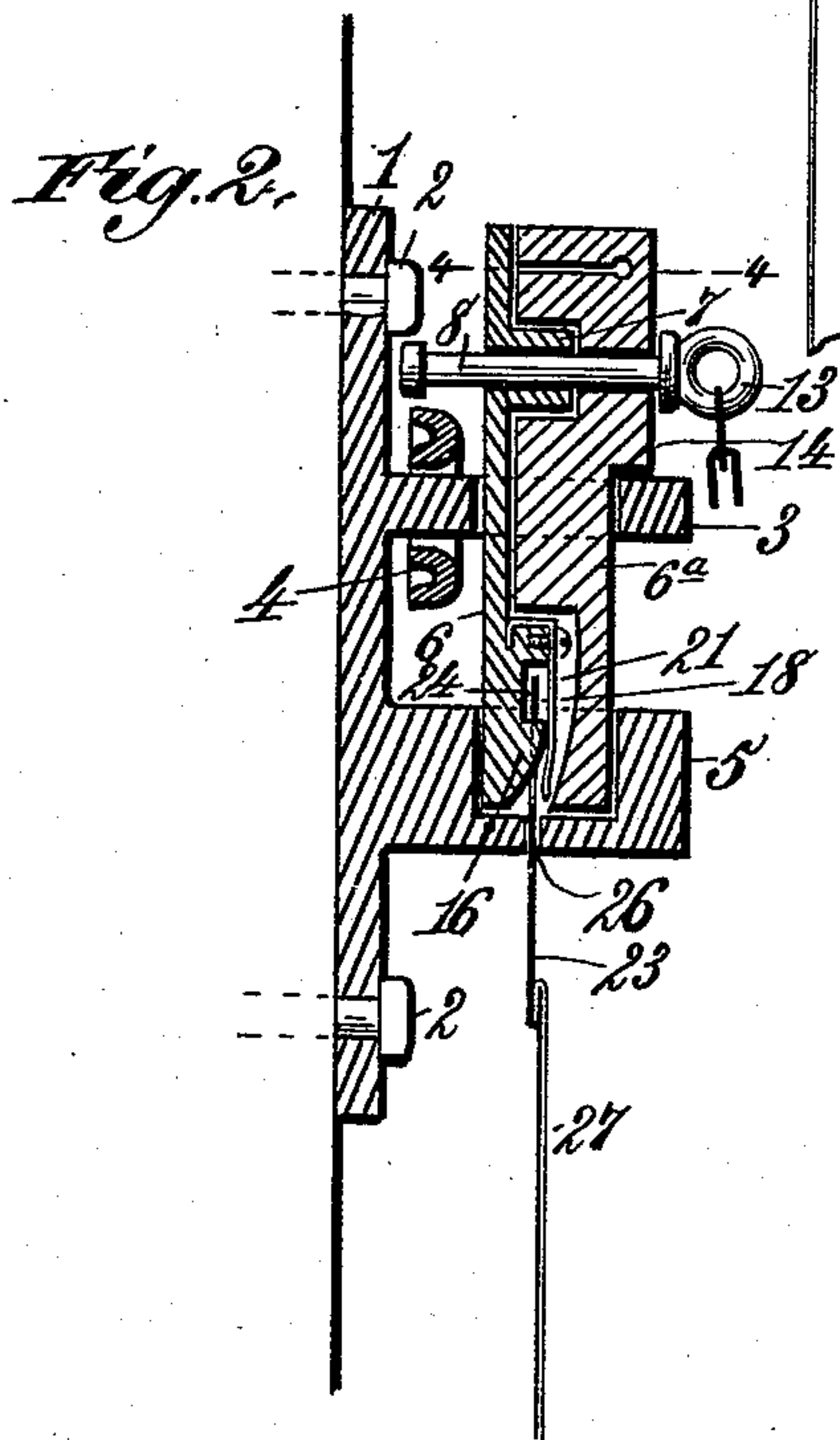
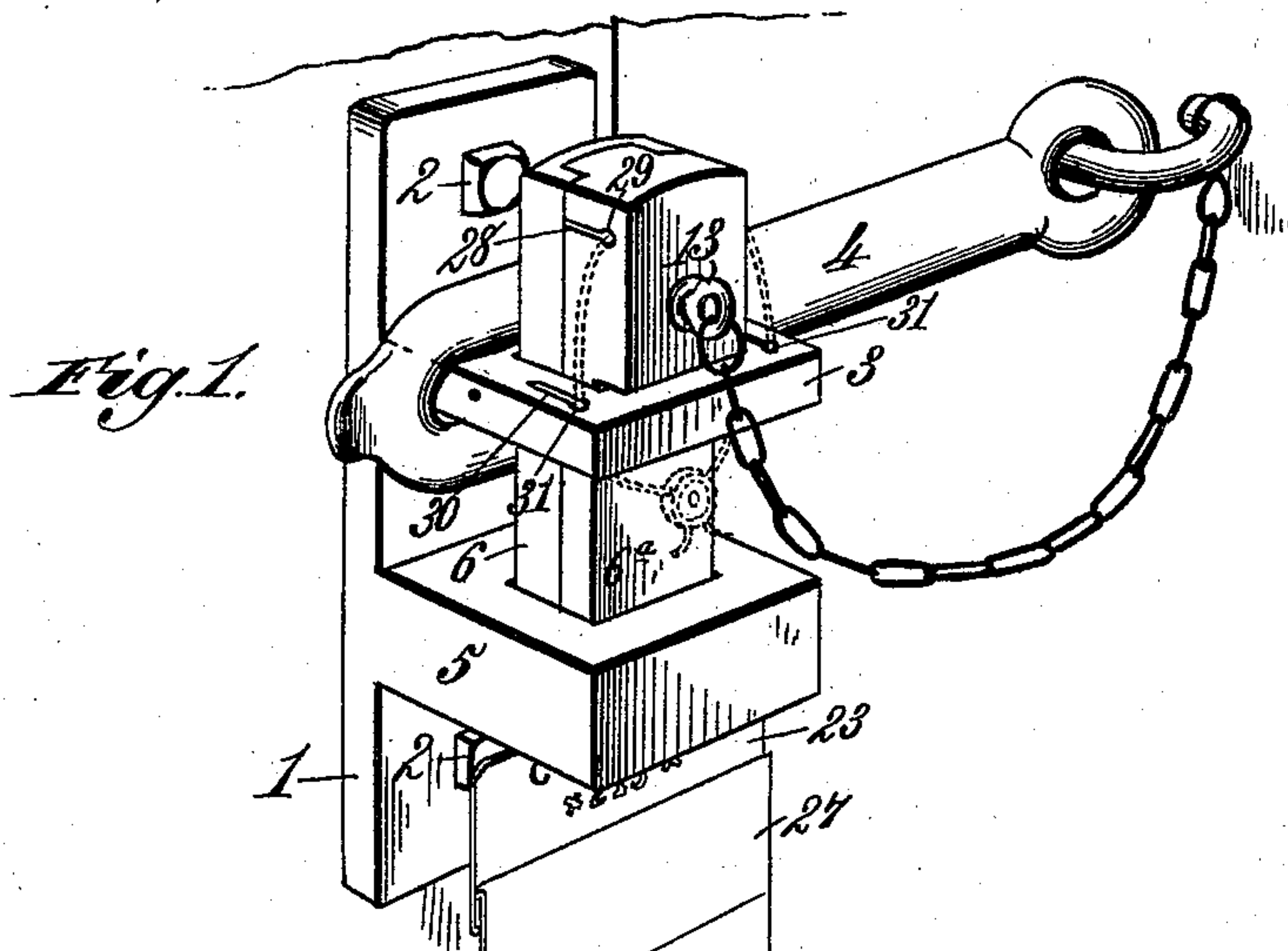


