

(No Model.)

M. BUTLER.
BICYCLE LOCK.

No. 438,526,

Patented Oct. 14, 1890.

FIG. 1 -

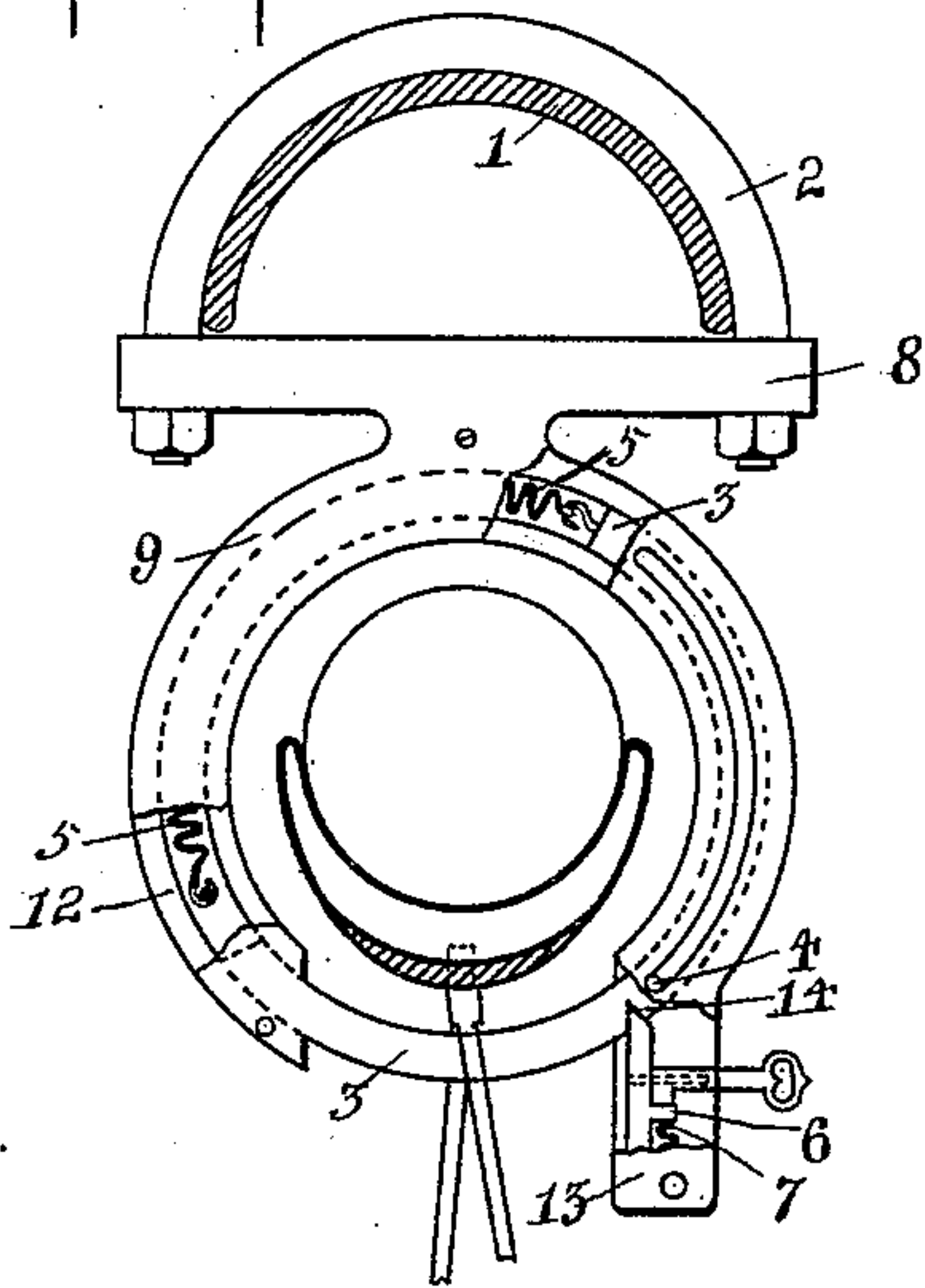


FIG. 2 -

