(No Model.)

2 Sheets—Sheet 1.

J. E. TURTON.

BICYCLE LOCK.

No. 570,521. Patented Nov. 3, 1896.

FIG. 1.

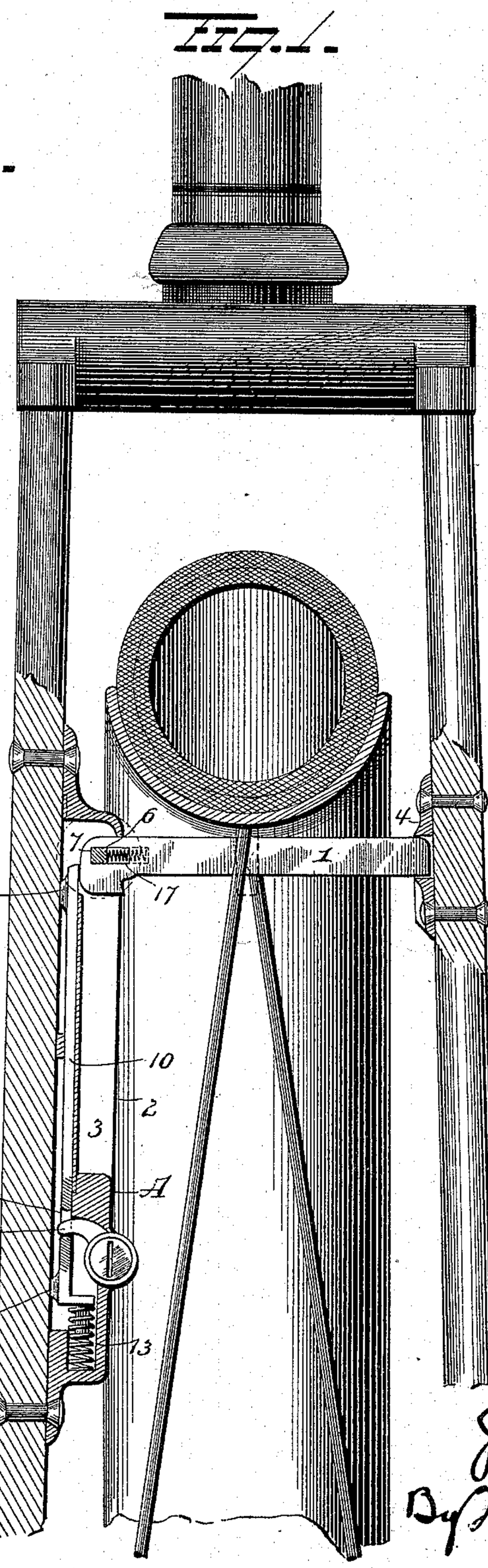


FIG. 2.

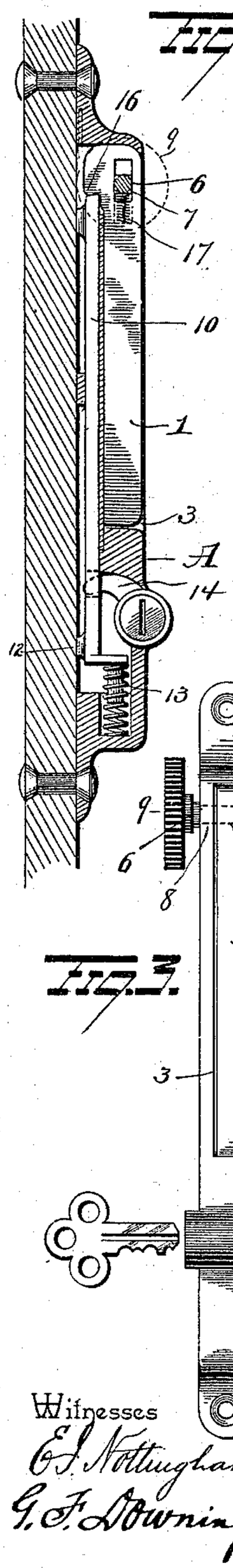
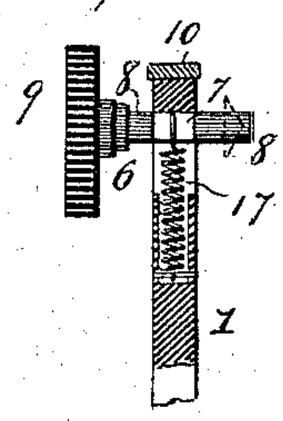


FIG. 3.

