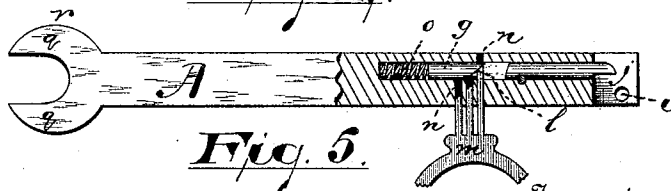
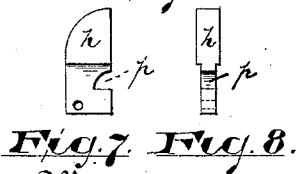
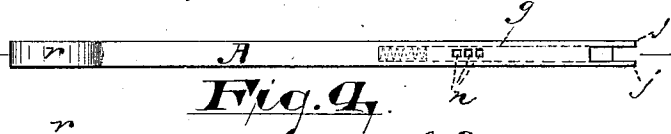
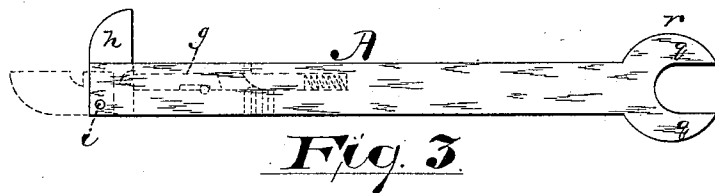
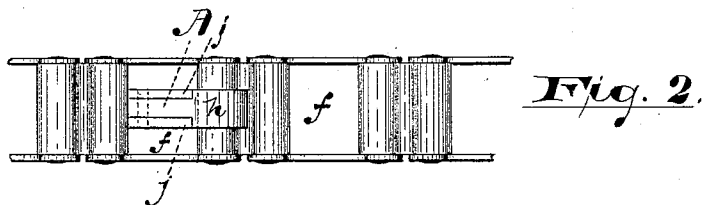
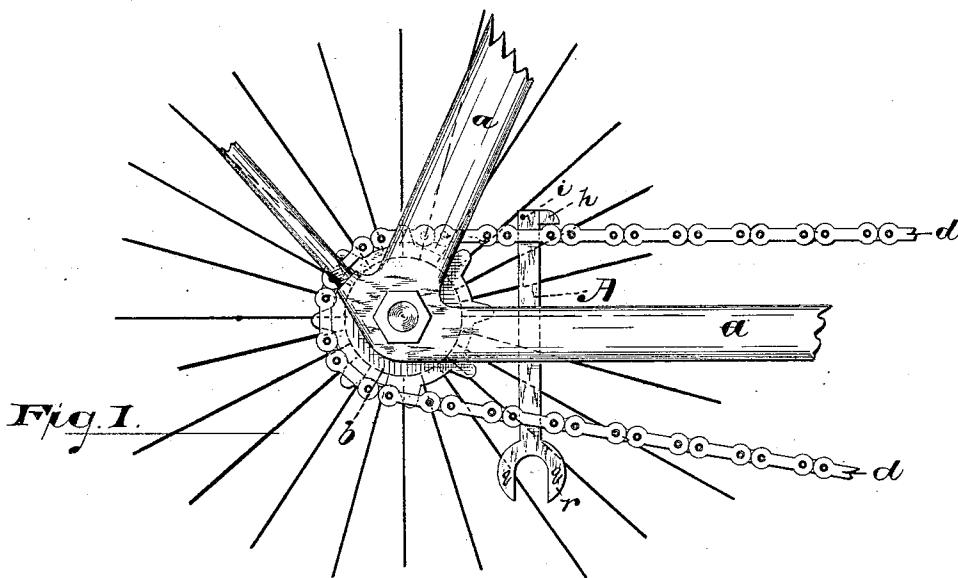


(No Model.)

A. ISRAEL.  
BICYCLE LOCK.

No. 469,651.

Patented Feb. 23, 1892.



Witnesses

Inventor =

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# UNITED STATES PATENT OFFICE.

ABRAHAM ISRAEL, OF PATERSON, NEW JERSEY.

## BICYCLE-LOCK.

SPECIFICATION forming part of Letters Patent No. 469,651, dated February 23, 1892.

Application filed June 2, 1891. Serial No. 394,858. (No model.)

*To all whom it may concern:*

Be it known that I, ABRAHAM ISRAEL, a citizen of the United States, residing at Paterson, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Safety-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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of vehicle-locks or devices for preventing the wheel from being turned commonly known in the market as "safety-securers," the objects of the invention being to avoid the use of padlocks or other separable devices which are liable to be lost, and to provide a tool which can be employed both as a securer and as a wrench.

