

(No Model.)

C. J. MALONEY.
CUTTING PLIERS.

No. 540,452.

Patented June 4, 1895.

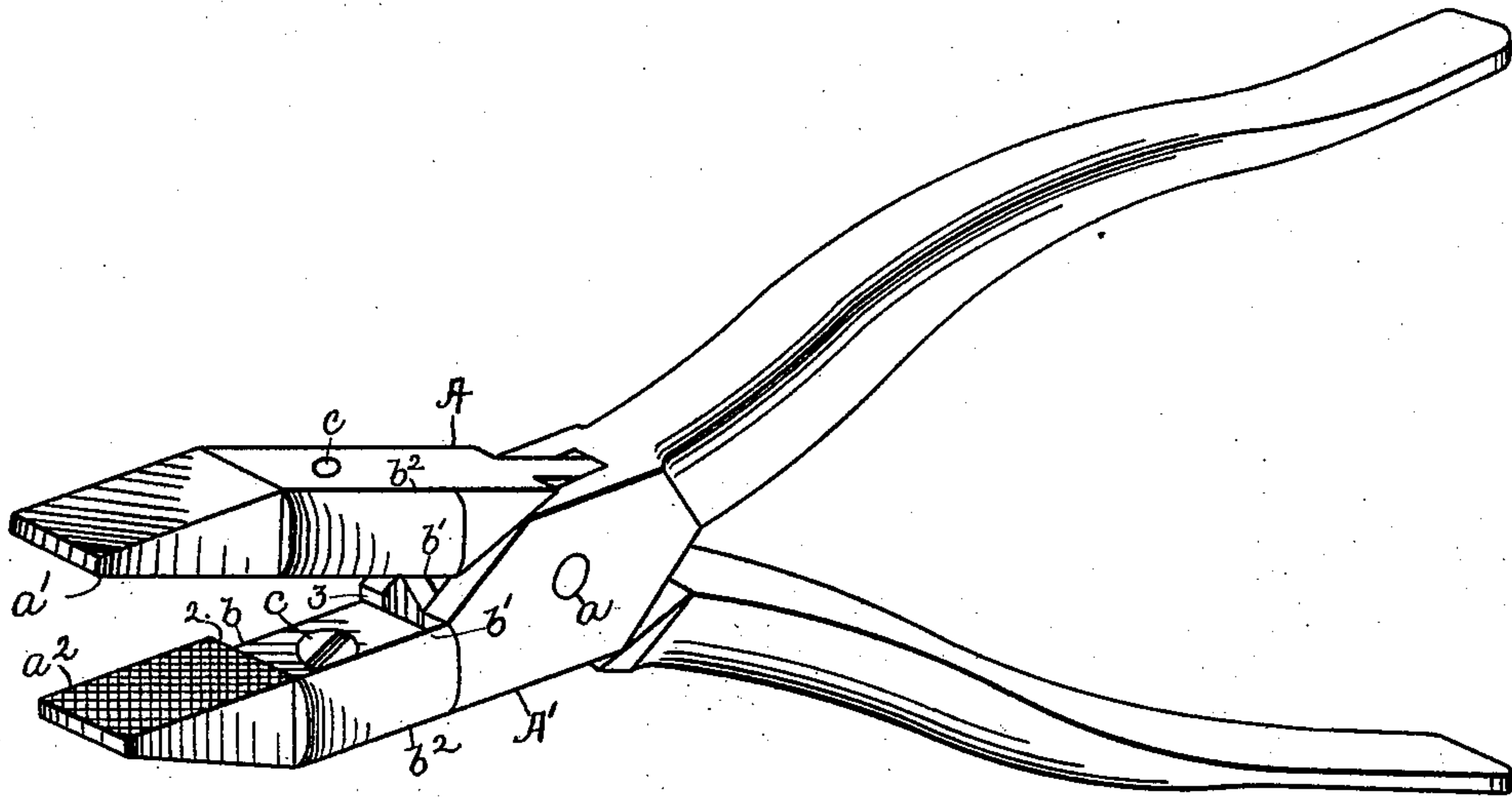


Fig. 1.

