

No. 828,755.

PATENTED AUG. 14, 1906.

G. E. LUNBECK.

NIPPERS.

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Fig. 1

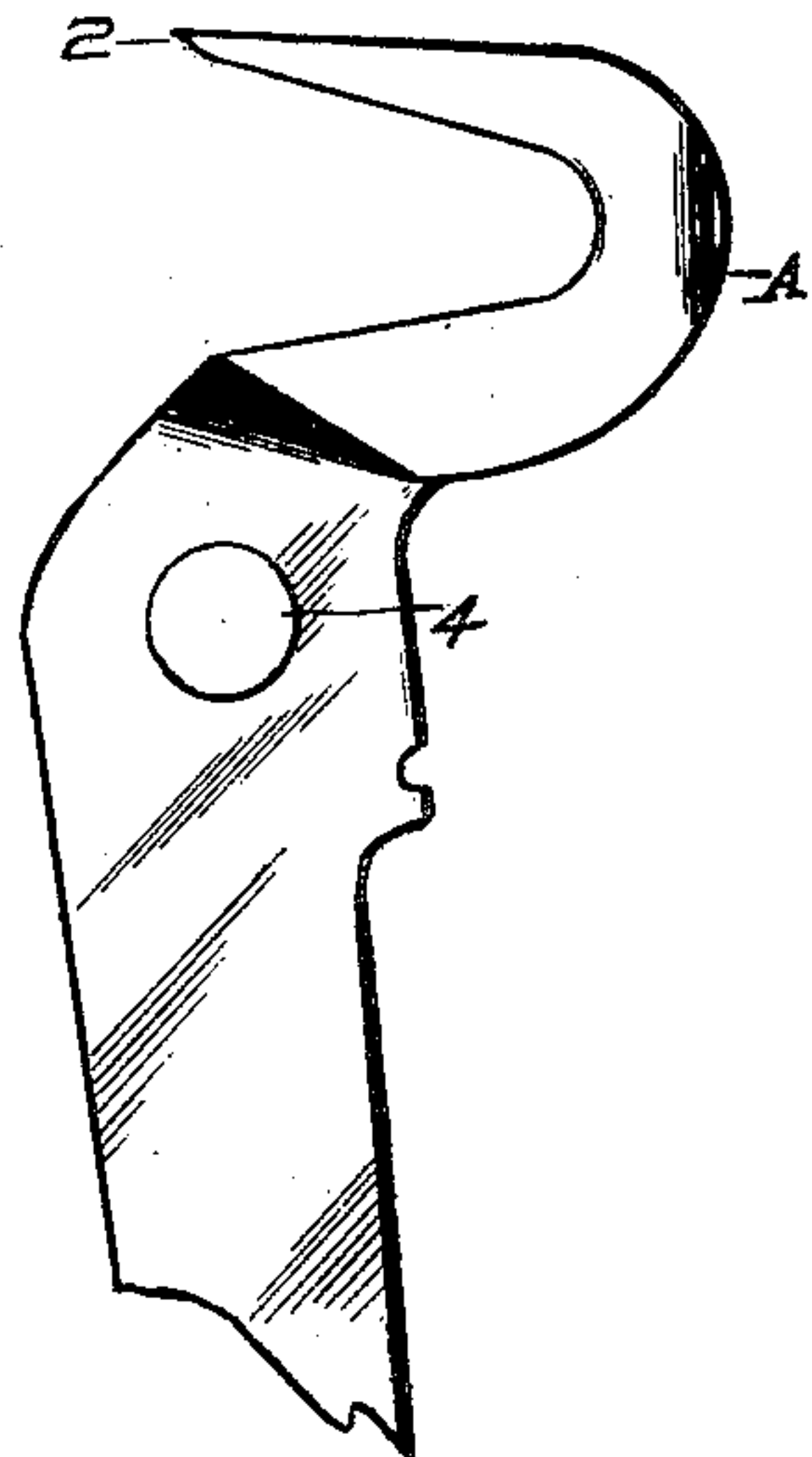
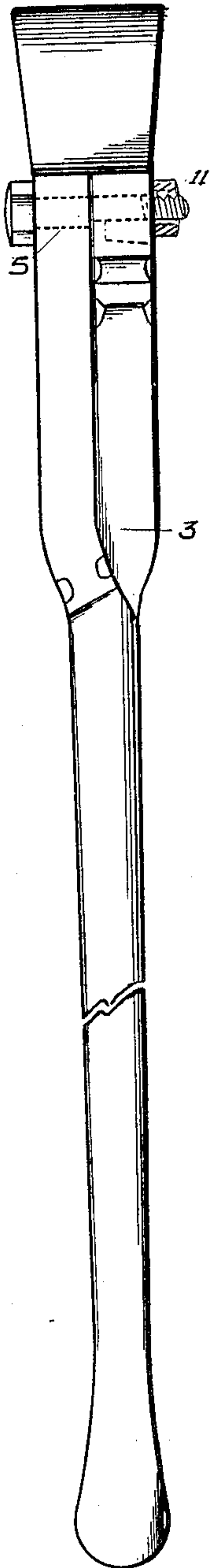


