(No Model.)

J. CLOUGH.

Animal Shears.

No. 232,938. Patented Oct. 5, 1880.

Fig. 1.

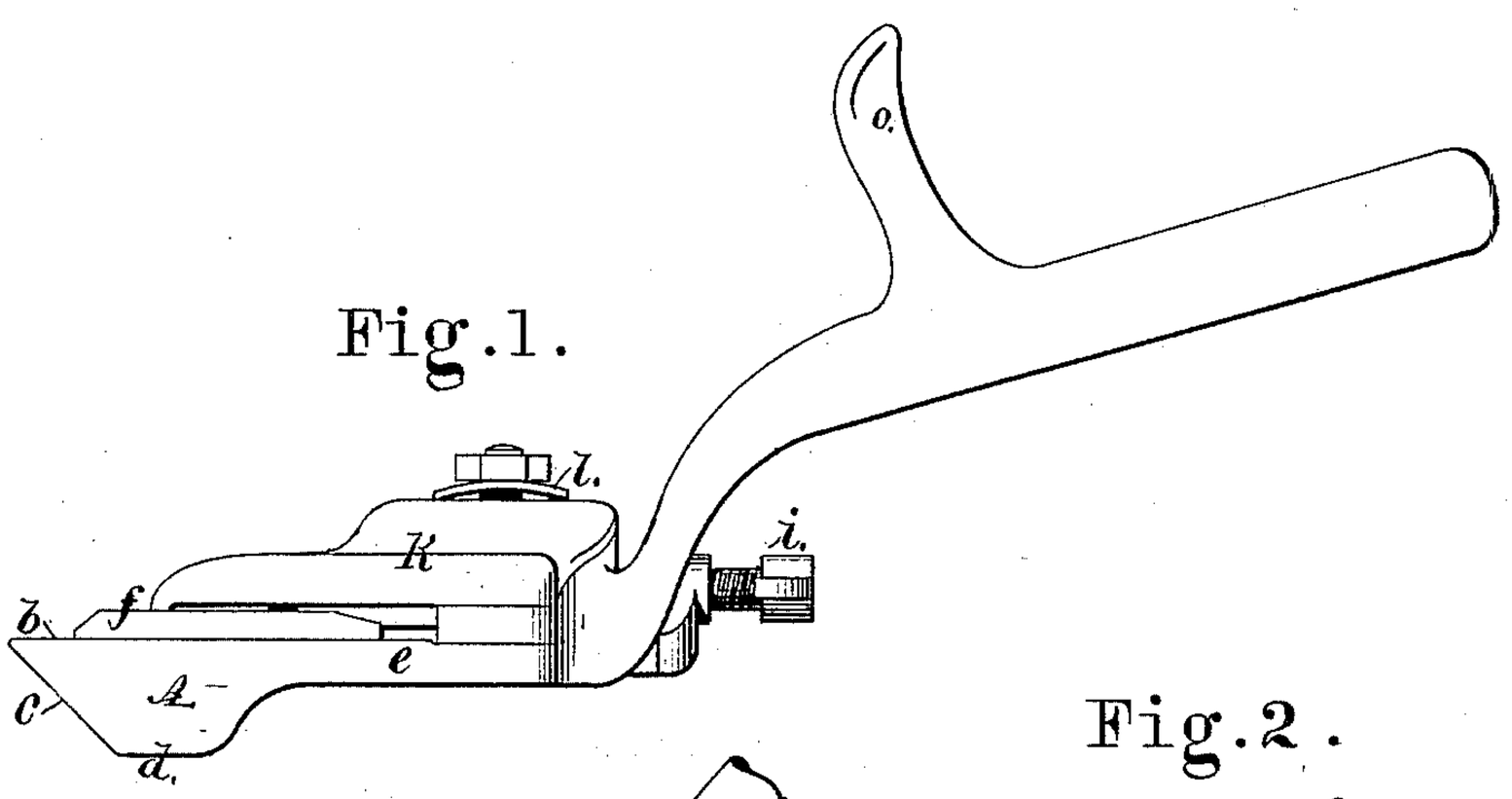


Fig. 3.