(No Model.)

J. A. UPSHUR.
SEAL LOCK.

No. 534,588.

Patented Feb. 19, 1895.



Witnesses:
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G. W. Rea,

Inventor:
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UNITED STATES PATENT OFFICE.

JOHN A. UPSHUR, OF RICHMOND, VIRGINIA.

SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 534,588, dated February 19, 1895.

Application filed May 15, 1894. Serial No. 511,354. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. UPSHUR, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented new and useful Improvements in Seal-Locks, of which the following is a specification.

My invention relates to seal-locks for fastening car-doors, my purpose being to provide a new and improved lock of this kind which shall effectually defeat all attempts to tamper with the same, without detection, and give protection to the officers and employes of a railway company, as well as to the persons, or firms, transacting business with the road.

To this end my invention consists in the features, and the combination or arrangement of parts hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a perspective view, showing the invention as it appears when mounted upon the car, the door of the latter being locked. Fig. 2 is a vertical section taken in the central longitudinal line of the lock. Fig. 3 is a front elevation, showing the bolt removed from the lock, its outer member being turned to one side to expose the face of the other portion. Fig. 4 is a detail perspective view showing the construction and form of the inner, or rearward member of the bolt, shown in Fig. 3. Fig. 5 is a transverse section of the bolt, taken in the line of the pivotal connection which unites the two members. Fig. 6 is a detail view showing the metallic tag, and a portion of its record-card.

