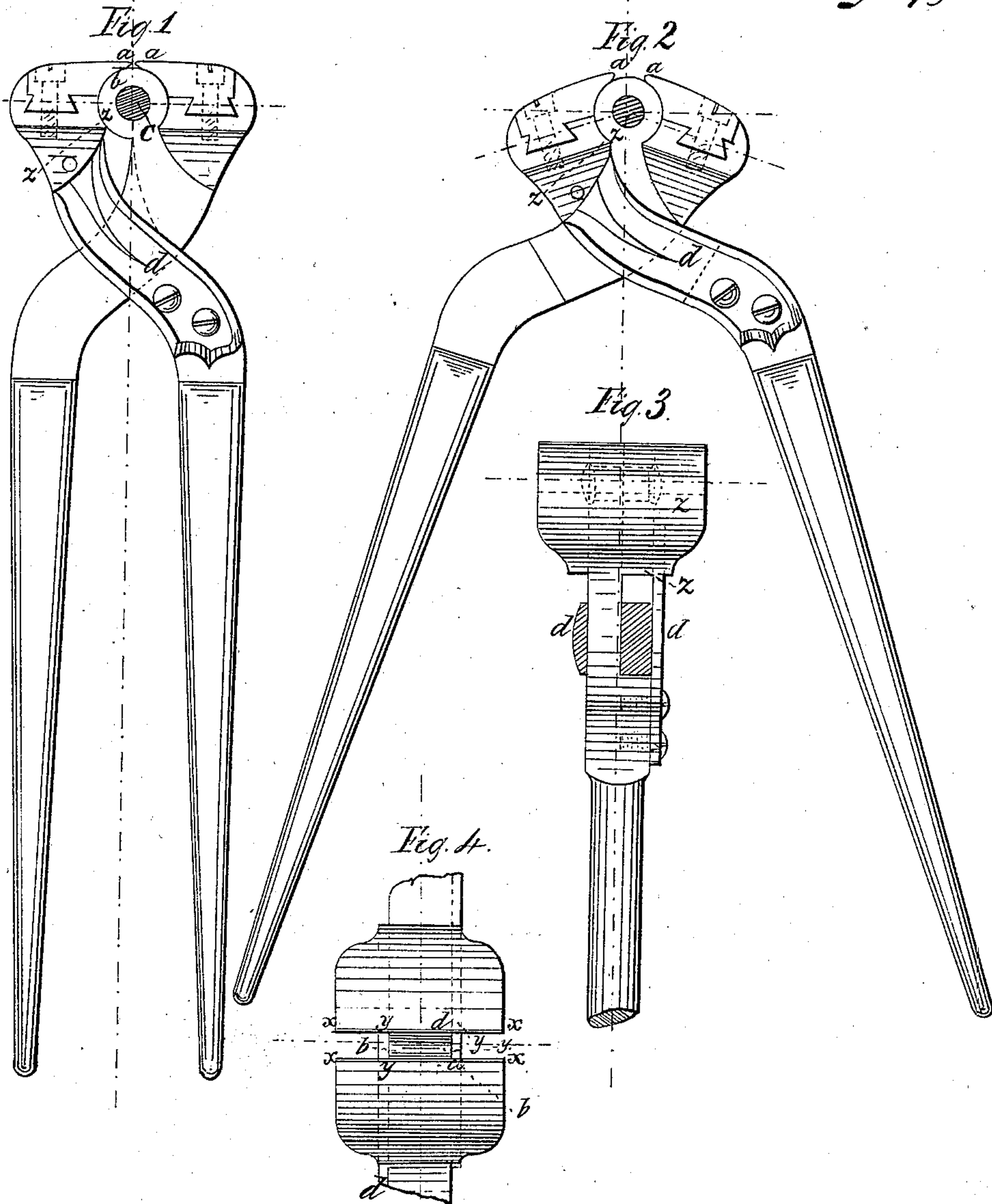


N. Thompson,
Bolt Cutter.

N^o 80,031.

Patented July 14, 1868.



Witnesses:

Ezra B. Smith
James M. Waters

Inventor.

N. Thompson

United States Patent Office.

