(No Model.)

# J. JOHNSON.

## LOCK AND WRENCH.

No. 598,203. Patented Feb. 1, 1898.

*Fig. 1.*

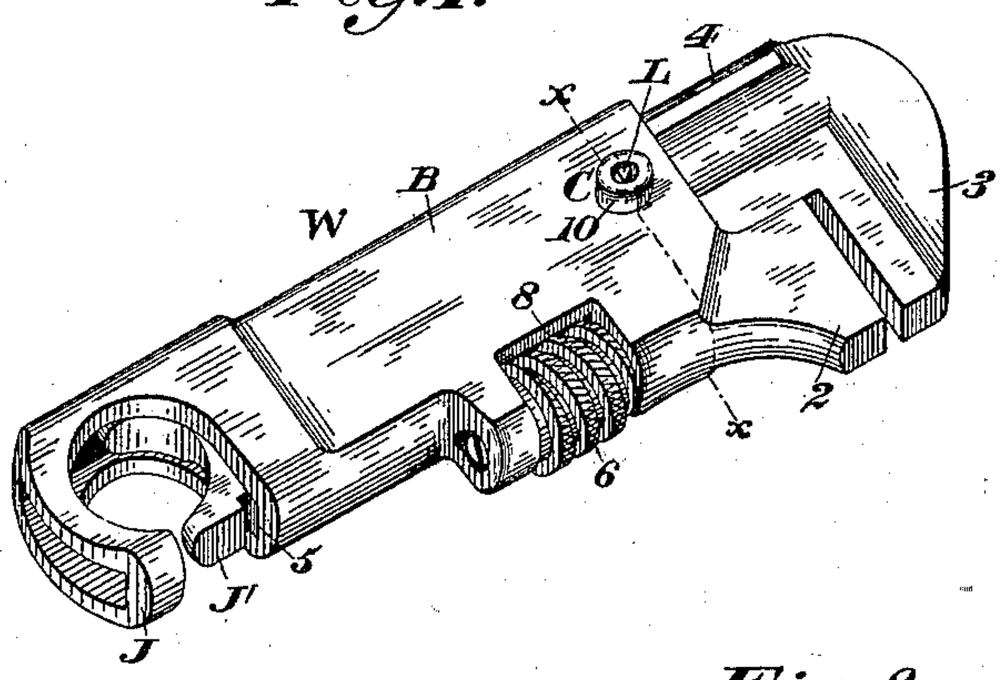



*Fig. 2.*

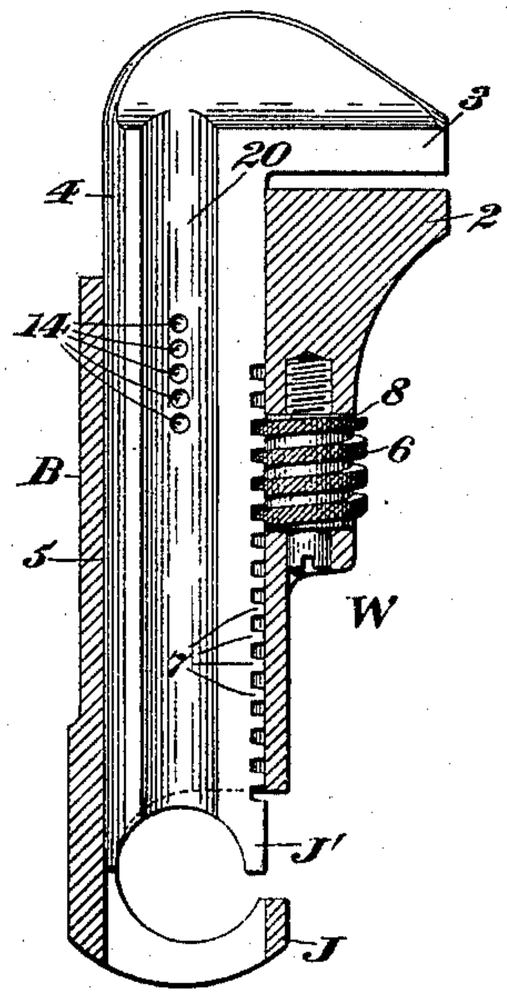



*Fig. 7.*

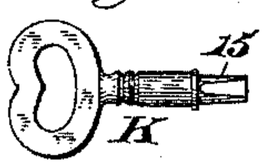



*Fig. 8.*

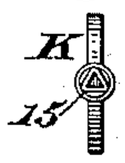



*Fig. 4.*


*Fig. 3.*

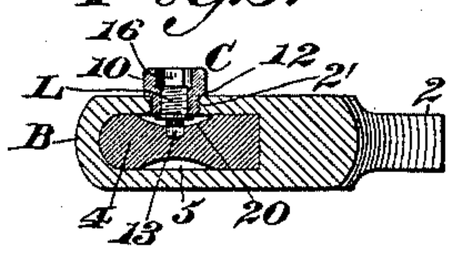
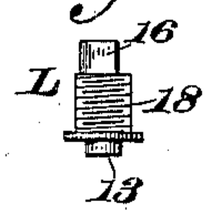



*Fig. 5.*


*Fig. 6.*

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# UNITED STATES PATENT OFFICE.

JOHN JOHNSON, OF HARTFORD, CONNECTICUT.

## LOCK AND WRENCH.

SPECIFICATION forming part of Letters Patent No. 598,203, dated February 1, 1898.