The reference-numeral 1, in said drawings, indicates the base-plate of that part of the lock which is rigidly attached to the car by means of bolts 2, or other suitable means. This plate is provided, in my invention with an integral, projecting plate 3, which enters the eye, or loop, formed in the end of the hasp 4, and has an opening, preferably of rectangular form, which receives the bolt by which the hasp is confined thereon. At a short distance below the plate 3 is formed a projecting boss, or block 5, provided with a chamber of a size and shape corresponding substantially with the opening in the plate 3. This chamber is formed in the block 5 in such manner that its

opening is upon the side adjacent to the plate 3.

The bolt, which confines the hasp 4 consists of two parts, or members, 6 and 6^a. The inner member 6 is provided with a nipple 7 projecting from its inner face, near one end, and seated in a recess in the corresponding portion of the outer member 6^a, the two being connected by a spindle, or bar 8, passed through an opening 9 in the nipple and through a suitable opening in the other part of the bolt. This spindle is of such length as to permit the nipple to be raised out of its seat far enough to clear the flanges 10, upon the sides of the inner, or rearward member 6, from the rabbets 12 in the body of the other part, whereby the face of the latter may be exposed, should this be necessary, either for repair, or other purposes. The spindle is provided with an eye 13, at one end, to permit its attachment to a chain which is secured to the car, or car-door, and its other end is upset, so that the two parts of the bolt can not be entirely detached.

The bolt, when its two members are united, is practically a unit, its external form and size being such that it will readily enter the opening in the plate 3 and lie in front of the hasp, its lower end entering, and substantially fitting, the chamber in the boss, or block 5. From the exterior face of the outer member of the bolt projects a portion 14 of greater thickness, forming a shoulder which lies above and rests upon the plate 3, in order to prevent the end of the bolt from being battered by impact upon the bottom of the chamber in the block 5.

The space between the flanges 10, of the rearward member of the bolt is filled by the solid body of the outer member 6^a, which is rabbeted along its edges to receive said flanges. At the lower end of the rearward member is formed, or mounted a rib of metal 16, lying centrally and longitudinally, and having any suitable thickness by which channels 17, of equal width shall be left between it and the flanges 10. At its upper, or inner end, this rib rises to the height of the flanges, or thereabout, and a little below this extremity the rib is cut away nearly to its base, leaving a space 18, for a purpose presently to be

described. The lower portion of the rib is beveled off so that its upper edge approaches, at the lower extremity of the rib very near the face of the bolt from which it projects. From its lower end, therefore, the flat edge of the rib forms an angle with the face of bolt, until it reaches the opening 18, where it terminates, the end of the rib being at a right angle with the face of the bolt from which it projects. The square end of the rib is provided, on each side, with a concave under-cut 19, by which a cutting edge 20 is formed between the rectangular end of the rib and the face of the bolt. A leaf-spring 21 is secured by one end to the post 22, above the opening 18, said spring crossing this opening and having its lower end overhanging the flat top of the rib and pressing against its upper end, as seen in Fig. 3. The bolt being inserted in the plate 3 and having its lower end lying in the chamber in the block 5, a metallic tag 23, having a tongue 24 which is provided with a slot 25, is applied by inserting the tongue 24 in a narrow aperture 26, formed in the block 5 and entering the chamber therein at such a point that the end of the tongue may penetrate between the two members of the bolt in which space is provided for that purpose. The end of the tongue rides up upon the beveled flat top of the rib, raises the spring 23 and, as its slot 25 comes into position, the rib enters the same and the spring snaps the integral end of said tongue behind the end of the rib and into the opening 18. Having reached this point it can not be removed without rupturing the tongue. The width of the aperture 26, in the block 5, is such as to permit the entrance of the tongue 24, but prevents the insertion of any instrument by which the spring 23 may be raised, and the strength of latter and the construction and position of the parts entirely preclude all possibility of removing the tag except by rupturing it. When it becomes necessary to remove it, sufficient force is exerted to cause the knife-edge 20 to sever the end of the tongue.

The tag 23 is provided with a number, or character, stamped or embossed therein, by which it is identified. A card 27 is attached by rolling the metal of the tag over with and upon the paper, or card, and seaming the whole by pressure. This card is provided with space for all the necessary sealing records and its other side may be used for the records usually made upon the side cards.

