(No Model.)

W. A. BERNARD.

CUTTING PLIERS.

No. 526,480. Patented Sept. 25, 1894.

Fig. 1.

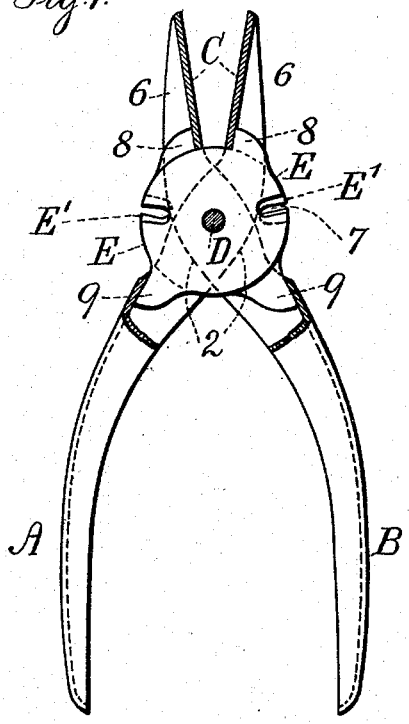
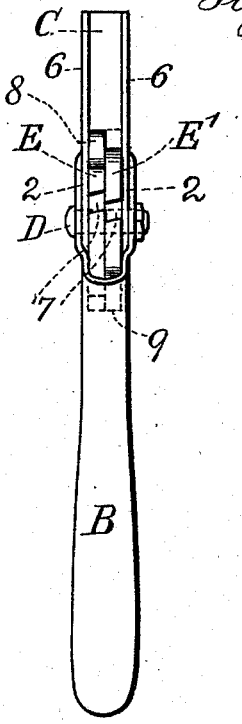


Fig. 2.



Witnesses:
J. Stair
Chas. A. Smith

Inventor:
W. A. Bernard
per Lemuel W. Serrell
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM A. BERNARD, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE WM. SCHOLLHORN COMPANY, OF SAME PLACE.

CUTTING-PLIERS.

SPECIFICATION forming part of Letters Patent No. 526,480, dated September 25, 1894.

Application filed March 26, 1894. Serial No. 505,038. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. BERNARD, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented an Improvement in Cutting-Pliers, of which the following is a specification.

In Letters Patent No. 427,220, granted to me May 6, 1890, pliers are represented with handles made of sheet metal, the metal sheet being extended in the form of crossing plates and receiving the jaws of the pliers; and in my application, Serial No. 504,129, filed March 19, 1894, similar handles are represented, and crossing plates and the jaws formed of the same sheet metal, with flanges that are continuations of the plate portions that cross each other and are pivoted.

Pliers have also been made in which disks with notched edges have been applied adjacent to each other and moved by the handles of the pliers upon the same pivot upon which the jaws and handles of the pliers swing, such disks being received into recesses in the metal adjacent to the pivot of the crossing handles in the pliers.

In my present invention I adapt the cutting disks to the sheet metal pliers by providing extensions from the cutting disks against which the sheet metal of the pliers at the handles and at the jaws bears in giving motion to the disks to revolve them about the pivot and cause the notched inclined cutting edges to pass by each other in separating the wire.

In the drawings, Figure 1 is an elevation of the pliers partially in section. Fig. 2 is an edge view of the disks and of the pliers.

The handles A and B of the pliers are made of sheet metal stamped up, and the flat plate portions 2 cross each other and are pivoted together by the bolt or rivet D, and the jaw portions are integral with the respective handles, the jaws C having flanges 6 behind their edges, which flanges are continuations of the flat plate portions 2 that cross each other at the pivot.

The two cutting disks E E′ are of a thickness adapted to pass in between the inner two crossing plates of the handles at the pivot, and such cutting disks are pressed toward each other, preferably by tightening the nut of the pivot bolt, and in these disks are inclined notches 7 forming the cutters similar to the cutting notches in disks that have heretofore been made use of. I however provide on each disk arms 8 and 9 that project outwardly from the edges of the disks, the arms 8 of the respective disks setting within and behind the jaws, and the arms 9 of the respective disks setting within the respective handles and bearing against the inner surfaces of the sheet metal of the handles. Thereby the arms 9 become levers to the disks to rotate the same when the cutting of the wire is effected, and the arms 8 are acted upon by the jaws as the pliers are opened and tend to rotate the disks so as to bring the notches into line with each other for the reception of the wire or other material to be cut; and by properly shaping the respective parts, looseness of the respective disks in relation to the crossing handles is avoided, and the cutting pliers are rendered very efficient and they can be sharpened from time to time by separating the disks from the pliers and grinding them in any convenient manner.

I claim as my invention—

1. The combination with the sheet metal pliers stamped up to form hollow handles with crossing plates at the pivots and with jaws, of cutting disks introduced between the plates that cross each other at the pivots, each disk having an inclined notch forming a cutting edge, and an arm extending within one of the handles and forming a lever by which the disk is rotated, substantially as set forth.

2. The combination with the sheet metal pliers stamped up to form hollow handles with crossing plates at the pivots and with jaws, of cutting disks introduced between the plates that cross each other at the pivots, each disk having an inclined notch forming a cutting edge, and an arm extending within one of the handles and forming a lever by which the disk is rotated, and a second arm at the back of the jaw for giving motion to the disk in rotating the same with the jaw on the pivot, substantially as set forth.

Signed by me this 16th day of March, 1894.

WILLIAM A. BERNARD.

Witnesses:

GEORGE R. COOLEY,

C. E. WINGETT.