

No. 848,441.

PATENTED MAR. 26, 1907.

C. A. CABELL.
CHECK LOCK FOR MINING CARS.
APPLICATION FILED AUG. 25, 1906.

Fig. 1.

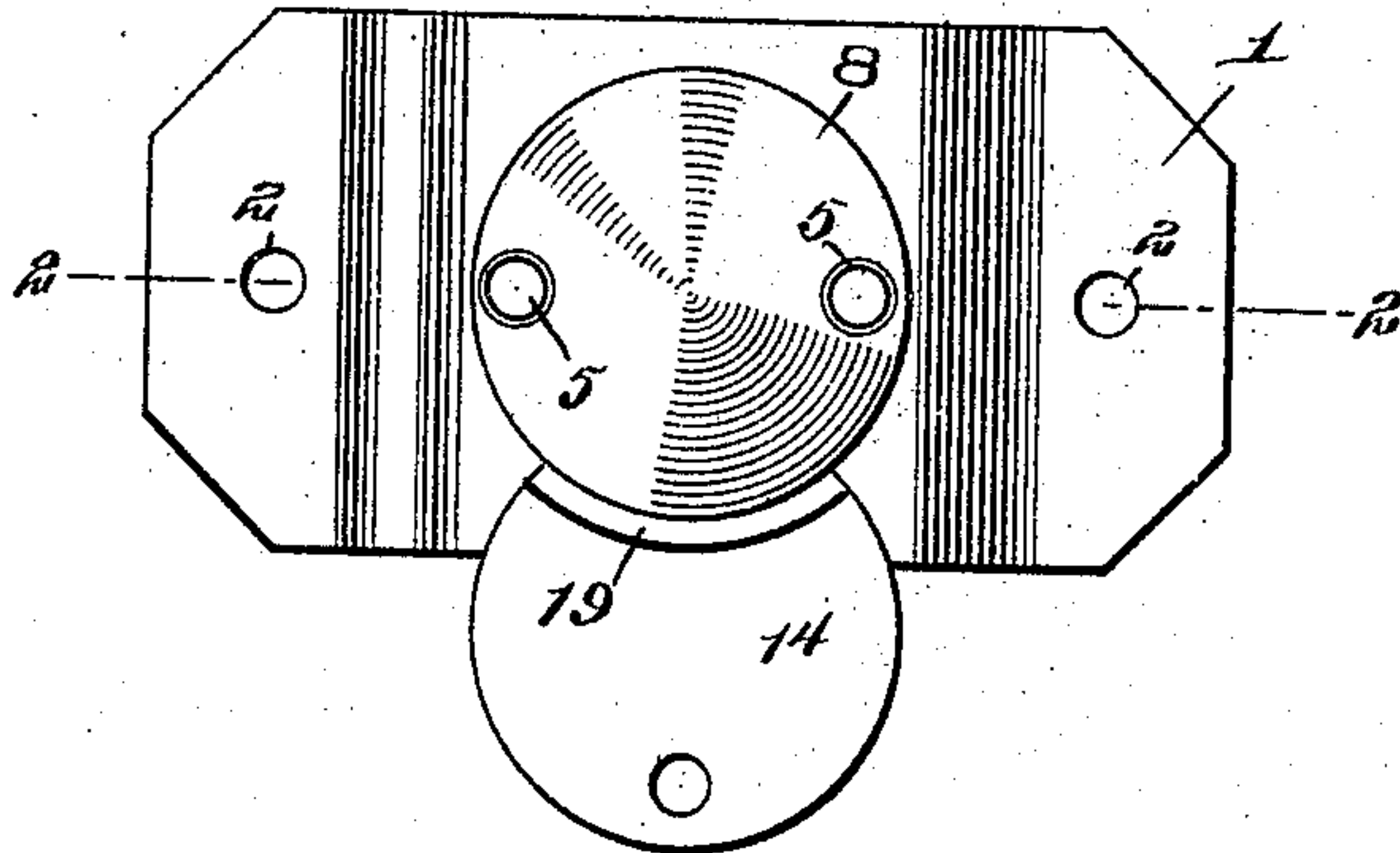


Fig. 2.