Fig. 2

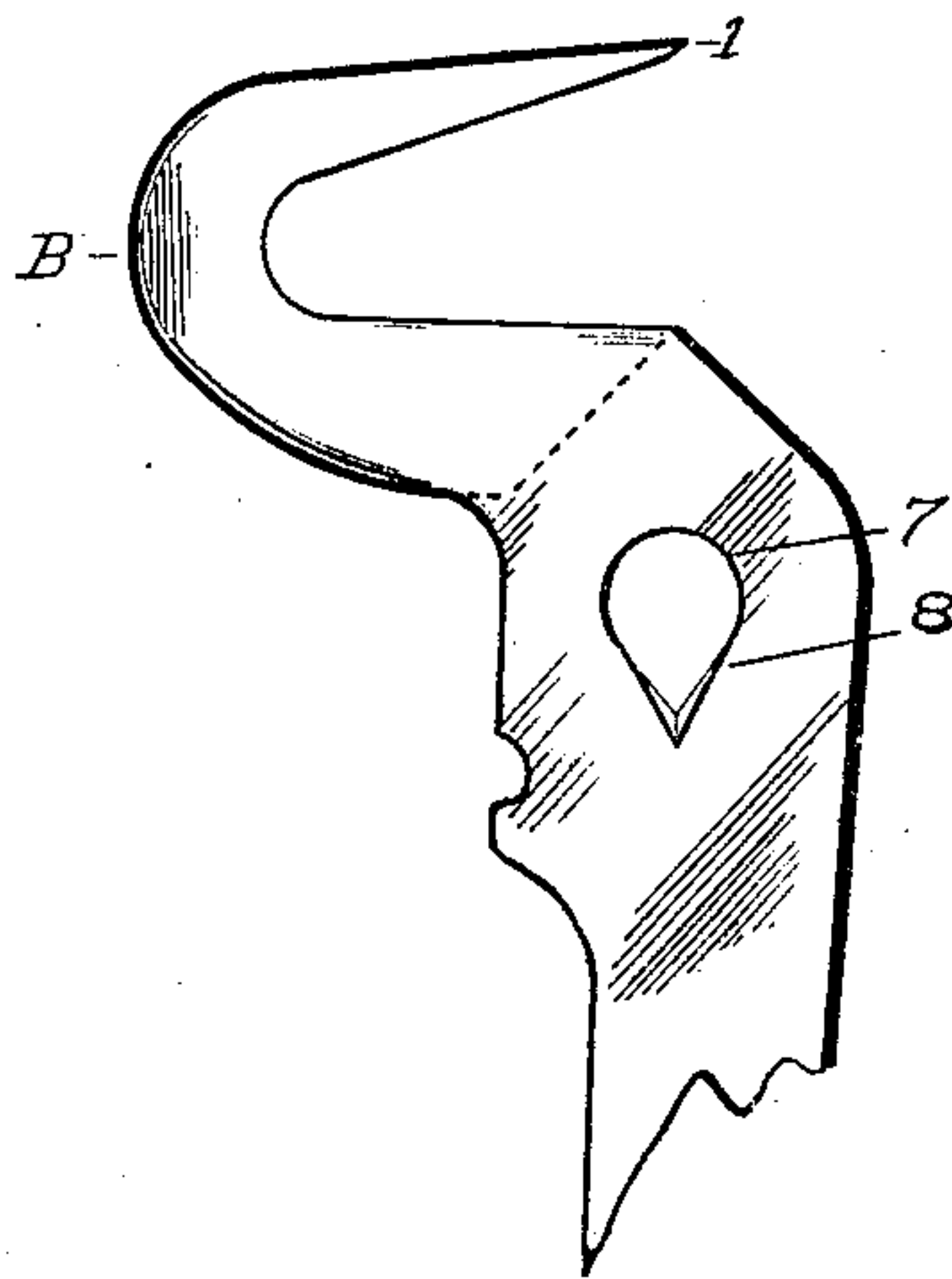


Fig. 3

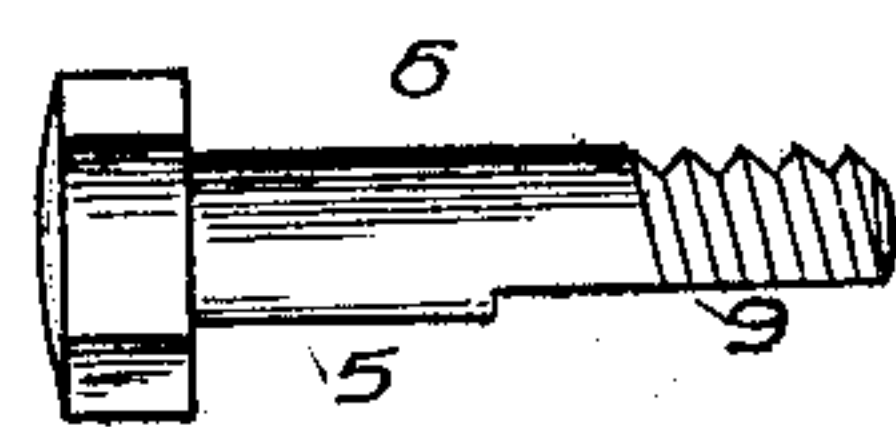


Fig. 4

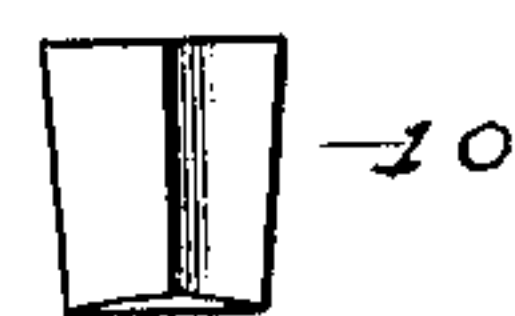


Fig. 5

Witnesses
H. J. Murray
Watts & Estabrook

Inventor
George Edward Lunbeck
By Thos. L. Baird & Co.
his Attorneys

UNITED STATES PATENT OFFICE.

GEORGE EDWARD LUNBECK, OF WASHINGTON, IOWA.

NIPPERS.

No. 828,755.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed April 28, 1906. Serial No. 314,233.

To all whom it may concern:

Be it known that I, GEORGE EDWARD LUNBECK, a citizen of the United States, residing at Washington, in the county of Washington and State of Iowa, have invented certain new and useful Improvements in Nippers, of which the following is a specification.

My invention relates to an improvement in nippers; and the object is to provide a means whereby the cutters press accurately against each other without the possibility of side or twisting action; and with the foregoing objects in view the invention consists in a connecting-bolt which has a bearing on one end upon which one jaw of the nippers turns and is mutilated on one side of the threaded end to receive a wedge-shaped key thereagainst, said key being received in a recess formed therein in one of the jaws and a nut which when screwed upon the threaded mutilated end of the bolt not only tends to draw the bolt toward the nut, but also to force and retain the wedge-shaped key in place against the mutilated portion of the bolt, whereby the latter is securely held in the jaw so that that all turning or bearing movement upon the bolt is by means of the other jaw.

