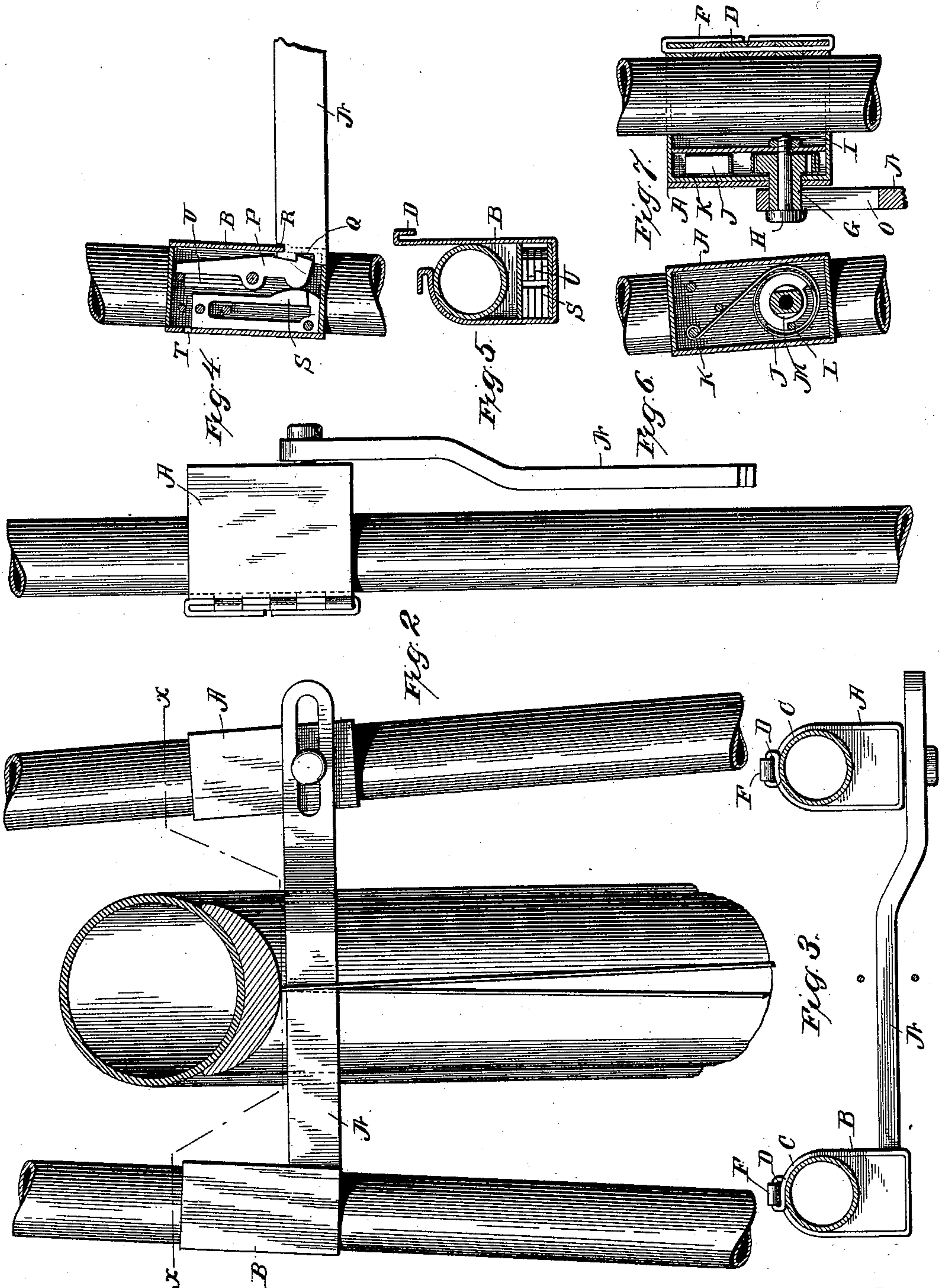


(No Model.)

J. J. HALL.
LOCK FOR BICYCLES.

No. 599,143.

Patented Feb. 15, 1898.



Witnesses
E. W. Wurdeman
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Fig. 1.

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UNITED STATES PATENT OFFICE.

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LOCK FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 599,143, dated February 15, 1898.

Application filed August 25, 1897. Serial No. 649,430. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH J. HALL, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a certain new and useful Improvement in Locks for Bicycles and the Like, of which the following is a specification.

My invention relates to a new and useful improvement in locks for bicycles and the like, and has for its object to provide a simple, cheap, and effective device which may be readily attached to the frame of the machine and when desired for locking against unauthorized use may be swung into position where it will automatically be secured, thus avoiding the use of a key for the locking of the bicycle, yet requiring a key for the unlocking of the same, and when the locking device is not in use the members thereof will in no wise interfere with the use of the bicycle, but do not have to be detached therefrom, so that when it is again necessary to lock the machine this is accomplished without having to remove the lock from the pocket or tool-bag.

