

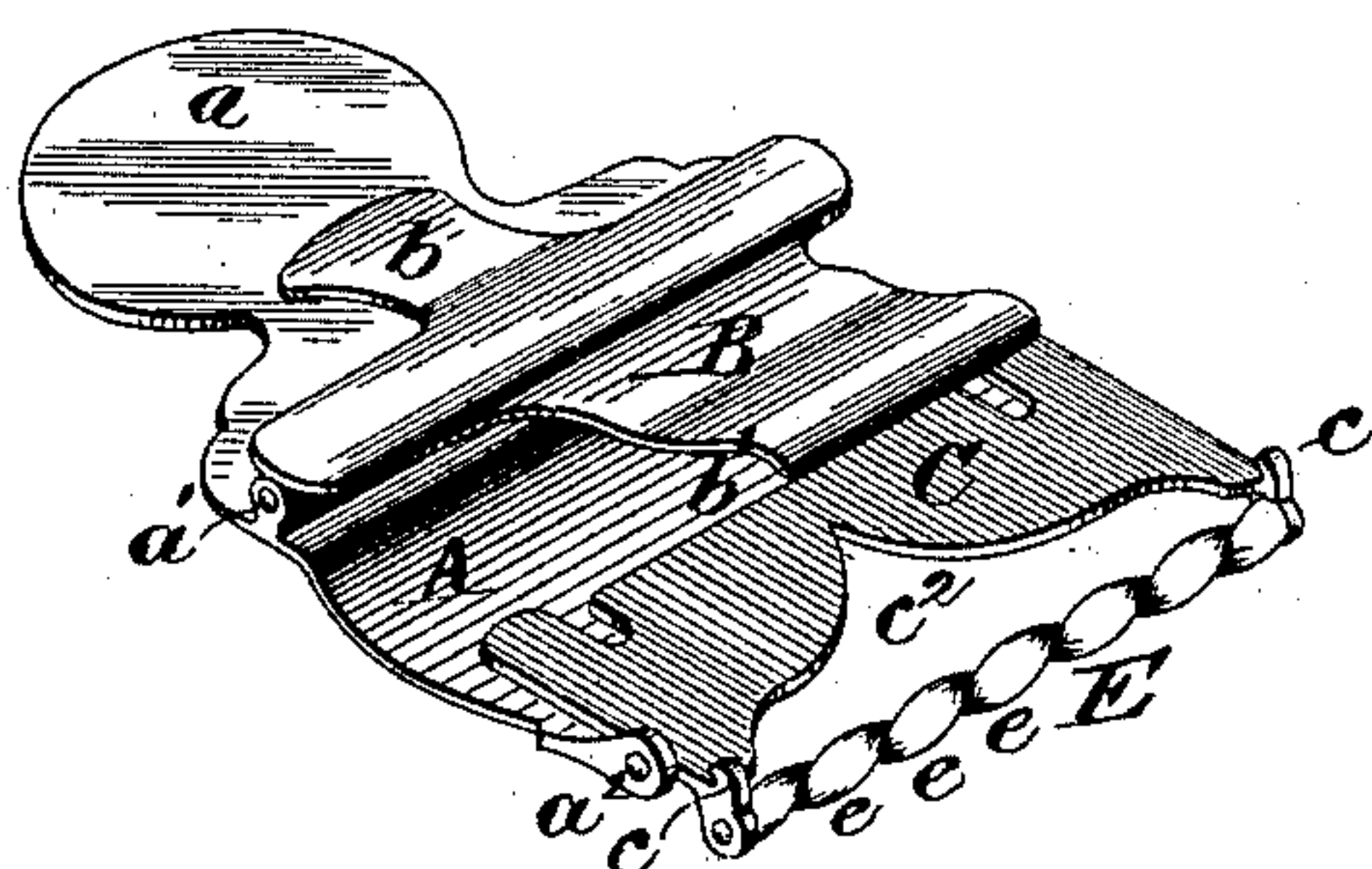
(No Model.)

