

No. 636,473.

Patented Nov. 7, 1899.

G. THUILLIER.  
SCISSORS FOR CUTTING LEATHER, &c.

(Application filed June 1, 1899.)

(No Model.)

2 Sheets—Sheet 1.

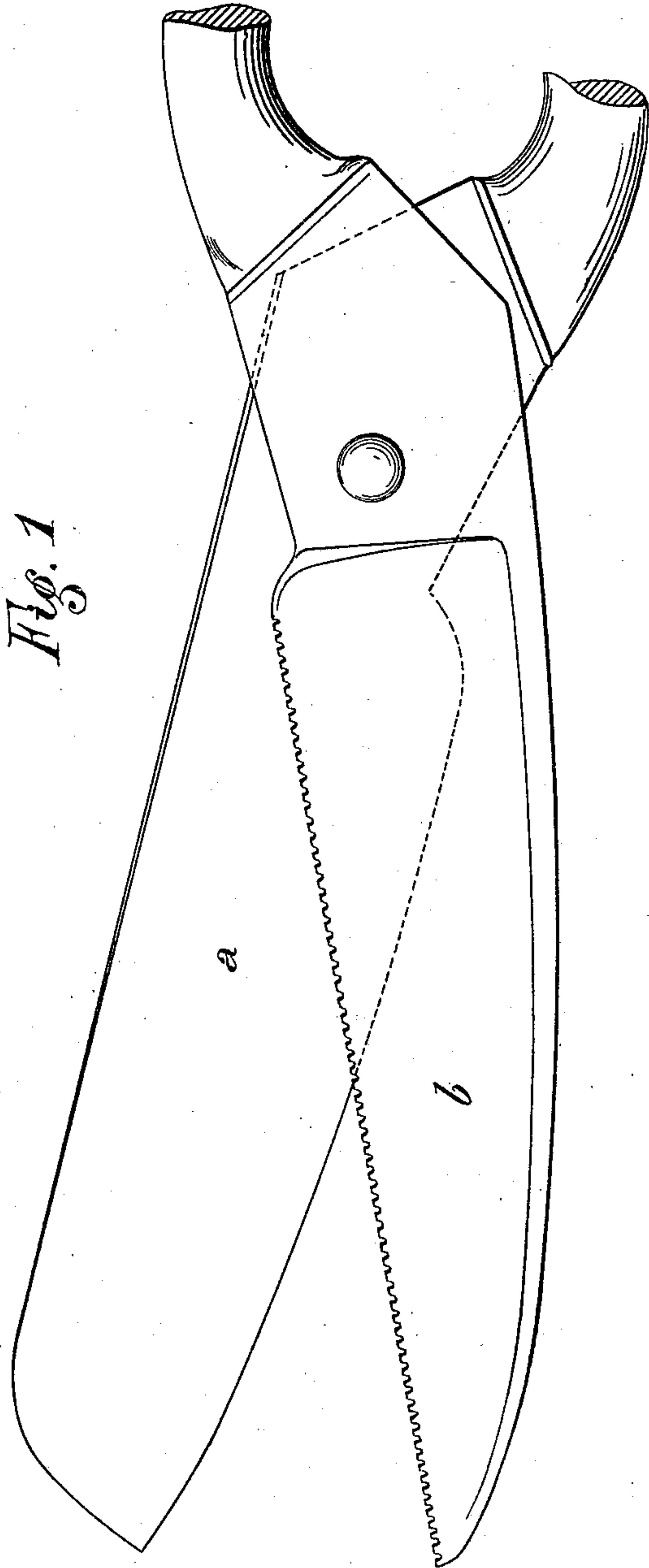
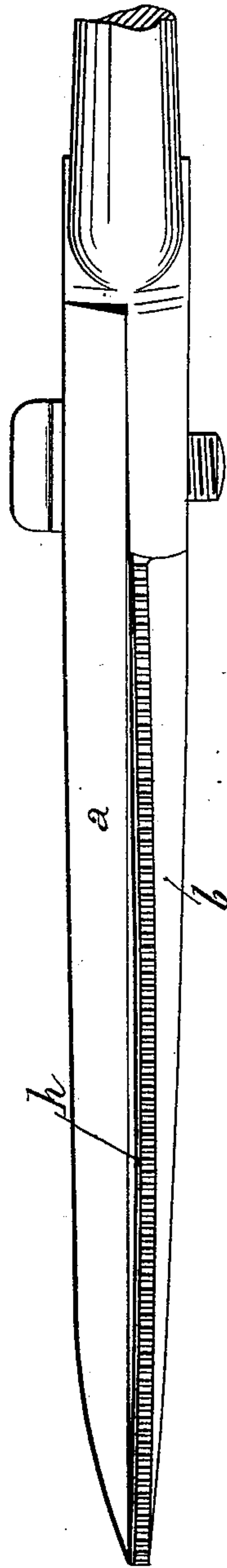


