

No. 736,528.

PATENTED AUG. 18, 1903.

G. LENHARD.
LOCK.

APPLICATION FILED JULY 22, 1902.

2 SHEETS—SHEET 1.

NO MODEL.

Fig. 1.

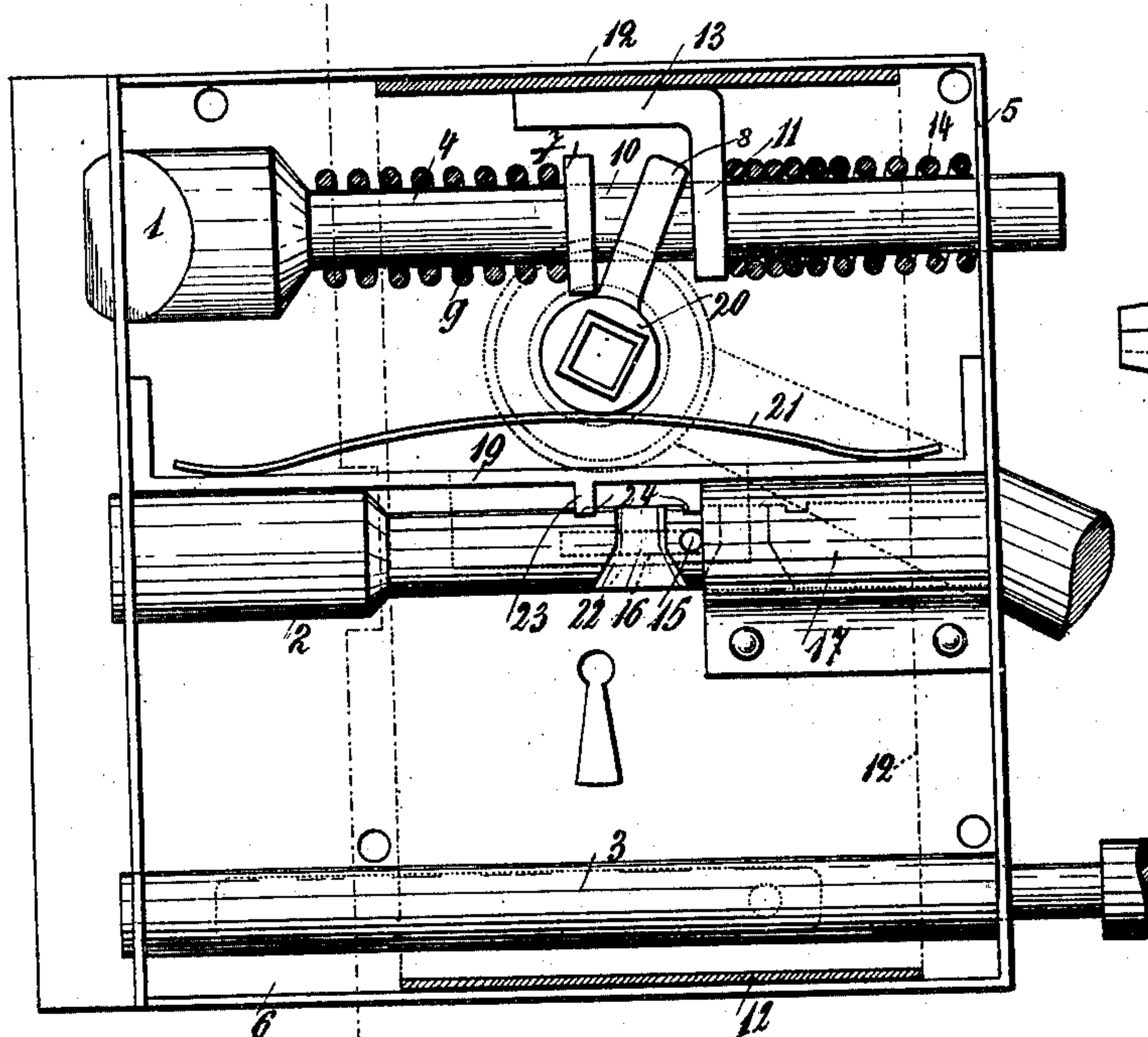
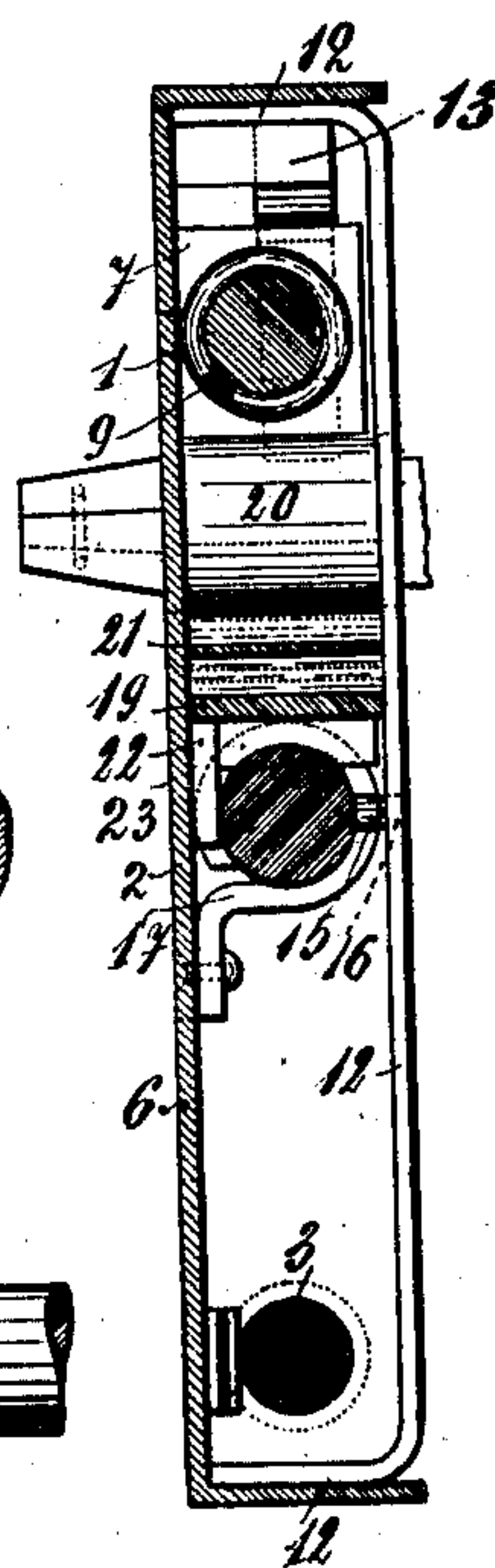


