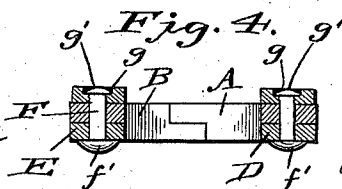
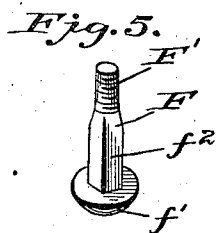
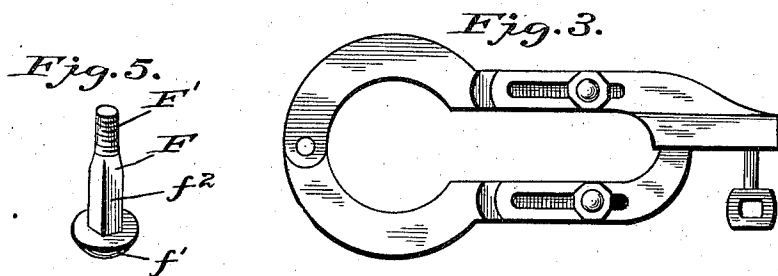
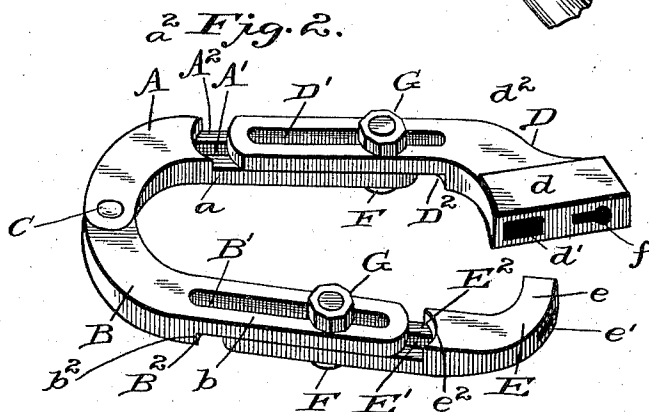
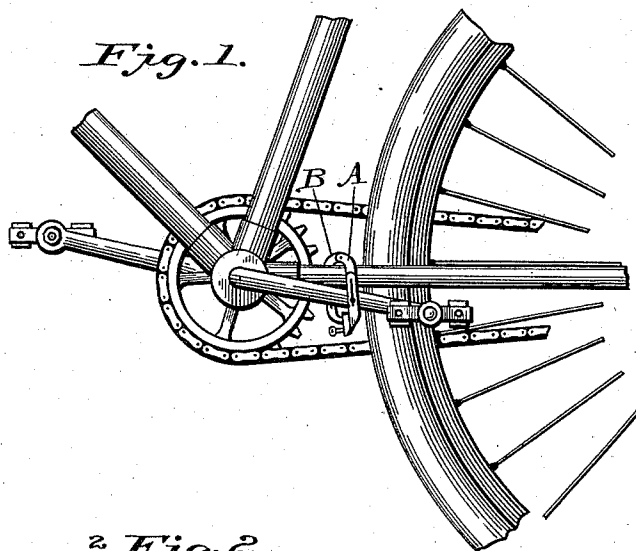


(No Model.)

C. E. WICKLIFFE.
BICYCLE LOCK.

No. 577,673.

Patented Feb. 23, 1897.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES E. WICKLIFFE, OF WASHINGTON, DISTRICT OF COLUMBIA.

BICYCLE-LOCK.

SPECIFICATION forming part of Letters Patent No. 577,673, dated February 23, 1897.

Application filed May 6, 1896. Serial No. 590,501. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. WICKLIFFE, a citizen of the United States, residing at Washington, 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.

This invention relates to locks designed more especially for use in connection with bicycles for locking the crank-shaft to the rear fork.

It has for its objects, among others, to provide a simple and cheap form of lock having provision for its adjustment or extensibility to accommodate it to the varying distances between parts of the frame, so that the one lock may be capable of use in connection with different makes of wheels and frames formed of tubes of varying distances apart.

In some of its forms the lock is constructed so as to neatly fit a machine in which the rear fork is, say, seven-eighths of an inch in diameter and the crank-shaft but one-half of an inch in diameter. In one form of the invention it is so constructed as to prevent removal of the crank-shaft and its withdrawal through the lock.

The lock may be constructed of any desired material and made as fanciful in design as the wishes of the maker may dictate. It will be observed that the distance between the pivot and the portion in which the lock mechanism is carried can be varied as circumstances may require.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is an elevation showing the application of the invention to a bicycle. Fig. 2 is an enlarged perspective view of the lock, showing the provision for adjusting. Fig. 3 is a view of a slightly-modified form. Fig. 4 is a cross-section through the securing nuts

and bolts. Fig. 5 is a perspective view of one of the bolts removed.

