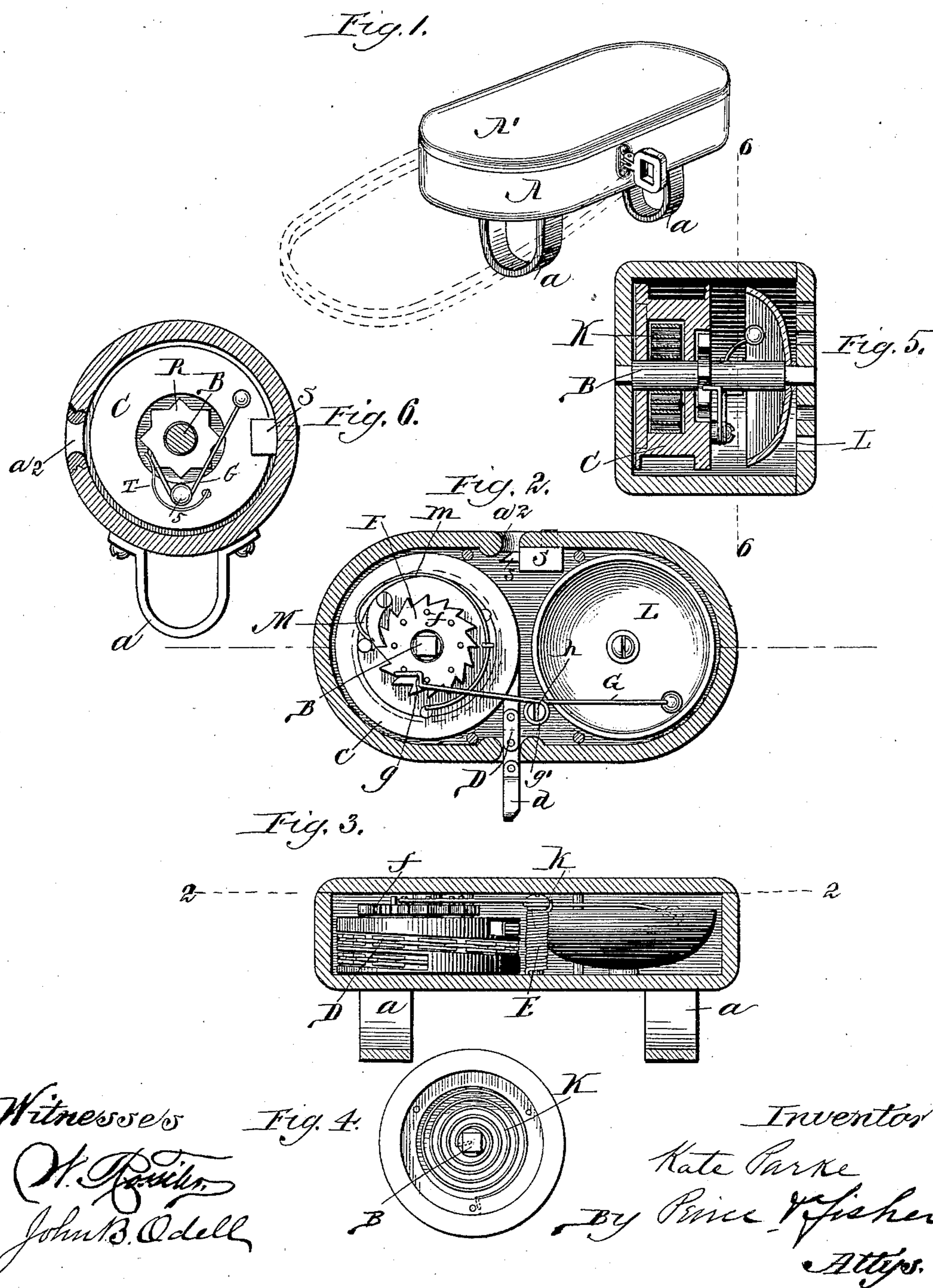


(No Model.)

K. PARKE.
BICYCLE LOCK.

No. 436,800.

Patented Sept. 23, 1890.



UNITED STATES PATENT OFFICE.

KATE PARKE, OF CHICAGO, ILLINOIS.

BICYCLE-LOCK.

SPECIFICATION forming part of Letters Patent No. 436,800, dated September 23, 1890.

Application filed April 28, 1890. Serial No. 349,814. (No model.)

To all whom it may concern:

Be it known that I, KATE PARKE, a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lock Mechanism for Bicycles and other Purposes, of which I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My present invention has, primarily, for its object to provide improved lock mechanism whereby bicycles may be locked to prevent them from being used without the owner's consent or to prevent them from being stolen, although it will be readily understood that my invention is applicable to a variety of other purposes. This object of invention I have accomplished by the novel construction of lock mechanism hereinafter described, illustrated by the accompanying drawings, and particularly defined in the claims at the end of this specification.

Figure 1 is a perspective view of a casing embodying my invention. Fig. 2 is a view in horizontal section through Fig. 1. Fig. 3 is a view in section on line 3 3 of Fig. 2. Fig. 4 is a detached view of the drum or holder for the chain and the spring connected thereto. Fig. 5 is a view in vertical section through a modified form of my invention. Fig. 6 is a view in section on line 6 6 of Fig. 5.