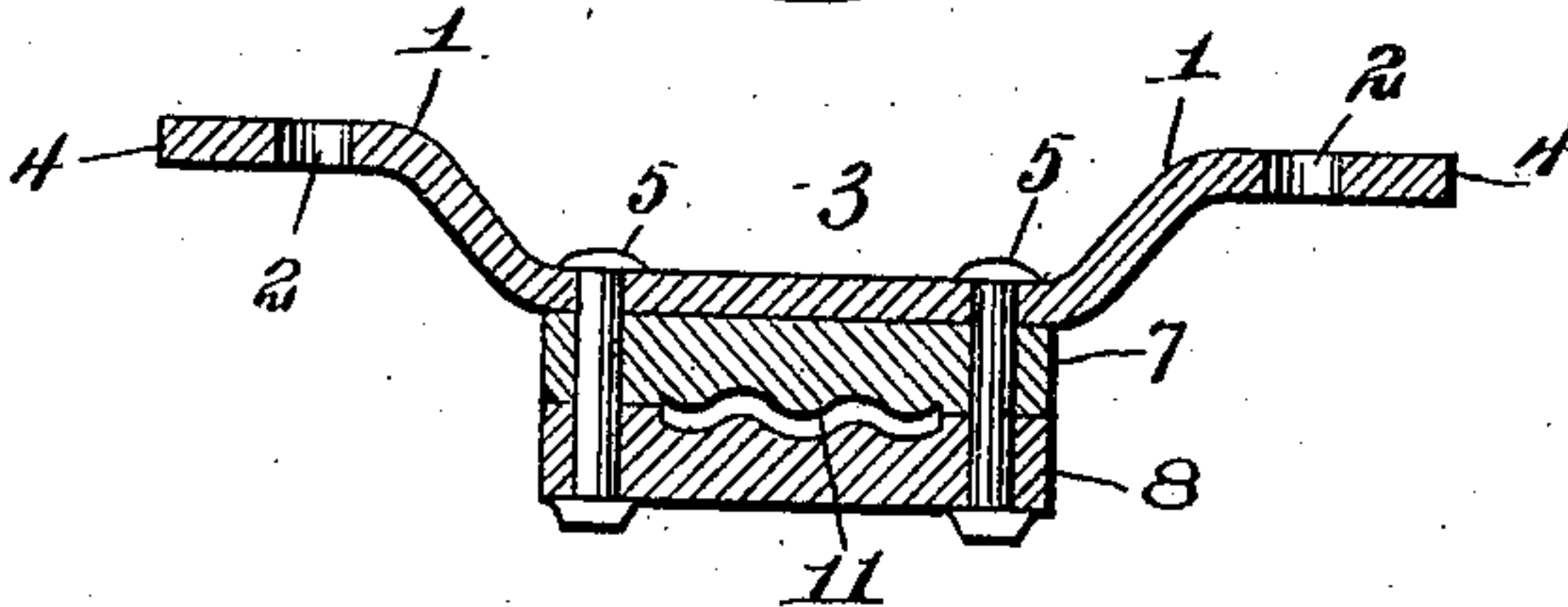


Fig. 3.