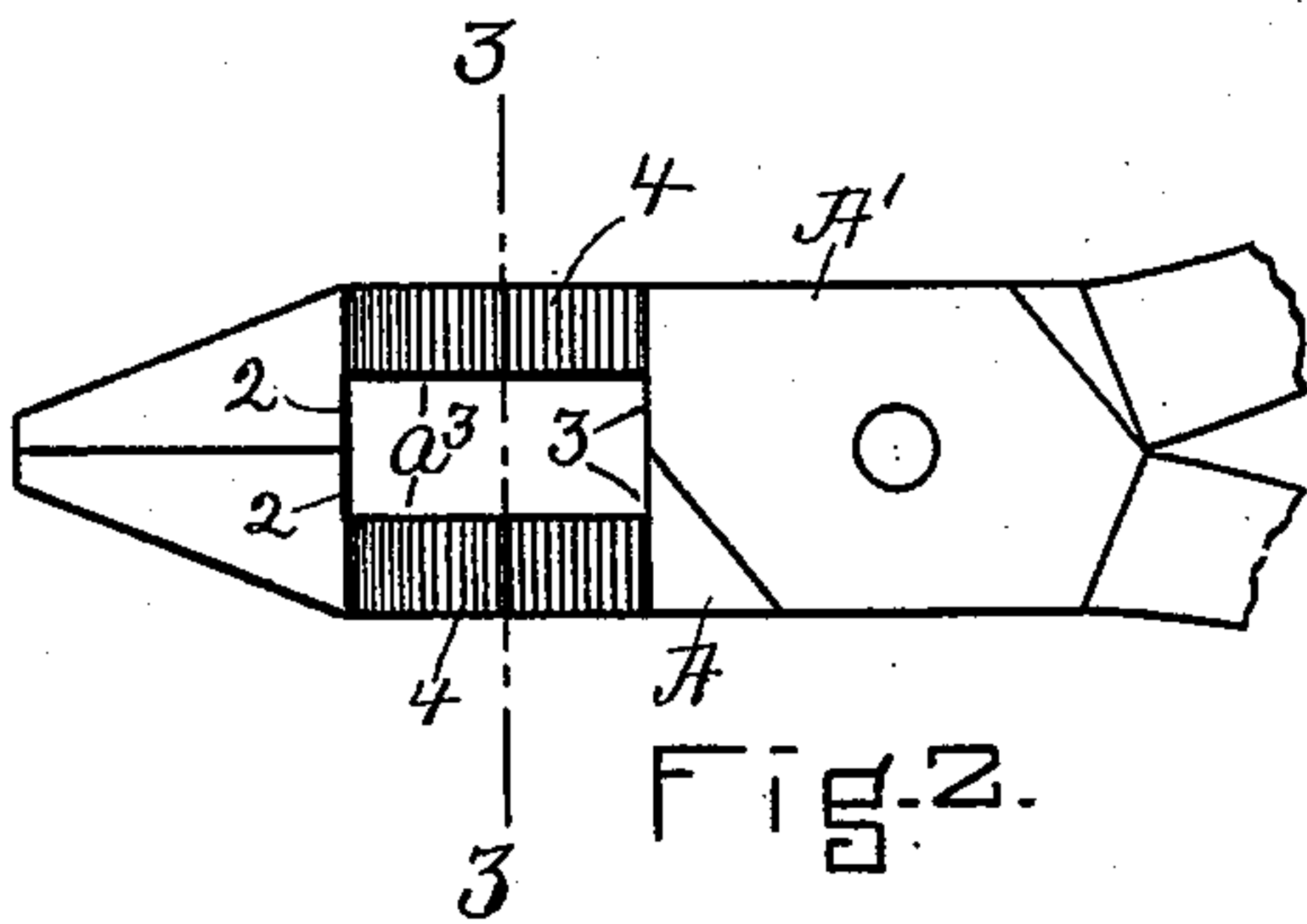


Fig. 2.