FIG. 4.



Witnesses
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G. F. Downing.

Inventor
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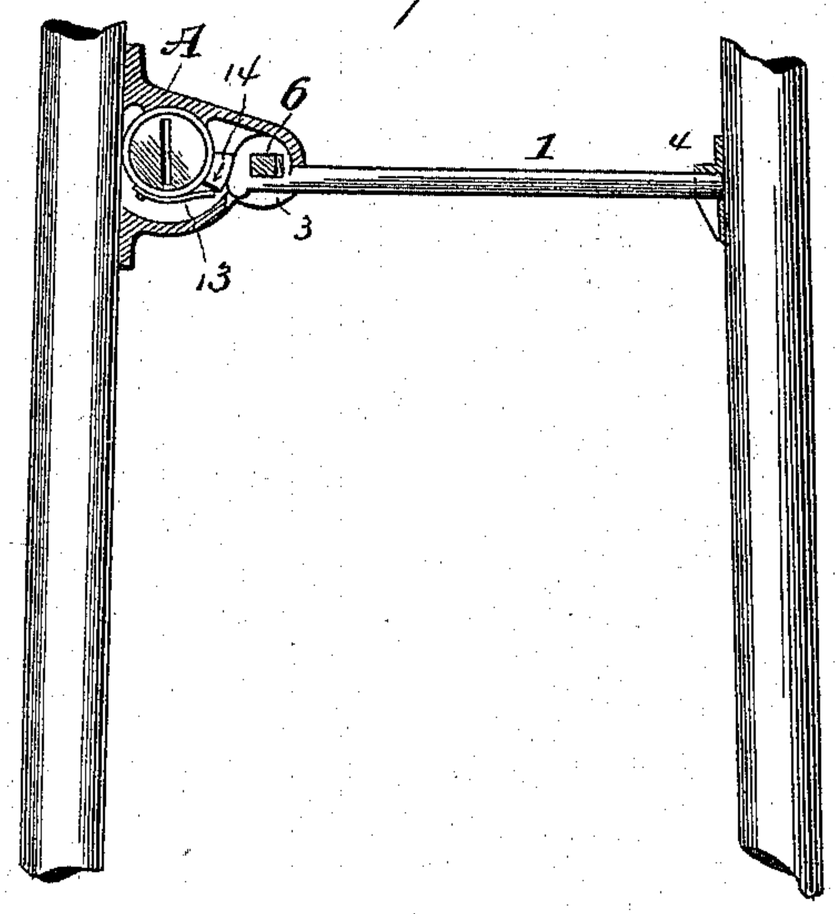
(No Model.) 2 Sheets—Sheet 2.

J. E. TURTON.

BICYCLE LOCK.

No. 570,521. Patented Nov. 3, 1896.

Fig. 5.



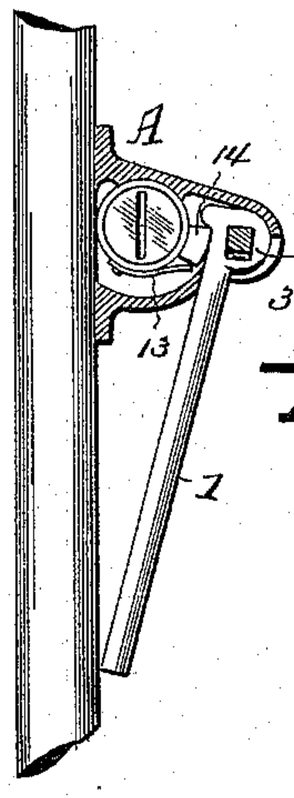


Fig. 6.

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UNITED STATES PATENT OFFICE.

JAMES EDWARD TURTON, OF WASHINGTON, DISTRICT OF COLUMBIA.

BICYCLE-LOCK.

SPECIFICATION forming part of Letters Patent No. 570,521, dated November 3, 1896.

Application filed February 15, 1896. Serial No. 579,386. (No model.)

To all whom it may concern:

Be it known that I, JAMES EDWARD TURTON, of Washington, in the District of Columbia, have invented certain new and useful Improvements in 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.

My invention relates to an improvement in bicycle-locks.

It consists in certain novel features of construction and combinations of parts, which will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in front elevation of a portion of the front fork of a bicycle, showing my improved lock applied thereto and in locked position, parts being in section to show the internal relations. Fig. 2 is a view in section through a portion of the fork and through the lock, showing the bolt in its normal position. Fig. 3 is a view in elevation of the lock detached. Fig. 4 is a detached view of the thumb-bolt. Figs. 5 and 6 are sectional views of modifications.