A. S. ALOE.  
SAFETY RAZOR.

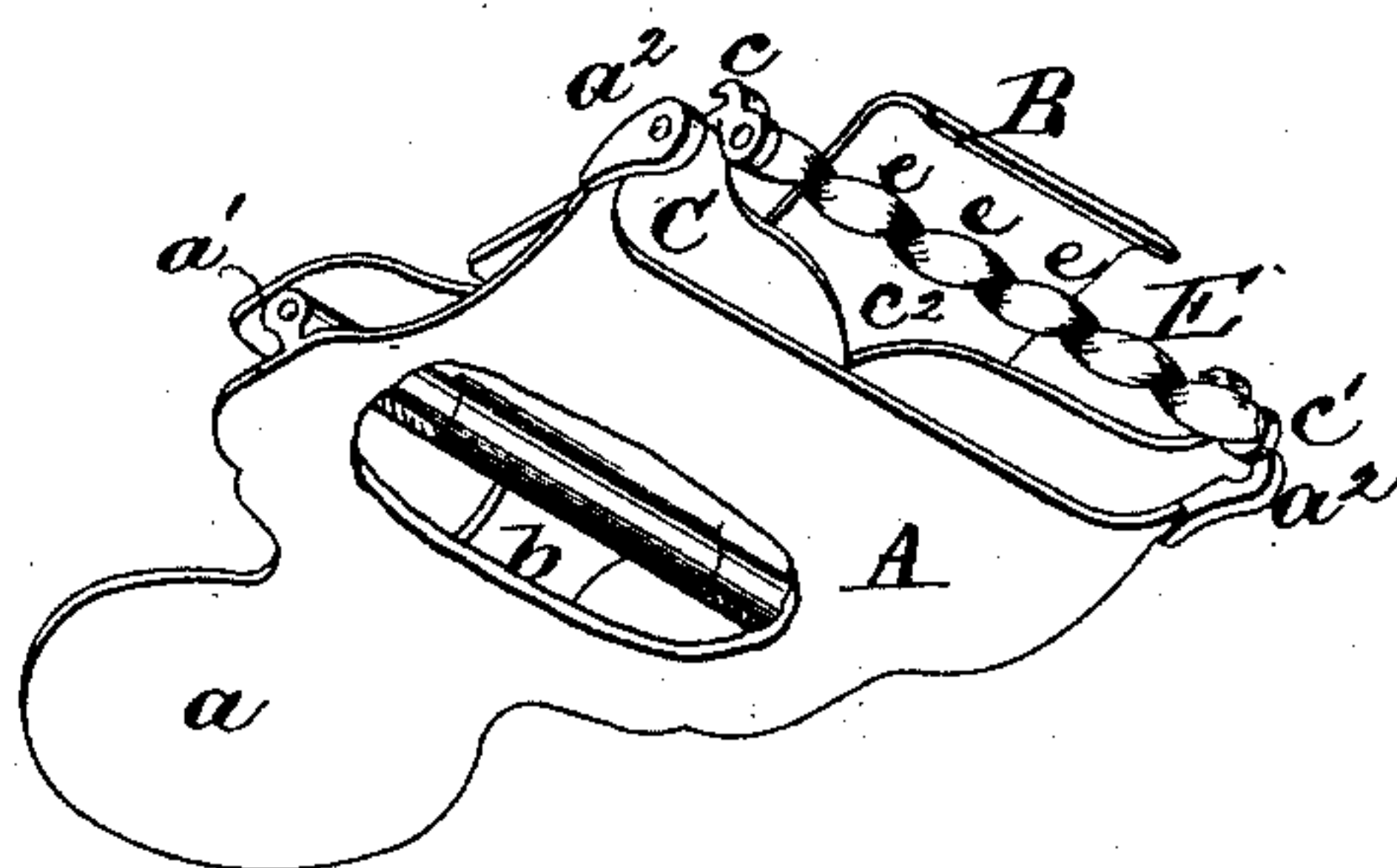
No. 375,592.

Patented Dec. 27, 1887.