With these ends in view this 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, its construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a fragmental view showing a portion of a bicycle-wheel in section and locked by my improvement; Fig. 2, a view of a portion of one of the backstays of a bicycle, illustrating the method of applying my improvement thereto; Fig. 3, a section at the line *x x* of Fig. 1, showing the locking device in its active position; Fig. 4, a detail section of the tumbler-case, the hasp or swinging member being engaged therewith; Fig. 5, a cross-section of this case, showing the arrangement for securing it to the frame of the machine; Fig. 6, a vertical section of the spring-casing, and Fig. 7 a cross-section thereof.

In carrying out my invention as here embodied I provide two casings A and B, which have formed therewith the interlocking straps C, whereby they are secured to the backstays by said straps having their ends hooked, as indicated at D, and a pin or key F being passed into engagement with said hooked ends, as clearly shown in Figs. 2, 3, and 7.

The casing A has journaled therein a stud G, which is held in place by the bolt H, having a nut I run upon its inner end, and this stud has coiled therearound a spring J, the outer end of which is secured at K to a post within the casing, so as to give the stud a tendency to move in the direction of the arrow marked adjacent thereto, and the movement of this stud is limited by the pin L, projecting from the casing and set within the field of rotation of two shoulders formed upon the lug. The outer end of the lug is flattened, as indicated at M, and has fitted thereon the locking-lever or hasp N, which is held in place by the head of the bolt H, from which it will be seen that when this lever is swung upward in the reverse direction of the arrow in Fig. 6 the tension of the spring will be increased, so that when the lever is released it will again resume its normally vertical position.

The connection between the locking-lever and the stud is accomplished by said lever having a slot O formed therein, which will permit the longitudinal movement of said lever for the purpose hereinafter set forth.

The casing B contains the lock proper and has pivoted therein a set of tumblers P, their lower ends being so formed as to readily engage the notched end of the locking-lever, as indicated at Q, and this casing has formed therein a slotted opening for the reception of the notched end of the locking-lever. A notch R is formed in the upper edge of the locking-lever, so that when said lever is swung upward this notch may be carried into engagement with the lower wall of the slot formed in the casing B, and, as will be obvious, when the noses of the tumblers engage with the end notch of the locking-lever after the notch has been carried into engagement with the slotted opening the locking-lever will be secured against displacement.

In order that the tumblers may be forced

into engagement with the end of the locking-lever, a series of springs S, formed of sheet-metal plates properly pierced, are secured within the casing B and bear against the heels 5 of the tumblers, as clearly shown in Fig. 4. By this arrangement it will be seen that when my improvement is attached to the rear stays of a bicycle and it is desired to lock the bicycle against unauthorized use it is only necessary to swing the locking or hasp lever N 10 upward, so as to cause it to pass between the spokes of the rear wheel, as shown in Fig. 1, after which its free end is caused to enter into engagement with the casing B, and the tumblers therein, as before described, will be held 15 crosswise of the rear wheel and between the spokes thereof, thus making it impossible to use the bicycle until the locking-lever has been released and swung downward. The releasing of said lever may be accomplished by 20 a suitable key adapted to pass through the keyhole T and be thrust against the varying ends U of the tumblers, by means of which the noses of said tumblers will be withdrawn 25 from engagement with the locking-lever and the latter permit the swinging downward by the action of the spring J.

I do not wish to be limited to the use of a thrust-key, as this portion of the locking-casing B may be arranged for the reception of a 30 turn-key, the tumblers being also fitted therefor.

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

35 1. In a device of the character described, two casings, each consisting of a top and bottom having their rear ends curved to conform to the contour of the stay-bars of a bicycle, front and back sections and a strap or band 40 encircling the front and stay bar and forming the sides of the casing, a bolt journaled between the front and back of one of said cas-

ings and projecting through the front, a stud on the bolt, a spring coiled around the inner end of the stud, a post on the back and projecting through a concentric slot in the base 45 of the stud, a locking-bar slotted at one end, said slot fitting over the stud, said stud being flattened so as to turn with the bar, and locking mechanism in the other casing to engage 50 the other end of the locking-bar, as and for the purpose described.

2. In a device of the character described, two casings each consisting of a top and bottom having their rear ends curved to conform 55 to the contour of the stay-bars of a bicycle, front and back sections and a band encircling the front section and stay-bar, forming the sides of the casing and having a number of straps at its ends which are hooked back and 60 interlock, a key run through the channel formed by these straps, a lock-lever secured to one casing and locking mechanism secured in the other for engaging the nose of the locking-lever, as and for the purpose described. 65

3. In a device of the character described, two casings, each consisting of a top and bottom having their rear ends curved to conform to the contour of the stay-bars of a bicycle, front and back sections and a strap or band 70 encircling the front section and stay-bar forming the sides of the casing, a locking-lever pivoted within one casing, and locking mechanism secured in the other casing for engaging the nose of the locking-lever, as and for 75 the purpose described.

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

JOSEPH J. HALL.

Witnesses:

S. S. WILLIAMSON,
FRED H. KNOWLTON.