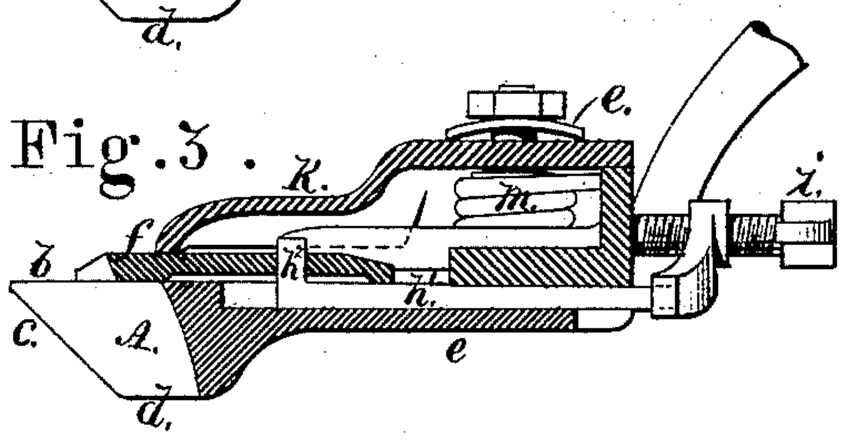
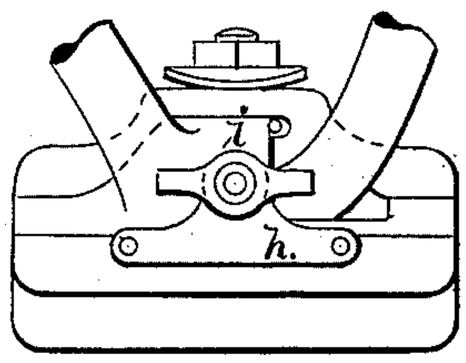


Fig. 2.



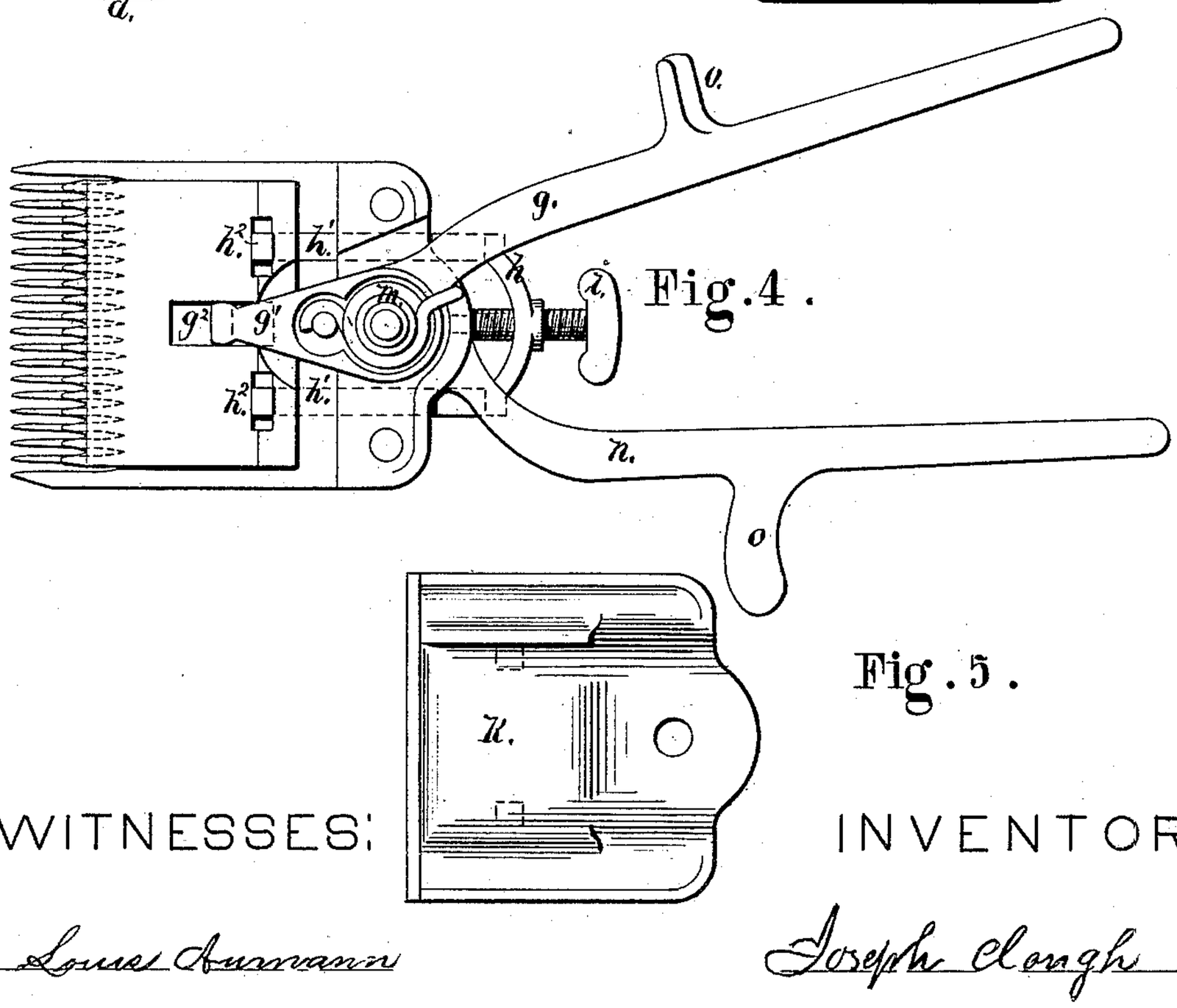


Fig. 4.

Fig. 5.

