(Model.)

M. C. JOHNSON.

PIVOTED HAND TOOL.

No. 273,549. Patented Mar. 6, 1883.

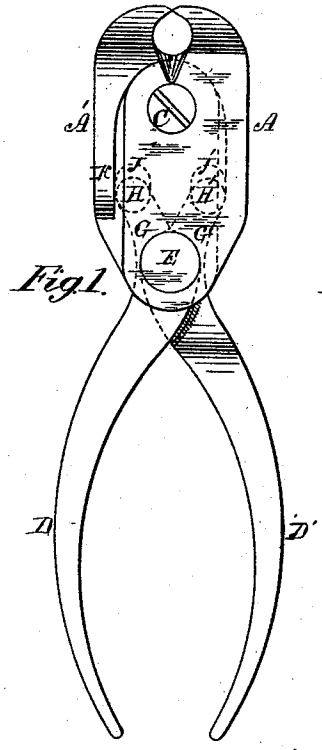


Fig. 1.

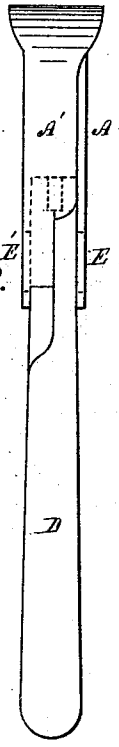


Fig. 2.

Fig. 3.

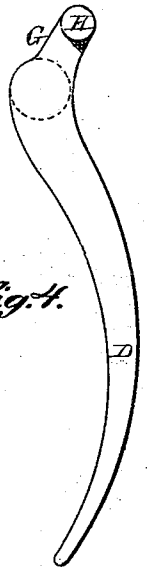


Fig. 4.

Fig. 5

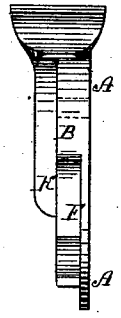
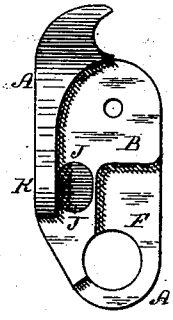


Fig. 6.



Witnesses.

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UNITED STATES PATENT OFFICE.

MOSES C. JOHNSON, OF HARTFORD, CONNECTICUT, ASSIGNOR OF ONE-HALF TO WILLIAM N. WOODRUFF, OF SAME PLACE.

PIVOTED HAND-TOOL.

SPECIFICATION forming part of Letters Patent No. 273,549, dated March 6, 1883.

Application filed November 22, 1882. (Model.)

To all whom it may concern:

Be it known that I, MOSES C. JOHNSON, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Pivoted Hand-Tools; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

My improvement relates to cutting-nippers and other similar tools which are provided with jaws which it is desired to bring forcibly together by pressure upon the handles.

The object of my invention is to provide a better mechanical arrangement for increasing the leverage and power of the handles than has heretofore been in use.

In the accompanying drawings, illustrating an invention, Figure 1 is a side view of my improved nippers, embodying my invention, with the jaws closed. Fig. 2 is an edge view of the same. Fig. 3 is an edge view of one of the handles detached. Fig. 4 is a side view of the same. Fig. 5 is an edge view of one of the jaws detached. Fig. 6 is a side view of the same.

A and A′ are the two jaw-pieces of my improved tool. They are made exactly alike, and are placed together with the cheeks B in contact, and are held together by the screw pivot or rivet C.

D and D′ are the handles. They are also made exactly alike, as well as the jaw-pieces, and each handle is pivoted to one of the jaw-pieces by the pivots E and E′, the parts A and D being pivoted together, and the parts A′ and D′ being likewise pivoted. Each handle rests in a socket, F, in the jaw-piece to which it is pivoted, so that its inner side comes flush with the cheek B. The inner end of each handle is furnished with a short arm or lever, G, terminating in a boss, H, which enters into a recess, J, in the jaw-piece to which it is not pivoted. This recess is made elongated in form, so that the boss H has a longitudinal play therein. The position of these parts when placed together is shown by the dotted lines in Fig. 1.

Outside of the inner ends of the levers G, on each jaw-piece, is a flange, K, which covers the end of the lever and serves to form an additional point of action for the end of the lever. This is for the purpose of giving strength to the tool and not making it necessary to depend upon the boss H when the jaws are forced together, as in the act of cutting.

It will be observed from the construction described that each handle acts upon the inner ends of both jaw-pieces, which may be called the "jaw-levers" in distinction from the exterior parts, which form the jaws proper. The pressing of the handles together moves the rear ends of the jaw-levers outward or apart. The handle D acts upon the part A by its pivot E and upon the part A′ by means of its inner lever, G, to separate the rear ends of the jaw-levers and close the jaws. The handle D′ operates in the same manner upon the part A′ by means of its pivot E′ and upon the part A by means of its inner lever, G′. While this movement is taking place the bosses or studs H H′ slide in the recesses J J′, and the two pivots E E′ move with the ends of the jaw-levers. By means of my improvement the operating-jaws have a movement out or in as the handles are moved out or in, but with a less amount of angular motion and a great gain in leverage.

My improved nipper consists of but three different pieces—viz., the jaw-piece A, the handle D, and the pivot C. The two jaws are alike, and the two handles are alike, being only in a reversed position, or turned the other side upward. I thus get great simplicity of construction, and the parts can be readily duplicated if broken or injured in use.

In place of the cutting-jaws shown in the drawings, shearing-jaws or any other form can be used.

My invention is also applicable to pliers or punches which need a great amount of power.

What I claim as my invention is—

1. A nipper composed of two jaw-levers, A, constructed alike and connected by a pivot, C, and two handles, D, also constructed alike, substantially as described.

2. A pivoted hand-tool composed of two

handles, D D′, pivoted to the two jaw-levers A A′, and acting by short inner arms, G G′, directly upon the opposite jaw-levers, to which they are not pivoted, said jaw-levers being pivoted together substantially as described.

3. The combination of two handles, D, having the inner arms, G, and pivots E, with two jaw-levers, A, having the recesses or sockets F J and the pivot C, the whole forming a pivoted hand-tool, substantially as described.

4. The combination of the two levers A and A′, pivoted at C, the lever D, pivoted at E to the lever A, and having the short arm G, acting upon the lever A′, and the lever D′, pivoted at E′ to the lever A′, and having the short arm G′, acting upon the lever A, substantially as described.

MOSES C. JOHNSON.

Witnesses:
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