J. J. CHRISTIE & J. OVERTON.

Wrench and Crimper for Nut-Washers

No. 212,659. Patented Feb. 25, 1879.

Fig: 1.

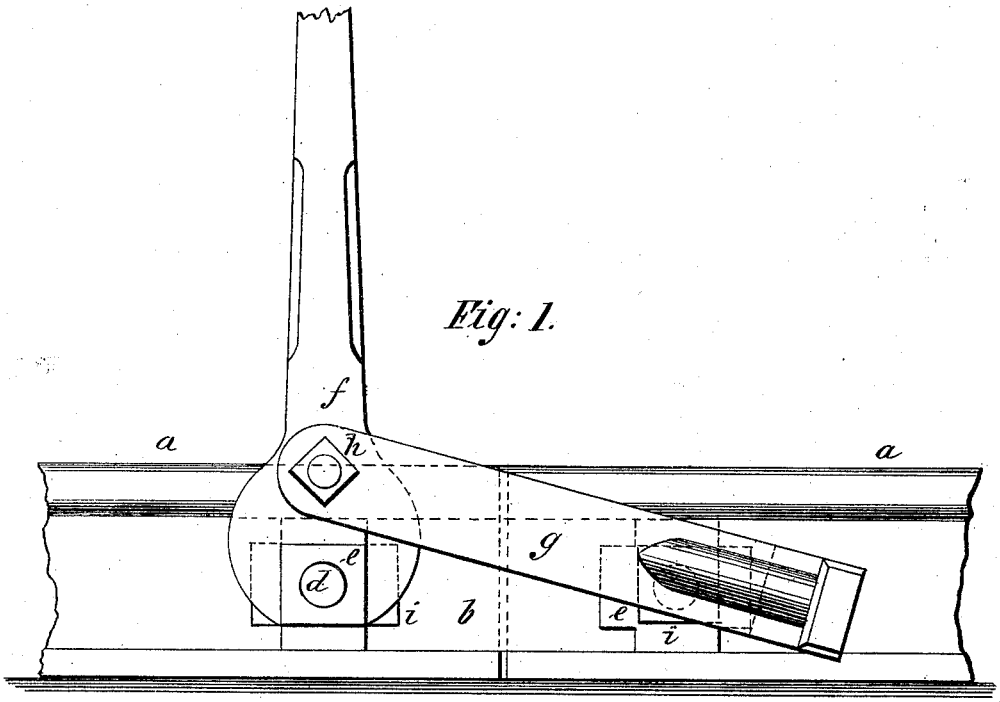
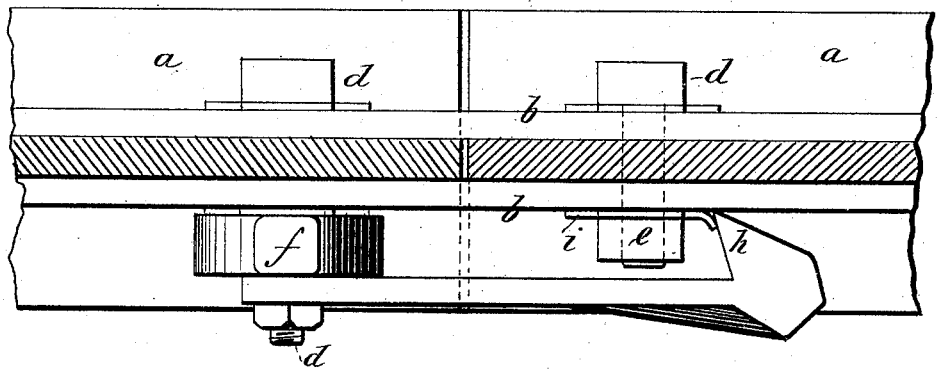


Fig: 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN J. CHRISTIE AND JESSE OVERTON, OF HENDERSON, TENNESSEE.

IMPROVEMENT IN WRENCH AND CRIMPER FOR NUT-WASHERS.

Specification forming part of Letters Patent No. **212,659**, dated February 25, 1879; application filed July 29, 1878.

To all whom it may concern:

Be it known that we, JOHN JOSEPH CHRISTIE and JESSE OVERTON, of Henderson, in the county of Madison and State of Tennessee, have invented a new and Improved Wrench and Crimper for Nut-Washers, of which the following is a specification:

It has been heretofore usual to lock nuts in place, especially on railroad-rails, by bending up one side of the washer adjacent to the nut, and thus prevent turning of the nut. When the washer is made from thick material the bending is not readily done, because there is little chance for a purchase.

The object of our invention is to furnish a tool which will permit the washers of nuts to be quickly and perfectly bent or crimped after the nut is screwed up to place.

Our invention consists in an arm provided at its end with a toe to take upon the edge of a washer, and hung upon a wrench which is to be placed upon an adjacent nut. The turning of the wrench by its lever acts powerfully to bend the washer that the toe of the arm is applied to.

In the drawings, Figure 1 is an elevation of our wrench and crimper applied to the nuts of a railroad-rail, and Fig. 2 is a plan of the same with the rail in section.

Similar letters of reference indicate corresponding parts.

a a are the adjoining ends of railroad-rails. *b* is the fish-plate. *d d* are the bolts which secure the fish-plate, and *e e* are the nuts thereof. *i i* are washers under the nuts *e*. *f* is a wrench of usual character, consisting of a long straight bar with a square mortise in its head to fit upon the nuts. *g* is an arm, attached at one end by a bolt and nut, *h*, near the head of wrench *f*, and swinging freely upon said fastening. The outer end of *g* is formed with a toe, *h*, having a sharp flat edge to take against the edge of a washer, or pass between the fish-plate and washer when the edge is raised a trifle.

In making use of the above-described instrument, the nuts *e* are first screwed to place. The wrench *f* is placed upon one of the nuts *e*, and the toe *h* placed against the edge of a washer, *i*, of another nut. The arm *g* is of the proper length to reach to an adjacent washer, as shown, and it may be turned to the right or left of the wrench *f*, as may be required.

By turning the handle of the wrench *f* the bolt *d* of the nut, whereon the wrench is placed, becomes a fulcrum, and the arm *g* is drawn endwise, causing a powerful pressure upon the washer *i* by the toe *h*. The washer is thereby bent up or crimped, and the toe passes under the washer to bend it as far as necessary and lock the nut.

We prefer to use a washer to each nut, provided with a lip which may be turned up as described; but our crimper may be used wherever available upon washers for locking nuts.

We do not limit its application to nuts and washers of railroad-rails.

The wrench may be of any desired form which will answer the purpose set forth.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The crimping-lever *g*, in combination with the wrench *f*, substantially as and for the purposes set forth.

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JESSE OVERTON.

Witnesses:
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