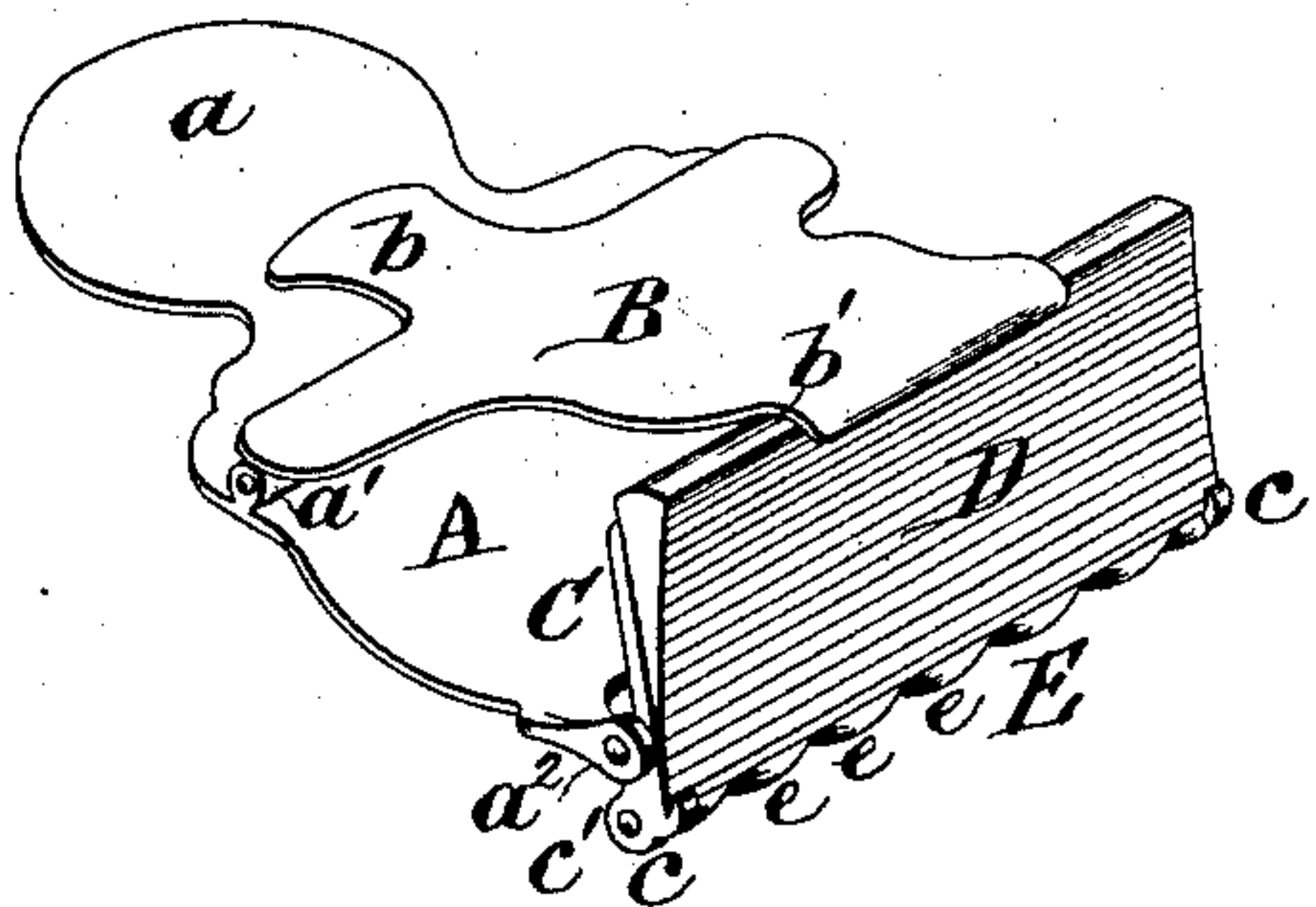
*Fig. 1,*



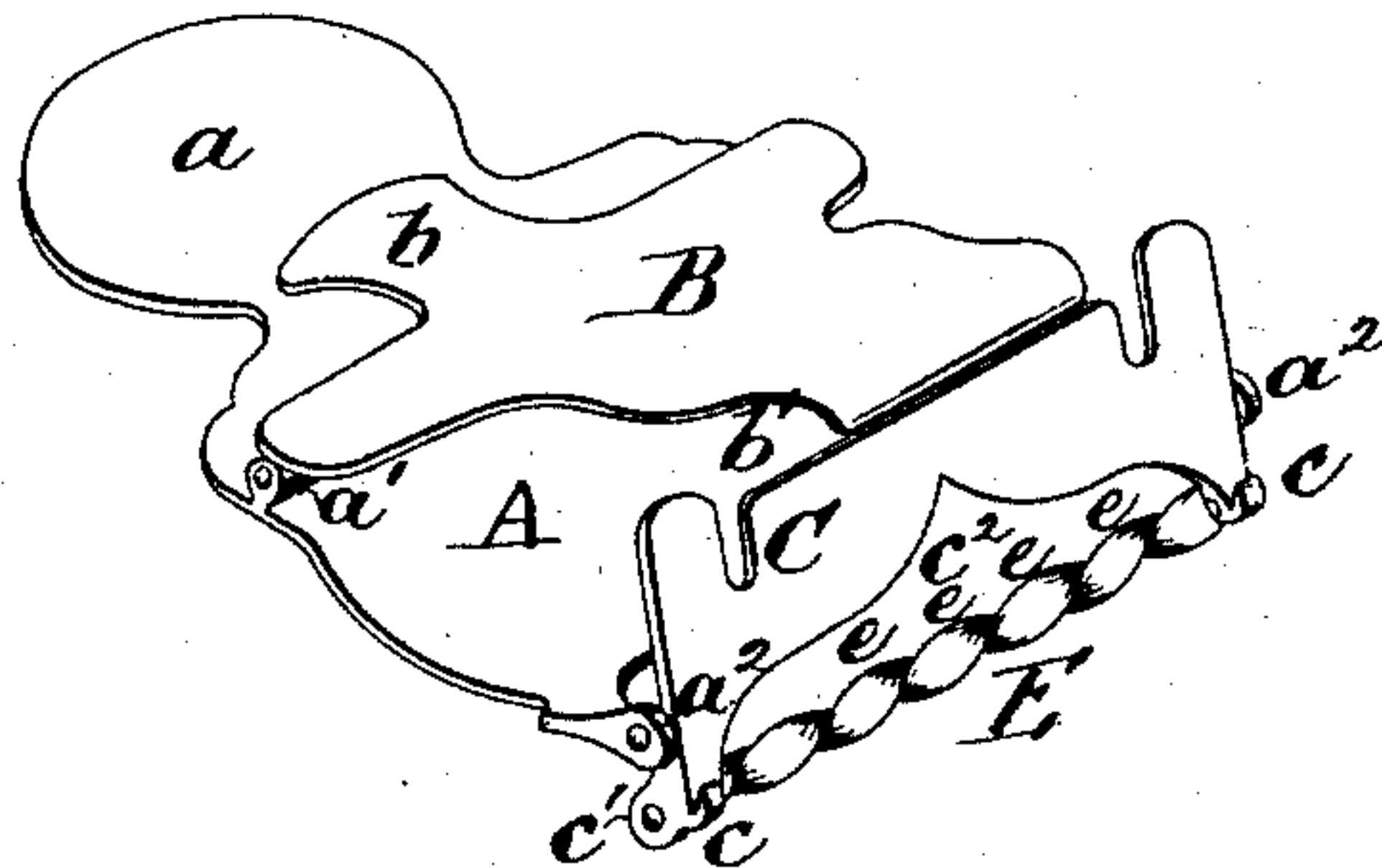
*Fig. 2,*



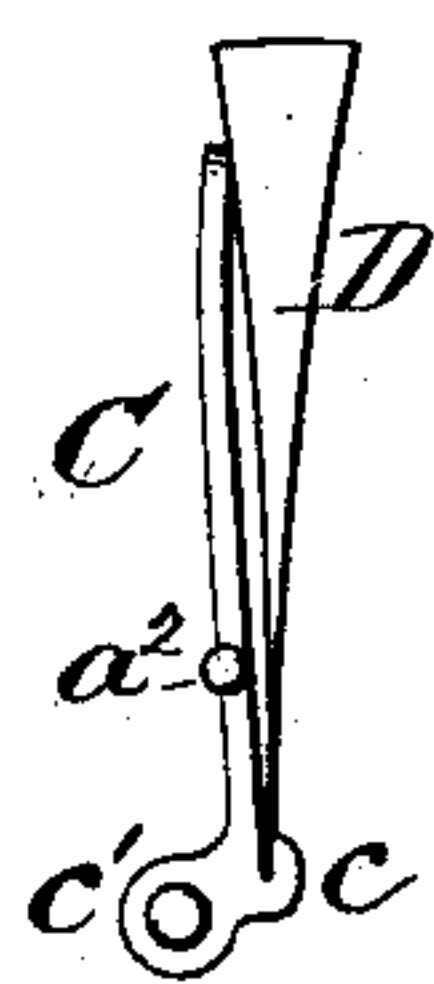
*Fig. 3,*



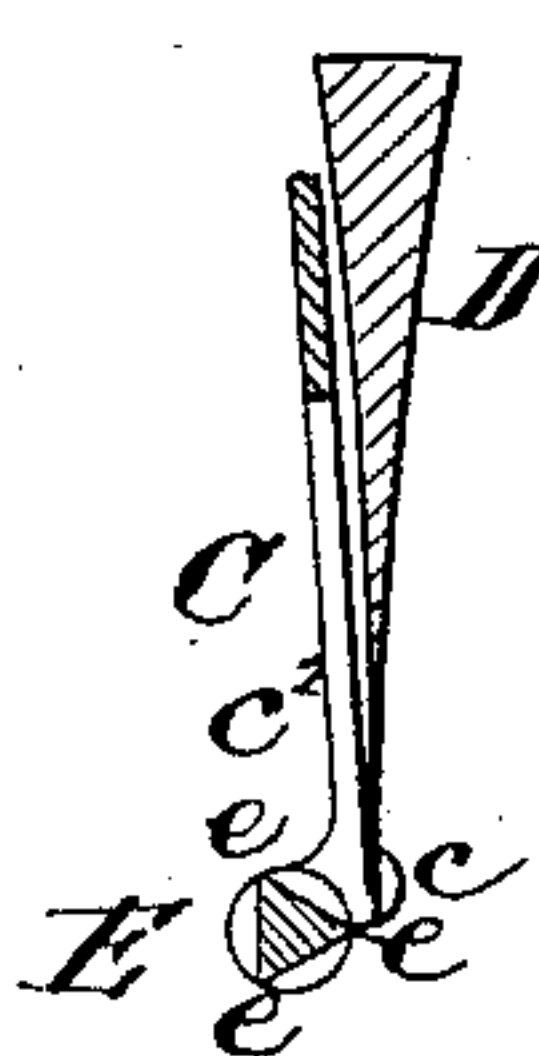
*Fig. 4,*



*Fig. 5,*



*Fig. 6,*



*Attest:*

*Edmund S. Star,*  
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*By Knight Bros.*

*Attys.*



# UNITED STATES PATENT OFFICE.

ALBERT S. ALOE, OF ST. LOUIS, MISSOURI.

## SAFETY-RAZOR.

SPECIFICATION forming part of Letters Patent No. 375,592, dated December 27, 1887.

Application filed March 22, 1886. Serial No. 196,125. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT S. ALOE, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Safety-Razors, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figures 1 and 2 are perspective views of the case, showing different sides of the same. The case in these figures is in folded condition, part being broken out in Fig. 2. Fig. 3 is a perspective view showing the instrument in condition for use. Fig. 4 is a perspective view showing the case with the parts open. Fig. 5 is a detail end view, and Fig. 6 is a detail cross-section showing the position of the blade relative to the clamp-plate and guard-roller.

In this improvement the guard-roller is made with spiral ribs, so as to carry the lather, &c., endwise as it is turned by its bearing against the skin. The hooks upon the clamp-plate are made to cover the corners of the blade, and thus act as guards therefor.

A is the main plate of the case, having a handle,  $a$ .

