

(No Model.)

C. M. PALMER.
ANIMAL SHEARS.

No. 432,432.

Patented July 15, 1890.

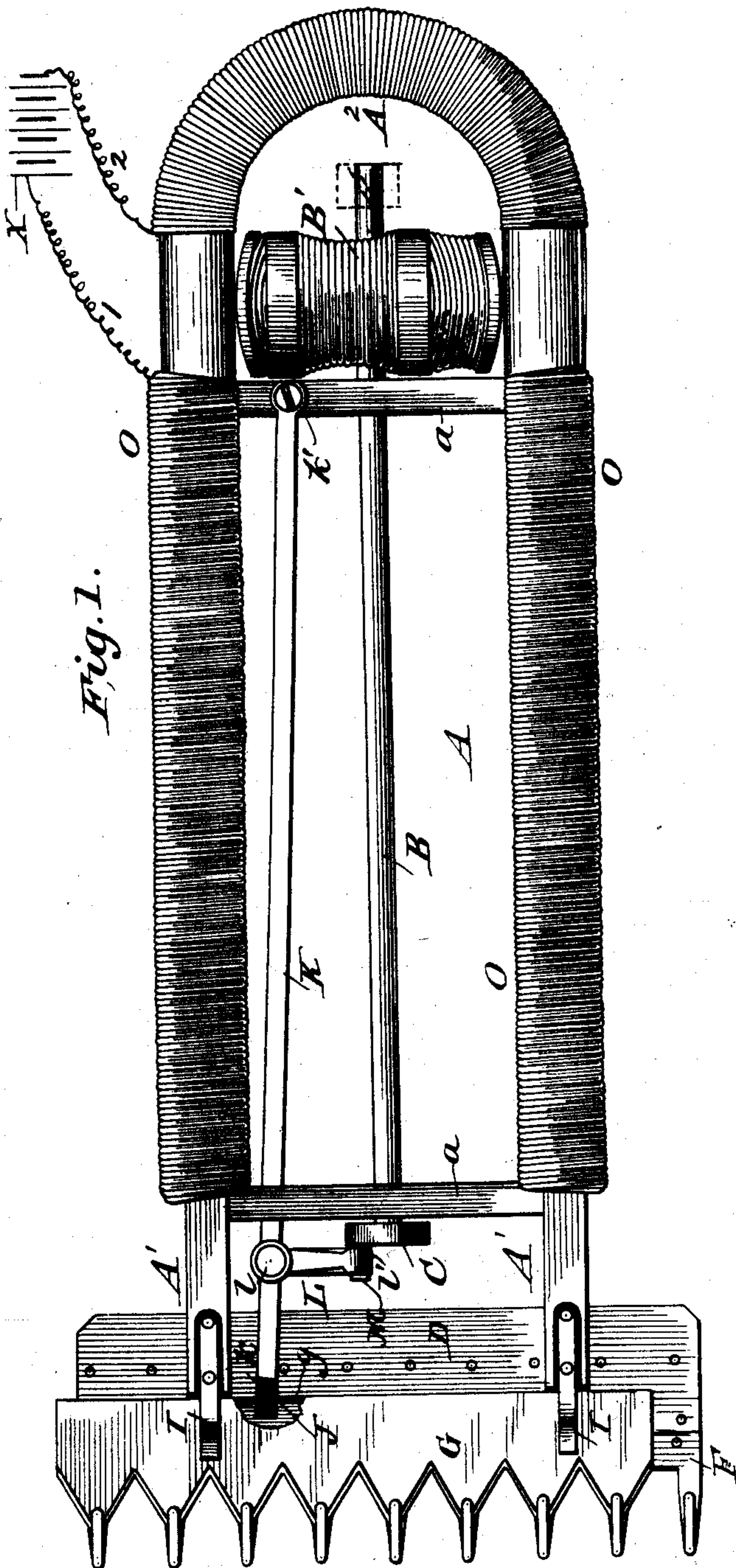


Fig. 1.

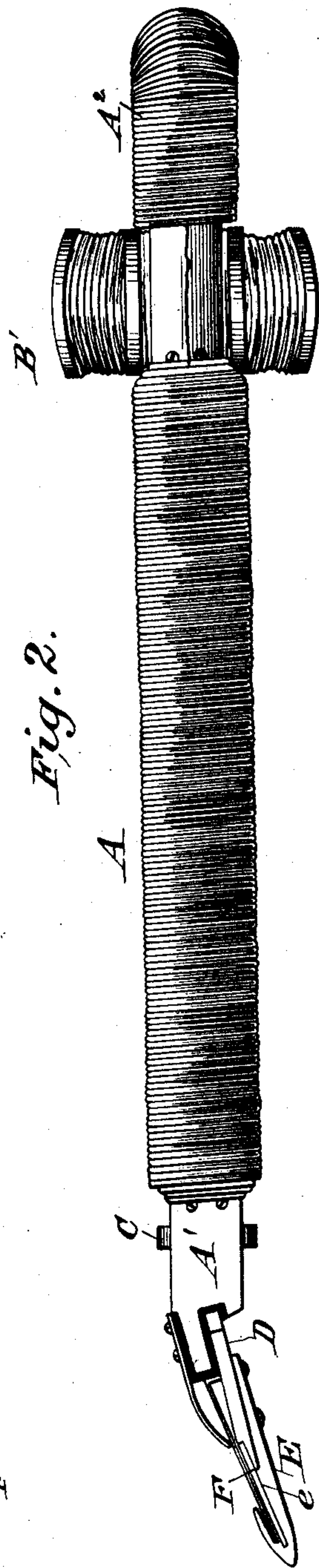


Fig. 2.