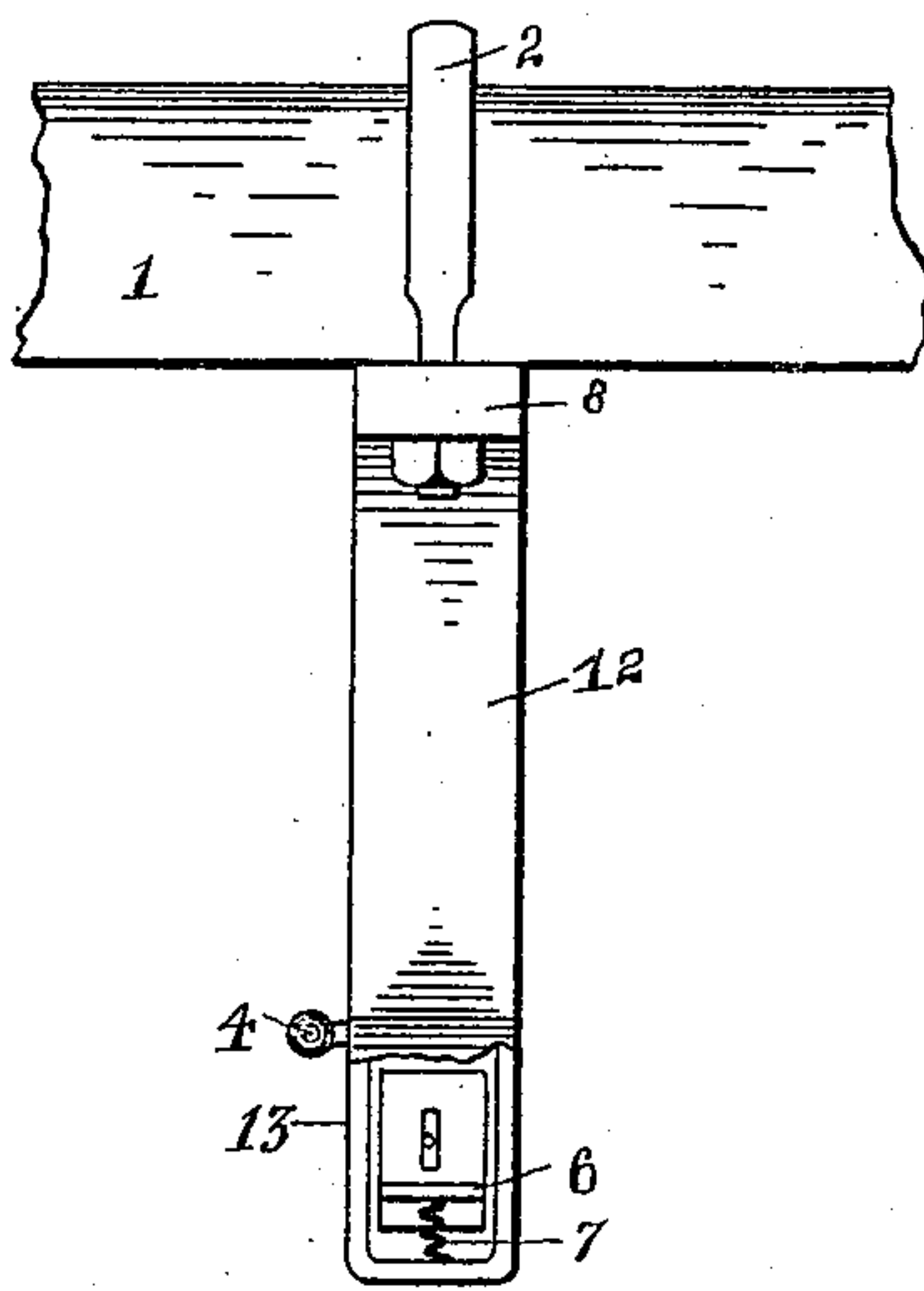


FIG. 3 -

