

2 Sheets—Sheet 1.

No. 559,592.

Patented May 5, 1896.

Fig. 1.

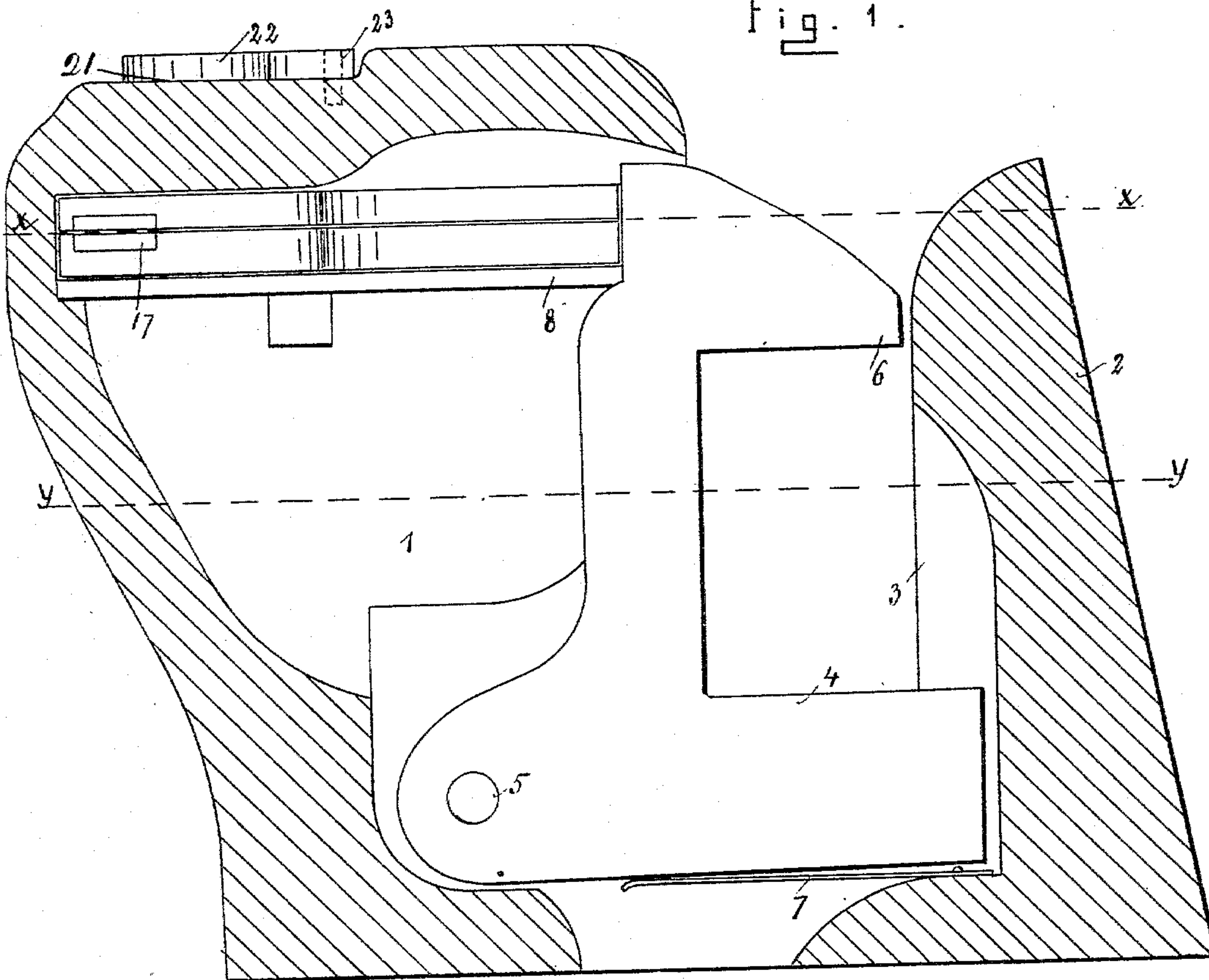
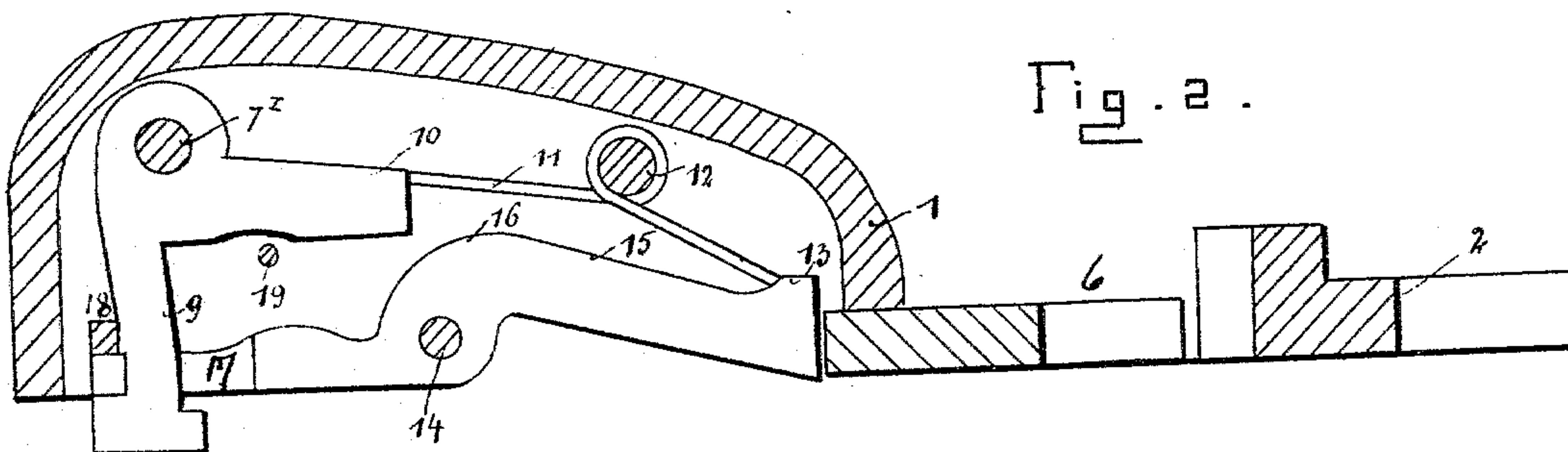


