H. L. PIPPEN.

CYCLE LOCK.

APPLICATION FILED DEC. 11, 1919.

1,402,725. Patented Jan. 3, 1922.

Fig. 1.

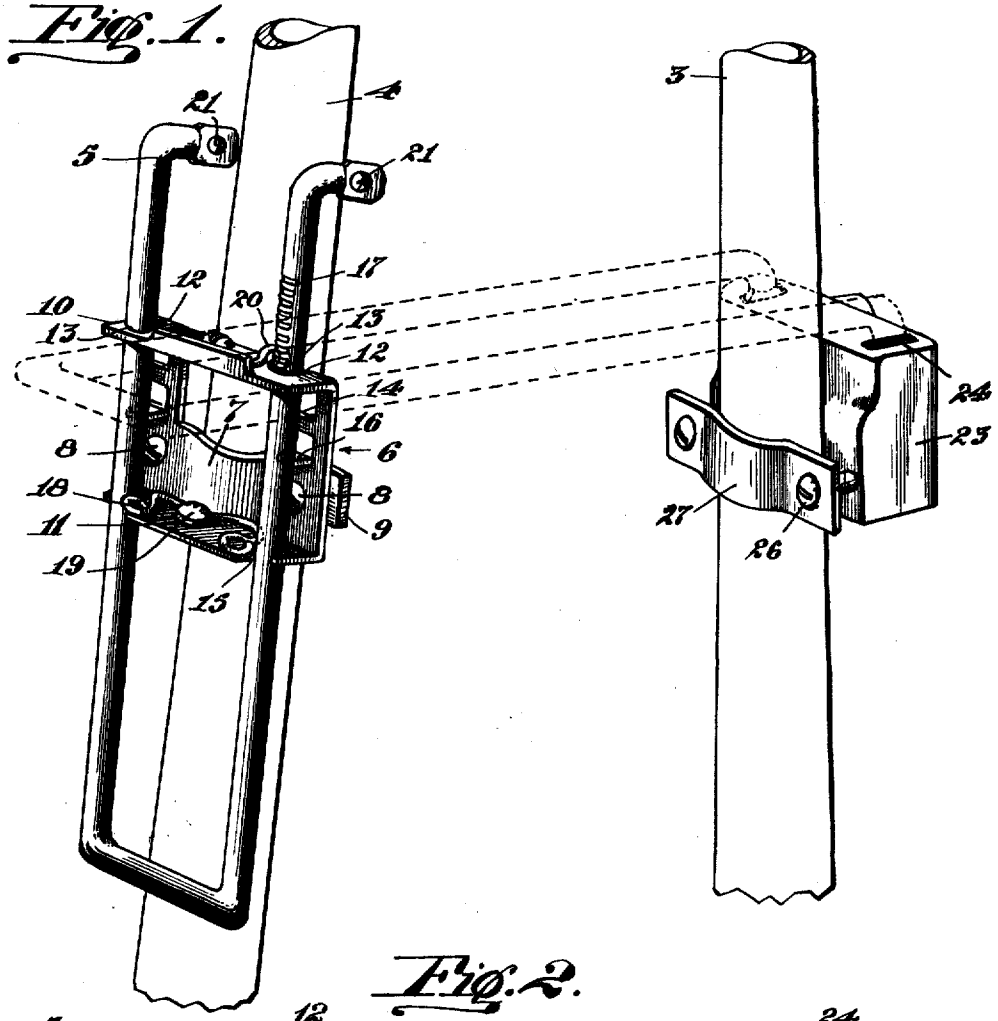
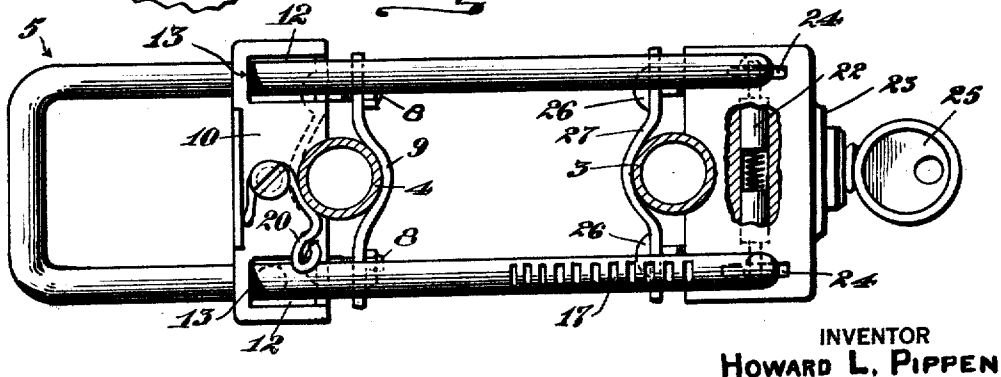


