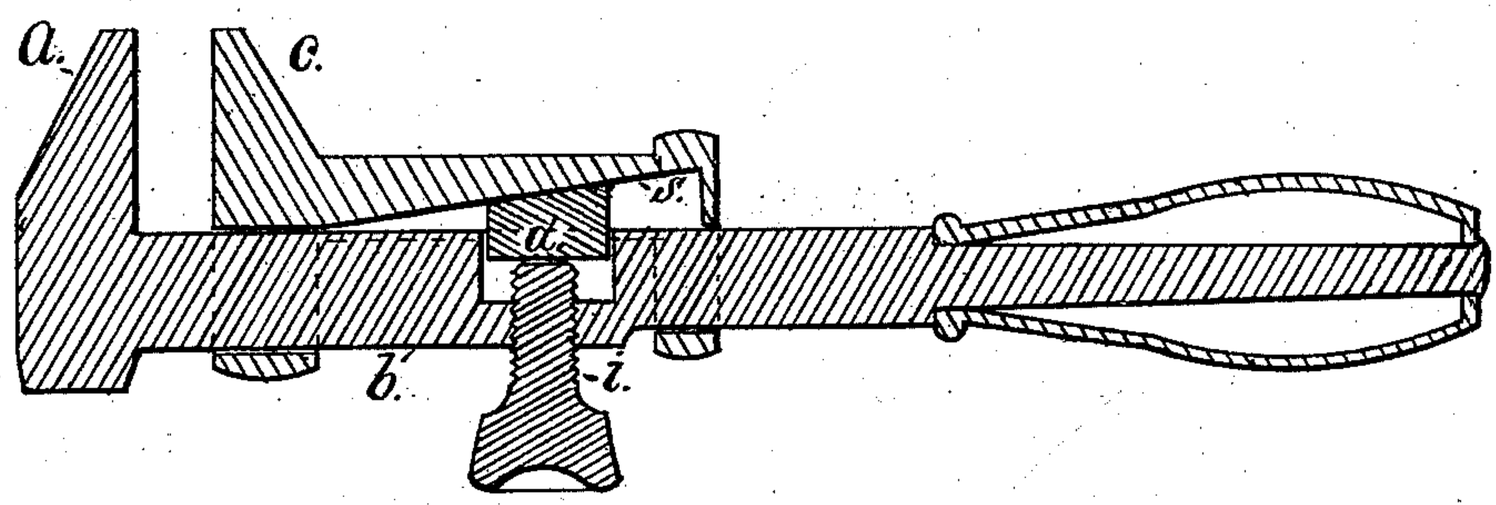
H. P. HOOD.

Wrench.

No. 225,135. Patented Mar. 2, 1880.



Witnesses:
Alfred J. Dittler.
W. R. McIntosh

Inventor:
Harrison P. Hood.

UNITED STATES PATENT OFFICE.

HARRISON P. HOOD, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO ROSWELL R. ROUSE, OF SAME PLACE.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 225,135, dated March 2, 1880.

Application filed January 2, 1880.

To all whom it may concern:

Be it known that I, HARRISON P. HOOD, of Indianapolis, Indiana, have invented a new and useful Improvement in Wrenches, of which the following is a specification.

My invention relates to that class of wrenches in which the movable jaw is clamped upon the beam by the action of a screw against an inclined plane, and is an improvement upon my invention for which Letters Patent were granted to me dated May 20, 1879, and numbered 215,456.

The object of this invention is to relieve the screw from lateral strain; and it consists in combining with the movable jaw, the beam, and the screw a sliding block, in a manner hereinafter described.

In the accompanying drawing the figure represents a central longitudinal section of my wrench.

A single casting or forging forms the stationary jaw *a*, a beam, *b*, for the movable jaw to slide upon, and a lever for turning the nut when grasped by the jaws.

The movable jaw *c* embraces and slides loosely upon the beam *b*, and is provided with an internal wedge-shaped slot, whose upper surface is a plane, *s*, inclined at an acute angle with the line of motion of the jaw. A sliding block, *d*, having its upper surface parallel with the plane *s*, moves freely in a mortise in the beam *b*, being forced upward by the screw *i*.

The depth or thickness of block *d* is greater than the depth of the slot, so that when the movable jaw is in place the block *d* cannot be raised entirely out of the mortise in the beam, and the mortise is of such depth that the block may drop down flush with the surface when the screw is removed, so that the movable jaw can be slid off from the beam when desirable.

In this class of wrenches as heretofore constructed the backward movement of the sliding jaw is resisted by the end of the screw being forced against the inclined plane, thus bringing a severe lateral strain on the screw when a nut is turned, the disadvantages of which are, first, the end of the screw, presenting a comparatively small bearing-surface, makes indentations in the inclined plane, which in a short time impairs its efficient working, allowing the jaw to slip when under pressure; and, second, the end of the screw itself is bent or crushed to one side, causing it to become immovable, and thus preventing its proper adjustment.

By my new device both these disadvantages are overcome. The sliding block *d* presents a broad parallel surface to the inclined plane *s*, and the backward thrust of the movable jaw is received by the end of the mortise in the beam *b* through the block *d*, thus relieving the screw of lateral pressure and preventing its bending.

I claim as my invention—

The combination, with casting *a b*, sliding jaw *c*, having an inclined plane, *s*, and the screw *i*, of the sliding block *d*, bearing against said inclined plane and projecting into the beam *b*, in the manner shown, for the purpose set forth.

HARRISON P. HOOD.

Witnesses:

ALFRED T. SINKER,

W. R. MCINTOSH.