

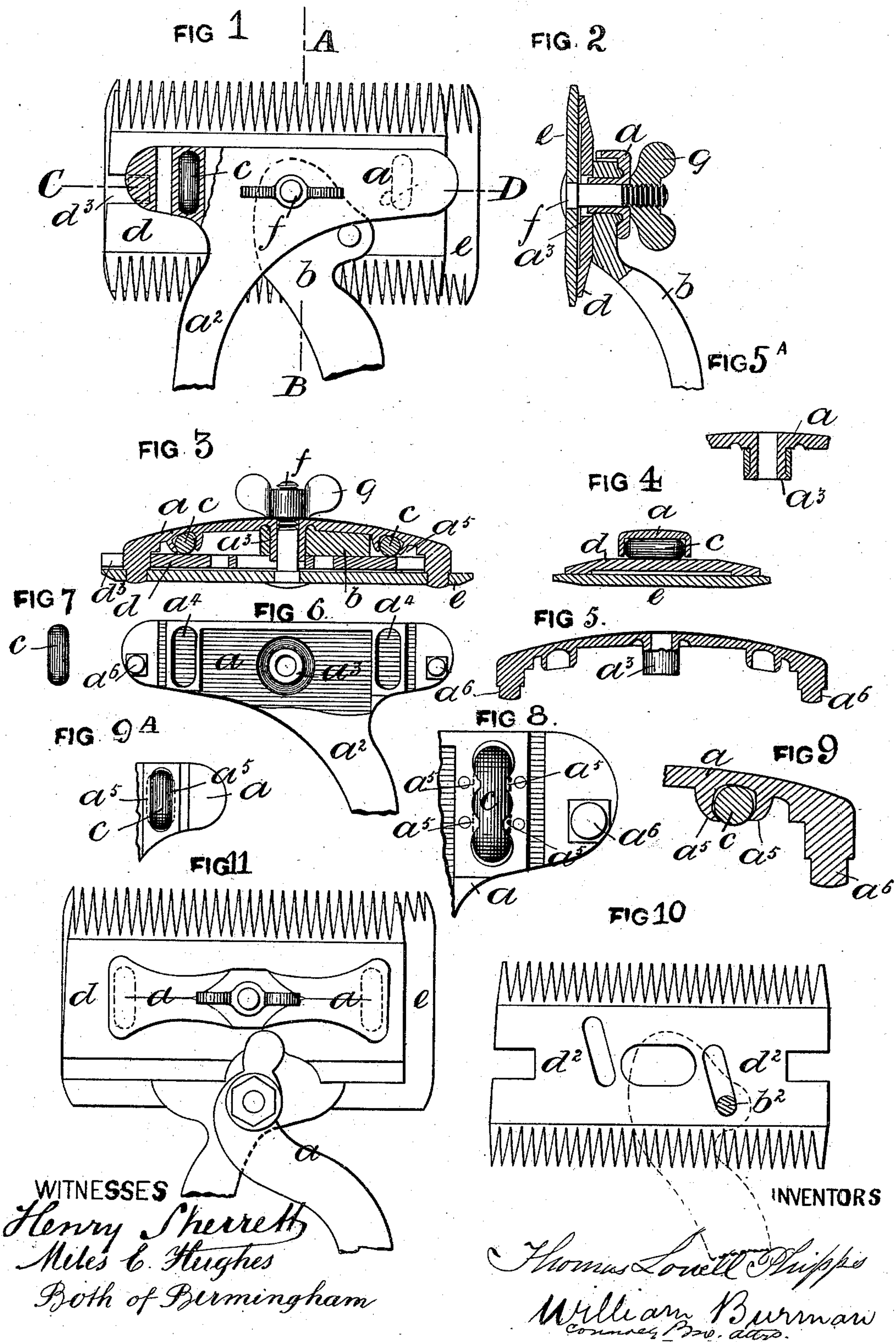
(No Model.)

T. L. PHIPPS & W. BURMAN.

HAIR CLIPPER.

No. 335,956.

Patented Feb. 9, 1886.



UNITED STATES PATENT OFFICE.

THOMAS LOVELL PHIPPS AND WILLIAM BURMAN, OF BIRMINGHAM, COUNTY OF WARWICK, ENGLAND, ASSIGNORS TO LOUIS S. LEE, OF PHILADELPHIA, PENNSYLVANIA.

HAIR-CLIPPER.

SPECIFICATION forming part of Letters Patent No. 335,956, dated February 9, 1886.