Fig. 2.



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2 SHEETS—SHEET 2.

NO MODEL.

Fig. 3.

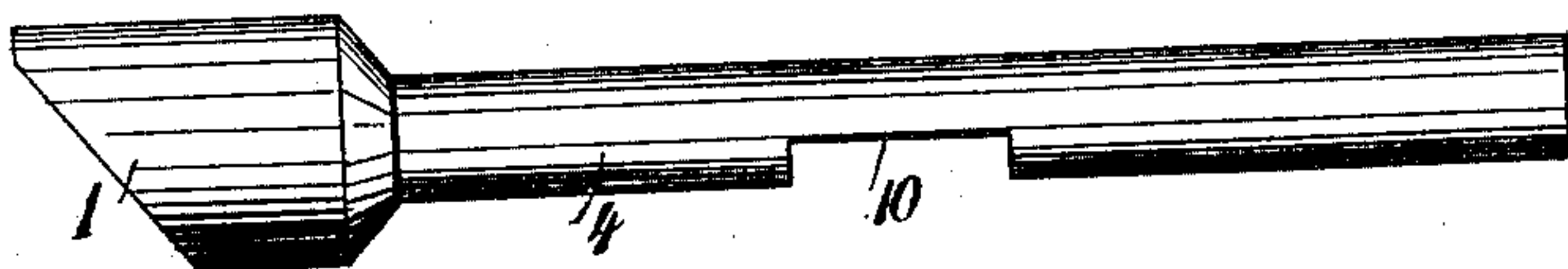

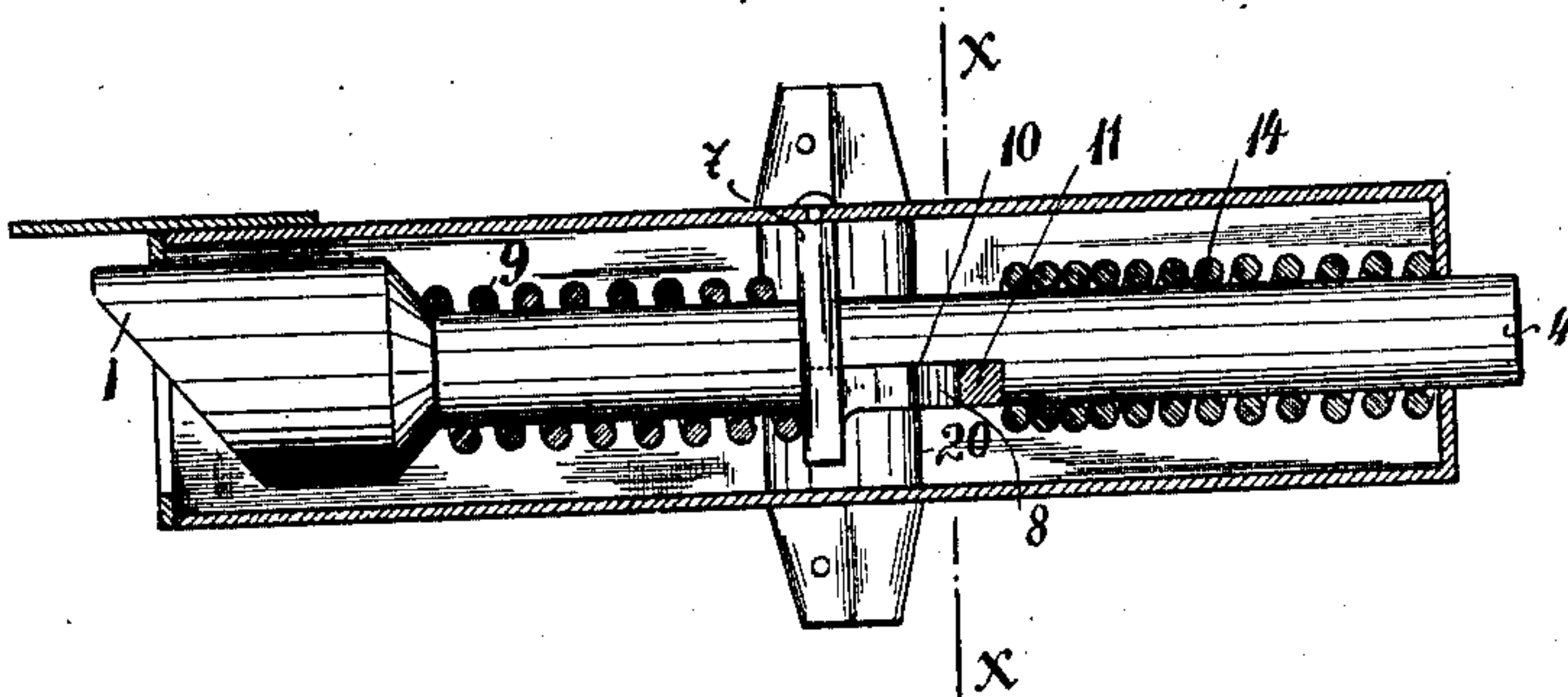


Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

GOTTFRIED LENHARD, OF NEUHAUSEN, SWITZERLAND.

LOCK.

SPECIFICATION forming part of Letters Patent No. 736,528, dated August 18, 1903.

