

(No Model.)

A. H. DICKINSON.
BICYCLE LOCK.

No. 580,661.

Patented Apr. 13, 1897.

FIG. 4.

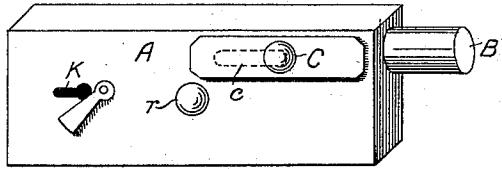


FIG. 5.

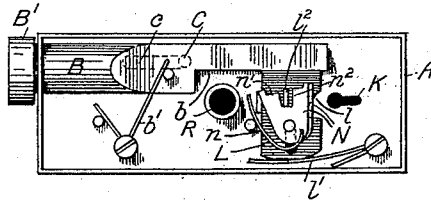


FIG. 6.

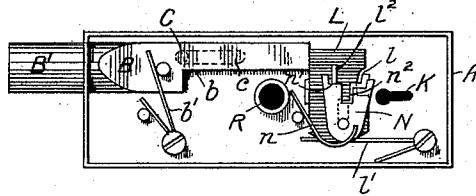


FIG. 1.

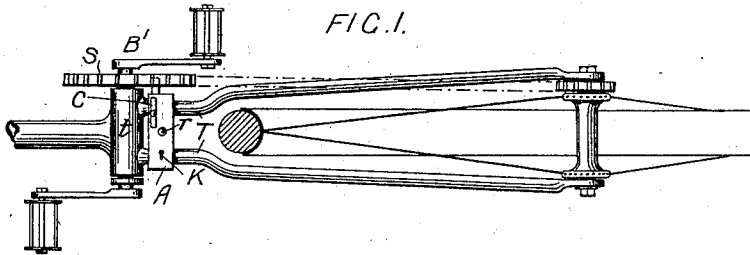


FIG. 3.

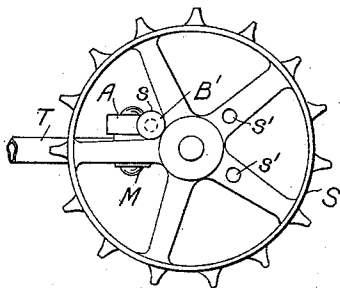
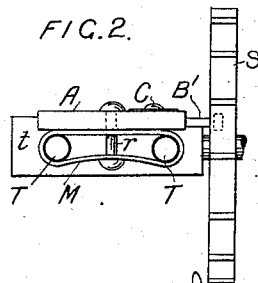


FIG. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

ARTHUR H. DICKINSON, OF BROCKLEY, ENGLAND, ASSIGNOR OF ONE-HALF
TO HENRY JAMES FISHER, OF LONDON, ENGLAND.

BICYCLE-LOCK.

SPECIFICATION forming part of Letters Patent No. 580,661, dated April 13, 1897.

Application filed May 5, 1896. Serial No. 590,366. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR HENRY DICKINSON, a subject of the Queen of Great Britain and Ireland, residing at 216 Malpas Road, Brockley, Kent county, England, have invented a new and useful Means for Locking Cycles or other Vehicles, of which the following is a specification.

The object of my invention is to provide simple and efficient means specially applicable to rear-driven bicycles and tricycles and other vehicles of like kind for locking and securing same when not in use in such manner as to render them temporarily inoperative and incapable of being ridden.

My invention includes a lock-case arranged over the rear forks adjacent to the sprocket-wheel, said case being held in place by a rivet which is carried by a strap which encircles the forks, and it also includes, in combination with this strap and rivet, a special form of catch-and-tumbler arrangement for controlling the locking-bolt.

Referring to the accompanying drawings in further explanation, Figure 1 is a plan of the driving-gear of a bicycle; Fig. 2, an enlarged section on line 1 2 thereof; Fig. 3, an elevation of sprocket-wheel, showing my locking appliance in position and the bolt shot. Fig. 4 is a general view of the appliance, and Figs. 5 and 6 are internal elevations showing the bolt respectively retracted and shot.

A represents the casing of the locking appliance, which is made as small, light, and compact as possible, and B is the locking-bolt, the head B' of which is of appropriate shape, case-hardened, and passing through the casing. The bolt is recessed or slotted at b and has a square back end, any forward motion of bolt B being constantly opposed by spring b'.

C is a knob fixed to a shank laterally projecting from bolt B and working externally on the casing through a slot c, which also forms a guide for the bolt.

The lock may be of any suitable kind. That illustrated comprises a strong stop-catch L with key-breast l, forced up by spring l' and carrying a fixed stop-piece l².

N N are two tumblers or levers pressed forward by springs n and having side shelves n' and a deep central notch n², adapted to re-

ceive the stop l² when depressed. Any number of such levers may be used to render the lock as secure as desired.

K is the keyhole for the reception of a key to move over the levers N N and draw down catch L when required.

R represents a socket or hole for the reception of a fixing-bolt r, Fig. 2.

Such is one construction of an effective lock; but the mechanism may be varied without departing from the nature of my invention.

The appliance is fixed by a metal band or spring-clip, such as M, permanently secured by brazing, or the bolt r to the stay-tubes T T of the frame of the cycle, close to the bottom bracket t, in such position that the bolt B when shot must engage or pass through the sprocket-wheel S, as shown in Figs. 1, 2, and 3. Normally when the bolt has been retracted by the key its recessed part b overlies and holds down the spring-catch L, the stop l² then entering the notch n² of the levers N, as in Fig. 5. When, however, it is desired to leave the machine with security against removal, by moving the bolt forward by knob C its recessed part b clears spring-catch L, which is at once shot up by its spring l' and engages the square rear end of the bolt, as in Fig. 6, the levers N being returned by the springs n, and the bolt remains shot and compressing its spring b'. In this position its outer end B' engages and securely locks the sprocket-wheel S by passing between the spokes, as at s, or through holes in same or web, as at s', Figs. 2 and 3.

To release the parts, the levers N N are thrown forward and the catch L simultaneously drawn down by the key, stop l² again entering notch n² until the bolt is free to fly back by the force of its already compressed spring b', and all parts return to initial positions.

I claim—

1. In combination with a cycle and with the rear forks T thereof, a strap as M encircling said forks, the bolt or rivet r carried by the said strap, and the lock A carried by the bolt or rivet r and over the forks, said lock having a spring-bolt adapted to engage the sprocket-wheel, substantially as described.

2. A lock for a cycle comprising the combination of the sprocket-wheel, the strap encircling the rear forks of the frame, the rivet *r*, the casing A held thereby, the bolt B, a
5 spring normally pressing the bolt inwardly, the bolt-handle C extending to the outside of the casing for operating the bolt forwardly into engagement with the sprocket-wheel, the automatic sliding catch L movable vertically
10 at the rear of the bolt and normally held down thereby, a spring for automatically forcing the said catch upwardly immediately the bolt

is shot, the pivoted tumblers for engaging the catch and holding the same up, and the springs for pressing the tumblers, said tumblers and
15 catch being arranged to be operated by a key to allow the bolt to retract under the action of the spring and free the sprocket-wheel.

In witness whereof I have hereunto set my hand in presence of two witnesses.

ARTHUR H. DICKINSON.

Witnesses:

JOSEPH C. CHAPMAN,
HENRY A. PRYOR.