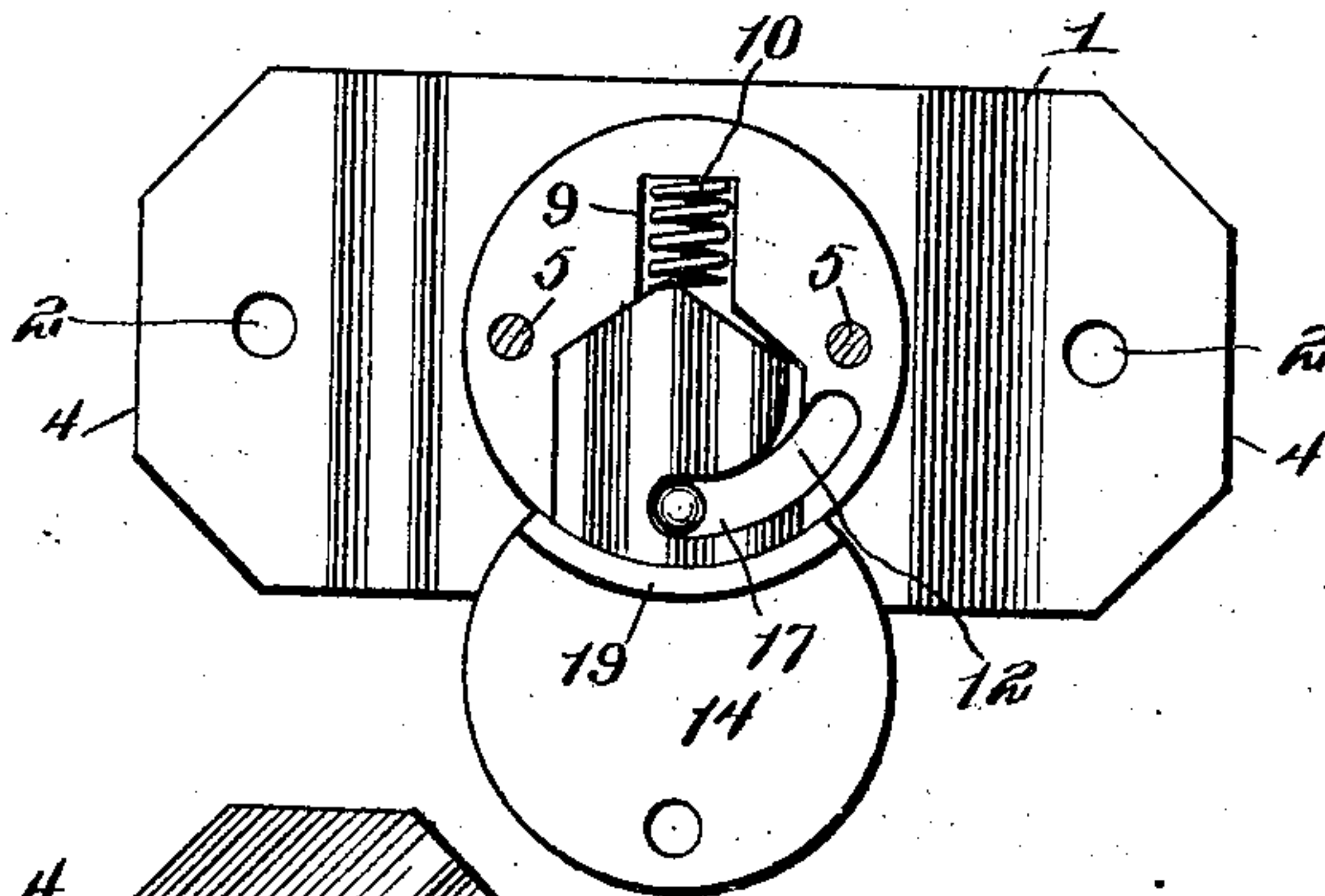


Fig. 4.