A designates the inclosing-casing, that may be of any suitable shape or construction, and A' denotes the cover of the casing. By preference, the casing will be furnished with convenient means—such, for example, as the loops a —for attaching it to the bicycle. Through the casing A extends the shaft B, whereon is loosely mounted a drum or holder C for the chain D, one end of this chain being attached to the drum, while the opposite end projects through an opening a' formed for the purpose in the casing.

In the forms of my invention illustrated in the annexed drawings the shaft B is shown as fixed in the casing against rotation, and to this shaft is fastened one end of a coiled spring K, the opposite end of which is attached to the drum or holder C and tends to normally wind the chain thereon. Preferably the periphery of the drum C is provided

with a spiral groove or channel to insure the proper winding of the chain thereon.

In the construction illustrated in Figs. 1, 2, 3, and 4 the shaft B has loosely held thereon a ratchet-wheel F, from the sides of which project the pins f , that engage with bent end g of the bell-hammer rod G, this rod having a loop g' to hold it upon a stud H, fixed to the casing, and upon this stud is held also a coiled spring E, the end h of which bears upon the rod G and holds the bell-hammer normally in close proximity to the bell L. Upon one side of the drum C is pivotally mounted a pawl M, the free end of which is held in engagement with the teeth of the ratchet-wheel F by means of a spring m , that is fastened to the side of the drum or holder C, so that when the drum or holder is revolved in one direction to unwind the chain the pawl M will ride freely over the teeth of the ratchet-wheel; but when the drum is revolved in the opposite direction by the spring K, to rewind the chain, the pawl will engage the teeth of the ratchet-wheel and will cause this wheel also to revolve and force the pins f to operate the bell-hammer rod, and thus cause its hammer to ring the bell. In the casing A is also formed an opening a^2 , adapted to admit a catch d on the free end of the chain D, so that this catch may engage the bolt s of a lock S, that is attached to the casing A, the casing being provided with a hole to admit the key of the lock. By preference the lock is a spring-lock, and the end of its bolt is beveled to permit it to be readily forced backward by the insertion of the catch d into the hole a^2 .

From the foregoing description the operation will be seen to be as follows: To lock the bicycle, it is only necessary to withdraw the chain D, thereby revolving the drum against the force of the spring K, then pass the free end of the chain through the bicycle-wheel, and insert the catch d into the opening a^2 of the casing to engage the lock-bolt s . By this means the use of the bicycle without the owner's consent will be effectually guarded against. When it is desired to use the machine, the lock-bolt is withdrawn from engagement with the catch d by the use of a proper key, and the chain is automatically drawn into the casing and wound upon the drum by the force of the coiled spring K, the catch d

projecting a sufficient distance to permit it to be readily grasped. As the chain is thus re-wound the revolution of the drum will cause the alarm-bell L to be sounded by reason of the engagement of the pins *f* with the hammer-rod. The purpose of thus using an alarm-bell, as I prefer to do, is to give warning to the owner of the machine when the chain is unlocked.

It will be readily understood that the chain may be made of any desired length, the size of the drum and of the casing being correspondingly increased; and, if desired, wire cord may be substituted for chain, although I regard the latter as preferable. If the chain be made of suitable length, it will obviously serve both as a means for locking the bicycle-wheel and as well, also, for locking the machine to any fixed object, such as a fence or post.

In the form of my invention illustrated in Figs. 5 and 6 of the drawings the casing A has a shaft B extending through it and carrying a drum or holder C for the chain, the drum or holder being connected, as in the above-described construction, to a coiled spring K, which serves to wind the chain upon the drum. Upon the shaft B is keyed a rag-wheel R, against the rim of which bears the bent end *g* of the bell-hammer rod G, this rod being pivotally held on the stud 5, projecting from the side of the wheel R, and having its end forced by the spring T into engagement with the rim of the rag-wheel R. In this construction the alarm-bell L is held on the shaft B. On the drum C will be wound a chain or wire cord, (these being regarded as the equivalents of each other,) similar to the

chain D above described, and having a catch at its free end to be engaged by the bolt of a lock S.

It is obvious that the precise details of construction above set out may be varied without departing from my invention. Thus, for example, any suitable form of lock may be employed for engaging the free end of the chain, and any desired form of casing may be used so long as it serves as a suitable support for the parts.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In lock mechanism for bicycles, &c., the combination, with the chain, of a drum or holder for the chain, a spring for winding the chain on the drum, and a lock for engaging the free end of the chain, substantially as described.

2. In lock mechanism for bicycles, &c., the combination, with an inclosing casing, of a chain, a drum or holder for the chain within the casing, a spring for winding the chain on the drum, and a lock within the casing to engage the free end of the chain, substantially as described.

3. In lock mechanism for bicycles, &c., the combination, with the chain, of a drum or holder for the chain, a lock for engaging the free end of the chain, and an alarm-bell adapted to be sounded when the chain is wound, substantially as described.

KATE PARKE.

Witnesses:

GEO. P. FISHER, Jr.,
JAMES H. PEIRCE.