Fig. 2.



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CYCLE LOCK.

1,402,725. Specification of Letters Patent. Patented Jan. 3, 1922.

Application filed December 11, 1919. Serial No. 344,085.

To all whom it may concern:

Be it known that I, HOWARD L. PIPPEN, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Cycle Locks, of which the following is a specification.

This invention relates to a lock, and particularly pertains to a device for locking bicycles, motorcycles and similar wheel vehicles.

It is the object of this invention to provide a cycle lock embodying a shackle adapted to be mounted on one side of the cycle frame and to be positioned through the wheel between the spokes thereof and locked in engagement with the opposite side of the cycle frame to inhibit rotation of the wheel and thus effectively prevent unauthorized use of the cycle, and a particular object is to provide a means for attaching the shackle to the cycle frame whereby it may be held in an inoperative or unlocked position and secured against accidental displacement.

A further object is to provide a locking device of the above character, embodying a U-shaped hasp or shackle adapted to extend astride the yoke members of a cycle frame and of a wheel spoke having means for readily attaching the hasp to the cycle frame for slidable movement so formed as to permit the hasp to be disposed in either an upright or horizontal position and to be shifted longitudinally on its support in either position.

Other objects will appear hereinafter.

The invention is illustrated in the accompanying drawings in which:

Figure 1 is a perspective view illustrating the application of the invention and showing the hasp in its unlocked position in full lines and indicating the locking position in dotted lines.

Figure 2 is a plan view showing the hasp in its locking position.

More specifically 3 and 4 indicate the side members of a cycle frame or yoke between which the cycle wheel, not shown, is mounted. 5 indicates a U-shaped hasp adapted to be placed astride the yoke members 3 and 4, and 6 denotes the hasp mounting constituting the essence of the present invention.

The hasp mounting embodies a plate 7 adapted to seat on the outer face of the yoke member 4 and is shaped to substantially conform to the latter; the plate being held in place by bolts 8 passing therethrough and engaging the strap 9 bearing on the opposite side of the member 4. The upper and lower portions of the plate 7 are turned outwardly to form parallel top and bottom flanges 10 and 11, and formed in the top flange and extending downwardly into the body portion of the plate 7 are slots 12 through which the side members of the hasp 5 extend; the ends 13 of the slots 12 in the flange 10 serving as abutments for the hasp when the latter is in its vertical position, as shown in full lines in Figure 1, and the opposite ends 14 of the slots forming supports for the hasp when the latter is in its horizontal position, as shown in dotted lines in Figure 1 and full lines in Figure 2.

The bottom flange 11 is formed with open ended slots 15 to receive the side members of the hasp when the latter is in its upright position; the hasp being designed to seat on the closed end of said slots and to be disposed substantially parallel with the yoke side member 4. As a means for providing a further seat for the hasp when in its upright position, a pair of tangs 16 are struck from the plate 7 and bent outwardly to form abutments on which the hasp may rest.

As a means for holding the hasp in its vertical position, one of the side members thereof is formed with a series of transverse notches 17 adapted to be engaged by the end wall 13 of the slot 12; a spring 18 on the bottom flange 11 being provided to engage the hasp and act to bear inwardly on the portion of the hasp below the tangs 16, tending to move the portion of the hasp above the tangs 16 in an outward direction and to effect a secure engagement of the notches 17 with the flange 10. When thus engaged, the hasp is securely held in an upright position against displacement.

