

(No Model.)

C. E. RAMBO.
BICYCLE LOCK.

No. 579,443

Patented Mar. 23, 1897.

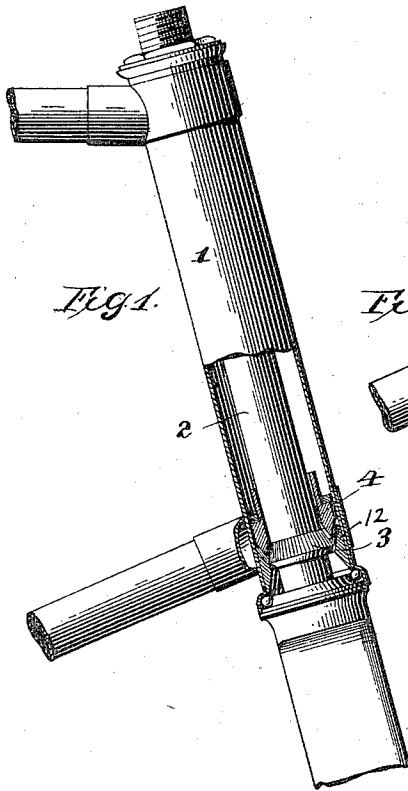


Fig. 1.

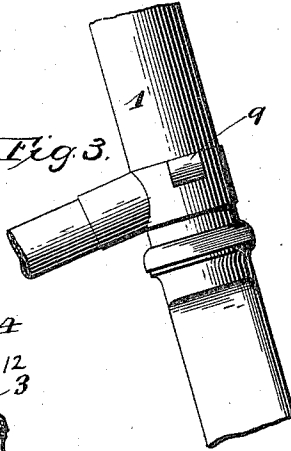


Fig. 3.

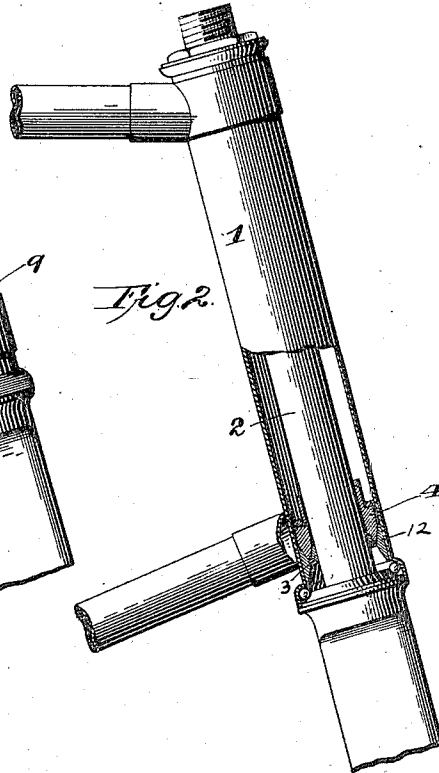


Fig. 2.

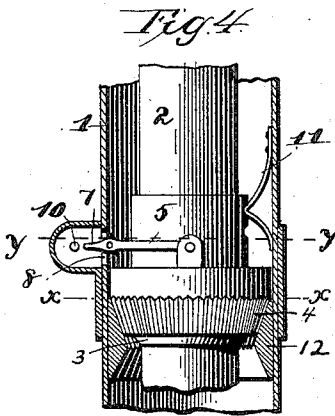


Fig. 4.

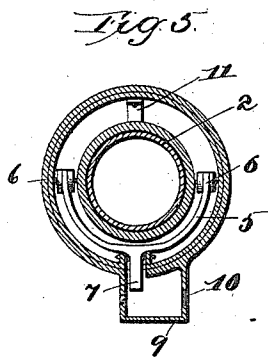


Fig. 5.

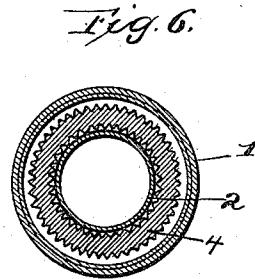


Fig. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES ELLWOOD RAMBO, OF BERWYN, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO JOSEPH C. POTTS, OF SAME PLACE.