Fig. 2.



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(No Model.)

2 Sheets—Sheet 2.

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RAILWAY SWITCH LOCK.

No. 559,592.

Patented May 5, 1896.

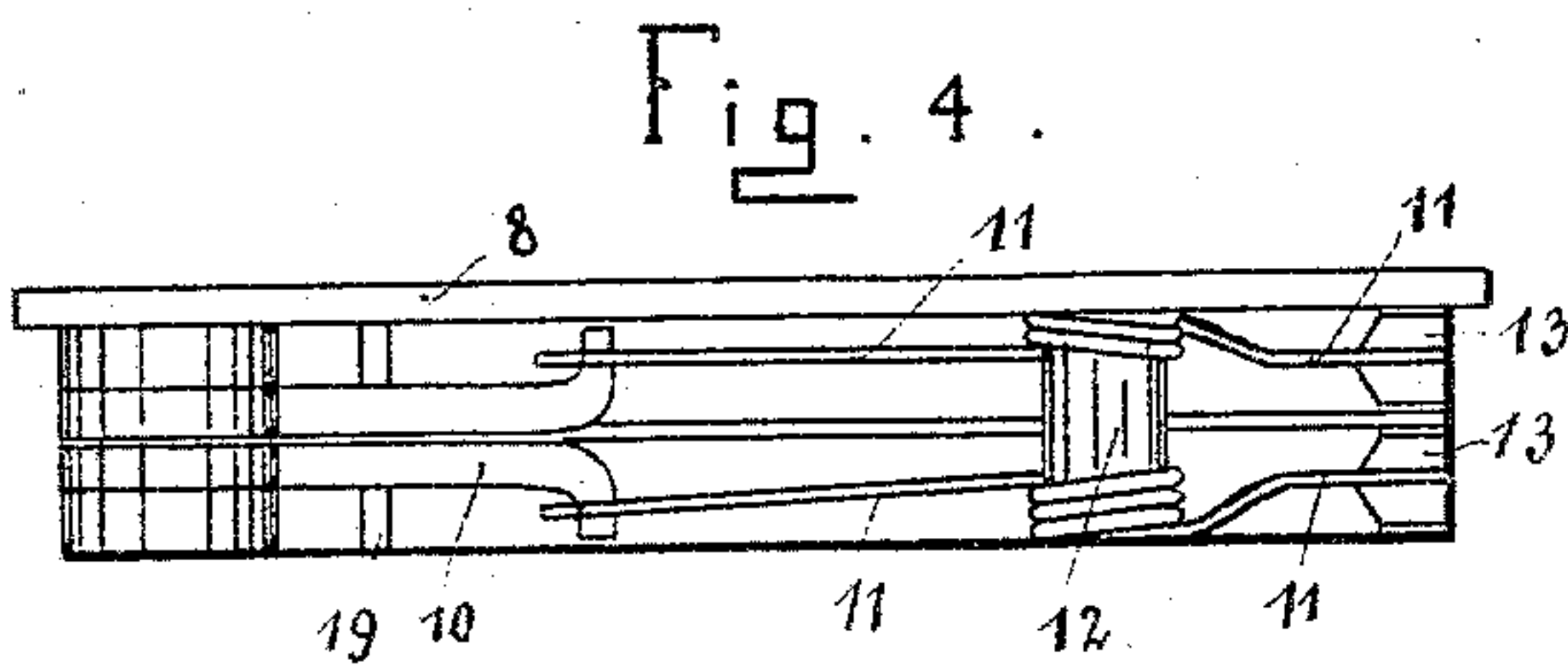
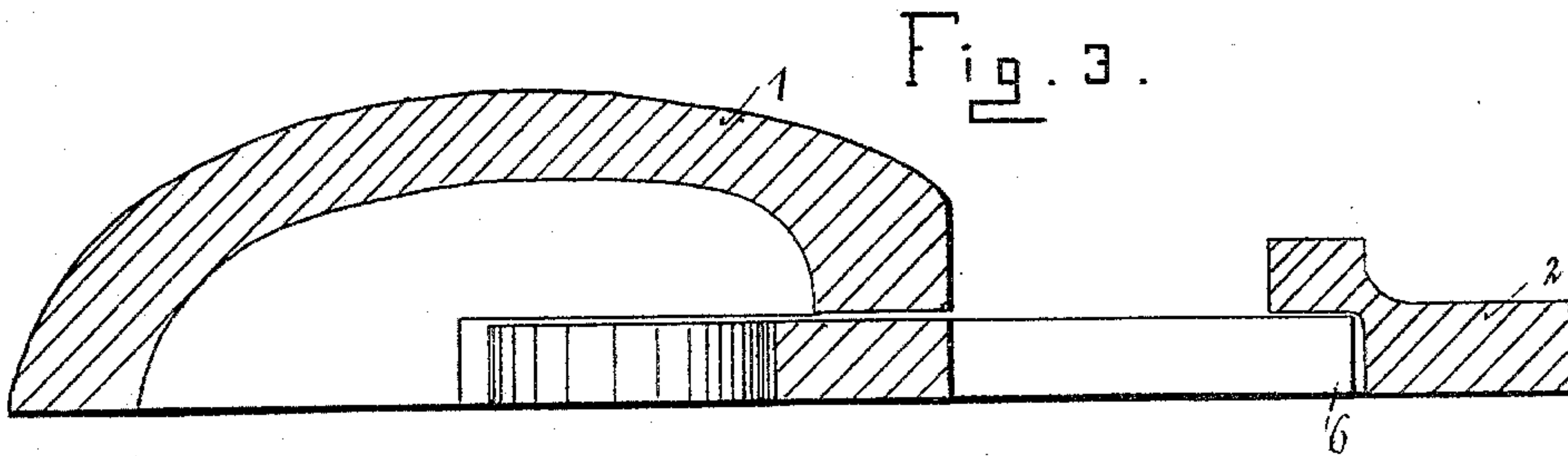
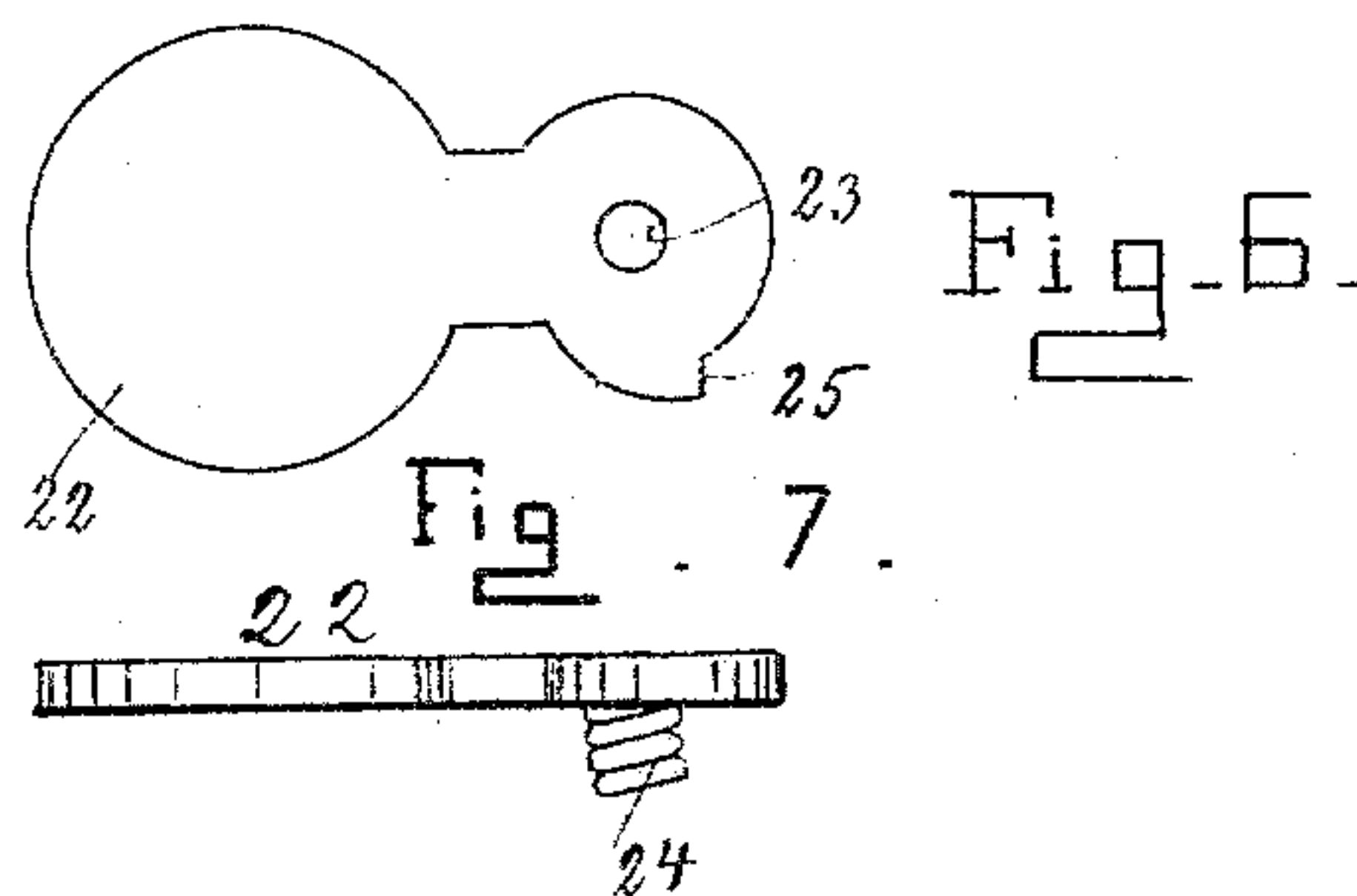