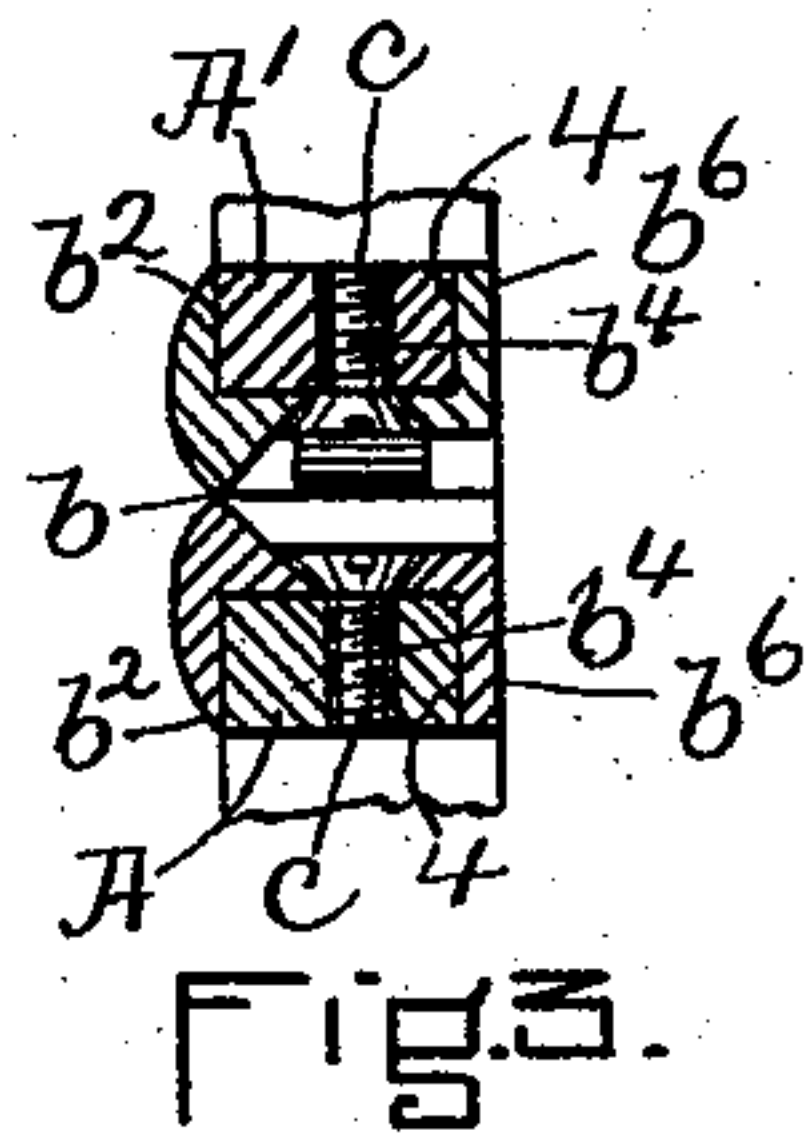


Fig. 3.

