

(No Model.)

J. A. SCHWEETERS.  
PIANO PLIERS.

No. 456,966.

Patented Aug. 4, 1891.

Fig. 1.

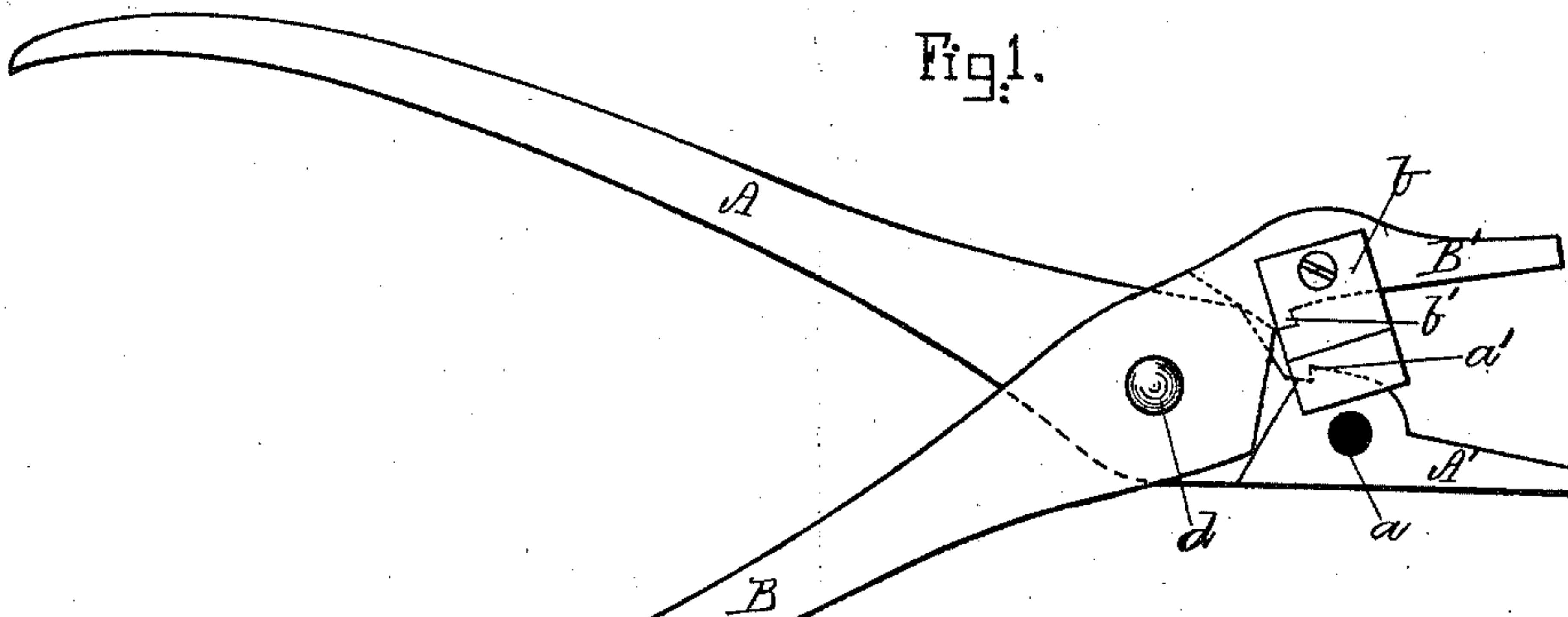


Fig. 2.

