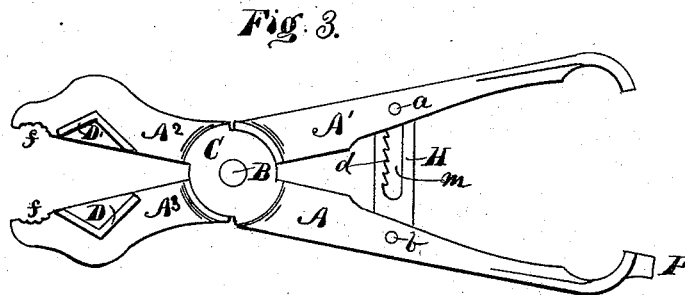
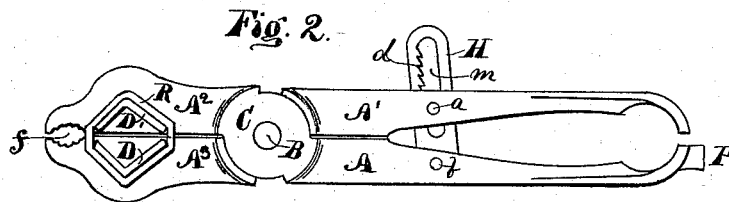
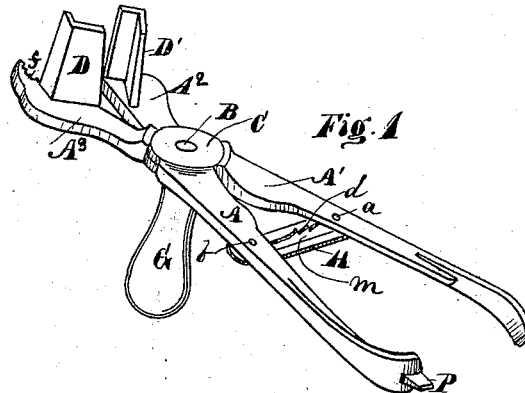


O. R. WEAVER.
Wrench.

No. 217,251.

Patented July 8, 1879.



WITNESSES;

L. F. Speer.
G. Remond.

INVENTOR'S,

Orange R. Weaver,
Ben J. Smith
his Attorney

UNITED STATES PATENT OFFICE.

ORANGE R. WEAVER, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. **217,251**, dated July 8, 1879; application filed April 10, 1879.

To all whom it may concern:

Be it known that I, ORANGE R. WEAVER, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Combination Adjustable Wrench and Pipe or Bolt Tongs, of which the following is a description, reference being had to the accompanying drawings.

The object of my invention is to furnish a combined device that can be applied on a nut of a vehicle-axle, whereby the nut can be operated with facility to either be removed from or secured onto the spindle and hold the nut firm in the wrench after it has been removed from the axle; also, to furnish a means whereby small nuts can be removed or replaced, and also a means of holding bolts and pipes while the nuts or pipes are removed or replaced.

My invention consists of the new construction and arrangement of devices, and in the new combination of elements, which are deemed essential in a combined vehicle-wrench and nut, bolt, or pipe holder, whereby beneficial results are produced, all of which will be hereinafter fully described and set forth.

In the accompanying drawings, in which like letters of reference in the different figures indicate like parts, Figure 1 represents a perspective view of my improved combined device. Fig. 2 is a plan view of the same closed; and Fig. 3, also, is a plan view open.

The general construction of my improved apparatus is that of a pair of tongs having handles $A A^1$ and jaws $A^2 A^3$, secured together by a bolt or stud passing through broad disk-bearings C .

Each jaw $A^2 A^3$ is provided with side-projecting wrench-jaws $D D'$, which are of sufficient length to be inserted in the point-band of a wheel and grasp the nut on the axle.

The extreme ends of the jaws $A^2 A^3$ project beyond the wrench-jaws $D D'$, and are provided with small serrated curved jaws $f f$, adapted to grasp pipes or bolts, similar to a pipe-wrench.

The ends of the jaws $f f$ may also be provided with a small notch to hold wire or small bolts, and the rear end of one of the handles A is also provided with a screw-driver, P , as shown.

The ratchet-plate H is pivoted to one handle, as at b , and unites the two handles, the slot m operating on a stud, a . Said stud also acts as a pawl to engage with the notches d , as shown.

A rubber band, R , may be used around the projecting jaws $D D'$, to hold the jaws closed on a nut and prevent the nut from dropping out; or the band R may be used over the handles $A A^1$.

When it is desired to use the device as an axle-nut wrench the ratchet H is tilted forward or toward the jaws D . The handles $A A^1$ and jaws $D D'$ can then be opened. The jaws $D D'$ being placed on a nut, the handles are closed and pressed together. The ratchet-teeth d engage with the pawl a , thus holding the jaws firmly clamped on the nut; or the ratchet may be dispensed with and the rubber band R used to hold the wrench closed. The crank-handle G is mounted on the pivot stud B of the tongs, and forms a means by which the wrench is quickly revolved for operating the nut on or off the spindle after the nut has been started.

What I claim as new, and desire to secure by Letters Patent, is—

The tongs $A A^1 A^2 A^3$, with wrench-jaws $D D'$ projecting from the sides of the jaws $A^2 A^3$, combined with the handle G , said handle being mounted on the pivot-stud B of the tongs, as and for the purpose specified.

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

ORANGE R. WEAVER.

Witnesses:

E. O. FRINK,
JNO. T. FRANCIS.