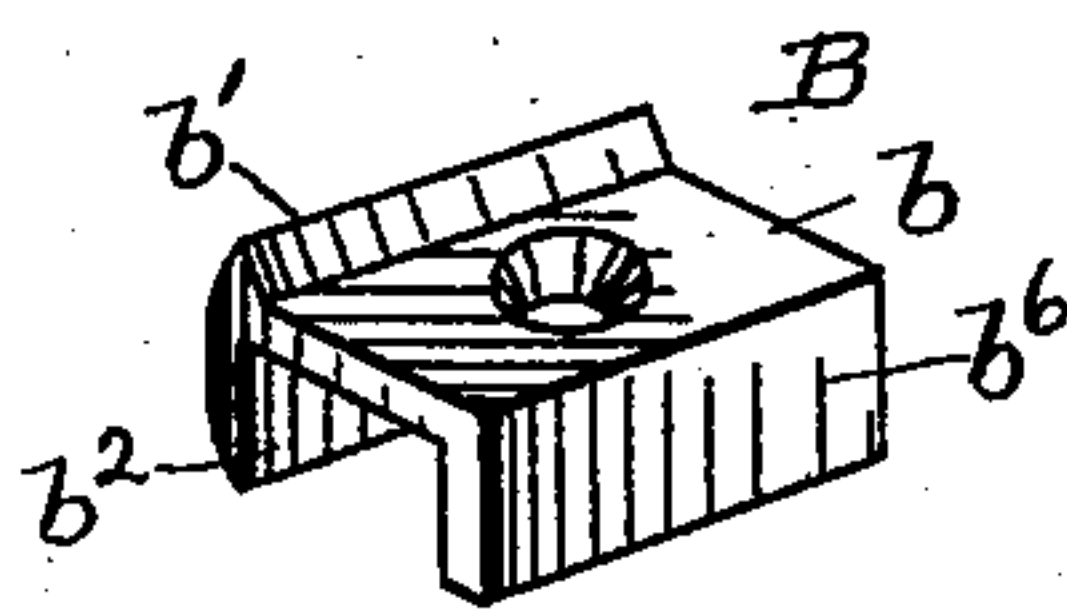


Fig. 4.

WITNESSES.

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CORNELIUS J. MALONEY, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO JAMES L. GETHINS, OF SAME PLACE.

CUTTING-PLIERS.

SPECIFICATION forming part of Letters Patent No. 540,452, dated June 4, 1895.

Application filed March 25, 1895. Serial No. 543,006. (No model.)

To all whom it may concern:

Be it known that I, CORNELIUS J. MALONEY, residing in Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Cutting-Pliers, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention relates to cutting pliers of the class now commonly employed for cutting wire and other metallic objects, and more particularly such as employed by linemen in the construction and maintenance of overhead electric systems. Cutting pliers now commonly in use, are composed of two members pivoted together and each provided with a nipping jaw and with a cutting jaw or edge integral with each other and usually composed of steel, the said nipping jaw and cutting edge being tempered. In practice, the cutting edges referred to, are subjected to severe usage and strain, which frequently results in the chipping of the steel edge and in the breaking off of the nipping jaw. This invention has for its object to improve the construction of tools of the class referred to, whereby the defects of cutting pliers as now commonly made, may be avoided.

In accordance with this invention, the members of the cutting pliers are provided with replaceable cutters or cutting jaws constructed as will be described, whereby side or twisting strain upon the fastening for said jaws is avoided or reduced to a minimum, so that, the removable cutters remain secured to the members of the tool substantially as firm as if integral therewith, and the said members are provided with nipping jaws integral with them, whereby the said members and nipping jaws may be made of metal capable of resisting severe strain and which is not liable to break, and whereby the cutters may be made of cast steel and tempered. These and other features of this invention will be pointed out in the claims at the end of this specification.

Figure 1 is a perspective view of cutting pliers embodying this invention, with the jaws shown open; Fig. 2, a side elevation, partially broken off, of the cutting pliers with the cutters removed and the nipping-jaws

closed; Fig. 3, a transverse section on the line 3 3, Fig. 2, with the cutting-jaws attached; and Fig. 4, a detail in perspective of one of the cutters removed.

Referring to Fig. 1, A A' represent the two members of the cutting pliers, which are pivoted together, as at a , and which may be made of wrought or malleable iron, soft steel or of other metal capable of withstanding severe strain.