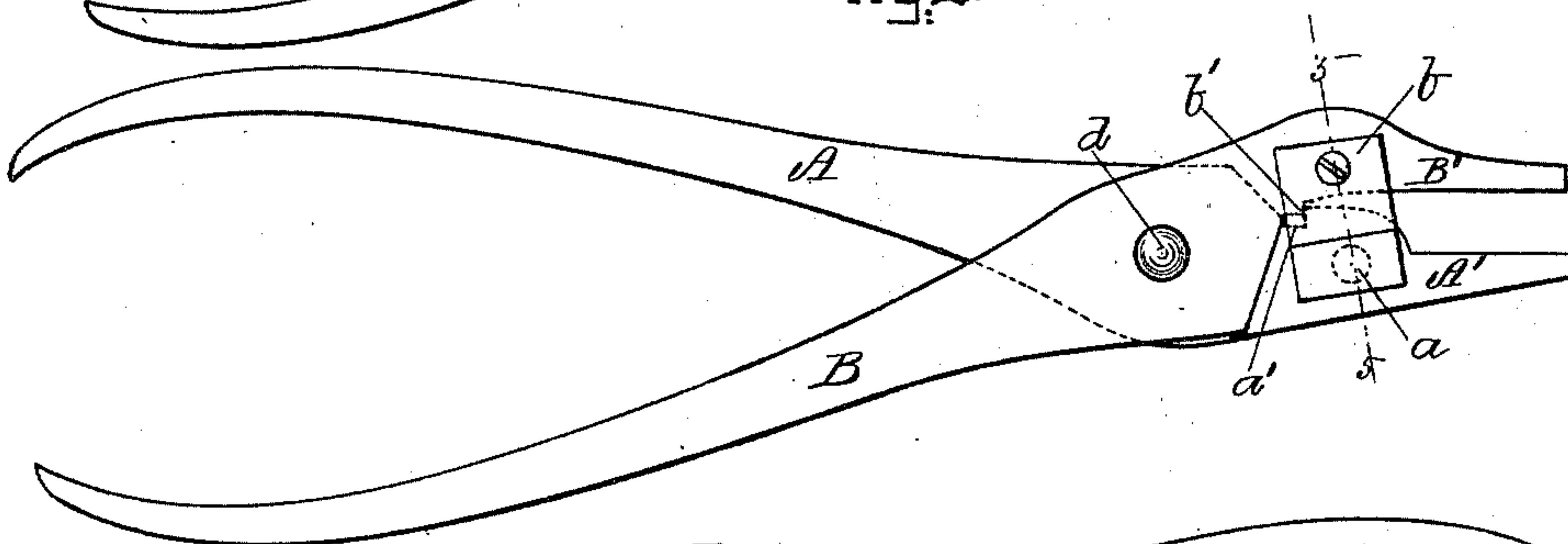


Fig. 3.

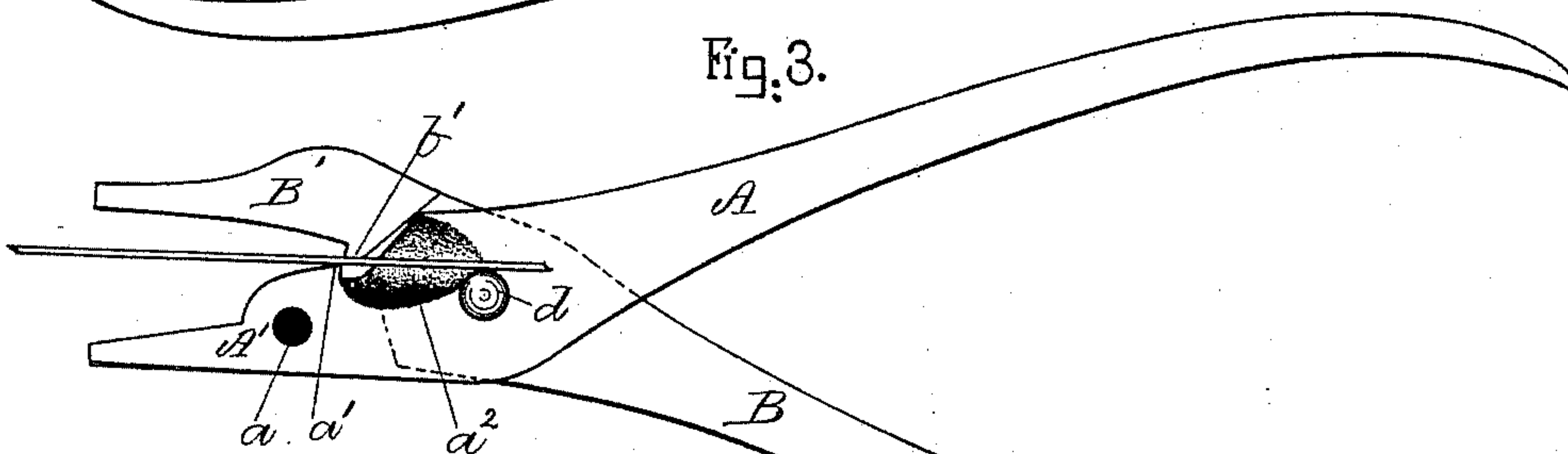


Fig. 4.

