

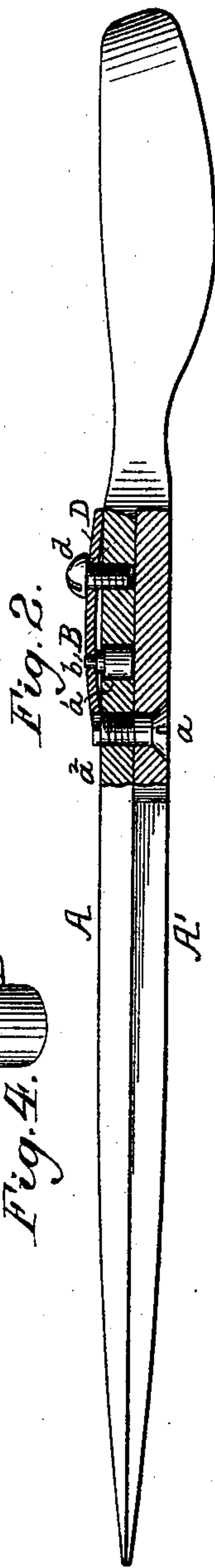
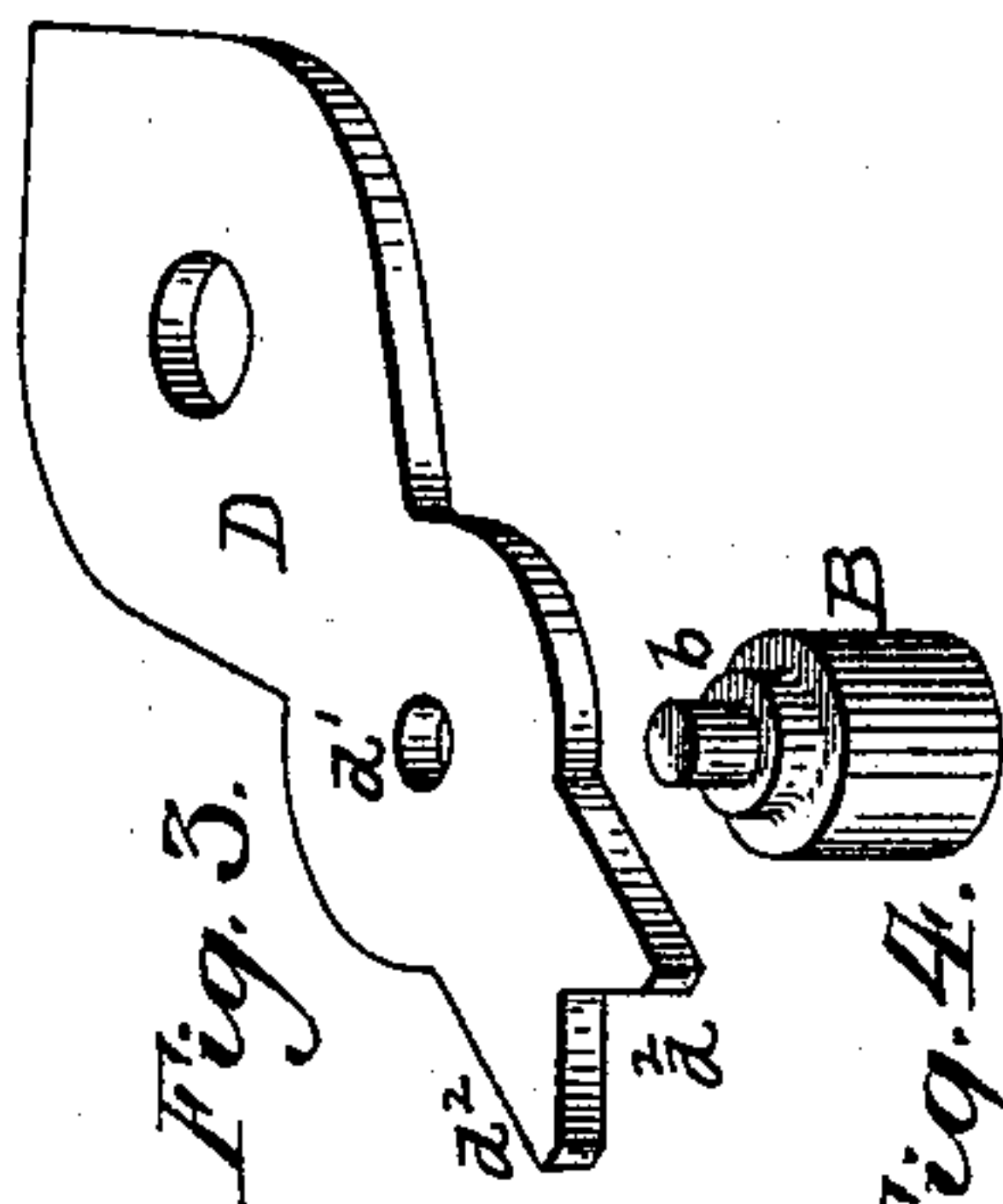