NATHAN THOMPSON, OF BROOKLYN, NEW YORK.

Letters Patent No. 80,031, dated July 14, 1868.

IMPROVED CUTTING-NIPPERS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, NATHAN THOMPSON, a citizen of the United States, at present residing in the city of Brooklyn, in the State of New York, have invented a new and useful Cutting-Nippers; and that the following, taken in connection with the drawings, is a full, clear, and exact description thereof.

In the drawings—

Figure 1 is a side elevation of a nippers made according to the principles of my invention, the cutting-jaws of the nippers being nearly shut.

Figure 2 is a side elevation with the jaws open.

Figure 3 is a front elevation of one jaw and handle, or side of the nippers, showing parts of the other side in section.

Figure 4 is a top view of the nippers, with portion of the handles removed.

I have been led to this invention by the demand for a cutting-nippers of great power, and yet contained in a small compass, and without unnecessary complication, and my invention is based upon the idea of cutting-edges, as close as possible to the pivot of the nippers, in connection with handles whose ends or portions that are grasped are as far as possible from the same pivot, thus securing the greatest amount of leverage in any given length of nippers.

In the drawings, the cutting-edges of the nippers are shown at *a a*. They may be forged upon pieces of steel, which are dove-tailed into or otherwise secured to the sustaining-jaws, as shown in figs. 1 and 2, or they may be welded to the jaws, or the jaw's handles, and all may be forged of one piece of steel, except the supports hereafter described. These cutting-edges are as close as possible to the knuckle or hinge *b*, or they may be brought even closer to the pivot by dividing them into two edges for each jaw, and permitting the knuckles to project up between the two edges. There may be one or more knuckles to each jaw, but I have found one, as shown in the drawings, to be sufficient, and the knuckles and jaws are secured together by and turn upon the pivot *C*.

The close proximity of the jaws to the pivot prevents any cutting of wire over the knuckles, and only those parts of the cutting-edges which are outside of the knuckles are practically effective. By outside, I mean the parts between *x* and *y*, fig. 4. As the distance from the cutting-edges to the pivot is so small, and the distance from the same pivot to the grasp of the handles, or those parts thereof embraced by the hand, is so great, the cutting power of the edges is remarkable, and, as it is necessary to cut on one side of the centre of the edges, there is, when the nippers are cutting, a strong tendency to twist the knuckles apart, or tear the knuckles of the sustaining-jaws, or otherwise render the nippers unserviceable; in fact, a nippers proportioned as mine, would be almost useless, unless this difficulty were obviated.

I have therefore applied to the jaws two supporting-pieces *d d*, one to each jaw, extending from the handle to the jaw, and I prefer to rivet or screw these supports to the handles, sometimes abutting their ends against a ledge or bracket projecting from the handles, and at others depending upon the rivets or screws alone. I prefer to attach the supports to the jaws by letting them into slots or recesses (see dotted lines *z z*) slotted out in the jaws, and, if necessary, rivet them fast. I find by practice that these supports remedy the difficulty, and enable me to cut any wire within the power of the nippers without twisting or fracturing them. The jaws are therefore connected to the handles by a double connection, one part of each connection being embraced by the two parts appertaining to the other jaw, (see, specially, fig. 3.)

Upon the same principles herein described, other forms of nippers may be made, and I intend sometimes to make two sets of knuckles and two pivots, one set at each end of the cutting-edges, and with a support or connection from each handle to each knuckle. Under this construction there will be, as before, two connections from each handle to each jaw, but in this case the cutting-edges will be ineffective at the two ends thereof, and effective at and about the centre only.

This form is not as good as that described, except when the nippers are to be used for cutting short-lengths of heavy wire.

I claim constructing cutting-nippers, so that the cutting-edges thereof shall be as close as possible to the knuckle which surrounds the pivot on which the jaws turn, or shall be even closer to the pivot, with the knuckle projecting between the divided edges, as described, and so also that there shall be a double connection between the jaws and the handles, one part of each connection being embraced by the parts of the other, in the manner substantially as herein described.

NATHAN THOMPSON. [L. s.]

Witnesses:

EZRA B. TUTTLE,
ISAAC S. WATERS.