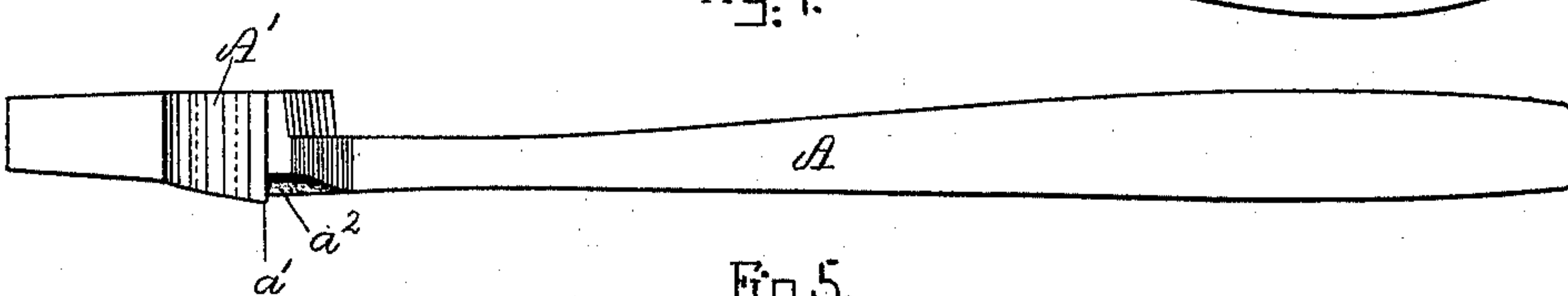
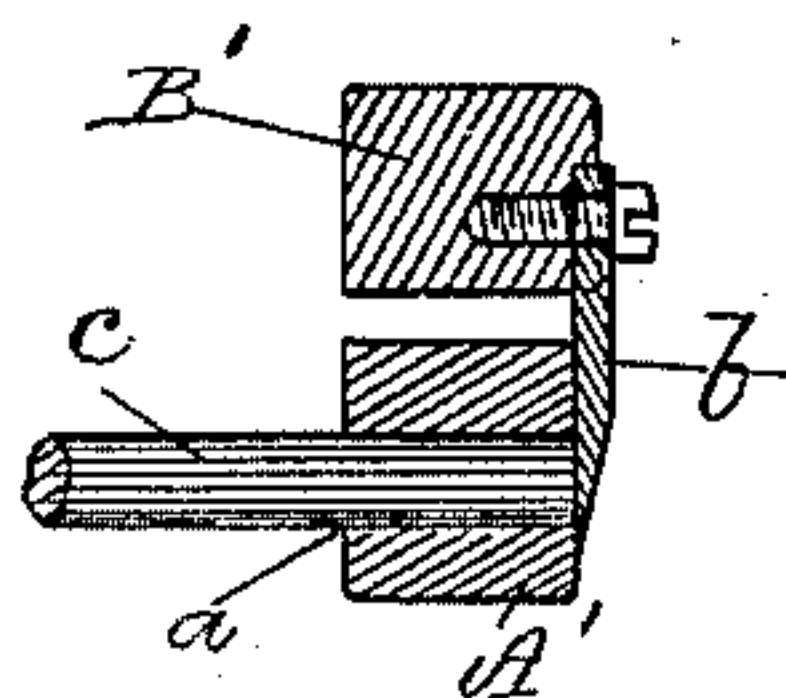


Fig. 5.



Witnesses.

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# UNITED STATES PATENT OFFICE.

JOHN A. SCHWEETERS, OF BOSTON, MASSACHUSETTS.

## PIANO-PLIERS.

SPECIFICATION forming part of Letters Patent No. 456,966, dated August 4, 1891.

Application filed May 12, 1891. Serial No. 392,502. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN A. SCHWEETERS, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Piano-Pliers, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to piano-pliers such as are used in finishing and repairing pianos; and the object of my invention is to combine with the pliers a device for cutting off dowels accurately and squarely and a device for cutting wires.