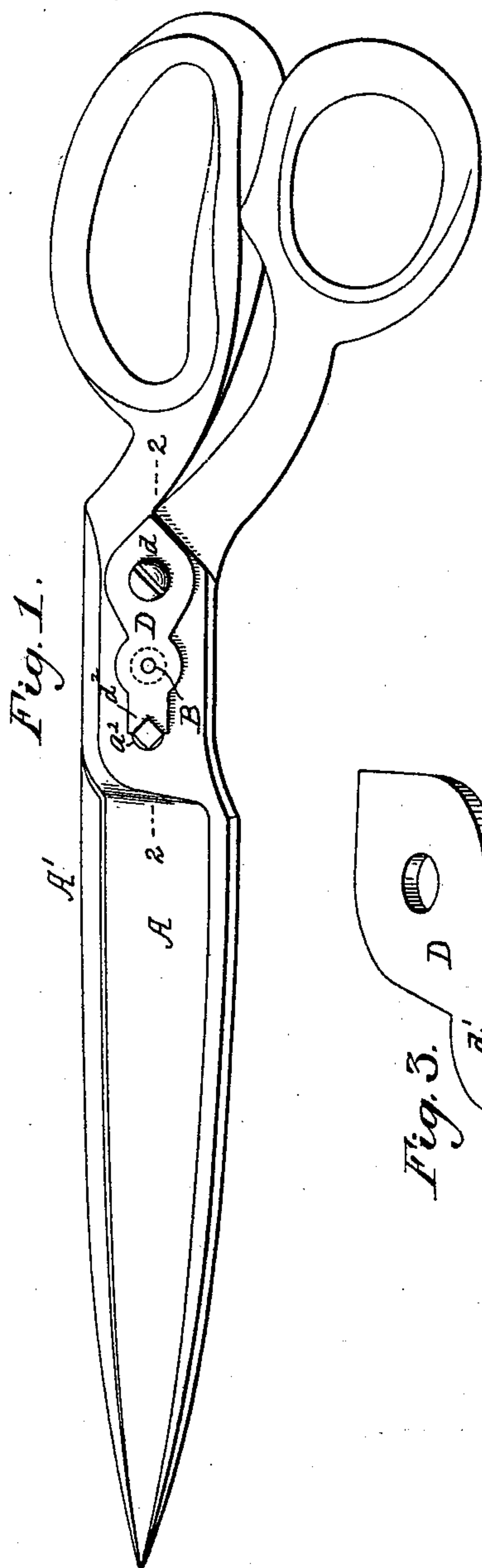
(No Model.)