Fig. 2

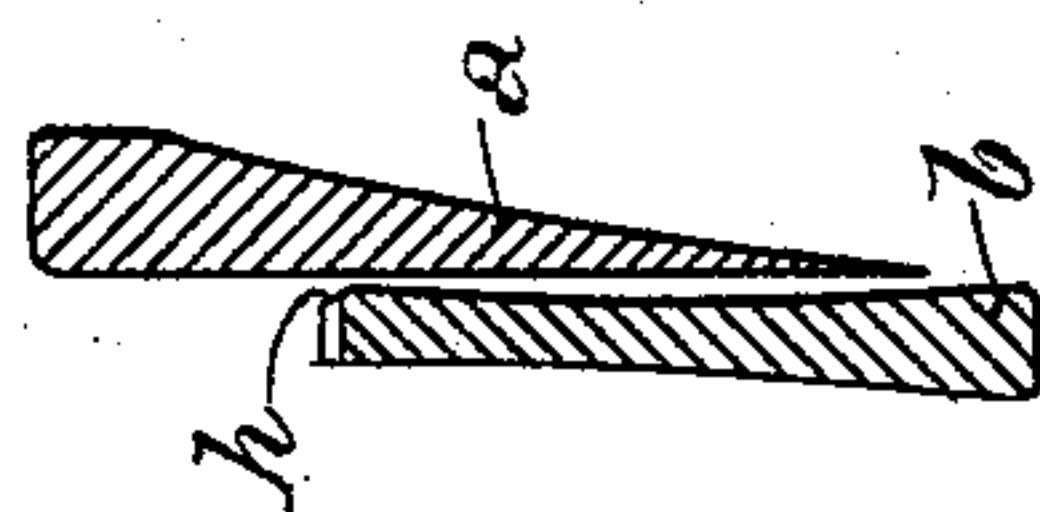


Witnesses:-

Edward Vieux.

George Barry Jr.

Fig. 3



Inventor.

