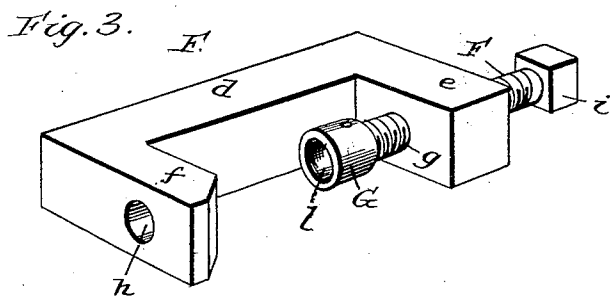
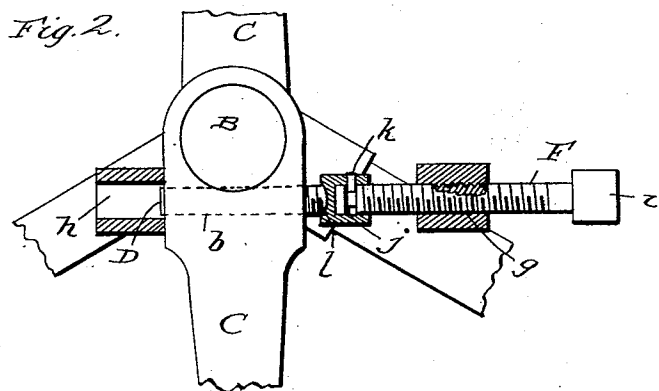
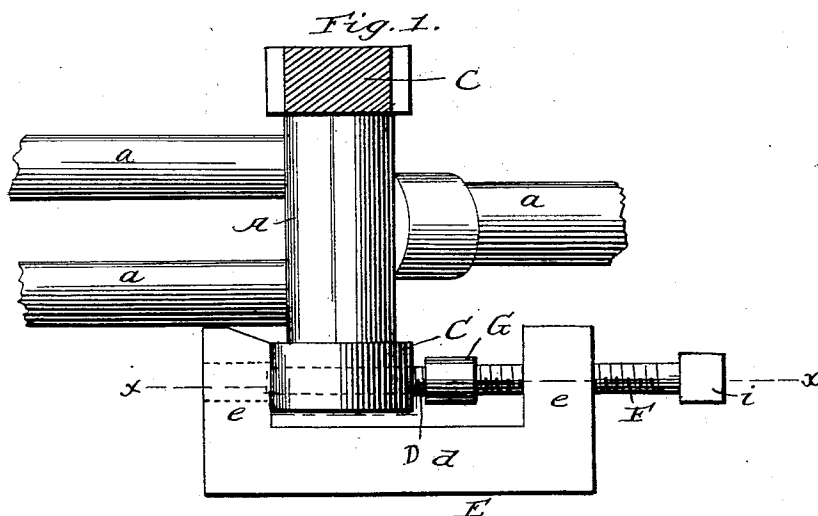


(No Model.)

W. R. TILTON.
COTTER PIN PRESS.

No. 569,527.

Patented Oct. 13, 1896.



Witnesses
Chas. Rader
W. J. Beach

Inventor
W. R. Tilton
By *James J. Shueby*
Attorney

UNITED STATES PATENT OFFICE.

WILFRED R. TILTON, OF PRAIRIE DEPOT, OHIO.

COTTER-PIN PRESS.

SPECIFICATION forming part of Letters Patent No. 569,527, dated October 13, 1896.

Application filed February 28, 1896. Serial No. 581,196. (No model.)

To all whom it may concern:

Be it known that I, WILFRED R. TILTON, a citizen of the United States, residing at Prairie Depot, in the county of Wood and State of Ohio, have invented certain new and useful Improvements in Cotter-Pin Presses; and I do 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.

My invention relates to a press for removing cotter-pins or crank-keys from bicycles, and the novelty will be fully understood from the following description and claim, when taken in connection with the annexed drawings, in which—

Figure 1 is a plan view of parts of a bicycle-frame with one of the crank-bars in section and my improved device applied in a position to remove one of the cotters or crank-pins. Fig. 2 is a sectional view taken in the plane indicated by the dotted line *xx* on Fig. 1, and Fig. 3 is a perspective view of the improvements removed from the bicycle-frame.