The members A A' are provided at their front ends with nipping jaws a' a^2 and at the rear of the said jaws, each of the said members is cut away to form a transverse slot a^3 having its front wall 2 formed by the rear side or end of the nipping jaw integral with the said member, the rear or back wall 3 of the said transverse slot being formed by the member of the tool in which the slot is made. The slot a^3 in each member A A' is made of sufficient depth to receive a removable cutter B, which is made substantially as shown in Fig. 4, it consisting of a horizontal plate b provided on one side with a preferably beveled edge b' projecting substantially at right angles to the plate b , and which forms a cutting edge for the tool, the said plate having projecting from the same side but in the opposite direction a flange b^2 , preferably equal to the thickness of the member of the tool below the slot a^3 , so that, a substantially wide or deep side bearing for the plate b is obtained, for a purpose as will be described.

The plates b are secured to the members A A' in any suitable manner and are herein shown as secured by countersunk screws c inserted into suitable threaded sockets b^4 in the said members. (See Fig. 3.) The flange b^2 substantially in line with the cutting edge b' acts to relieve the fastening device for the plate b from side strain placed upon the cutting portion of the instrument when in use, the strain in operation being in such direction as would force the flange b^2 against the side of the member to which its plate b is attached, but to still further relieve the fastenings from strain and to strengthen the tool and render the plate b more secure to its member A or A', I have provided the said plate on its opposite side with a depending flange b^6 , which extends in the same direction as the

flange b^2 and forms therewith two locking side flanges for the plate b .

The plate b may be made as wide as the member A or A' to which it is secured, in which case the flange b^6 will project beyond or outside of the member A or A' , but in order to give a more finished appearance to the tool, I prefer to make in one side of each member a vertical slot 4, represented in Figs. 2 and 3, into which the flange b^6 fits, so that the outside of the flange b^6 is substantially flush with the side of the member to which the plate b is secured after the manner represented in Fig. 3.

The plate b with its cutting edge forms a removable cutting jaw, which may be made of steel and tempered, and the members $A A'$ with their nipping jaws $a' a^2$ integral with them, may be made of soft steel, wrought or malleable iron, which is capable of withstanding the strain capable of being applied to the nipping jaws in the hands of a workman, thereby greatly strengthening this portion of the tool, while the removable steel plate with its cutting edge may be given any desired or required degree of temper without danger of rendering the nipping jaws brittle and weak.

The plate b is designed to fit the transverse slot snugly, so that it will be locked against longitudinal movement by the walls 2—3 of the said slot.

I claim—

1. Cutting pliers composed of two pivoted members $A A'$, each provided with a nipping jaw integral with it and having a transverse slot at the rear of the nipping jaw, and a removable cutting jaw of a different metal from the nipping jaws and members $A A'$, and consisting of a plate inserted into the transverse slot and secured therein and pro-

vided with a cutting edge, substantially as described.

2. Cutting pliers composed of two pivoted members $A A'$, each provided with a nipping jaw integral with it and having a transverse slot at the rear of the nipping jaw, and a removable cutting jaw inserted in said transverse slot and provided with a cutting edge and with a flange substantially in line with the said cutting edge to engage the side of its co-operating member, substantially as described.

3. Cutting pliers composed of two members $A A'$, each provided with a nipping jaw integral with it and having a transverse slot at the rear of the nipping jaw, and a removable cutting jaw inserted in said transverse slot and consisting of the plate b provided with the cutting edge b' and with flanges $b^2 b^6$ extended in a direction opposite to the cutting edge and embracing the opposite sides of the member, substantially as described.

4. Cutting pliers composed of two pivoted members $A A'$, each provided with a nipping jaw integral with it and having a transverse slot a^3 and a vertical slot 4 at the rear of the nipping jaw, and a removable cutting jaw consisting of the plate b fitted into the transverse slot a^3 and provided with the flange b^6 fitted into the vertical slot 4, and with the flange b^2 and cutting edge b' , substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CORNELIUS J. MALONEY.

Witnesses:

JAS. H. CHURCHILL,
J. MURPHY.