Georges Thuillier

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Fig. 13

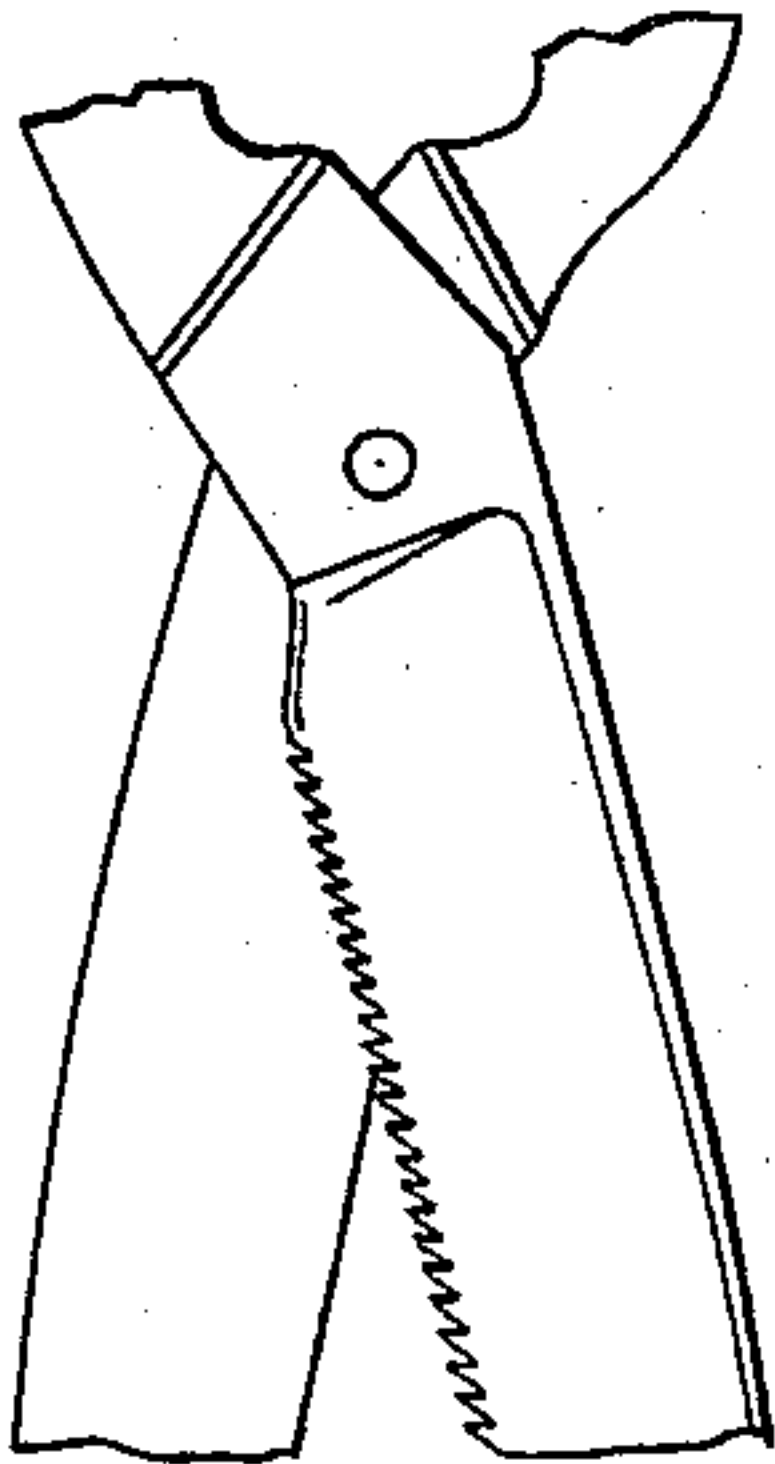


Fig. 14

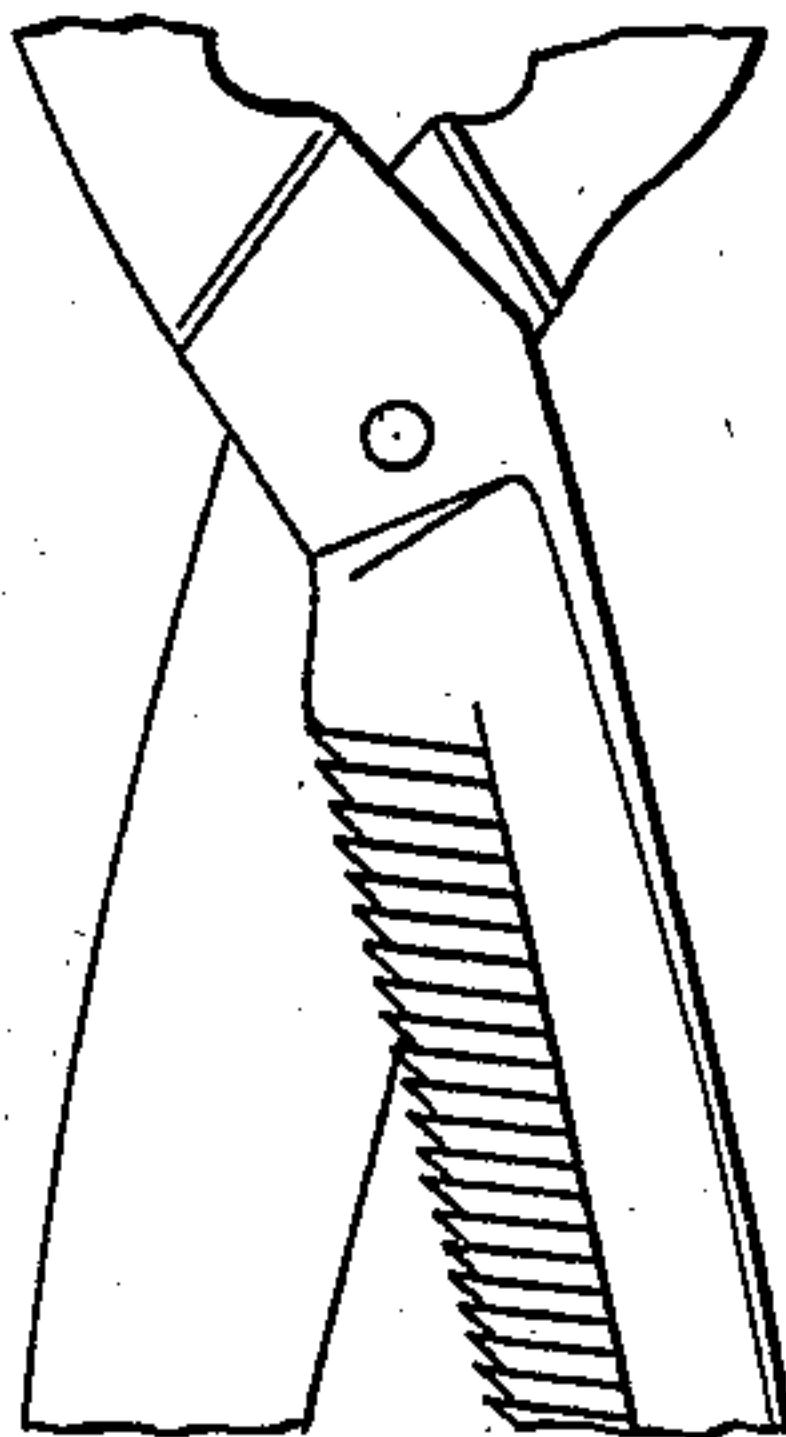


Fig. 15

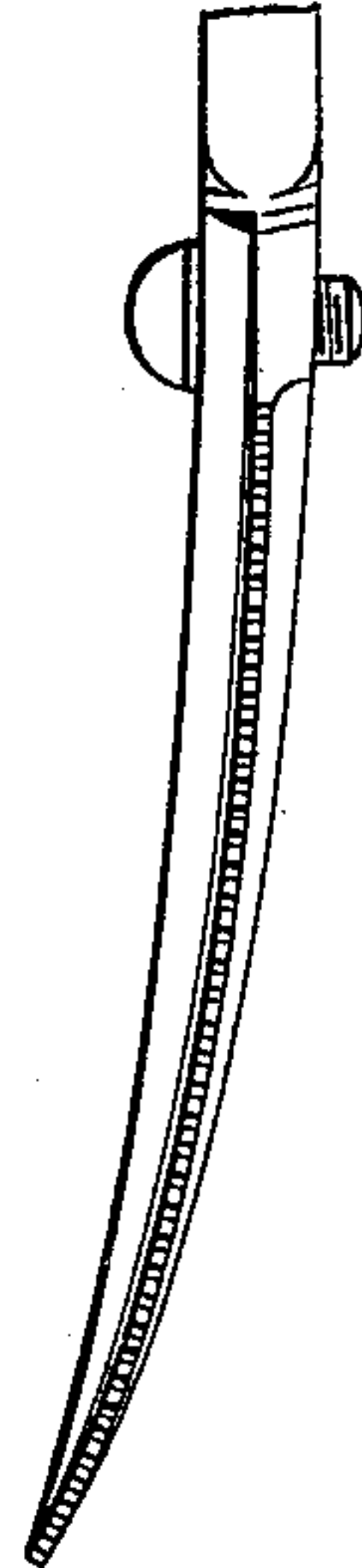


Fig. 8

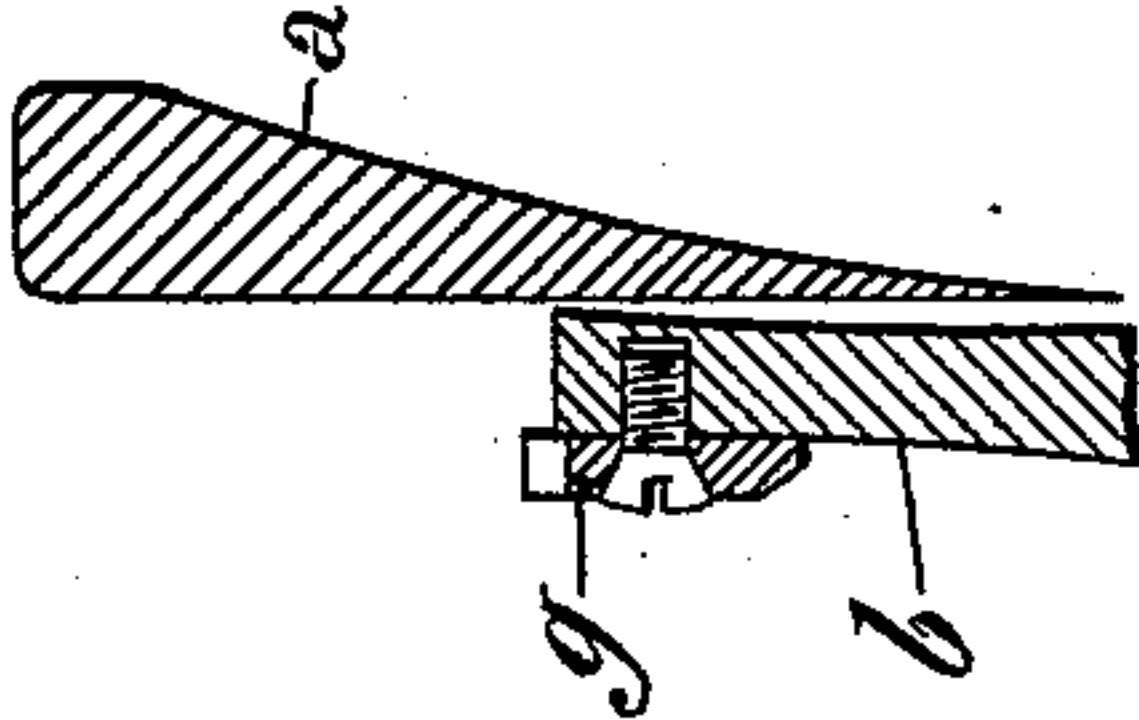


Fig. 9

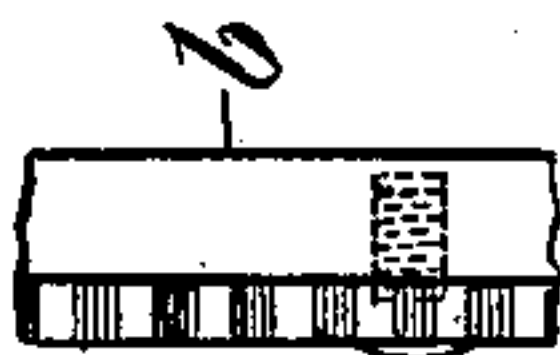


Fig. 12

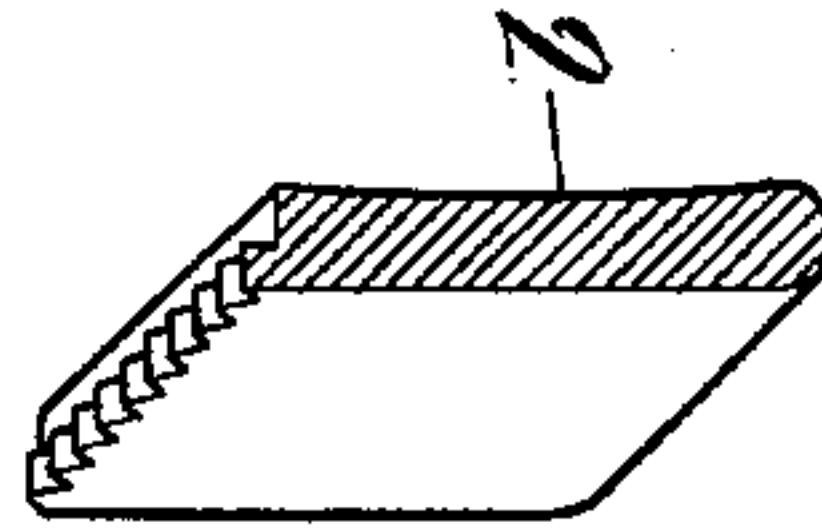


Fig. 6

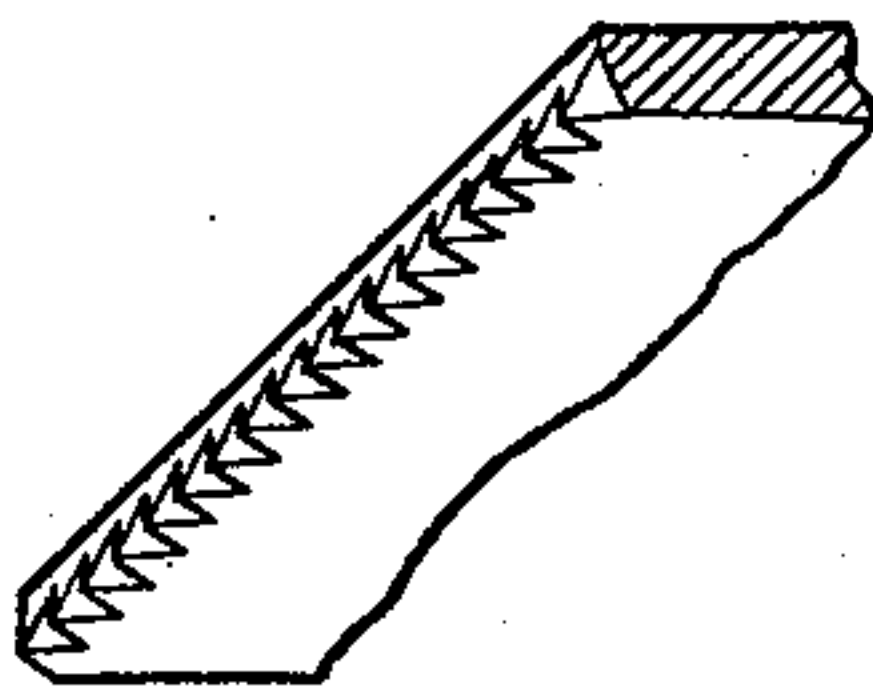


Fig. 7

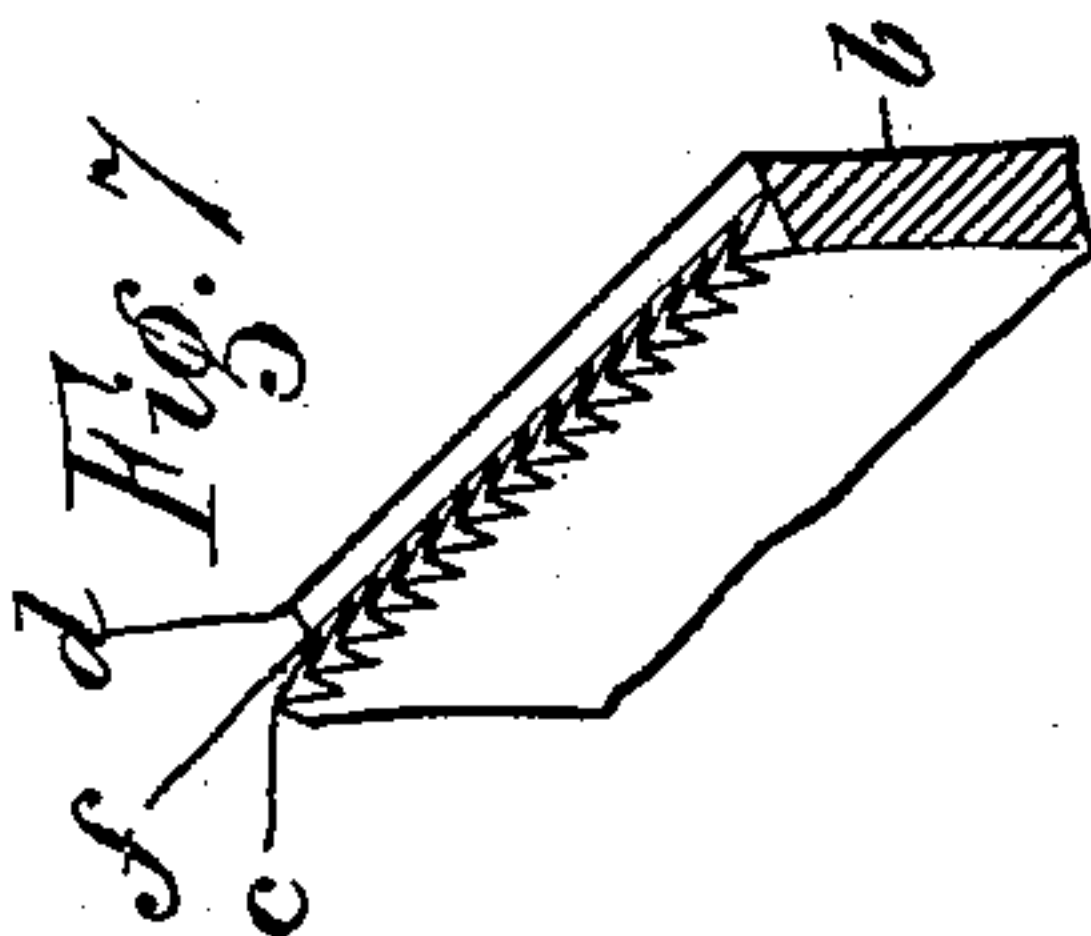


Fig. 11

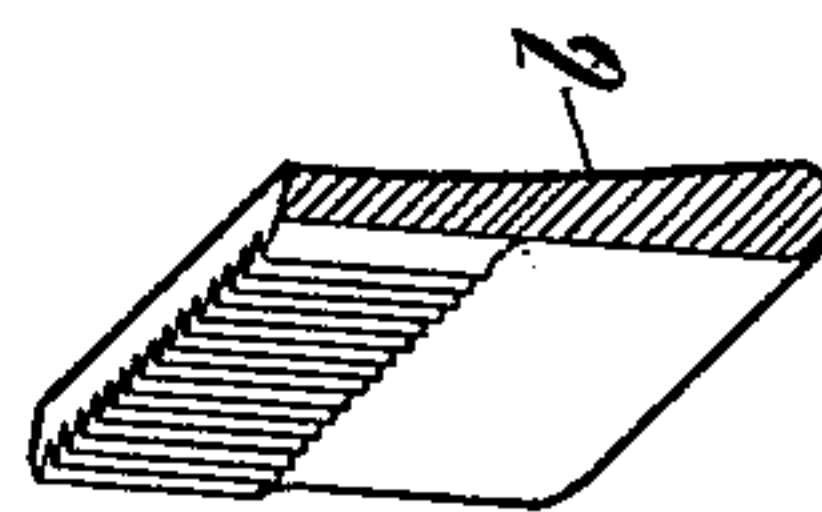


Fig. 4

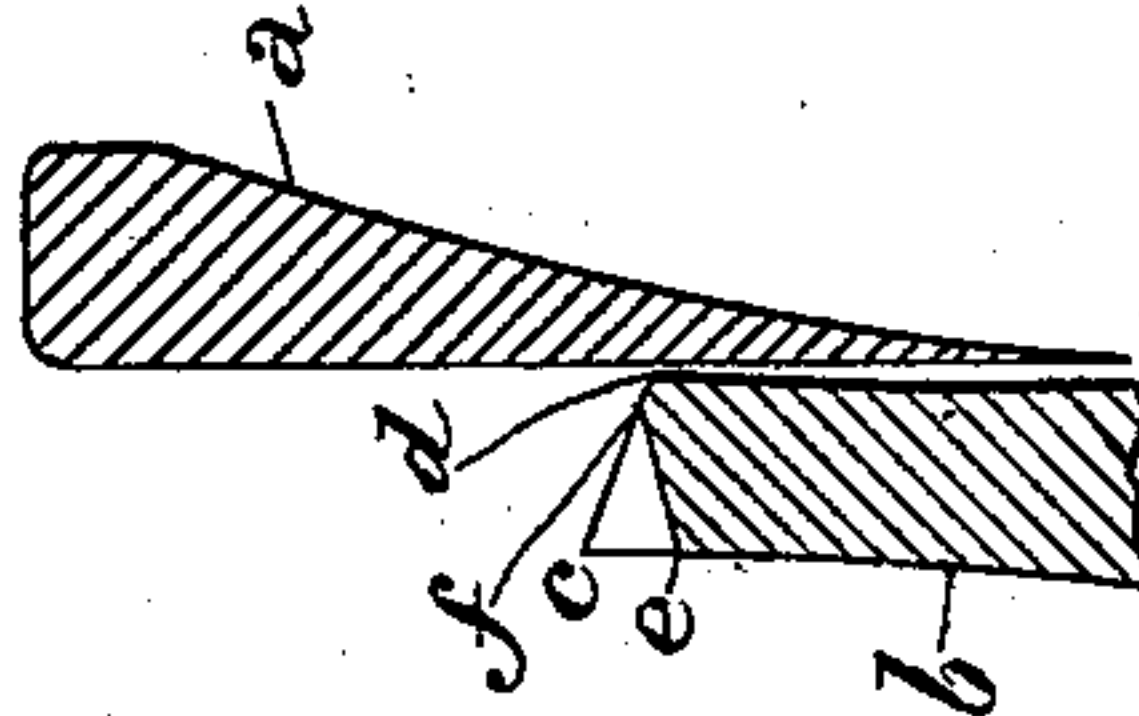


Fig. 5

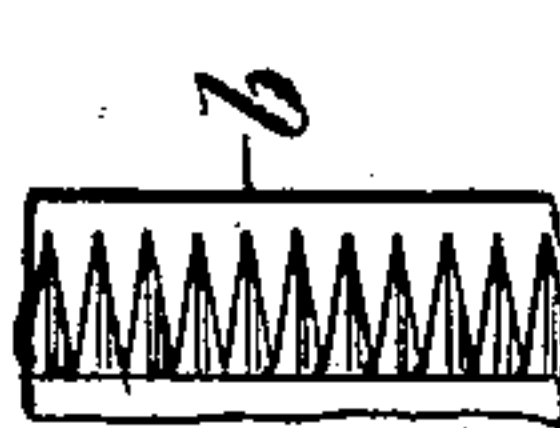
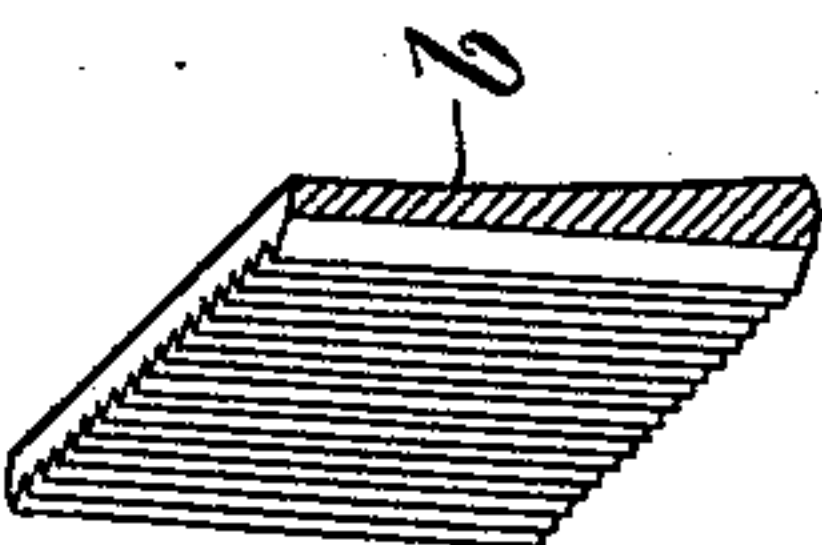