Application filed July 22, 1902. Serial No. 116,579. (No model.)

To all whom it may concern:

Be it known that I, GOTTFRIED LENHARD, a citizen of Switzerland, residing in Neuhausen, in the canton of Schaffhausen, Republic of Switzerland, (whose post-office address is Neuhausen,) have invented certain new and useful Improvements in Door-Locks, of which the following is a full, clear, and exact description.

This invention relates to an improved construction of latch-lock, which by reason of the cylindrical form of the latch, as well as the bolt and the night or safety bolt, and by the way in which the parts are loosely fitted in the lock-casing is cheaper to make than locks with bolts of the ordinary shape and internal fitting fixed to the casing in the ordinary way.

An example of the invention is shown in the accompanying drawings, wherein—

Figure 1 is a face view of the lock, the back cover being in section; and Fig. 2 is a vertical cross-section on line *xx*, Fig. 1. Fig. 3 is a horizontal sectional view, slightly enlarged, of the parts seen in Fig. 1, the line of section being taken just above the coil-springs 9 and 14. The springs in Fig. 3 are shown in section. Fig. 4 is a cross-sectional view of the shank 4, taken on the line *xx* of Fig. 3. Fig. 5 is a detail side elevation of the latch-bolt.

The lock comprises a latch 1 and a bolt 2, made with cylindrical heads and shanks, and a night-bolt 3, also cylindrical, so that they can all be made by turning in a lathe and are therefore cheaper than bolts of the ordinary rectangular section.

The shank 4 of the latch passes through an abutment-plate 7 for the spiral spring 9 and through the end 5 of the lock-casing. The shank 4 has a notch 10, in which engages the arm 8 of the follower 20, whereby the latch-bolt is prevented from turning.

A bracket 13 is fitted to slide against the upper flange of the U-shaped cover-plate 12 and engages in the notch 10 of the latch by its arm 11, with which the follower-arm 8 engages to retract the latch, and between the arm 11 and the end of the casing is confined a second spiral spring 14, which has for effect to raise the latch-operating lever-handle.

The bolt 2 is prevented from turning by a pin 15 on the bolt engaging a slot 16 in the cover-plate 12. The rear end of the bolt 2 is

received in a socket 17, fixed to the lock-casing.

The bolt 2 is engaged in either of its two extreme positions by the stump 23 of the sliding tumbler 19, which is a plate with its ends upturned at right angles fitted to slide up and down in the lock-casing above the bolt 2, and it is pressed upon by a curved spring 21, bearing upon it and abutting against the follower 20, the tumbler being raised to disengage its stump 23 from the notch in the bolt by the action of the key-bit on a downwardly-projecting flange 22, formed on the tumbler 19.

By fitting the tumbler to slide in the casing, as above described, the necessity of drilling the casing is avoided, and it facilitates putting the lock together.

The night-bolt is held friction-tight by a spring 18.

What I claim is—

1. The combination with a lock-casing, of a lock comprising a non-rotating latch having a cylindrical head and a cylindrical shank, an abutment-plate through which the shank of the latch passes, the spring 9, a follower having an arm engaging in a notch in the shank of the latch, a bracket having an arm engaging in the said notch, an operating-lever for the latch, a spring arranged to raise the said operating-lever, the sliding tumbler 19, and a spring bearing against the tumbler and the follower.

2. The combination with a lock-casing, of a lock comprising a non-rotating latch having a cylindrical head and a cylindrical shank, an abutment-plate through which the shank of the latch passes, the spring 9, a follower having an arm engaging in a notch in the shank of the latch, a bracket having an arm engaging in the said notch, an operating-lever for the latch, a spring arranged to raise the said operating-lever, the sliding tumbler 19, and a spring bearing against the tumbler and the follower, a cover-plate and a pin on the bolt engaging in a slot in the cover-plate.

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of July, 1902.

GOTTFRIED LENHARD.

Witnesses:

HERMANN HUBER,
A. LIEBERKNECHT.