Like letters of reference indicate like parts in the several views.

Referring now to the details of the drawings by letter, A designates one portion of the lock, and B the other, formed with curved ends, which are pivotally united by means of a pivot C. Longitudinal portions *a b* of these parts A B are provided with elongated slots A' and B'.

D and E are the complementary parts of the lock. The one, E, is formed with a bent end *e*, having in its outer face a slot *e'* for the reception of the bolt of the lock, while the part D is provided at its outer end with an enlargement *d*, also bent at an angle to the main portion and provided with an opening *d'* for the reception of the part *e'*, and in the same outer face is a keyhole *f* for the reception of the key by which the bolt is turned.

The lock mechanism within the part *d* may be of any well-known or approved form of construction. The parts D and E have their longitudinal portions formed with elongated slots D' E', and through these slots and through the coincident slots in the parts A and B passes the bolt F, as shown, this bolt having a head *f'* and a polygonal portion *f''*, which passes through the slots and prevents turning of the bolts, while the other end is screw-threaded, as at F', to receive the nuts G. In order to prevent separation of these nuts from the bolts or their removal, so that the parts of the lock could be separated, some provision should be made, and in this instance I have shown the nuts as provided upon their outer faces with recesses *g*, into which the outer ends of the bolts are headed or riveted, as seen at *g'* in Fig. 4, thus permitting the nuts to be turned and securely fastening the parts in their adjusted position, but preventing their removal and consequent separation of the parts.

The coincident portions of the parts A D and B E are halved out, as seen at A², D², B², and E², so that the parts A D move over each other, as do also the parts B and E, the halved-out portions on the opposite parts being preferably alternately arranged, as seen in Fig. 2, although this is not necessary.

The shoulders a^2 , d^2 , b^2 , and e^2 serve as stops to limit the movement of the parts one upon the other as the same approach their limit of movement to render the space between the pivot and the lock portion the shortest possible.

Fig. 1 shows the application of the lock, in which instance it is shown as securing the crank-shaft to the rear fork of the bicycle.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

In Fig. 3 I have shown one of the various forms which may be employed. This form permits of the application of the lock to a machine in which the rear fork is, say, seven-eighths of an inch in diameter, while the diameter of the crank-shaft is one-half inch or less and makes a neat fit when in position. Other such variations in form may be made and still be within the scope of the invention.

Although in the above description I have referred to the overlapping portions of the longitudinal parts of the device as being each provided with a longitudinal slot, it is evident that but one of these overlapping portions may be thus formed and the securing-bolt retained in any suitable manner at the end of one of such portions, as indicated in Fig. 3. It will be evident, of course, that where both portions are formed with a slot a greater amount of adjustment is provided.

It will be observed from the foregoing description that this lock is an extension bicycle-lock designed for the purpose of locking the crank-shaft and the rear fork together, commonly known as a "crank-shaft" lock, and is, by preference, a self-locking or spring-lock which can be only opened with a key, but can be quickly adjusted and readjusted and which will prevent any one from stealing a bicycle without carrying it away. It is, in fact, a lock that will prevent the motion of the bicycle, as it practically locks the motive power of the bicycle. It may be applied on either side of the bicycle, and when applied as described it can be readily seen that the bicycle is locked.

Having thus described the invention, what is claimed as new is—

1. A bicycle-lock of substantially loop form having its side portions extensible in length and pivotally united at one end and having

locking means at the other end, substantially as described.

2. A bicycle-lock of substantially loop form having its side portions adjustable in length, each side having one of its parts pivotally united at one end of the loop and the other ends oppositely curved and adapted to be received one within the other and locking means for the free ends of the loop, substantially as described.

3. A bicycle-lock of substantially loop form having its parallel portions pivotally connected together and adjustable in length and provided with means for securing them in their adjusted position, such means being permanently connected together and held against separation from said parallel portions, substantially as described.

4. A lock of substantially loop form provided with a pivot at one end and its longitudinal portions overlapping each other and provided with longitudinal slots and means passed through said slots for holding the parts in their adjusted position, substantially as described.

5. A lock of substantially loop form having a pivot at one end and its parallel portions overlapping each other and provided with longitudinal slots, bolts passed through said slots and held against turning therein and means upon the ends of said bolts held against displacement and adapted to hold the parts in their adjusted position, substantially as described.

6. A bicycle-lock of substantially loop form having its parts pivotally united at one end and the parallel portions formed with elongated slots in their halved-out portions, said halved-out portions being oppositely disposed upon opposite sides of the lock, bolts passed through the slots thereof and having rectangular portions to prevent their turning in the slots, and nuts on the ends of said bolts and having recesses into which the ends of the bolts are headed, substantially as described.

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

CHARLES E. WICKLIFFE.

Witnesses:

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JANET BARROW.