M. M. PETTES.

PINCHERS.

No. 193,547. Patented July 24, 1877.

Fig. 1.

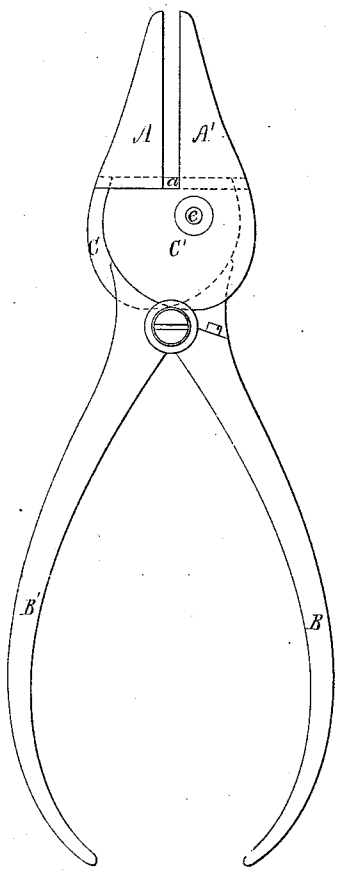


Fig. 2.

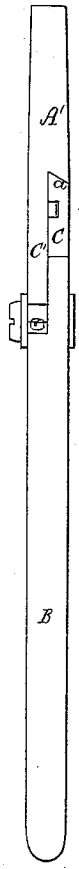


Fig. 5.

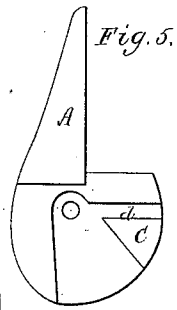


Fig. 3.

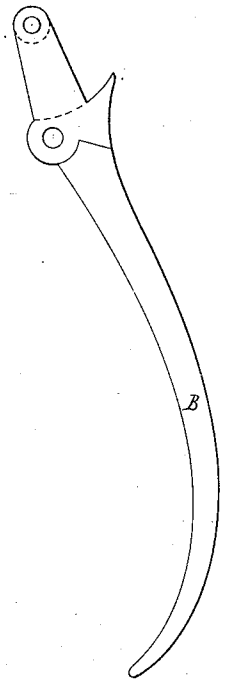


Fig. 6.

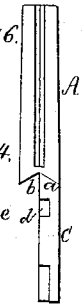
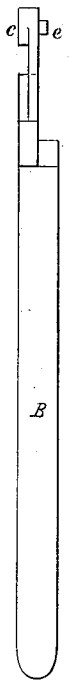


Fig. 4.



Witnesses

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by his attorney

R. H. Eddy

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UNITED STATES PATENT OFFICE.

MOSES M. PETTES, OF WORCESTER, MASS., ASSIGNOR TO HIMSELF AND AARON F. STOWE, OF SAME PLACE.

IMPROVEMENT IN PINCHERS.

Specification forming part of Letters Patent No. **193,547**, dated July 24, 1877; application filed June 23, 1877.

To all whom it may concern:

Be it known that I, MOSES M. PETTES, of the city and county of Worcester, and State of Massachusetts, have made a new and useful Improvement in Pinchers, which invention is also applicable to various other jawed tools, or articles; and I do hereby declare the same to be described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side view, and Fig. 2 an edge view, of pinchers provided with my invention, the object of which is to enable the jaws to preserve their parallelism at any distance asunder within the limits of their movement away from one another. For this purpose I have combined the jaws and their operative lever by a peculiar "parallel motion" or mechanism.

In the drawings, A A′ denote the two jaws, and B B′ their operative levers, these latter being crossed one on the other, and pivoted together at the crossing.

Fig. 3 is a side view, and Fig. 4 an edge view, of one of such levers, while Fig. 5 is a rear elevation; and Fig. 6 an inner edge view of one of the jaws and its heel.

Each heel C or C′ is beveled on its upper edge, as shown at *a*, to extend into a corresponding counter-bevel, *b*, made at the base of the other jaw.

Furthermore, the heel of each jaw laps on and is pivoted to the shorter arm of its lever, the pivot being shown at *c*. On its inner side each heel has a short straight groove, *d*, made in it, parallel to its upper edge, to receive a stud, *e*, extending from the shorter arm of the lever, pivoted to the other heel, all being substantially as represented.

On moving the longer arms of the levers either apart or toward each other, the two jaws will be correspondingly moved, and in the meantime will preserve their parallelism.

What I claim as my invention in pinchers or other tools of like character may be stated as follows—that is to say:

1. The jaws A A′, provided with heels C C′, having grooves *d* arranged in them as explained, in combination with the two levers B B′, pivoted together and to such jaws, and arranged therewith, and provided with studs *e* to enter the grooves *d* of the said heels, all being substantially as set forth.

2. Each of the jaw-heels, extended at its upper edge into the base of the fellow jaw, as represented, when the said jaws are provided with heels, and pivoted, as described, to the upper arms of two crossed levers, as set forth.

MOSES M. PETTES.

Witnesses:
R. H. EDDY,
JOHN R. SNOW.