My invention consists in forming one jaw of the pliers with a transverse hole, through which the dowel is projected, and a knife-blade fixed on the side of the other jaw, which when the jaws close cuts across the line of the hole in the first jaw; also, in forming transverse wire-cutting shoulders in the throat of the jaws which shear together when the jaws are closed, and in forming in the side of one of the jaws back of the wire-cutters a recess to allow the wire to project rearwardly when inserted lengthwise between the jaws.

In the drawings, Figure 1 is a side elevation on the side carrying the knife, showing the jaws open. Fig. 2 is a side view showing the jaws closed. Fig. 3 is an opposite side view showing the recess in the side of one of the jaws and a wire between the jaws. Fig. 4 is an edge view of the recessed jaw detached. Fig. 5 is a section on line 5 5 of Fig. 2.

In the fitting of hammer-stems it is very important that the stems should be of an exact length. It is the usual custom to make the stem at first of greater length than required, and after it has been glued into the head to reduce it to the proper length.

The twisting of damper-heads, rockers, and the like, the cutting of wires, and the fitting of stems alternate so frequently during the work that it is a great convenience to have a single implement which can be used for all of these purposes instead of having a separate tool for each one.

The pliers shown in the drawings as embodying my invention are of the "parallel-jawed" kind, so-called. The two handles A B are pivoted at *d*. A hole *a* extends transversely through the jaw A', and a knife *b* is

secured on the side of the jaw B'. When the jaws are open, as in Fig. 1, the knife uncovers the hole *a*, and the wooden stem *c*, which should be inserted from the opposite side, is allowed to project, so as to bring the exact line of cut desired under the knife. The handles A B are then pressed together, as shown in Figs. 2 and 5, and the stem is cut squarely off. As the stems are usually of a uniform diameter, it is preferable to make the hole *a* of a size to just receive the stem and thus avoid possibility of splitting at the ends. The blade of the knife is preferably flat on the face next the jaw, and is so adjusted as to lie flush with the side of jaw A' when closed. This adjustment insures squareness of cut and also prevents splitting. Transversely of the throat is a cutting-shoulder *a'* across the jaw A', and a shoulder *b'* across the jaw B'. These two shoulders form jaws, which slide past each other like shears when closed and serve to cut the wire. The side of jaw A' is recessed at *a<sup>2</sup>* to allow the wire to extend rearwardly from the cutters *a' b'*.

What I claim as my invention is—

1. A pair of pliers having one jaw formed with a transverse hole adapted to receive a dowel-pin and a knife secured to the side of the other jaw, the knife clearing the hole when the jaws are open to allow the projection of a pin through the hole and cutting across the line of the hole when the jaws are closed, substantially as described.

2. A pair of pliers having gripping-jaws and having within the throat a wire-cutting shoulder transversely of each jaw, the two cutting-shoulders passing each other with a shear cut when closed, substantially as described.

3. A pair of pliers having gripping-jaws and having within the throat a wire-cutting shoulder transversely of each jaw, the two cutting-shoulders passing each other with a shear cut when closed, and one of the jaws having its outer face recessed at the rear of the wire-cutting shoulder, substantially as and for the purpose described.

4. A pair of pliers having one jaw formed with a transverse hole adapted to receive a dowel-pin and a knife secured to the side of the other jaw, the knife clearing the said hole when the jaws are open to allow the projection of a pin through the hole, and cutting

across the line of the hole when the jaws close, the two jaws each having formed within the throat transversely thereof a wire-cutting shoulder, the two cutting-shoulders passing  
5 each other with a shear cut when closed, substantially as described.

5. A pair of pliers having one jaw formed with a transverse hole and a knife secured to the side of the other jaw, the knife clearing  
10 the said hole when the jaws are open and cutting across the line of the hole when the jaws

close, the two jaws each having formed within the throat transversely thereof a wire-cutting shoulder, the two cutting-shoulders passing each other with a shear cut when closed, 15 one of the jaws having its outer face recessed at the rear of the wire-cutting shoulder, substantially as described.

JOHN A. SCHWEETERS.

Witnesses:

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