WITNESSES:

Fred G. Dutcher

W. S. Blondel

INVENTOR:

Chester M. Palmer

BY

Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

CHESTER M. PALMER, OF LAMARTINE, WISCONSIN.

ANIMAL-SHEARS.

SPECIFICATION forming part of Letters Patent No. 432,432, dated July 15, 1890.

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To all whom it may concern:

Be it known that I, CHESTER M. PALMER, residing at Lamartine, in the county of Fond du Lac and State of Wisconsin, have invented certain new and useful Improvements in Animal-Shears, of which the following is a specification.

My invention, which relates more particularly to sheep-shearing implements, horse-clippers, &c., has for its object to provide an implement of this character wherein the cutters are adapted to be operated by an electrical motor, and in which the construction is such as to produce a simple and effective device which will be cheap as to cost and easy to manipulate.

To this end my invention consists in constructing the arms or supports into an electrical horseshoe-magnet, and to journal an operating-shaft between the arms of said magnet, which carries an armature at one end, its opposite end connected to the cutter-bars in such manner that the revolving motion of said shaft will impart a reciprocating motion to the cutters.

It further consists in the peculiar arrangement and novel combination of the parts, which will hereinafter be fully described in the annexed specification, and be particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a top plan view of my improved device, and Fig. 2 is a side view of the same.

In the accompanying drawings, A indicates the main or body portion of the device, which is formed into the shape of a horseshoe-magnet. Upon the arms A' A' and the arched portion A² a double set of wire coils O are wound, to which are connected the terminals 1 2, which are connected to the battery X, which furnishes the source of the electrical supply. The arms A' A' are connected by the cross-bars a a, in which is journaled a longitudinal shaft B, provided at one end with an armature B', adapted to rotate between the arms A' A' near the arched portion A², while its opposite end is provided with a disk C, as shown.

D denotes a transverse plate secured upon the lower end of the arms A', to which is connected the finger-guard plate E, which is formed with a socket e, in which is seated the lower fixed cutting-plate F.

G denotes the reciprocating cutter mounted over the plate E, the rear end of which is formed with a depending flange g, which abuts on the ends of the arms A' A' and is guided thereby. Said plate is still further held in proper position by means of the spring-fingers I I, secured upon the ends of the arms A' A', as shown. The rear edge of the flange g is provided with an aperture J, in which fits the end k of an oscillating rod K, pivoted at its rear end k' upon the rear cross-bar a, while its forward end is connected by means of a pitman L pivoted at l' upon said bar, and at l'' on a wrist-pin M upon the face of the disk C, as shown.

In practice I provide a suitably-constructed casing which fits around the main or body portion of the device.

In the practical use of my device I connect the same with a convenient length of slack electric wire, the lower ends of which, for convenience, and to prevent same from coming in contact with the animal, are passed down along the arm of the operator, the other portion of said wire being preferably suspended from a ceiling or other elevated support. By this arrangement the operator is enabled to have free and almost unlimited movement of the shearing implement, without having the wires becoming tangled or engage the animal.

From the foregoing description, taken in connection with the drawings, the operation of my improvement will be easily understood. It will be seen that the same is exceedingly simple in construction and can be manufactured at a small cost.

Any suitable means for insulating the cutting devices from the body of the device may be employed to prevent the magnetic current from coming in contact therewith.

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

1. An animal-shearing device consisting of a body portion formed of an electro-magnet, the reciprocating cutting devices mounted on one end thereof, an operating-shaft mounted between the arms of said magnet carrying an armature, the electrical-current wires disposed about said magnet, and a connection between said shaft and the cutters, whereby the said cutters are reciprocated by the revo-

lution of said shaft, substantially as shown and described.

2. The combination, with the magnet A, the electrical-circuit coils O, the transverse bars *a*
5 *a*, and the fixed cutter-blade secured upon the ends of the magnet, of the shaft B, journaled on the arms *a a*, provided with an armature B' at one end, a disk C at the opposite end, the oscillating rod K, pivoted at one end to the
10 magnet-frame, its opposite end connected to the upper or reciprocating cutter, and the pitman-connection between said arm and the disk, substantially as and for the purpose described.

15 3. The combination, with an electric motor, a source of electric-current supply, means for connecting said supply with the motor, said motor consisting of an electro-magnet, and an armature revolving between the arms A' A'
20 thereof and provided with a revolving shaft, of the fixed cutter-plate secured upon the ends of the arms A' A', a reciprocating cutter operating on said fixed cutter, a reciprocating bar

pivoted to the magnet-frame, its free end engaging the said reciprocating cutter, and a pit- 25 man-connection between said bar and the revolving armature-shaft, all arranged substantially as and for the purpose described.

4. The combination, with the electro horse-shoe-magnet, the transverse bar E, secured on 30 the ends A' A' thereof, the fixed cutter held on said plate E, the armature mounted between said magnet-arms, and the disk C, mounted on the shaft of said armature, of the reciprocating cutter G, provided with a depending 35 flange *g*, abutting on the ends of the arms A' A', the spring-arms I I, secured upon said arms A' A' and pressing on the cutter G, the pivoted oscillating arm K, and the pitman-connection between said arm K and the disk 40 C, substantially as and for the purpose described.

CHESTER M. PALMER.

Witnesses:

SOLON C. KEMON,
ENOCH PALMER.