B is the spring-catch plate hinged to the plate A at  $a'$ .

C is the clamp-plate connected to the plate A by hinges  $a''$ , the ears of these hinges forming projections against which the ends of the blade D bear. (See Fig. 3.) At the corners of the plate C are hooks  $c$ , which project in a direction at right angles to the cutting-edge of the blade. The extremities of the cutting-edge of the blade bear directly against these hooks, as represented in Fig. 3. Hooks of this character are superior to those ordinarily used (*i. e.*, those projecting in the direction of the length of the blade and engaging with the ends thereof) for the reason that, in addition to forming guards for protecting the corners of the blade, they also form positive stops for limiting the insertion of said blade within the holder and regulating the position of the cutting-edge thereof relatively to the guard. With the hooks ordinarily used the position of the cutting-edge of the blade relatively to the guard will vary according to the extent to

which the hooks yield, the amount of pressure applied in inserting the blade, the extent to which the blade is worn away by sharpening, and other circumstances, whereas with hooks of the character shown and described the relations of these parts remain the same under all conditions and circumstances.

$c'$  are ears upon the plate C, in which the roller E is journaled. The roller is made with spiral rib or ribs  $e$ , three being shown, (see Fig. 6,) which extend from end to end of the roller, and which act to carry the lather, &c., endwise as the roller is turned by pressure against the skin. The inclination or pitch and the number of the spiral ribs may be varied. It will be seen that a single spiral rib would answer the purpose if the pitch were made sufficiently low.

The spring-plate B has a spring-tongue,  $b$ , extending back of the hinge  $a'$  and bearing upon the plate A, so as to hold the front end of the plate down upon the blade.

The plate B is bent at its front part, so as to form a recess,  $b'$ , in which the back of the blade enters when it is in the case, and the blade is held firmly in the case by the spring-plate B, the ears of the hinges  $a''$ , and the hooks  $c$ .

$c''$  is an opening made in the plate C, to allow the lather, &c., to escape.

I claim as my invention—

1. A safety-razor having a guard-roller provided with spiral rib, substantially as set forth.
2. In a safety-razor, the combination, with the removable blade and the guard, of the holder having the lugs or hooks  $c$  projecting across the cutting-edge of said blade, forming positive stops for regulating the position of said cutting-edge relatively to said guard, and lugs  $a''$ , engaging the ends of the blade for holding it against endwise displacement, substantially as set forth.

3. The combination of plate A, a razor-blade, D, and a plate, C, connected to the plate A by hinges  $a''$ , projecting beyond the face of plate C and engaging the ends of the blade.

ALBERT S. ALOE.

In presence of—

GEO. H. KNIGHT,  
JOS. WAHLE.