I make provision, in case of necessity, for the use of the ordinary impressed metallic seal, in connection with the wire, or flat metallic band, heretofore commonly used, without modifying the invention in form, or construction. To accomplish this, I form in the upper end of the outer member of the bolt a kerf 28, of a width sufficient to admit the flat metallic band, and at the outer edge of this kerf is formed an aperture 29, of a diameter greater than the width of the kerf, to admit

the wire strand, should this be used. A similar kerf 30 and aperture 31 are formed in the plate 3, on each side of the opening receiving the bolt. The manner of applying the wire is shown in dotted lines in Fig. 1, and the use of the flat strip is so obvious as to require no explanation.

In embossing the proper number upon each metallic tag, I prefer to perforate the metal in advance of and following the number, in order to prevent the alteration of the latter by the addition of further figures. I have shown these perforations, in Fig. 6, as having the form of a cross, but they may be of any suitable pattern, such as a star, a letter, a dash, a circle, square, or any other shape preferred. The numbers embossed upon the tags will be consecutive and when issued the tags will be charged to the person, or corporation, receiving them. The sealing-record, exceptions, and other entries, will be made upon the slip forming a permanent part of the metallic tag, and when the latter is removed, as it will be at the destination noted upon the slip, the latter will have a complete record showing the road and the initial, or name, of the person to whom the tag was issued, and whose duty it was to seal the lock; the date, train-number, consignor, consignee, the contents of the car sealed, the arrival at destination, and the "exceptions." The condition of the tag, also, will show most conclusively whether the lock was sealed, since the tag can not be removed without rupturing the tongue by exerting such a degree of force thereon as to cause the knife-edge 20 to cut the end lying in the opening 18, in the bolt, this cut being made by the knife-edge 20 at the end of the rib which holds the tongue in the end of the bolt. It will be seen from examining the drawings that the removal of the tag in any other way is wholly impossible, since no instrument can be inserted between the two parts of the bolt, which are wholly inclosed, at the end, in the chamber in the block 5. The aperture 26 in the latter will only admit the tongue of the tag, and should the latter be cut by withdrawal its re-insertion, in such manner as to avoid detection, is impossible. The tags with their attached slips are filed away as part of the permanent records of the road.

What I claim is—

1. In a seal lock, the combination with a base-plate having a chamber provided with a narrow slot, of a sectional bolt, movable into and out of said chamber and having one of its sections provided on the inside with a projecting tag-engaging-rib, a connection between the sections of the bolt which permits them to move relatively to one another, a tag having a slotted tongue adapted to pass through the said narrow slot and enter between the sections of the bolt to engage the said tag-engaging-rib, and a device for holding the tag in engagement with the rib, substantially as described.

2. A seal-lock comprising a bolt composed of two separable members, one of which is provided with a rib at its lower end and a spring overhanging and pressing upon said rib, a plate in which said bolt lies in front of the hasp, a block having a chamber which receives the lower end of said bolt, and a metallic tag having a slotted tongue inserted in said chamber through a narrow aperture and entering between the two parts of the bolt, its slotted end engaging the knife-edge end of the rib behind the spring, which preserves said engagement, substantially as described.

3. In a seal-lock, the combination with a bolt lying in front of a hasp and having its lower end inclosed in a chamber formed in a rigid part of the lock, of a metallic tag having a slotted tongue inserted in a narrow aperture leading to said chamber, entering the end of the bolt between a raised rib therein and a spring pressing said rib and holding the tongue in engagement therewith, said rib entering the slot and its undercut end lying against the tongue at the end of the slot, substantially as described.

4. In a seal lock, the combination with a base-plate having a hasp-engaging-plate and a chamber located below said plate and provided with a narrow slot, of a bolt movable through the plate into said chamber and com-

posed of two loosely connected sections movable relatively to one another and one provided on its inside with a tag-engaging-rib, and a tag adapted to pass through the said narrow slot and enter between the sections of the bolt to engage the said tag-engaging-rib, substantially as described.

5. In a seal-lock, the combination with a bolt confining the hasp of a metallic tag having a slotted tongue entering the end of said bolt and engaging a rib therein, said tag having a number embossed therein and preceded and followed by a perforation in the metal, substantially as described.

6. In a seal-lock, the combination with a bolt formed in two parts connected by a spindle, of a metallic tag having a tongue provided with an opening and adapted to be inserted in a narrow aperture leading to a chamber inclosing the end of the bolt, and a spring attached at one end and pressing upon a beveled rib formed upon one of the parts of said bolt, substantially as described.

In testimony whereof I have hereunto set my hand and affixed my seal in presence of two subscribing witnesses.

JOHN A. UPSHUR. [L. S.]

Witnesses:

THOS. A. GREEN,
VINTON COOMBS.