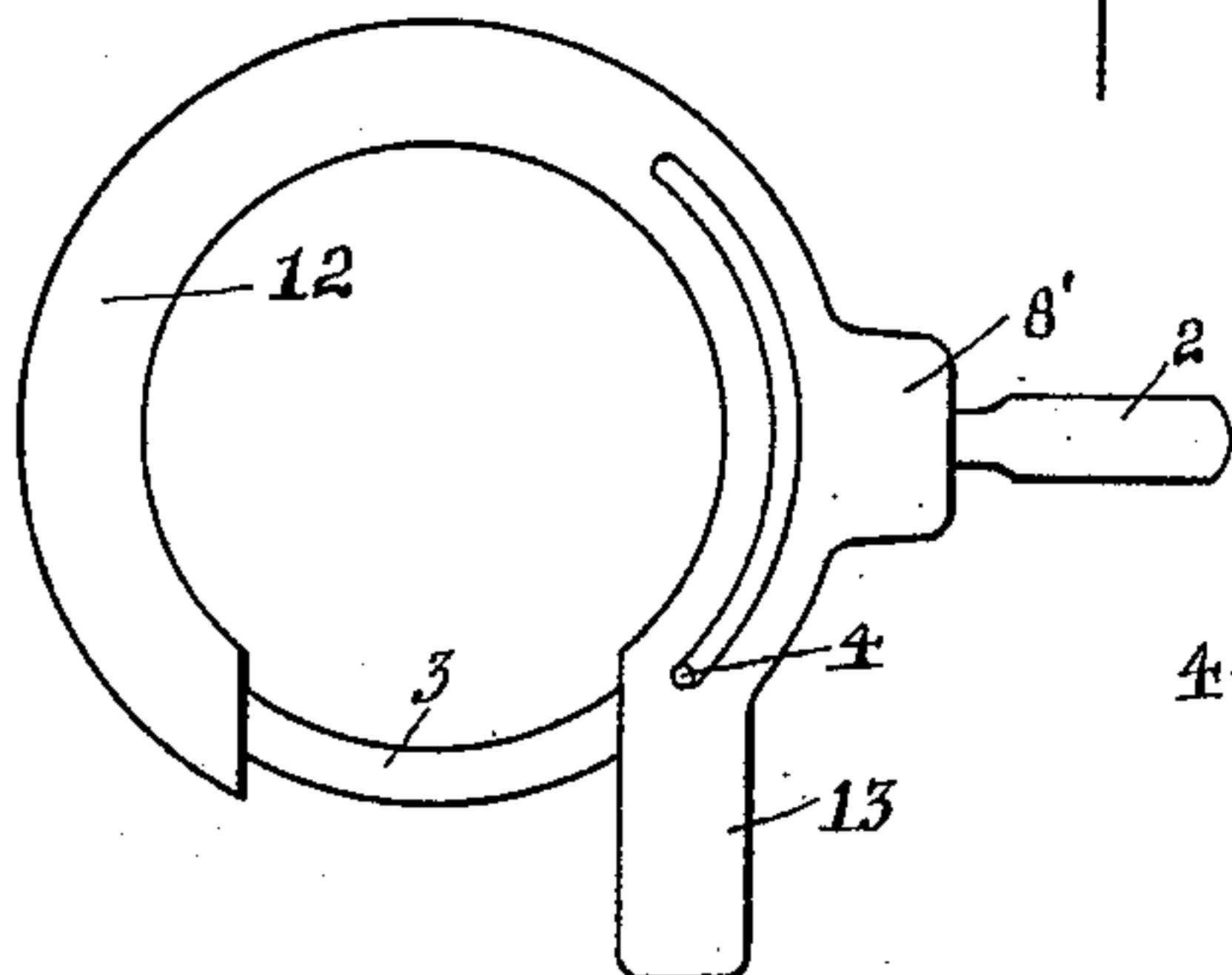
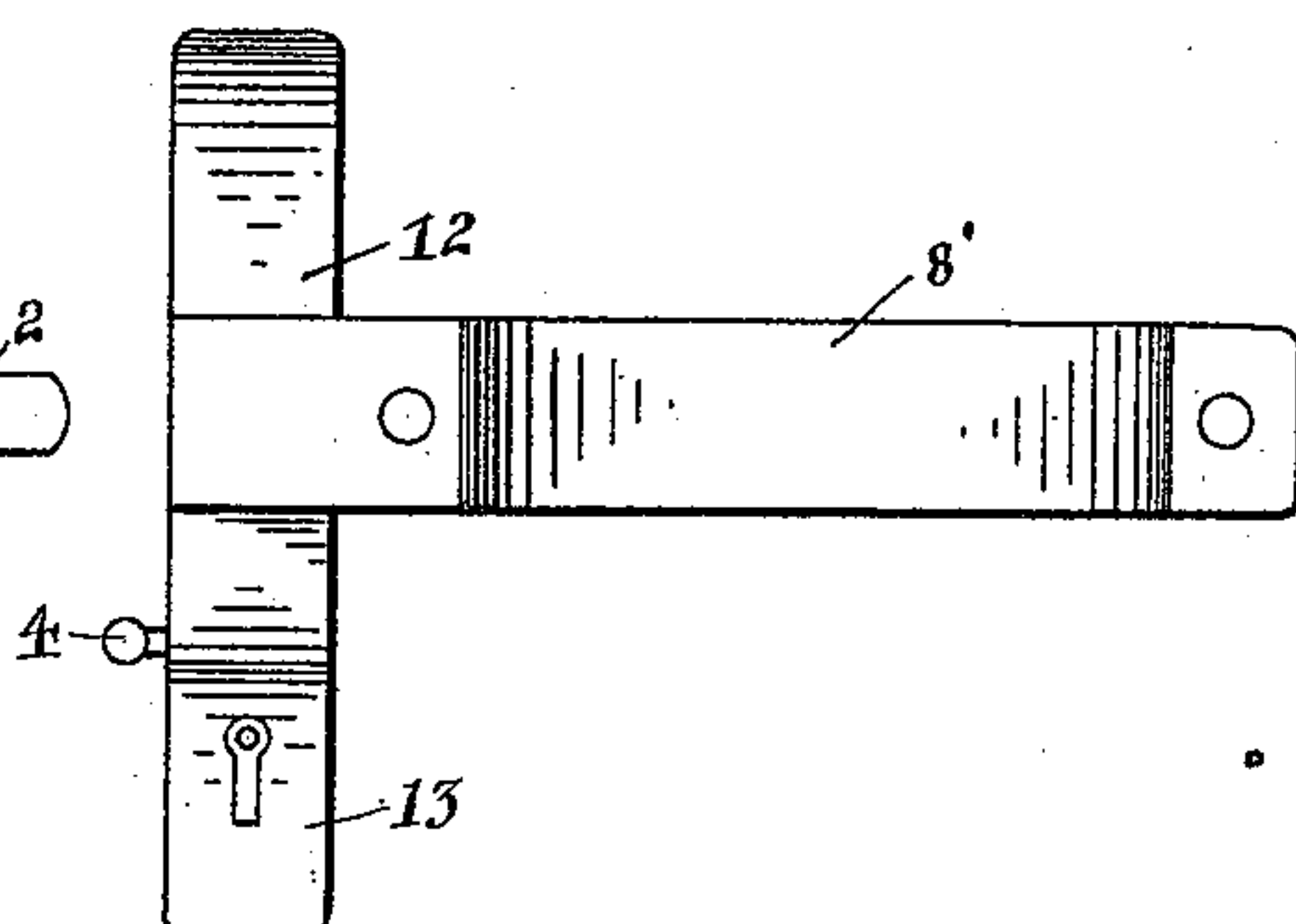