BICYCLE-LOCK.

SPECIFICATION forming part of Letters Patent No. 579,443, dated March 23, 1897.

Application filed January 2, 1896. Serial No. 574,072. (No model.)

To all whom it may concern:

Be it known that I, CHARLES ELLWOOD RAMBO, a citizen of the United States, residing at Berwyn, in the county of Chester and State of Pennsylvania, have invented certain new and useful Improvements in Bicycle-Locks, of which the following is a specification.

My invention relates to a new and useful improvement in bicycle-locks, and has for its object to provide such a device by the use of which the front fork of a bicycle may be secured at any angle and prevented from being turned therefrom until the retaining mechanism is unlocked by key, and the result of this is that the bicycle cannot be used for ordinary purposes, except by the person who is in possession of the key, after it has been once locked.

With these ends in view the invention consists in the details of construction and combination of elements hereinafter set forth, and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction and operation in detail, referring by number to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a broken-away elevation of the head of a bicycle-frame, showing the fork-spindle and the locking mechanism unlocked; Fig. 2, a similar view showing the locking mechanism locked; Fig. 3, a side elevation of a portion of the head, showing the keyhole-casing; Fig. 4, a central section of the portion of the head, showing the mechanism upon which the key operates; Fig. 5, a section at the line *yy* of Fig. 4; and Fig. 6 is a section at the line *xx*.

Similar numbers denote like parts in the views of the drawings.

1 represents the head of a bicycle-frame made in tubular shape, through which the fork-spindle 2 is adapted to pass and has its bearings within said head in the usual manner. Around the lower portion of this spindle is secured a truncated cone 3, having teeth or serrations upon its outer surface, and be-

neath it is a serrated ring 12, secured to the side of the tube 1.

4 is a clutch loosely surrounding the spindle 2 and is slidable within the tube above the cone and also provided with serrations or teeth adapted to engage the serrated surface of the cone and the ring for the purpose hereinafter set forth.

5 is a yoke, the arms of which are pivoted at 6 to the clutch, and this yoke is provided with an extension 7, which reaches through a slot 8 in the side of the tube and is surrounded and protected by a casing 9, in which is formed a keyhole 10, adapted to receive a key and steady the same during the locking and unlocking operations.

To lock the fork in a given position, it is only necessary to turn it to that position and thrust the key through the keyhole 10 and so manipulate it as to cause its tang to operate the projections 7 to depress the clutch 4 into engagement with the socket 3. The clutch will be held in this position by the spring 11 entering a suitable notch in the side of the clutch-shank. To unlock the fork, a reverse motion of the key is had.

It will be readily understood that as the steering-wheel of a bicycle is journaled in the fork when said fork is locked at an angle to the frame of the machine it will be impossible to use said machine for riding purposes.

In practice this lock is very effective, and as it is entirely concealed within the head of the frame it has proved to be a very desirable device by which a machine may be secured against theft in the usual manner.

I am aware that slight modifications might be made in the construction shown and described without departing from the spirit of the invention.

Having thus fully described my invention, what I claim as new and useful is—

1. In combination with the fork-spindle of a bicycle, a cone secured thereto, a clutch surrounding said spindle and slidably secured to the front tube of the machine, a fork pivoted to said clutch and to the frame of the machine, an extension from said fork, a casing surrounding the end of said extension, having a keyhole formed therein, whereby a

suitable key may be guided, in operating said extension, substantially as and for the purposes set forth.

5 2. In a bicycle-lock, a serrated cone secured to the spindle of the fork of a machine, a serrated ring secured to the tube and a serrated clutch adapted to be moved into engagement with the ring and cone, as and for the purpose described.

10 3. In combination with the fork-spindle of a bicycle, a cone secured thereto, a ring secured to the tubing, a clutch encircling said spindle and cone, a spring for determining

the position of the clutch, a fork pivoted to said clutch and to the tubing, a casing surrounding the end of the fork having a key-hole formed therein, as and for the purpose described. 15

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses. 20

C. ELLWOOD RAMBO.

Witnesses:

S. S. WILLIAMSON,

J. ALEXANDER CLARKE.