Referring by letter to said drawings, A indicates the tubular bearing for the crank-shaft, and *a* indicates parts of the tubular frame extending therefrom. These parts may be of the form and construction usually employed.

B indicates the crank-shaft, and C the crank-bars secured thereto. The cotter-pins or keys D, which take through a hole in the head of the crank-bars, also intersect the transverse apertures, which receive the ends of the crank-shaft B.

It is understood, of course, that the ends of the crank-shaft which enter the eyes or apertures in the heads of the crank-bars have a groove or recess coincident with the holes or apertures *b* of the crank-bars, so that when the cotters or keys D are inserted after the shaft B has been placed the keys will secure the crank-bars on the ends of said shaft.

The construction so far described forms no part of my invention, but has been stated for the purpose of better illustrating the operation and application of my improvements.

E indicates a clamp which comprises a body or frame *d* and two integral clamping-jaws *e* and *f*. The jaw *e* is provided with a transverse screw-threaded aperture *g*, which is

disposed in the longitudinal plane of the body, and the jaw *f* is provided with a plain hole or aperture *h*, which is in an alined position with the threaded hole or aperture in the opposite jaw.

F indicates a threaded rod. This rod has its bearing in the threaded aperture *g* of the jaw *e* and is provided at its outer end with an angular head *i* or seat for a wrench or other implement by which it may be turned. The rod is provided at its opposite or inner end with a circumferential groove *j*, and on this end is swiveled a head G, of brass or like soft material, which will not injure the threads on the key to be removed, as will be presently described. This head is swiveled to the rod by dropping a pin or stud *k* through a lateral hole in said head and into the circumferential groove of the rod. The head is provided in its contacting face with a concave seat *l*, so as to properly engage with the threaded end of the key or pin to be operated upon and afford little or no friction between said head and the pin to be removed.

In operation the jaw *f* is placed against the head of the crank-bar so that the plane end of the key or pin will be exposed through the hole or aperture *h*. The rod is then turned by hand until the soft-metal or brass head on the swiveled end thereof has been brought tightly against the threaded end of the pin or key to be removed from its seat. A wrench or other implement may then be applied to the head at the outer end of the rod and turned so as to displace said pin or key from the aperture in the crank-bar without in any manner injuring the threads thereon.

While I have shown and described my improved press as applied to a bicycle for removing the cotter-pins or keys from the crank-bars thereof, yet it is obvious that the press might be used in removing pins or keys in other devices, and I do not wish to be understood as limiting myself to the use of the device on bicycles or like machines.

The device can be advantageously used in placing cotter-pins or keys by simply reversing its position, and it will be found that pins or keys thus placed will prove more effective than keys or pins that have been driven in the old way.

I am aware that it is not new in power-

hammers or in other machines to provide a base with an aperture to receive a bolt-spindle or the like, and that one end of a power-screw has been provided with a swiveled head. I am also aware that clamps for various purposes have been provided with two jaws, and a threaded rod having a swiveled head has been arranged in a threaded eye of one of the jaws, and therefore do not claim such devices; but,

Having described my invention, what I claim is—

The hand implement described consisting essentially of the frame having a fixed and integral jaw at each end, one of said jaws having a transverse screw-tapped aperture disposed in the longitudinal plane of the frame and the other jaw a similarly-disposed plane aperture, always in alinement with the

threaded aperture, the threaded bolt or rod having a wrench-seat at its outer end and bearing in the threaded aperture of said jaw, and provided at its inner end with a circumferential groove, and the brass head having the concave seat to receive the threaded end of a pin or key and swiveled to the grooved head of the bolt or rod, and the whole being adapted to clamp the head of a crank-bar of a bicycle and displace the key or pin through the plane aperture, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

WILFRED R. TILTON.

Witnesses:

H. C. AHLF,

WM. G. HOAGE.