FIG. 4 -



Witnesses
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UNITED STATES PATENT OFFICE.

MAGULER BUTLER, OF ROCHESTER, NEW YORK, ASSIGNOR OF ONE-HALF
TO GEORGE E. BRAYER, OF SAME PLACE.

BICYCLE-LOCK.

SPECIFICATION forming part of Letters Patent No. 438,526, dated October 14, 1890.

Application filed April 19, 1890. Serial No. 348,601. (No model.)

To all whom it may concern:

Be it known that I, MAGULER BUTLER, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Stationary Bicycle-Locks; 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 appertains to make and use the same.

The object of the invention is to provide a lock for bicycles and similar vehicles that can be conveniently carried as a fixture on the machine and can be easily locked by simply sliding a bolt, and can be automatically unlocked by withdrawing a retaining-pin from the locking-bolt; and the invention consists in the matters hereinafter described and pointed out.

In the accompanying drawings, Figure 1 is an elevation of the lock applied to the mud-guard and locked about the rim, the guard and rim being shown in transverse section. Fig. 2 is a side elevation. Fig. 3 is a plan of the device, modified to adapt it to be applied to the fork of a bicycle; and Fig. 4 is a side elevation of the same, the strap being omitted.

Numeral 1 indicates the dust-shield, and 2 a strap provided with screw-threaded ends, said strap being fitted to the shield and having its ends passed through a cross-bar 11 of the lock and secured by nuts. Said bar is provided with a ring-like attachment 12, having therein a recess forming a receptacle and passage-way for a curved bolt 3. 5 indicates a spring having one end secured within said passage and the other attached to the bolt 3, the construction being such that the spring is under tension when the bolt is in the position shown in Fig. 1 or when the bicycle is locked.

At 13 the ring is provided with an approximately tangential arm made hollow to contain a spring-detent 6. This spring may be applied to the pin or detent in any convenient manner; but in the present instance a coiled spring 7 is made to bear on an arm on

the pin and on the interior wall of the detent-chamber, and it normally moves the pin toward the ring—that is, toward the bolt—to cause it to engage a notch 14 therein.

4 is a finger-piece attached to the curved sliding bolt, by which the latter can be moved against the tension of its spring until the spring-detent automatically engages the notch in the bolt and holds it locked.

To unlock the device, it is only necessary to insert a key in a suitable hole adjacent to the detent, and thereby withdraw said detent from engagement with the bolt, at the same time compressing the spring of the detent. As soon as this detent is withdrawn from its seat or notch the spring 5 retracts bolt 3 and holds it withdrawn until it is designedly forced forward again by the use of the handle 4.

In the form illustrated in Fig. 1 the recess in the ring is covered by a plate 9, screwed upon the ring in such manner as to cover the recess or passage in which the spring and bolt are lodged. This plate is preferably extended over the detent-receptacle, and can be conveniently fastened in place by screws.

The particular form of detent, key, finger-piece, or other parts is unessential so long as the practical operation of the device is not substantially changed.

It will be noticed that the lock is securely held in an out-of-the-way place upon the machine, and that the lock-frame always nearly surrounds the rim of the wheel, and that the bolt requires but a small movement to lock the wheel, whereupon it is itself automatically locked by the spring-detent.

It will be understood that to apply the above-described lock to any machine it is only necessary to so modify the strap 2 or analogous part as to adapt it to be fastened upon the frame or fixed part of the machine adjacent to the wheel-rim, and so that the ring-receptacle shall partially surround the rim without interfering with its movement, except when locked. Thus, as represented in Figs. 3 and 4, the lock is adapted to be clamped to one member of the fork of an upright machine by a cross-bar 8' and strap 2; and it also can be

applied to a Star or to any other kind of bicycle, or to any wheeled vehicle by analogous means.

5 The advantages of the device are that it is always in place, that it can be locked by simply sliding the bolt, that it is automatically unlocked upon the withdrawal of a bolt-detent, and that it is simple in structure and not liable to derangement of parts.

10 Having thus described my invention, what I desire to secure by Letters Patent, is—

15 1. The lock consisting of the strap, the recessed ring, the sliding bolt located in the recess, and the spring-detent, substantially as set forth.

2. The lock provided with the strap and consisting of the recessed ring, the bolt, the spring-detent, and the spring attached to the

bolt and adapted to be put under tension by sliding the bolt in locking the device, substantially as set forth. 20

3. The lock provided with a device for securing the same to the frame or other part of a vehicle, consisting of a recessed ring, a spring-held bolt within the recess, a finger- 25 piece attached to the bolt and extending through a slot in the ring, and a locking-detent to engage the bolt, substantially as set forth.

In testimony whereof I have affixed my signature in presence of two witnesses. 30

MAGULER BUTLER.

Witnesses:

HENRY HEDDITCH,
HENRY HUDSON.