A. PROHASKA.  
SHEARS.

2 Sheets—Sheet 1.

No. 602,360.

Patented Apr. 12, 1898.



Witnesses:  
Murray C. Boyer  
Hamilton S. Turner

Inventor:  
Anton Prohaska  
by his Attorneys,  
Howson & Howson

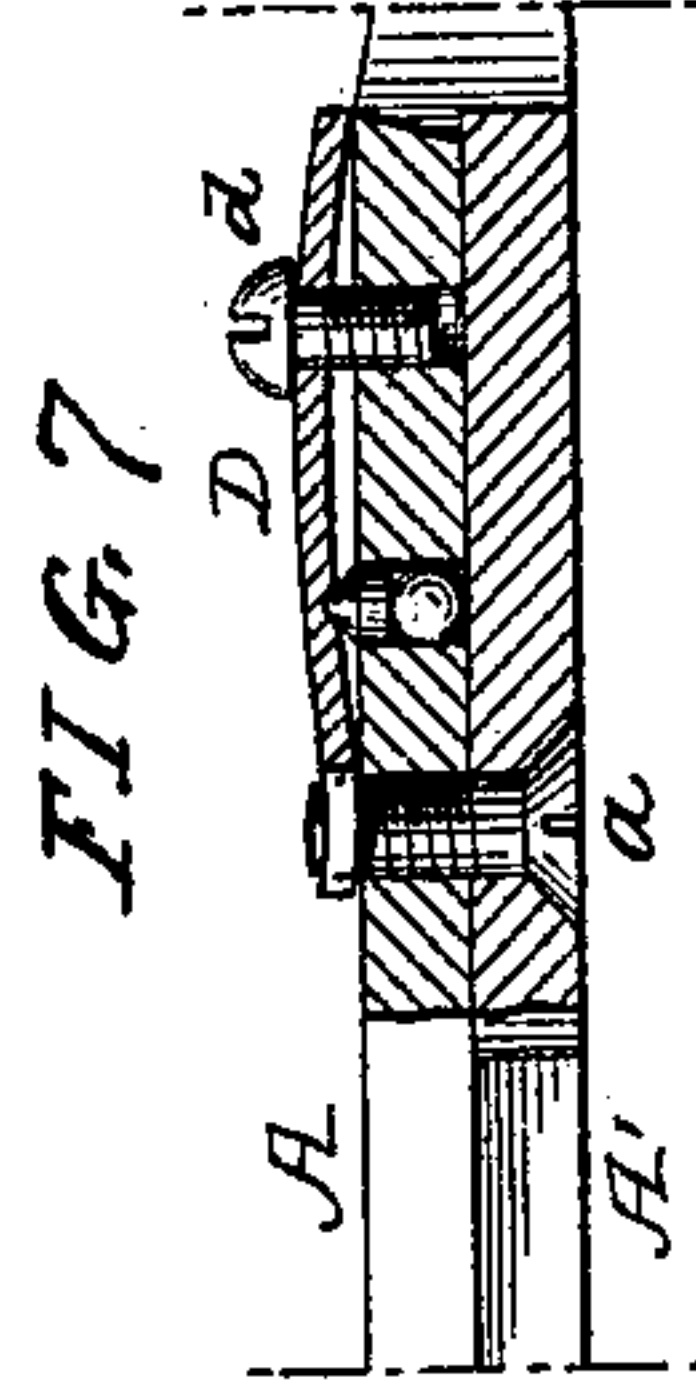
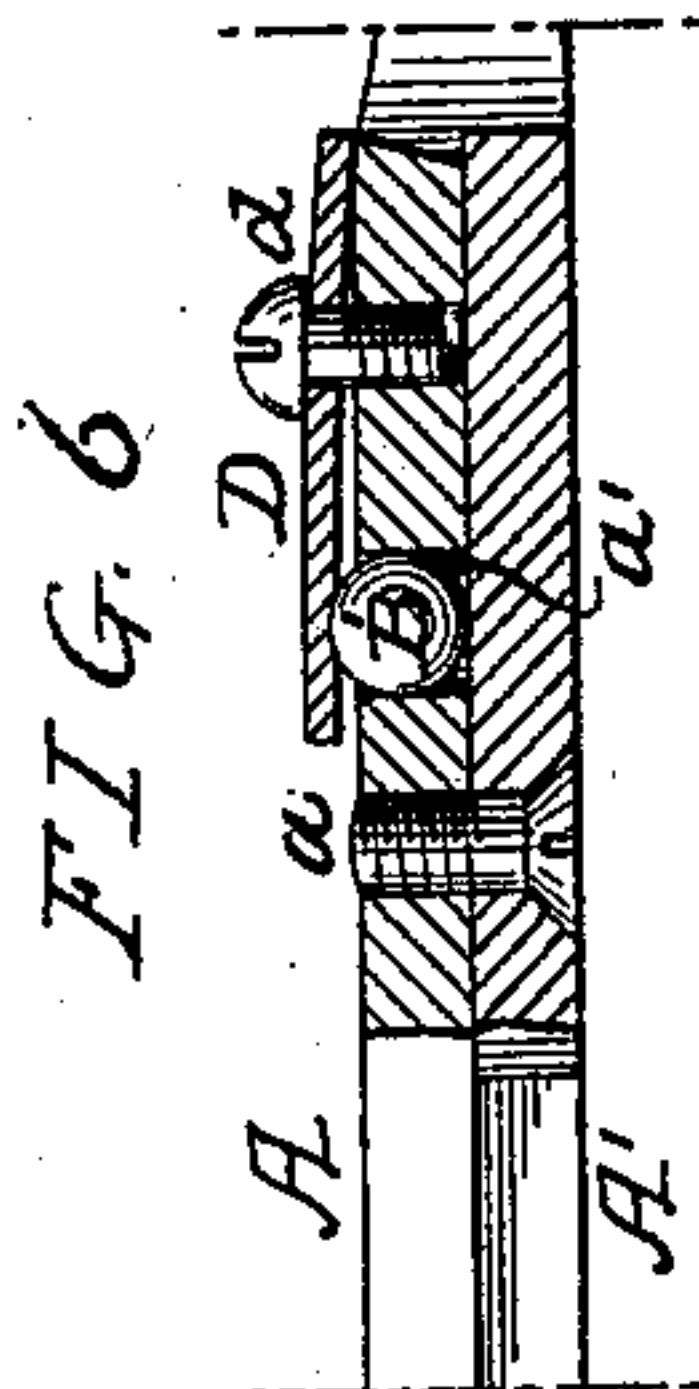
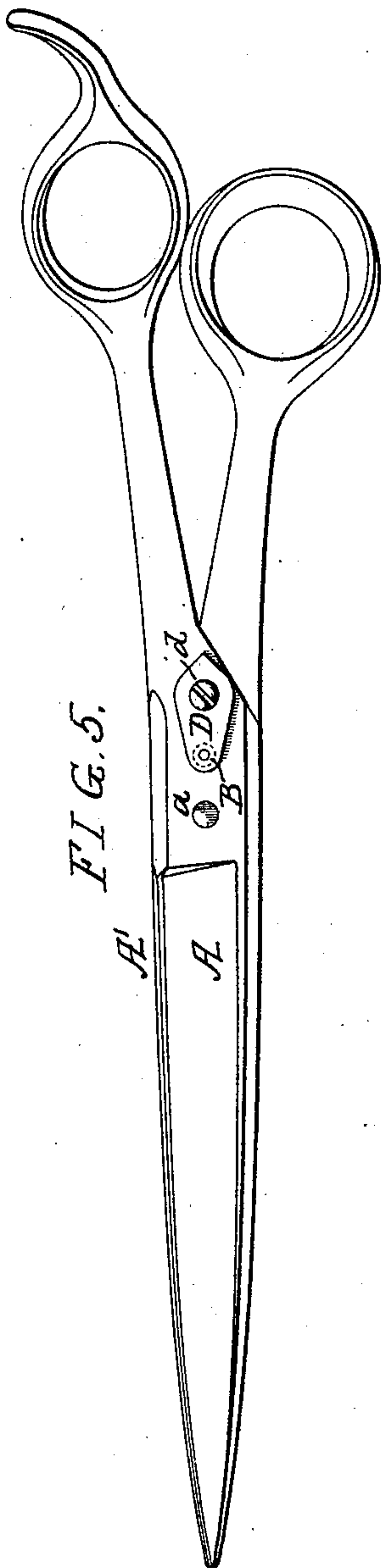
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2 Sheets—Sheet 2.