WITNESSES:

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JOSEPH CLOUGH, OF PROVIDENCE, RHODE ISLAND.

ANIMAL-SHEARS.

SPECIFICATION forming part of Letters Patent No. 232,938, dated October 5, 1880.

Application filed May 12, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH CLOUGH, of the city and county of Providence, and State of Rhode Island, have invented a new and useful Improvement in Hair-Clippers; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

The object of this invention is to so construct a hair-clipping device that the hair can be cut to any desired length.

The invention consists in the peculiar form of the forward end of the comb-plate, by which a beveled face extending backward and downward is secured, which forms with the cutting-face an angle of less than ninety degrees, preferably an angle of about forty-five degrees, and an adjustable cutter-plate, all of which will be more fully set forth hereinafter.

Figure 1 is a side view of my improved hair-clipper. Fig. 2 is a rear end view of the same, showing the thumb-screw for adjusting the cutter-plate. Fig. 3 is a sectional view, showing the devices for adjusting the cutter-plate. Fig. 4 is a top view with the covering-plate removed. Fig. 5 is a view of the covering-plate.

In the drawings, A is the comb-plate, made near its end of considerable thickness. This comb-plate differs from all comb-plates for hair-clippers in the construction of the comb-teeth, the cutting-edges *b* of which form a straight cutting-surface to the extreme end of the teeth.

c is the beveled surface of the teeth, and forms the base in contact with the skin. The base-surface *c* forms an angle of about forty-five degrees with the cutting-surface *b*. This angle may be varied, but must be less than a right angle, and therefore less than ninety degrees.

Instead of the surface *d* being the bearing-surface, as heretofore, the surface *c* is used as bearing-surface, so that by adjusting the cutter-plate on the surface *b* so as to be nearer the point of the comb-teeth or farther from the same the length of the hair can be regulated, and the hair can be cut to any desired length within the range of the clipper.

The rear portion of the plate at *e* is reduced in thickness, for the purpose of diminishing the weight, and not for the purpose of allowing the bearing-surface to enter irregularities, as the usual bearing-surface is no longer useful for this purpose.

f is the cutter-plate, operated by the short arm *g'* of the lever *g*, as is usual in hair-clippers. The only difference consists in the slot g^2, in which the short end *g'* of the arm or lever *g* works, being elongated, so as to allow the cutter-plate to be adjusted.

h is the stirrup, the two arms *h' h'* of which rest in grooves made in the comb-plate, and the ends of these arms *h' h'* are turned up and enter the slot h^2, forming the guides for the cutter-plate. The stirrup *h* is threaded to receive the thumb-screw *i*, the end of which is secured to the fixed portion of the clipper. By turning the thumb-screw in one direction the cutter-plate is thereby drawn back from the point, and when turned in the other direction it is pushed toward the point, and as the cutter-surface forms with the bearing-surface a cone, the length of the hair left standing can be readily adjusted.

K is the covering-plate, which is secured to the comb-plate by a bolt and nut, and preferably with the spring-washer *l* interposed between the plate and nut, so as to give an elastic pressure on the comb-plate, the front end of the plate K forming a bearing on the comb-plate.

m is a coiled spring operating on the lever *g*, so as to return the lever to its original position after it is released.

n is the fixed arm secured to the comb-plate. Both the arm *n* and lever *g* are provided with the projections *o o*, to facilitate the firm holding of the same by the hand.

The operation of this improved hair-clipper is as follows, viz: When the hair is to be cut very short the cutter-plate *f* is moved forward to near the point of the comb-plate. The beveled surface *c* is passed over the skin, and the length of the hair when cut will be equal to the distance between the bearing-surface *c* and cutters on the cutter-plate, and this distance increases as the cutter-plate is moved backward, so that the length of the hair when cut can be regulated by moving the cutter-plate forward or backward.

The construction is simple, the beveled surface *c* and the adjustable cutter-plate forming the only change in the ordinary construction of hair-clippers.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a hair-clipper, the combination, with a comb-plate constructed with its cutting-surface and bearing-surface of its teeth formed at an angle of less than ninety degrees, of a cutter-plate and devices for adjusting the cutter-plate toward or from the ends of the teeth of the comb-plate, substantially as set forth.

2. In a hair-clipper, the combination, with the comb-plate A, provided with the cutter-surface *b* and beveled bearing-surface *c*, of the cutter-plate *f*, provided with the elongated slot g^2, an arm adapted to engage in said slot for actuating the cutter-plate, and devices for moving the cutter-plate toward or from the ends of the teeth of the comb-plate and securing it in any desired adjustment, substantially as set forth.

3. The combination, with the comb-plate A, of the cutter-plate *f*, the stirrup *h*, and thumb-screw *i*, the lever *g*, and arm *n*, constructed to form a hair-clipper, by which the length of the hair may be adjusted, as described.

JOSEPH CLOUGH.

Witnesses:
EDWARD AUTZ,
JOSEPH A. MILLER, Jr.