The invention consists in the improved securer and in the arrangements and combinations of parts, substantially as will be hereinafter set forth, and finally be embodied in the clauses of the claim.

Referring to the accompanying drawings, in which like letters indicate corresponding parts in each of the several figures, Figure 1 is a side view of a portion of a bicycle of the "Safety" type having my improved securer thereon. Fig. 2 is an upper end view of the said securer shown in connection with a portion of a driving-chain. Fig. 3 is a plan of the securer in detail. Fig. 4 is an edge view, and Fig. 5 a sectional view, of the said securer, a certain tongue being removed. Fig. 6 is a detail view of a locking-tumbler, and Figs. 7 and 8 are detail views of the said tongue.

In said drawings, *a* indicates the frame of the vehicle to be secured. *b* indicates the center part of the wheel, which is sprocketed to receive the driving-chain, and *d* indicates said driving-chain, through the interstices *f* of which the securer is passed, as shown in Figs. 1 and 2.

*A* indicates the securer. This consists of a shaft of a length sufficient to extend from the upper portion of the driving-chain to and through the lower portion, means being pro-

vided at the opposite extremities to prevent the said securer from being removed from the chain, and thus the said chain allowed to pass around with the sprocket-wheel.

In the prior devices the shaft at one end has been provided with an eye, into which a padlock was inserted to lock the securer to the chain. The use of such a lock was objectionable because of its being necessarily detachable from the shaft, the device being thus rendered more or less inconvenient. In my improvements the lock becomes an intimate part of the securer and is not detachable or separable.

The preferred construction of the lock is shown in the drawings, in which the shaft is shown to be bored or cored out and a spring-actuated tumbler *g* inserted longitudinally therein. This engages a tongue *h*, pivoted, as at *i*, between ears *j j*, formed at the end of the shaft. The said tongue is notched to receive the locking-tumbler when the latter is turned to extend at right angles to the longitudinal axis of the shaft, and thus, when said tumbler enters said notch, the said tongue is locked in such position, as will be understood upon examination of Fig. 3.

At one side of the tumbler the same is recessed, as at *k*, and an inclined bearing *l*, Figs. 5 and 6, formed to receive a key *m*, which latter, being forced laterally through a key-opening *n* in the side of the shank against said incline, throws the tumbler backward against the spring *o* and out from the notch *p* in the tongue, releasing said tongue, so that it may be turned from its position at right angles to the longitudinal axis of the shaft to a position in the line of said axis that the said shaft may be drawn through the openings in the links of the chain, as will be understood.

I do not wish to be understood as limiting myself to the peculiar locking mechanisms described, as various changes may be made therein without departing from the spirit of this invention.

At the opposite end of the shaft or bar *A* the same is provided with an integral cross-head *r* to prevent the shaft being drawn through the links at that end. To give greater utility to the cross-head, the same is at its opposite ends bent out of a direct line at right

angles with the longitudinal axis before referred to and brought into lines parallel with said axis, forming wrench-arms *q q* for turning nuts, &c., so that the securer, when not in use as such, may be employed in fastening bolts, &c.

In operating the device to secure the vehicle the pivotal tongue is turned into the longitudinal axis, as indicated in outline in Fig. 3. In this condition the said tongue and shaft are thrust through the links in both the upper and lower parts of the chain, after which the tongue is turned and locked, as shown in Fig. 1, and thus withdrawal is prevented and the chain and sprocket-wheels are prevented from operating.

Having thus described the invention, what I claim as new is—

1. The improved safety-securer herein described, comprising a shaft having a head consisting of wrench-arms *q q* at one end and an inseparable tongue at the other, and a lock for holding said tongue out of the longitudinal axis of said shaft, substantially as set forth.

2. In combination with a shaft having a head at one end and a tongue pivoted at the other, a lock, substantially as described, for

positively locking said tongue at an angle to the longitudinal axis of the shaft and preventing the pivotal turning of said tongue, substantially as set forth.

3. In combination with the shaft having a head at one end and at the other a notched and pivoted tongue, a tumbler set in said shaft and adapted to enter said notch to hold the pivoted tongue from turning, substantially as set forth.

4. The combination, with the shaft having a head at one end and at the other a longitudinal boring or tumbler-chamber and pivotal ears, of a tongue pivoted between said ears and having a notch at one side thereof, and a spring-actuated tumbler having the inclined bearing *l* and arranged in said boring and adapted to spring automatically into said notch to hold the said tongue into securing relation to the shaft, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of May, 1891.

ABRAHAM ISRAEL.

Witnesses:

OSCAR A. MICHEL,  
OLIVER DRAKE.