Application filed October 1, 1885. Serial No. 178,745. (No model.) Patented in England July 7, 1885, No. 8,204.

To all whom it may concern:

Be it known that we, THOMAS LOVELL PHIPPS and WILLIAM BURMAN, both of Ryland Road, Edgbaston, near Birmingham, in the county of Warwick, England, manufacturers, have invented Improvements in Hair-Clippers, (for which we have obtained a patent in Great Britain, dated July 7, 1885, No. 8,204,) which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

Our invention has for its object, principally, to simplify the construction and to render more efficient hair clipping or shearing machines or appliances—that is, appliances for the clipping or shearing of horses and other animals, also for the cutting of human hair, and for other similar purposes.

Our invention consists in the peculiar and novel formation and arrangement of the hanging bush by which the cap of the combined lever and head is attached to the cutter-plate.

Our invention further consists in the novel formation and combination of parts, whereby the friction-rollers are held in position between the cutter-plates.

Long roller-bearings are interposed between the under side of the cap and the upper side of the top cutter in order to reduce frictional contact between the bearing-surfaces, thereby rendering the clippers more efficient and easier to work. The long rollers, which are situated at opposite ends of the machine, are retained within their sockets or seats by closing or drawing the metal surrounding the seat slightly over the front of the roller, so as to prevent the rolling surfaces from falling out on the clipper being taken to pieces.

Figure 1 is a plan of a hair-clipper provided with improvements made according to our invention, the left-hand side of the cap being broken away in order to exhibit the roller, which lies in a recess or seat formed within its under side. Fig. 2 is a transverse vertical section on the dotted lines A B, Fig. 1. Fig. 3 is a longitudinal vertical section on the dotted lines C D, Fig. 1. Fig. 4 is a transverse section taken through a part opposite one of the rollers. Fig. 5 is a longitudinal section

of the cap, showing partly in elevation the hanging bush or cylinder. Fig. 5^A is the said bush, with a roller around it to reduce friction. Fig. 6 is an under-side view of the combined cap and handle. Fig. 7 is one of the rollers. Fig. 8 is an under-side view of the end of the cap upon a larger scale, and Fig. 9 is a cross-section. Fig. 9^A shows how the metal surrounding the roller-seat is closed or drawn over on two opposite sides, instead of at points. Fig. 10 is a plan of the top cutter, showing the inclined slots. Fig. 11 is a modification showing that the roller-surfaces can be applied to clippers where the covering cap or head is separate from the handle.

The same letters of reference indicate corresponding parts in the several figures of the drawings.

*a a*² is a combined cap and handle. The former is provided with a hanging bush or cylinder, *a*³, on which the handle *b* turns as a center. The bush *a*³ may be surrounded by a roller, *a*³, (see Fig. 5^A,) to reduce friction.

*a*⁴ *a*⁴ are seats or recesses, wherein long anti-friction rollers *c c* work, which rollers are disposed between the under side of the cap *a* and the top of the cutter *d*, which latter is provided with oblique cross-slots *d*² *d*², wherein the pin *b*², carried by the lever *b*, works, in order to give the requisite to-and-fro reciprocation. The rollers are held within their sockets or seats by closing or spreading the surrounding metal slightly over the front of the roller, as shown at *a*⁵, thereby retaining the rollers within their seats or sockets on the under side of the cap, so that when the parts of the clipper are taken to pieces the anti-friction rollers are prevented from falling out; or the metal surrounding the seats may be spread over or bulged from the ends, instead of from the sides.

*a*⁶ are studs on the cap, which pass through the slots *d*³ and take into holes in the bottom cutter, *e*.

f is the central screw-pin passing through the cutters and hollow bush on the under side of the cap, the requisite tension or pressure being given by the screwing up of the thumb-nut *g*.

In Fig. 11 the cap or cover is made separate

from the handle or lever, and the long anti-friction rollers disposed between its under side and the top cutter.

Having described our invention, we claim as
5 new and desire to secure by Letters Patent—

1. The cap a , formed with or having the hanging hollow bush or cylinder a^3 , and a surrounding collar, in combination with the handle b and the binding-screw f , substantially
10 as described.

2. The cap-plate a , provided with the sock-

ets a^4 , in combination with the rollers c , the sides of said sockets being drawn or bent partially around said rollers, substantially as described.

Signed this 15th day of September, 1885.

THOMAS LOVELL PHIPPS.

WILLIAM BURMAN.

Witnesses:

HENRY SKERRETT,

MILES E. HUGHES,

Both of Birmingham.