Application filed May 17, 1897. Serial No. 636,935. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN JOHNSON, a citizen of the United States, residing in Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in a Combined Wrench and Lock, of which the following is a specification.

This invention relates to a combined wrench and lock, the main object being to provide a simple and inexpensive device of this character in which are combined a wrench and a lock, more especially intended for cyclists, which can be readily carried in a tool-bag, thereby economizing space, so as to be accessible at all times for its several uses.

In the drawings accompanying and forming part of this specification, Figure 1 is a perspective view of my improved device. Fig. 2 is a longitudinal central section of the same. Fig. 3 is a transverse section taken in line *x x*, Fig. 1. Fig. 4 is a plan view of the carrier and the locker therein. Fig. 5 is a cross-section of the locker-carrier. Fig. 6 is a side elevation of the locker, and Figs. 7 and 8 are views in elevation of a key which can be employed for operating the locker.

Similar characters designate like parts in all the figures of the drawings.

The wrench is designated in a general way by W.

The body portion or frame of the wrench is designated by B, and it terminates in a fixed jaw 2, which in connection with the movable jaw 3 is adapted to grip an object in the usual manner.

The movable jaw 3 is formed at one end of a bar or shank which slides in the longitudinal opening 5 in the body portion B. The slidable gripping-jaw of the wrench W is actuated by the screw 6, which engages the teeth 7 on the bar or shank 4, the screw 6 being suitably secured for rotation in the transverse aperture 8 in the body portion B in some well-known manner.

My improved device comprehends, in addition to the gripping-jaws 2 and 3, a second pair of jaws constituting locking-jaws, which are adapted to embrace or clasp an object or two adjacent moving parts of a cycle, such as the rim of the front sprocket-wheel and the chain thereon, one of the parts of the wrench being provided with a locker adapted to engage the other.

The locking-jaws of the wrench are designated by J and J′, and they may be of any suitable construction, they being formed in the present case at the ends of the body portion B and the bar 4, respectively. The locking-jaw J is represented as consisting of a hook rigid with the body portion B, while the cooperating jaw J′ is in the form of a projection formed at one end of the bar 4, the opposite faces of the two locking-jaws being curved or shaped in any desired way to engage such an object.

In operation the user will hold the body portion B in one hand and with the fingers of the other hand will rotate or turn the actuating-screw 6 to move the slide-bar 4, and consequently the jaw J′, away from the companion jaw J until the jaw J′ is nearly within the body portion B, at which time the two jaws are passed around the objects to be locked together, when the actuating-screw is reversely rotated to carry the jaw J′ toward its companion, and when the two jaws are in proper position they can be locked together.

The locker, which may be of any suitable construction and carried by either of the parts of the wrench, is represented as consisting of a pin L, mounted on the body portion B and adapted to engage the bar 4.

The locking-pin L is movable in a suitable carrier, such as C, which consists of a threaded nipple or nut suitably secured in a transverse opening 2′, formed in the body portion B, near one end thereof, the locker-carrier 10 having an annular shoulder 12, adapted to fit against the outside face of the body portion B, as represented in Fig. 3.

The annular shoulder 12 constitutes a guard and surrounds the outer end of the locker or pin L, thereby to prevent malicious or unauthorized tampering with the latter.

The locker L is suitably secured in the carrier C for reciprocation, and the working end 13 thereof is adapted to engage in an opening or one of a series of sockets 14, formed in the adjacent face of the slide-bar 4, the working end 13 of the locker being shot into any one of said sockets through the intervention of suitable means, as by the key K, the barrel

15 of which is of an internal shape to fit over the correspondingly-shaped end 16 of the locker L, whereby the locker can be turned to thrust the end 13 thereof into any one of the sockets.

Any suitable means may be provided for advancing and retracting the locker, this operation in the present case being accomplished by screw-threading said locker into its carrier or nut C.

The locker L is exteriorly threaded, as at 18, said threads being adapted to engage corresponding internal threads 18′ of the carrier C, so that when the locker is rotated or turned in the proper direction by the key K the respective engaging threads will cause said locker to enter one of the series of sockets 14, thereby to firmly lock the body portion B to the bar 4.

The locker is preferably equipped with a device to prevent its displacement or removal from the carrier or nut C, it being furnished near its lower end with an annular stop adapted to abut against the inner face of the body portion B when the locker is withdrawn from any one of the series of sockets 14.

The locker or pin L, in addition to coöperating with the series of sockets 14, is designed to bind against the plain surface 20 of the bar or shank 4, so that when the jaws 2 and 3 are gripping an object, such as a nut, the locker is adapted, in the manner just specified, to hold the jaw 3 firmly in engagement with the device being operated upon, thereby preventing retraction of said jaw 3.

Having described my invention, I claim—

1. A wrench consisting of a sleeve having a laterally-disposed fixed jaw at one end and a curved jaw at the other end extending in the same direction; a movable bar having a fixed jaw at one end extending in the same direction as the first-mentioned jaw on the sleeve and having at its opposite end a prolongation constituting a fixed jaw coöperating with the curved jaw to lock an object; and a locker carried by one of the members of the wrench and adapted to engage the other member thereof.

2. A wrench consisting of a sleeve having a laterally-disposed fixed jaw at one end and a laterally-disposed curved jaw at the other end; a movable bar having a laterally-extending fixed jaw at one end and a prolongation coöperating with a curved jaw to lock an object at its opposite end, said bar being provided with a series of sockets; and a key-operated locking-pin on the sleeve, adapted to be inserted into any one of said sockets to lock the parts together.

JOHN JOHNSON.

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