Fig. 10



Witnesses:-

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# UNITED STATES PATENT OFFICE.

GEORGES THUILLIER, OF NOGENT-EN-BASSIGNY, FRANCE.

## SCISSORS FOR CUTTING LEATHER, &c.

SPECIFICATION forming part of Letters Patent No. 636,473, dated November 7, 1899.

Application filed June 1, 1899. Serial No. 718,949. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGES THUILLIER, manufacturer, a citizen of the Republic of France, and a resident of Nogent-en-Bassigny, (Haute-Marne,) France, have invented a new and useful Improvement in Scissors for Cutting Leather, Linoleum, and other Analogous Materials, of which the following is a specification.

It is known that ordinary scissors are but little or not at all suitable for cutting hard thick materials, such as leather and strong cardboard, linoleum, sheets of cork, &c. Therefore for cutting these materials one is often obliged to employ edged tools formed in one piece, such as blades, special leather-knives, &c.; but the handling of these tools made in one piece is very inconvenient, and this is the reason why I propose to form scissors susceptible of cutting leather and other hard and thick materials just as easily as ordinary scissors cut fabrics, paper, and thin skins. I have succeeded in effecting this by the combined employment of two blades which are absolutely different from one another, both in their conformation and in their function, the one being simply a supporting-blade, which only supports and retains the leather during the cutting, and the other being intended to effect the cut, and consequently being a very sharp blade, like that of a knife. These two blades are made in the following form: The cutting or edged blade is absolutely flat on its inner side. It has no bevel—that is to say, it cuts in the manner of the blade of a knife and not like the blade of ordinary scissors. The other blade, instead of presenting a cutting edge, presents a relatively wide supporting-surface, on which the material to be cut rests while it is submitted to the action of the cutting-blade. The supporting-surface is toothed, so as to prevent the material it is desired to cut slipping during the action of the cutting-blade. The teeth, however, do not extend preferably as far as the internal edge of the supporting-blade, so that the cutting-blade will not be blunted against the teeth.

The teeth of the supporting-blade are naturally very fine. These teeth may be of different forms—as, for example, like the small teeth of a saw. They may be formed either

upon the blade itself or upon a metallic strip attached thereto.

The accompanying drawings show examples of how the invention may be carried into effect.