A. PROHASKA.  
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Witnesses:  
*Murray C. Boyer*  
*Hamilton S. Turner*

Inventor:  
*Anton Prohaska,*  
by his Attorneys,  
*Howe & Howe*



# UNITED STATES PATENT OFFICE.

ANTON PROHASKA, OF PHILADELPHIA, PENNSYLVANIA.

## SHEARS.

SPECIFICATION forming part of Letters Patent No. 602,360, dated April 12, 1898.

Application filed December 31, 1896. Serial No. 617,636. (No model.)

*To all whom it may concern:*

Be it known that I, ANTON PROHASKA, a subject of the Emperor of Austria-Hungary, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Shears, of which the following is a specification.

The object of my invention is to so construct shears that the cutting edges of the blades will be at all times in contact throughout the entire length of the shears without increasing the friction to such an extent as to prevent the easy working of the same. This object I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1 is a view of a pair of shears, illustrating my invention. Fig. 2 is a sectional view on the line 2 2, Fig. 1. Fig. 3 is a perspective view of the spring-plate. Fig. 4 is a perspective view of the bearing-block. Fig. 5 is a view of a pair of shears, illustrating a modification of my invention; and Figs. 6 and 7 are views of other modifications of the invention.

A A' are the two blades of the shears, secured together by the pivot-screw  $a$  in the usual manner. The screw is adapted to the threaded opening in the blade A, and its head is adapted to a countersunk opening in the blade A'. Usually this screw is tightened, so that the cutting edges of the two blades will be in contact during the opening and closing of the shears; but when the blades are so adjusted they are not easily operated, and consequently the general practice has been to loosen them to such an extent that they can be freely operated and to rely on the hand to draw the cutting edges together, so that they will make a clean cut. I overcome this objection by making a chamber  $a'$  in the blade A, and in this chamber I mount a bearing-block B, the end of which rests upon the surface of the blade A', directly back of the pivot, and I regulate the pressure of this bearing-block by a spring D, in the present instance in the form of a plate. This plate-spring D is secured to the blade A by a confining-screw  $d$ , adapted to a threaded opening in the blade A, so that by turning this screw  $d$  the pres-

sure of the bearing-block B upon the blade A' can be regulated.

In order to keep the spring-plate D from moving sidewise, I preferably perforate it at  $d'$ , so that the projection  $b$  of the block will enter the perforation, and in order to prevent the pivot-screw  $a$  from turning in the blade A, I form the end  $a^2$  in a square or other shape and extend the spring-plate B, so that the forks  $d^2$  of its end will extend on each side of the pivot-screw, as shown in Fig. 1, so as to prevent the said screw from turning after being once adjusted, as it is not necessary in shears made in accordance with my invention that the pivot-screw should hold the blades tightly against each other. In fact, it is advisable that they should be a trifle loose, so that they can be operated readily, and their cutting edges are kept in contact by the bearing of the block B of the blade A against the blade A'.

Instead of squaring the end of the pivot-screw it may be slotted, as shown in Fig. 7, and the end of the spring-plate made in the form of a tongue adapted to the slot.

Many modifications of this invention may suggest themselves. For instance, in Fig. 5 I have shown the spring-plate extending only to the bearing-block. In Fig. 6 I have shown a ball B' as a substitute for the cylindrical bearing-block shown in Fig. 1. In Fig. 7 I have shown a ball and a block combined, the block bearing upon the ball and the ball in turn resting upon the blade A'.

I claim as my invention—

1. The combination of the shear-blades, a pivot therefor, one of said blades having two perforations back of the pivot, one perforation being plain and the other screw-threaded, a block resting in the plain perforation and bearing upon the other blade, a spring-plate resting upon the block and upon the perforated blade back of the screw-threaded perforation, and a regulating-screw passing through the spring midway between its bearing-points and into the screw-threaded perforation, substantially as set forth.

2. The combination of the blades of a pair of shears, a pivot-screw therefor, one of the blades being perforated back of the pivot, a bearing-block mounted in said perforation

and resting upon the other blade, a spring-plate, a confining-screw therefor, said spring-plate resting upon the bearing-block and extending to the pivot-screw and engaging it so  
5 as to prevent it from turning, substantially as described.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

ANTON PROHASKA.

Witnesses:

CHARLES W. STENZEL,  
JOS. H. KLEIN.