My invention still further consists in certain novel features of construction and combinations of parts, which will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of the nippers with the nut removed. Figs. 2 and 3 are sections through the two jaws and the bolt. Fig. 4 is a detached view of the bolt, and Fig. 5 is a detached view of the wedge-shaped key.

A and B represent the two jaws of the nippers having cutters 1 and 2, which come together accurately for cutting or nipping purposes, and the handles are offset laterally to come into exact alinement with each other, whereby the pressure in gripping them and forcing the cutters together is in a direct line as distinguished from a lateral or twisting side-wise action common in tools of this character. At the point 3 where these hand-levers are offset a stop is formed whereby the levers by coming together prevent further or excessive pressure of the cutters upon each other. In other words, the two jaws are preferably exact counterparts of each other, and the one difference between them is in a peculiarity now to be described. One of these jaws—namely, A—is provided with a round opening 4, which fits and turns upon a cylindrical

bearing portion 5 of the bolt 6, whereby the pivotal action of the jaw is uniform and accurate and side or twisting action is prevented.

The other jaw, in addition to a round opening 7, has a V-shaped slightly-tapering enlargement 8. In this opening the threaded end of the bolt extends, this threaded end being mutilated by a portion of its side being cut away as at 9. This mutilated portion 9 is adapted to lie opposite the V-shaped enlargement of the opening 7. The wedge-shaped key 10 is adapted to enter this V-shaped enlargement of the opening, where it is prevented from turning and fits and rests upon the mutilated portion of the bolt, thereby precluding any turning action of the bolt and forming a key for the bolt. A nut 11 screws on the threaded end of the bolt against this key and prevents displacement thereof. This nut also has the effect of forcing the wedge-shaped key securely in the triangular opening formed by the mutilated portion of the bolt and the V-shaped enlargement of the opening in the jaw, and therefore the tighter the nut is screwed home the more rigidly the key is forced and held in place and the less liability there is of the bolt turning in the jaw. In this way one end of the bolt is held rigidly in its jaw, and all of the turning is between the cylindrical end of the round opening of the other jaw, whereby there is less wearing of parts, less friction and greater accuracy of movement, and precision in the moving parts of the nippers, so that the nippers are always drawn together evenly and accurately and lie uniformly throughout their length. As the nut on the bolt may be screwed down to any desired tension, it is impossible for the bolt to work loose while the cylindrical portion of the bolt fits accurately in the movable jaw of the nippers. The pressure of the nut draws the bolt uniformly into the jaw, where it is screwed and at the same time presses the triangular or wedge-shaped key into its position, holding it as rigidly as if welded in place.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A pair of nippers comprising two jaws,

having cutters thereon, and openings or orifices therethrough, one of these orifices being cylindrical and the other having an enlargement therein, and a bolt having a cylindrical portion which the orifice of one jaw fits and upon which it turns, the bolt having a flattened side adapted to rest opposite the enlargement in the orifice in the other jaw, a wedge-shaped key which fills the enlargement in the orifice in one jaw and engages the flattened surface of the bolt and a nut which screws on the threaded portion of the bolt forcing the key rigidly in engagement with the jaw and bolt, whereby the latter is prevented from turning in said jaw.

2. The combination with the two jaws of a pair of nippers each having orifices therein, one orifice being round and the other enlarged at one side, of a bolt having a cylindrical

drical end fitting the round orifice and the flattened end the orifice having the enlargement, the enlargement tapering from one side of the jaw toward the other, a tapering triangular key which enters the enlargement and bears against the flat surface of the bolt and a nut adapted to screw upon the threads of the bolt and by engaging the triangular key to force the latter rigidly in place whereby to prevent the bolt from turning in the jaw, thus lessening liability of lateral play in the jaws and insuring accuracy of movement.

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

GEORGE EDWARD LUNBECK.

Witnesses:

A. S. FOLGER,
W. R. JEFFREY.