Figures 1, 2, and 3 are respectively a side view, a plan view, and a transverse section, drawn to a larger scale than full size, of a pair of scissors for cutting leather constructed according to my invention. Fig. 4 is a transverse sectional view illustrating a modification. Figs. 5 and 6 are respectively a plan and a perspective view of part of the lower blade corresponding with Fig. 4. Fig. 7 is a perspective view of a portion of the lower blade, illustrating another modification. Figs. 8 and 9 are views similar to Figs. 4 and 5, respectively illustrating another modification. Figs. 10, 11, and 12 are perspective views of portions of a lower blade, illustrating other modifications. Figs. 13 and 14 are side views of portions of pairs of scissors, illustrating further modifications. Fig. 15 is a plan view of parts of another pair of scissors, illustrating yet another modification.

Similar letters of reference designate corresponding parts in all the figures.

Referring first to Figs. 1, 2, and 3, *a* is the cutting-blade, flat on its inner side and concave on the outer side, the cutting edge of which has no bevel, but is like the blade of a knife. *b* indicates the non-cutting blade, which presents a toothed supporting-surface.

In order that the cutting-blade *a* shall not become blunted against the teeth of the other blade, a small chamfer *h*, formed on the inner angle of the toothed blade, prevents the points of the teeth from coming into contact with the cutting edge. The same result may also be obtained in a very advantageous manner by forming the supporting-blade as shown in Figs. 4, 5, and 6. It will be seen that in this example the top of the blade *b* is slightly inclined toward the inner surface, as at *c d*. The teeth are formed on the exterior sharp edge *c* at an inclination *e f*, the part *f d* remaining smooth. The points *c* of the teeth are thus higher than the angle *d* and can penetrate into the material to be cut, so as to prevent its slipping.

The part *f d*, instead of being a prolongation of the part *c f*, may be inclined in the op-



posite direction, so that the supporting-surface is of V-section, with unequal arms, the outer arm being the higher, so that the teeth which are formed thereon may project and  
5 can penetrate into the leather. This construction is shown in Fig. 7.

In the example shown in Figs. 8 and 9 the supporting-blade *b* is not cut away, but a small serrated blade *g* is attached thereto.  
10 The teeth of the latter project slightly beyond the face of the blade *b*, so as to penetrate into the material to be cut for preventing its slipping. It will be seen that in this case, as in the preceding cases, the inner angle of the non-cutting blade is smooth and  
15 that consequently the cutting-blade is not liable to become notched against the teeth. The serrated or toothed blade *g* is fixed to the blade *b* by any suitable means—as, for  
20 example, by the aid of rivets or by the aid of screws, as shown in the example represented.

Figs. 10 and 11 show that the teeth instead of being formed on the edge of the supporting-blade *b* may also be formed on its exterior surface. It will be seen that in this case  
25 the supporting-surface is slightly inclined, so that the points of the teeth may project and can penetrate into the leather. This arrangement, without interfering with the effect of  
30 the teeth, enables the blade *b* to be sharpened by means of a stone to rectify the wear of the interior angle, which may be rounded by use.

Fig. 12 shows a supporting-blade similar to that shown in Figs. 8 and 9, but in which the  
35 teeth are formed on the blade itself.

In all cases the teeth may be inclined from the side of the angle formed by the opening of the two blades, as will be understood from Fig. 13. This is the same even in the case of  
40 the teeth cut on the outer surface, (see Fig. 14,) which corresponds to the kind of cut of a sickle. It is further evident that the cut may be finer or coarser—that is to say, that the teeth may be closer together or farther  
45 apart.

It is known that in ordinary scissors the blades are transversely concave inside, slightly curved, and twisted. This is what is called in the trade the “set” (coupe) of the

scissors. This form of the blades has for its  
50 object to insure the perfect contact of the cutting edges during work. Nevertheless in the case of a thin knife-blade, such as the cutting-blade *a* of my scissors for cutting leather,  
55 this form would have the disadvantage of making the blade twist when it is passed through the material to be cut and of throwing it upon the other blade, against which it would become blunted. In order to avoid  
60 this disadvantage, I only give set to the supporting-blade *b*, and I leave the cutting-blade *a* perfectly flat and straight on its inner surface. (See Figs. 2 and 3.)

In the case where the scissors may have to be employed for cutting concave parts, as occurs, for example, in the cutting of soles of  
65 boots, it will be preferable to curve their blades as shown in Fig. 15. This renders them suitable for cutting all possible forms—straight, concave, and convex parts. It is  
70 of course further evident that the curve of the blades may be either to the right or to the left. Moreover, these scissors may be made either wholly or partially to the left.  
75 Set and rings to the left for the use of left-handed people. In one word, these special scissors are capable of the same modifications as ordinary scissors.

I claim—

The scissors for cutting leather and other  
80 analogous materials consisting in the combination of two blades, one of which, which is the cutter, is flat on its inner face and has an inner knife-edge, while the other has a transversely-concave inner face and a relatively  
85 wide and toothed supporting edge upon which the material to be cut rests while it is submitted to the action of the knife-edge of the cutting-blade, substantially as herein described.  
90

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 23d day of May, 1899.

GEORGES THUILLIER.

Witnesses:

EDWARD P. MACLEAN,  
ALCIDE FABE.