No. 847,706. PATENTED MAR. 19, 1907.

W. P. SPARKS.

ANIMAL SHEARS.

APPLICATION FILED MAR. 26, 1906.

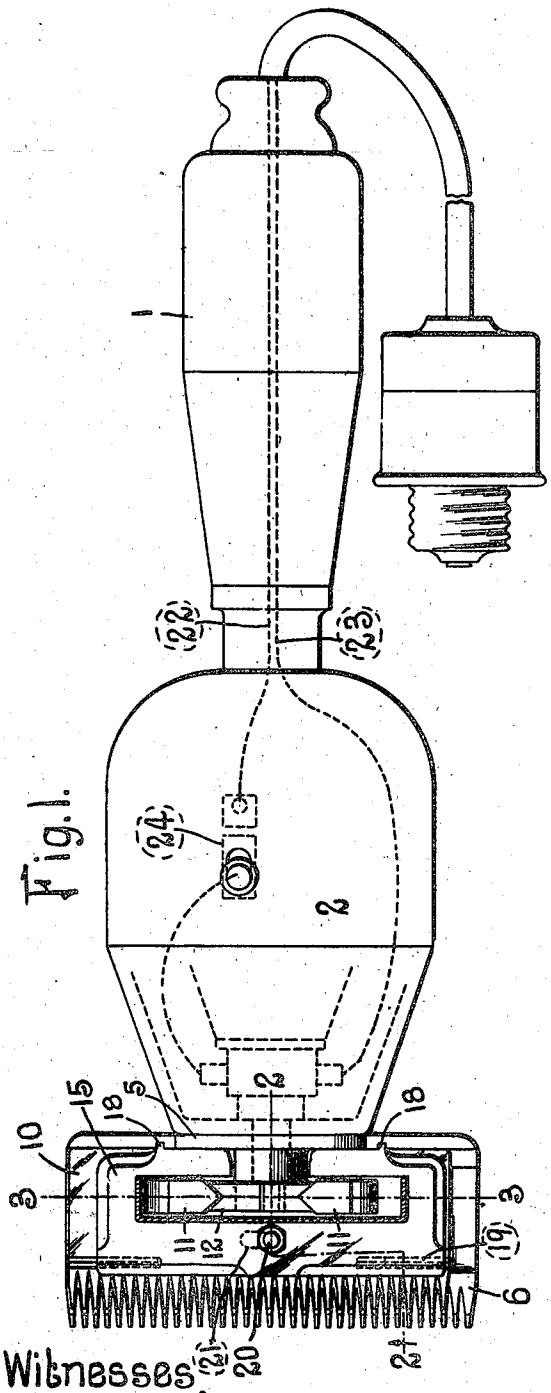


Fig. 1.

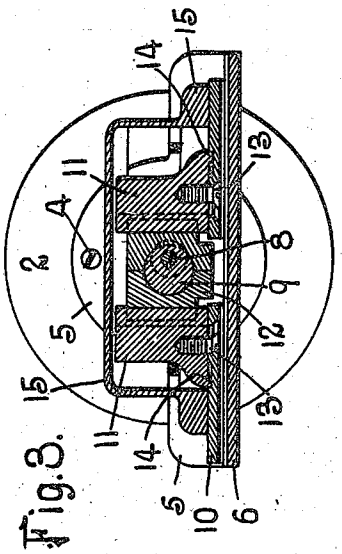


Fig. 3.

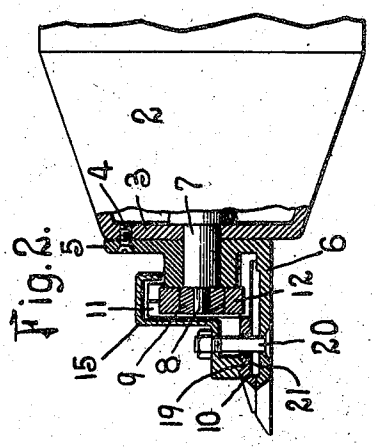


Fig. 2.

Witnesses
A. J. McCauley.
Nellie L. Church.

Inventor:
Walter P. Sparks
by Bakewell Cornwall Atty's.

UNITED STATES PATENT OFFICE.

WALTER P. SPARKS, OF ST. LOUIS, MISSOURI.

ANIMAL-SHEARS.

No. 847,706. Specification of Letters Patent. Patented March 19, 1907.

Application filed March 26, 1906. Serial No. 308,125.

To all whom it may concern:

Be it known that I, WALTER P. SPARKS, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Animal-Shears, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view of my improved horse-clipper with a portion of the housing broken away. Fig. 2 is a vertical longitudinal sectional view taken on the line 2 2 of Fig. 1, and Fig. 3 is a transverse sectional view taken on the line 3 3 of Fig. 1.

This invention relates to clippers, and particularly to that type which are operated by electricity.

The object of my invention is to provide an electrically-operated clipper which is very compact and of simple construction.