A represents the casing of the lock. This is brazed, riveted, screwed, or otherwise secured to the inside face of one of the forks of the bicycle, where it is not only out of the way, but also practically invisible. At or near one end, preferably the upper end, of the casing the bolt 1 is pivotally connected. This bolt normally lies in the slotted outer face 2 of the casing, closing the slot 3 of the latter, as shown in Fig. 2, and out of the path of the wheel. When it is thrown or in its elevated position, it is swung out horizontally from its pivotal support between two spokes of the wheel, its opposite end engaging a keeper 4 on the inner face of the other fork, where it is retained until, by the proper operation or manipulation of the lock, it is released, and it returns by its own weight to its normal position.

Means for throwing and locking the bolt will now be described, and although I have illustrated only two or three different forms of mechanism for doing this, obviously it is my desire to cover just as many other alternative constructions as the prior state of the art will warrant.

In the several constructions illustrated the bolt is pivotally connected with the casing by means of the pin 6. This pin preferably has an angular portion 7 whereon to receive the bolt, whereby the two are prevented from turning with respect to each other, and at either side of this angular portion bearings 8 8 are formed, upon which the pin is turned in the casing when occasion requires it. One end of this pin has a milled head 9 to be grasped when it is necessary to turn the pin and swing the bolt.

Means for communicating endwise movement to the bolt and for locking it will now be described. In the preferred form of lock a tumbler 10 is employed. This tumbler is adapted to slide endwise, and by its engagement with the bolt to lock the latter in one or the other of its positions. To facilitate this bearing and reduce friction to a minimum, the lugs 12 12 are cast on one side of the tumbler to engage and slide against the rear inner wall of the casing on the inner face of the fork to which the lock is secured. This tumbler is slid in one direction by means of the spiral spring 13, interposed between the lower end of the casing and the tumbler, and it is thrown in the opposite direction by means of the arm 14 operating in the slot 15 in the tumbler.

There are two points of engagement of the bolt and tumbler. These are illustrated in Figs. 1 and 2, one being against an end of the bolt to retain it in its keeper, as in Fig. 1, and the other against a shoulder 16 to hold the bolt in its normally-depressed position, which position it assumes by gravity when the tumbler is depressed from its position shown in Fig. 1 against the extreme end of the bolt, the tumbler returning when released by the key, due to the action of the spring 13 against the shoulder 16.

In the operation of the device the rider turns the milled head until the bolt is raised as far as it will swing into an approximately horizontal position. The spring-actuated tumbler is thrown out of engagement with the shoulder 16 and follows the end of the bolt, entering between it and the rear wall of

the casing, which action causes the bolt to move endwise into the keeper, where it holds it, the tumbler acting as a wedge to slide and retain the bolt, the elongated slot shown in Figs. 1 and 2 admitting of this action. This is all done without a key simply by turning the knob or milled head; but to withdraw the bolt the key is inserted and turned, depressing the tumbler, a small spiral spring 17 operating to slide the bolt endwise out of the keeper, after which the bolt drops by gravity into the slot in the casing.

By a slight modification the casing and the tumbler may be omitted, as shown in Figs. 5 and 6, in which construction the operating-arm acts directly upon the bolt to slide and lock it.

It will be observed that the lock is small and simple and that it can be made with comparatively little expense. It is out of the way, and hence forms no obstruction to the rider and is not unsightly. It is easily and quickly manipulated and cannot be picked or operated surreptitiously.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth; but,

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

1. The combination with two forks of a bicycle and a keeper attached to one fork, of a bolt pivotally connected to the other fork and adapted to slide endwise and means for automatically sliding the bolt endwise on its pivotal bearing when in horizontal position, substantially as set forth.

2. The combination with a bolt having an elongated slot therein, a pivot-pin passing through said slot, and a spring for sliding it in one direction, of a spring-actuated slide-tumbler for engaging and locking the bolt, and means for withdrawing the tumbler, substantially as set forth.

3. The combination with a bolt having an elongated slot therein, a pin extending through the hole and a spring connected with the bolt and pin for sliding the bolt in one direction, of a spring-actuated slide-tumbler adapted to engage one end of the bolt when in one position and a shoulder thereon when in another position and means for operating said tumbler, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JAMES EDWARD TURTON.

Witnesses:

GEO. F. DOWNING,

C. L. DRURY.