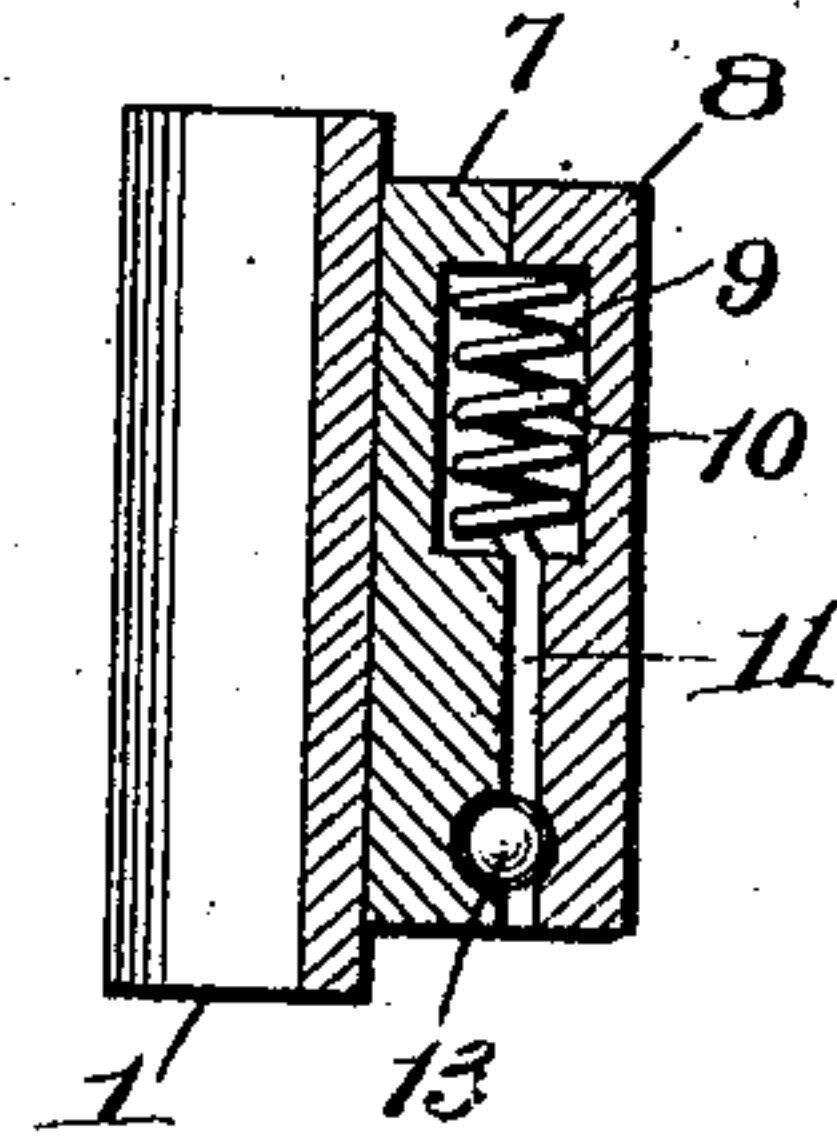


Fig. 5.