The spring 18 may be of any suitable construction but is here shown as formed with spring wire having looped outer ends projecting over the slots 15 and held in place by a rivet 19 carried on the bottom flange. The ends of the spring 18 permit the hasp being rocked with the tangs 16 as a fulcrum in and out of engagement in the slots 15.

A spring 20 is mounted on the top flange 10 and positioned to extend forward of the side member of the hasp, when the latter is in its vertical position. The spring 20 is so formed as to permit ready movement of the hasp into the slots 12, but to oppose with

considerable resistance the outward movement of the hasp, and thus serving to effectively prevent the hasp from accidentally dropping into engagement with the cycle wheel and insuring the hasp being retained in its vertical unlocked position in event it should accidentally be disengaged from the lower spring 18 by vibration or shock.

The outer ends of the hasp are bent to extend in a downward direction when the hasp is disposed horizontally and are formed with openings 21 or other suitable engaging means adapted to receive bolts 22 of a lock 23 mounted on the yoke member 3; the casing of the lock being formed with top openings 24 through which the ends of the hasp 5 are adapted to extend. The lock is here shown as consisting of the ordinary cylinder lock adapted to be actuated by a key 25, as is common in locks of this character. The lock may be attached to the yoke member 3 in any suitable manner but is here shown as clamped in place thereon by bolts 26 passing through a strap 27 and engaging the lock casing.

Normally the hasp will be disposed in a vertical position as shown in Figure 1, in which position it will be retained by the spring 18 cooperating with the notches 17 as before described, with the auxiliary spring 20 serving as a guard to insure against the hasp being accidentally engaged with the wheel.

When it is desired to lock the cycle, the upper portion of the hasp is pressed forwardly to disengage the notches from the flange 10 and is rocked inwardly with the tangs 16 serving as fulcrums to disengage the upper portion of the hasp from the spring 20 and the lower portion from the spring 18, whereupon the hasp may be moved lengthwise through the slots 12 and advanced astride a spoke in the cycle wheel and positioned with the outer ends of the hasp in the openings 24 of the lock into engagement with the bolts 22 of the latter. When thus disposed, the hasp will extend astride the yoke members 3 and 4 and project between the spokes of the wheel, thus effectively preventing rotation of the wheel.

The hasp, being slidably mounted in the slots 12, may be freely adjusted longitudinally so as to permit ready insertion of its outer ends into engagement with the lock, thus adapting the device for attachment to cycles having the yoke members 3 and 4 spaced different distances apart.

When it is desired to disengage the wheel, the lock is operated by the key 25 to release the hasp, whereupon the hasp is slid rearwardly through the slots 12 and returned to its vertical position and engaged in the slots 12 and 15, as before described.

I claim:

1. A cycle lock comprising the combination with a cycle frame yoke having side members of a lock mounted on one of the yoke members, a U-shaped hasp adapted to extend astride the yoke members and to have its outer ends engaged by said lock, a plate affixed to the other yoke member having slots through which said hasp extends, said plate having top and bottom flanges with said slots continuing into the top flange to permit positioning of the hasp vertically therethrough, and means on the lower flange for retaining the hasp in its vertical position.

2. A cycle lock comprising the combination with a cycle frame yoke having side members of a lock mounted on one of the yoke members, a U-shaped hasp adapted to extend astride the yoke members and to have its outer ends engaged by said lock, a plate affixed to the other yoke member having slots through which said hasp extends, said plate having top and bottom flanges with said slots continuing into the top flange to permit positioning of the hasp vertically therethrough, said bottom flange formed with open ended slots to receive said hasp, and spring means on said flange for retaining the hasp in said slots.

3. A cycle lock comprising the combination with a cycle frame yoke having side members of a lock mounted on one of the yoke members, a U-shaped hasp adapted to extend astride the yoke members and to have its outer ends engaged by said lock, a plate affixed to the other yoke member having slots through which said hasp extends, said plate having top and bottom flanges with said slots continuing into the top flange to permit positioning of the hasp vertically therethrough, means on the lower flange for retaining the hasp in its vertical position, and means for holding the hasp against longitudinal movement in its vertical position

HOWARD L. PIPPEN.