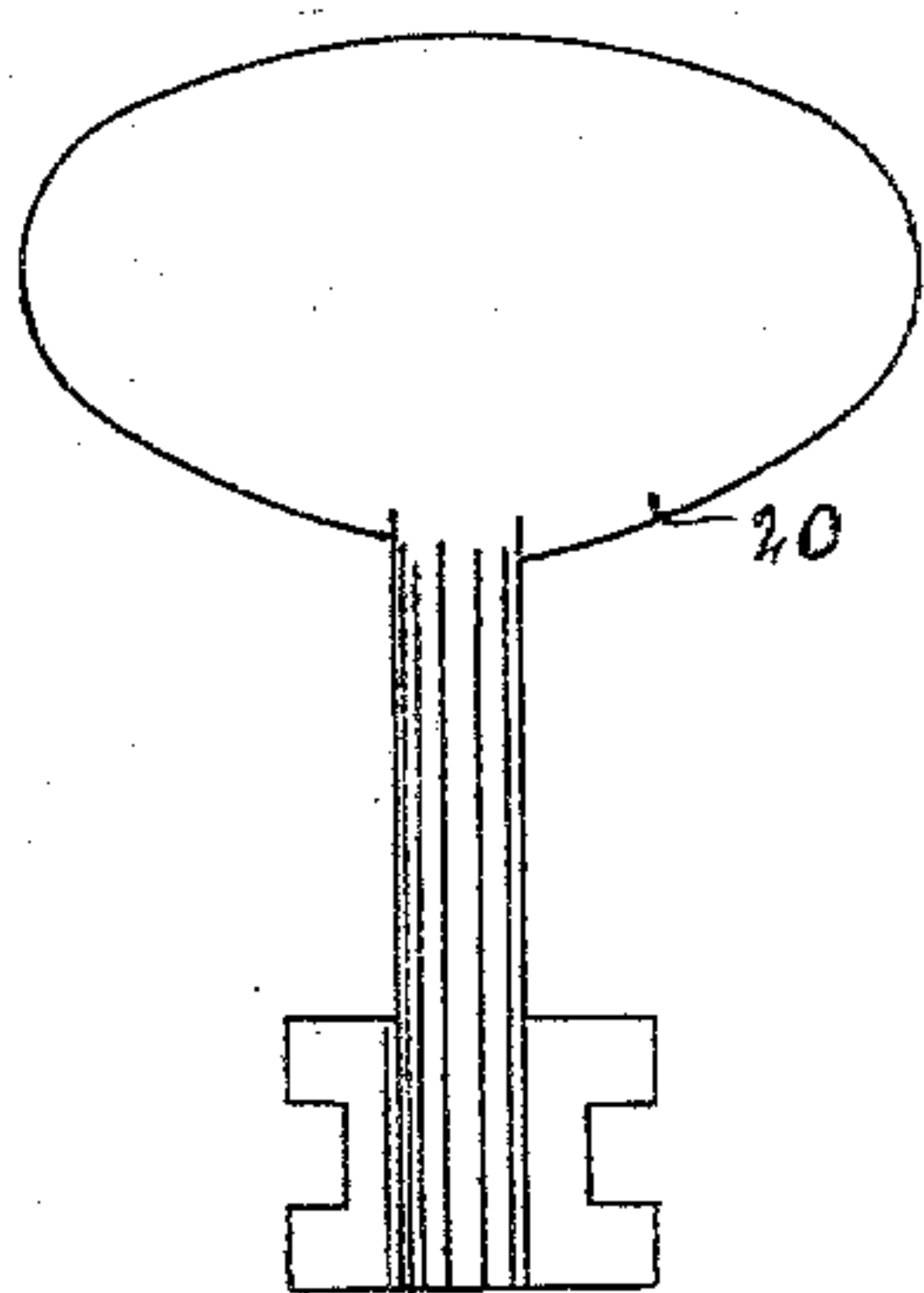
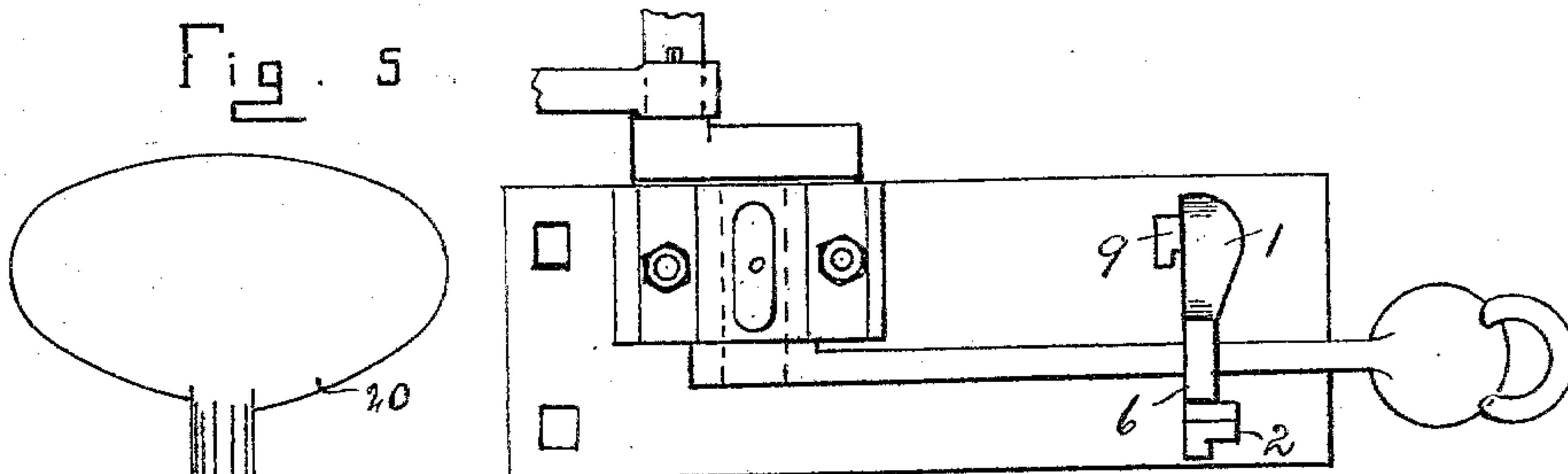