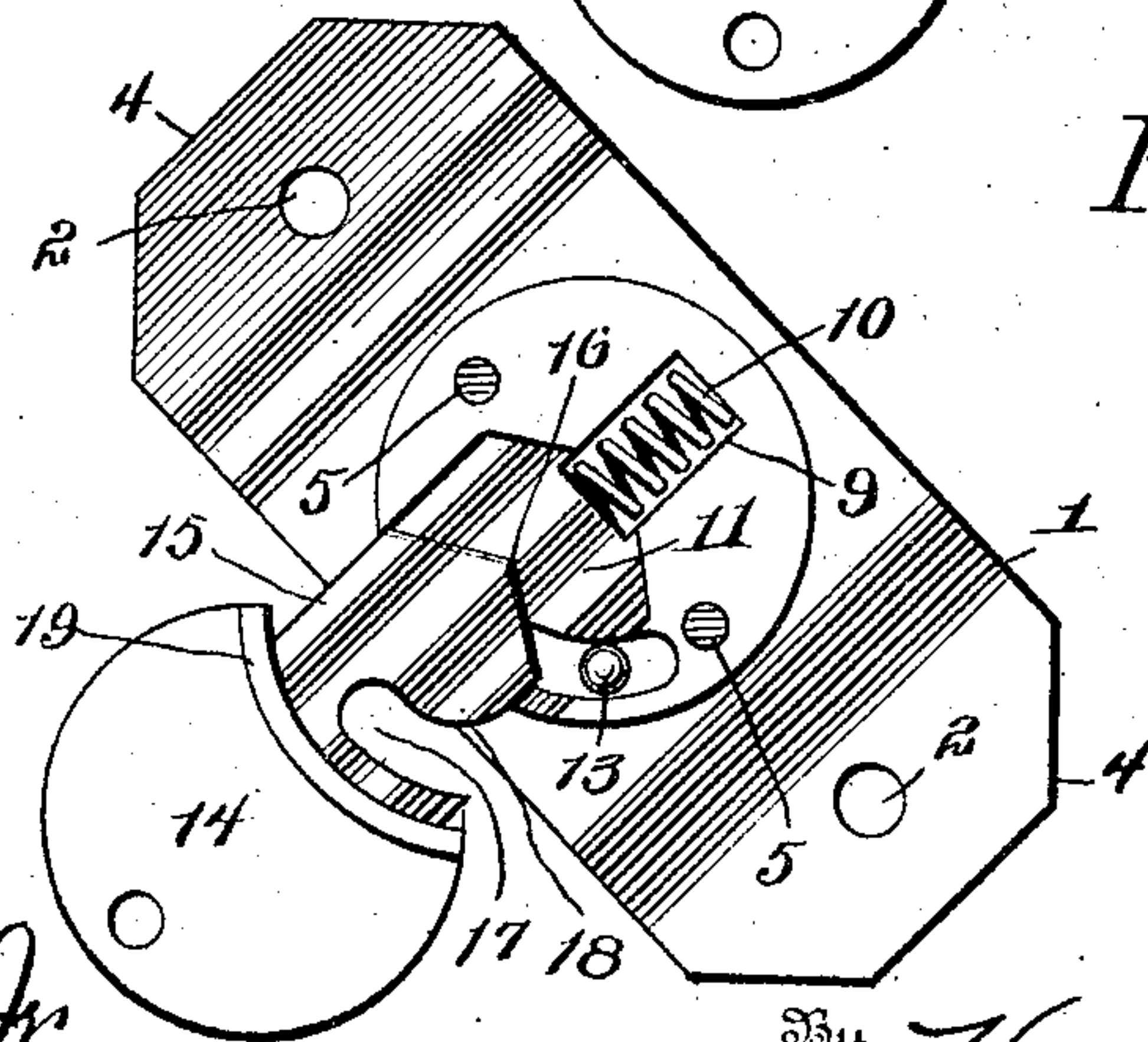
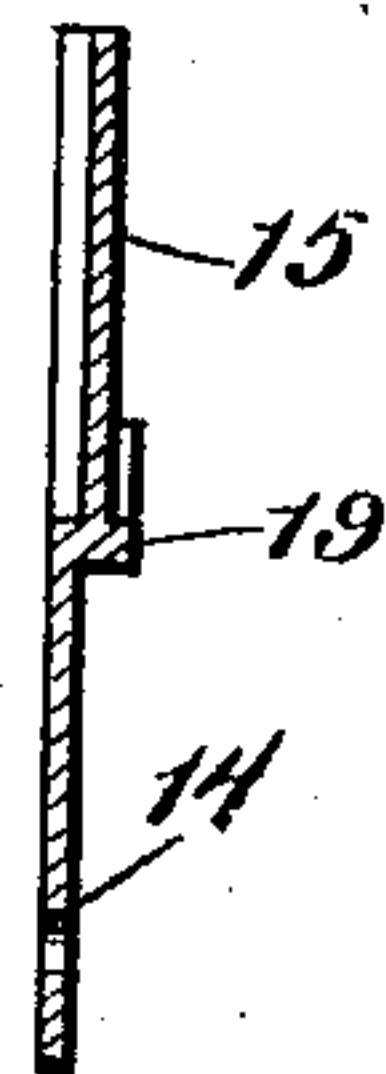


Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

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CHECK-LOCK FOR MINING-CARS.

No. 848,441.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed August 25, 1906. Serial No. 332,062.

To all whom it may concern:

Be it known that I, CHARLES A. CABELL, a citizen of the United States, residing at Carbon, in the county of Kanawha and State of West Virginia, have invented new and useful Improvements in Check-Locks for Mining-Cars, of which the following is a specification.