Referring to the drawings which represent the preferred form of my invention, 1 designates the handle of the clipper, having a shell or casing 2 connected thereto, in which a motor is located. The particular type of motor which is used, however, is immaterial, so that I do not deem it necessary to illustrate or describe the same. The casing is provided with a closed end 3, and connected to this end by means of screws 4 is a member 5, having the stationary toothed blade 6 of the clipper formed integral therewith. The armature-shaft 7 of the motor extends through the closed end of the shell and through the member 5, which is enlarged, as shown in Fig. 2, to form a bearing for the extended end of said shaft. Connected to the outer end of said armature-shaft by means of a pin 8 is an eccentric 9, which reciprocates the movable blade 10 of the clipper. The movable blade 10 is provided with a plurality of upwardly-projecting posts 11, having inverted-V-shaped edges which form guideways, and reciprocatingly mounted between these guideways is a cross-head 12, that surrounds the eccentric 9 on the end of the armature-shaft, said cross-head consisting of a plurality of blocks, as shown in Fig. 3. As the armature-shaft rotates the eccentric thereon coöperating with the cross-head 12 and the upwardly-projecting posts on the movable blade 10 will impart a transverse reciprocating movement to said blade, so that the hair which projects upwardly between the teeth of the stationary and movable blades will be severed. Preferably the stationary blade has two more teeth than the movable blade, and the throw of the eccentric is great enough to cause each tooth of the movable blade to coöperate with two teeth of the stationary blade each time the movable blade is moved transversely, thereby producing practically a double cut, which is much more effective than if each tooth of the movable blade coöperated with only one tooth of the stationary blade.

It will be understood, of course, that the rotation of the eccentric 9 imparts a vertical reciprocating movement as well as a lateral movement to the cross-head, and to provide for the downward movement of the cross-head the movable blade 10 has an opening formed therein, as shown in Figs. 2 and 3, into which the lower end of the cross-head projects in its reciprocating movement. The continual operation of the cross-head in the posts carried by the movable blade causes the coöperating surfaces of these parts to wear away, and to provide for this the posts are made adjustable, so that they can be moved toward each other to compensate for this wear, each post being connected to the movable blade by a screw 13, which passes through an elongated slot in the blade. To prevent the posts from turning relatively to the blade, each post is provided in its lower end with a rib 14, that extends into a groove formed in the top face of said blade. A housing or cap-plate 15 is provided for holding the movable blade in operative position and also for inclosing the eccentric cross-head and posts on said blade, said housing being of the shape shown in Figs. 1 and 2 and consisting of an approximately hollow rectangular portion provided at its lower edge with a flange that extends across the front side of the housing, at its ends and for a portion of the rear side of the housing, said flange bearing on the upper face of the movable blade and holding it in operative position. The housing is also provided with ribs 18, that project into vertically-extending grooves formed in the member 5, and extending along the bottom of the flange at the front of the housing is an inverted-V-shaped rib 19, which projects into a V-shaped groove formed in the top of the movable blade and acts as a guide for said blade. The housing is held in position by a bolt 20, carried by the station-

ary blade and projecting upwardly through an elongated slot 21 in the movable blade. The conductors 22 and 23 extend through the handle 1 to the motor located in the casing, and the switch 24 is slidingly mounted in said casing to control the starting and stopping of the motor.

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

1. A device of the class described, comprising a casing having a motor located therein, a handle connected to said casing, a stationary blade connected to said casing, a movable blade coöperating with said stationary blade, upwardly-projecting posts adjustably connected to said movable blade and provided with inverted-V-shaped guideways, a cross-head reciprocatingly mounted between said posts, and an eccentric located within said cross-head and carried by the armature-shaft of the motor for imparting a transverse reciprocating movement to the movable blade; substantially as described.

2. A device of the class described, comprising a casing provided with a closed end and having a motor located therein, a handle connected to said casing, a member connected to the end wall of the casing and having a stationary blade connected thereto, a movable blade resting on the stationary blade and provided with upwardly-projecting posts, an armature-shaft projecting through the end wall of the casing and the member which is connected thereto, an eccentric on said shaft for coöperating with the posts on the movable blade, and a housing for inclosing said posts and eccentric, said housing being provided with a flange which bears on the movable blade; substantially as described.

3. A device of the class described, comprising a shell having a motor located therein, a handle connected to said shell, a stationary blade connected to said shell, a movable blade mounted on said stationary blade and provided with an opening therein, posts adjustably connected to said movable blade at each side of the opening therein, a plurality of blocks forming a cross-head which is reciprocatingly mounted between said posts, an armature-shaft provided with an eccentric that is located within said cross-head, a housing for inclosing the posts and the parts coöperating therewith, a bolt carried by the stationary blade for holding said housing in operative position, vertical guide-ribs at the rear of the housing, and a transversely-extending guide-rib at the front of the housing which projects into a groove in the movable blade; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 23d day of March, 1906.

WALTER P. SPARKS.

Witnesses:
WELLS L. CHURCH,
GEORGE BAKEWELL.