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM MULLIN, OF PITTSBURG, PENNSYLVANIA.

RAILWAY-SWITCH LOCK.

SPECIFICATION forming part of Letters Patent No. 559,592, dated May 5, 1896.

Application filed July 23, 1895. Serial No. 556,865. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MULLIN, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Devices for Locking Railway-Switches; 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to certain new and useful improvements in devices for locking railway-switches, and has for its object the provision of novel means whereby a switch may be easily locked and unlocked.

The invention has for its further object to construct a locking device of the above-referred-to class that will be extremely simple in its construction, strong, durable, and comparatively inexpensive to manufacture.

The invention has for its still further object to design a locking device that will be effectual in its operation at all times; furthermore, to so arrange the parts that it will be impossible to get out of order.

With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangement of parts to be hereinafter more particularly pointed out, and specifically set forth in the claim.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate similar parts throughout the several views, in which—

Figure 1 is a vertical sectional view of my improved locking device. Fig. 2 is a horizontal sectional view taken on the line X X of Fig. 1. Fig. 3 is a horizontal sectional view on the line Y Y of Fig. 1. Fig. 4 is a detail side view of the lock proper. Fig. 5 is a detail plan view of the key employed for opening the lock. Figs. 6 and 7 are a plan and a side view of the cap 22 for covering or closing the opening through which access is had to the keyhole of the casing. Fig. 8 is an end view of the key 20. Fig. 9 is a view in plan

illustrating the application of the device for use to an ordinary switch drop-lever.

In the drawings, 1 indicates the casing in which the lock is mounted, said casing being preferably constructed in two sections.

2 indicates the vertical standard adjacent to the casing, said standard being provided with a cut-away portion 3, allowing the catch 4 to operate. The latter is pivoted at 5 and carries at its top a hook portion 6. A retractile spring 7 is provided at the lower portion of the upright standard and is adapted to operate against the underneath side of the catch 4.

8 indicates a base-plate arranged in the interior of the casing, said plate being adapted to carry the lock proper, said lock consisting of a triangular lever 9 9, being formed of two parts, said parts being in duplicate and pivoted at 7' to the base-plate. Outwardly-projecting lugs 10 10 are integral with the triangular lever 9 9 and are adapted to receive the ends of a spring 11, coiled around a shaft 12, the other end of said spring operating against the locking-pawls 13 13, said pawls being pivoted at 14 to the base-plate and provided at their underneath side with an inclined bearing-surface 15, forming a shoulder 16, and slotted at 17 to receive the end of the triangular lever 9 9. A pin 18 is also carried by the base-plate, forming a stop or shoulder for the triangular lever and operating-pawls. Between the triangular lever and operating-pawls a pin 19 is arranged, which is adapted to receive the key 20. An aperture at 21 is formed in the top of the casing for the reception of the key. A cap 22 is pivoted at 23 and carries a coil-spring 24, and is so arranged as to form a protection for the keyhole when not in use, a shoulder 25, abutting against the casing, serving to retain the cap in its normal position.

It will be readily understood that the throw-lever of a switch is readily admitted past the parts 2 and 6 when the lever 4 has been thrown back by the spring 7, as will be presently seen. The key being suitably inserted at 21, cap 22 having been turned aside from over the keyhole, and said key turned in required direction, it will engage the arms or lugs 10 of the lever 9 and throw inward the outer arm of said lever and permit the disen-

gagement of the pawls 13 13 therefrom, when the action of the spring 11, bearing against said pawls, will throw them out of engagement with the lever 4 and allow the latter to
5 be thrown backward by the action of the spring 7 sufficiently to permit the passage of the handle of the throw-lever of the switch thereinto or to be withdrawn therefrom, as the case may be, in locking or releasing said
10 lever.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

15 In a switch-lock for railways, the combination of the spring-acted-upon catch, the standard or upright adapted to receive an

arm of said catch, the spring-acted-upon pawls adapted to engage said catch, the triangular lever having one arm pressed by a spring and the other arm extending through
20 a slot in said pawls and means for engaging the spring-pressed arm of said triangular lever and unlocking the catch, substantially as set forth.

In testimony that I claim the foregoing I
25 hereunto affix my signature this 21st day of March, A. D. 1895.

WILLIAM MULLIN. [L. S.]

In presence of—

ALBERT J. WALKER,
RALPH DAUB.