This invention relates to check-locks for mining-cars; and one of the principal objects of the same is to provide efficient and reliable means for holding the check within the lock, so that it cannot be surreptitiously removed.

Another object of my invention is to provide simple and easily-operated means for holding the check in locked position until the car is tipped to discharge its load, at which time the check may be readily removed from the lock.

These and other objects are attained by means of the construction illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of a check-lock made in accordance with my invention and having the check secured thereto. Fig. 2 is a longitudinal section of the same on the line 2 2, Fig. 1. Fig. 3 is a view looking into the lock, the face-plate thereof being removed. Fig. 4 is a vertical section of the lock with the check removed. Fig. 5 is a view showing the lock and check in an inclined position, such as it will assume when the car is in condition to dump its load and to permit the removal of the check from the lock. Fig. 6 is a longitudinal sectional view through the check.

Referring to the drawings for a more particular description of my invention, the numeral 1 designates the plate for supporting the lock, said plate being provided with bolt-holes 2, by means of which the plate is secured to a mining-car, and the plate being bent outward, as at 3, away from the plane of the feet 4.

Secured to the plate by means of the rivets 5 is a lock composed of inner section 7 and an outer section 8, said sections being interiorly recessed, as at 9, to form a seat for a spring 10, and from said recess 9, extending outward to the periphery of the plates 7 and 8, is a key-recess 11, said recess being corrugated or provided with grooves and intermediate ribs, as shown more particularly in Fig. 2.

A curved groove 12 is formed in the two sections 7 and 8 of the lock, and mounted to move freely in said groove is a ball 13.

The check 14 consists of a disk having projected from one side thereof a corrugated key 15, said key having oppositely-beveled portions at the end thereof to fit the corresponding shape of the recess 11 in the lock, and the apex 16 of the key adapted to bear against the spring 10, and said spring exerting its tension to throw the key outward.

Formed in the key portion of the check is a curved slot 17, the upper wall of which is curved, as at 18.

A flange or stop 19 is formed at the junction of the key and check to limit the extent of the key within the lock, as will be understood.

From the foregoing it will be obvious that the key portion 15 of the check may be inserted in the lock and that owing to the beveled end of the key the ball 13 will be moved to one side within the groove 12 until the ball arrives at the curved portion 18 of the slot 17, when it will by gravity fall to the position shown in Fig. 3 and cannot be displaced until the car is in condition to dump its load or inclined to the position indicated in Fig. 5, when the ball will by gravity pass out of the slot 17 and permit the check to be withdrawn.

My invention may be produced at slight cost, is strong and durable, will hold a check in locked condition to the car, and cannot be removed therefrom until the car is tipped to the required position to dump its load. The corrugated recess 11 and corrugated key portion 15 effectually prevent the detachment of the check by means of a thin tool or device inserted into the slot 11 to move the ball laterally. With a smooth uncorrugated aperture and a smooth key a piece of paper could be inserted to move the ball 13 out of the slot 17. My lock cannot be picked in this manner.

Having thus described the invention, what I claim is—

1. In a device of the character described, a lock having a corrugated key-recess, and a curved groove extending into said recess, in combination with a corrugated key, said key having a curved slot, and a ball in said groove.

2. In a device of the character described, a lock having a corrugated key-recess and a curved groove, a spring within the lock, a ball in said groove, a check having a projecting corrugated key provided with a slot having a

curved upper wall, and a flange to stop the key, substantially as described.

3. In a check-lock for mining-cars, a lock comprising two sections having an intermediate corrugated key-recess and a curved
5 groove, a spring, a ball in said groove, a key having a check connected thereto, said key being corrugated and provided with an op-

positely-beveled end and a slot, substantially as described. 10

In testimony whereof I affix my signature in presence of two witnesses.

CHAS. A. CABELL.

Witnesses:

E. C. HANNA,

C. V. RODES.