(No Model.)

L. G. WOOLLEY.

ELECTRIC MOTOR.

No. 318,589. Patented May 26, 1885.

Fig. 1.

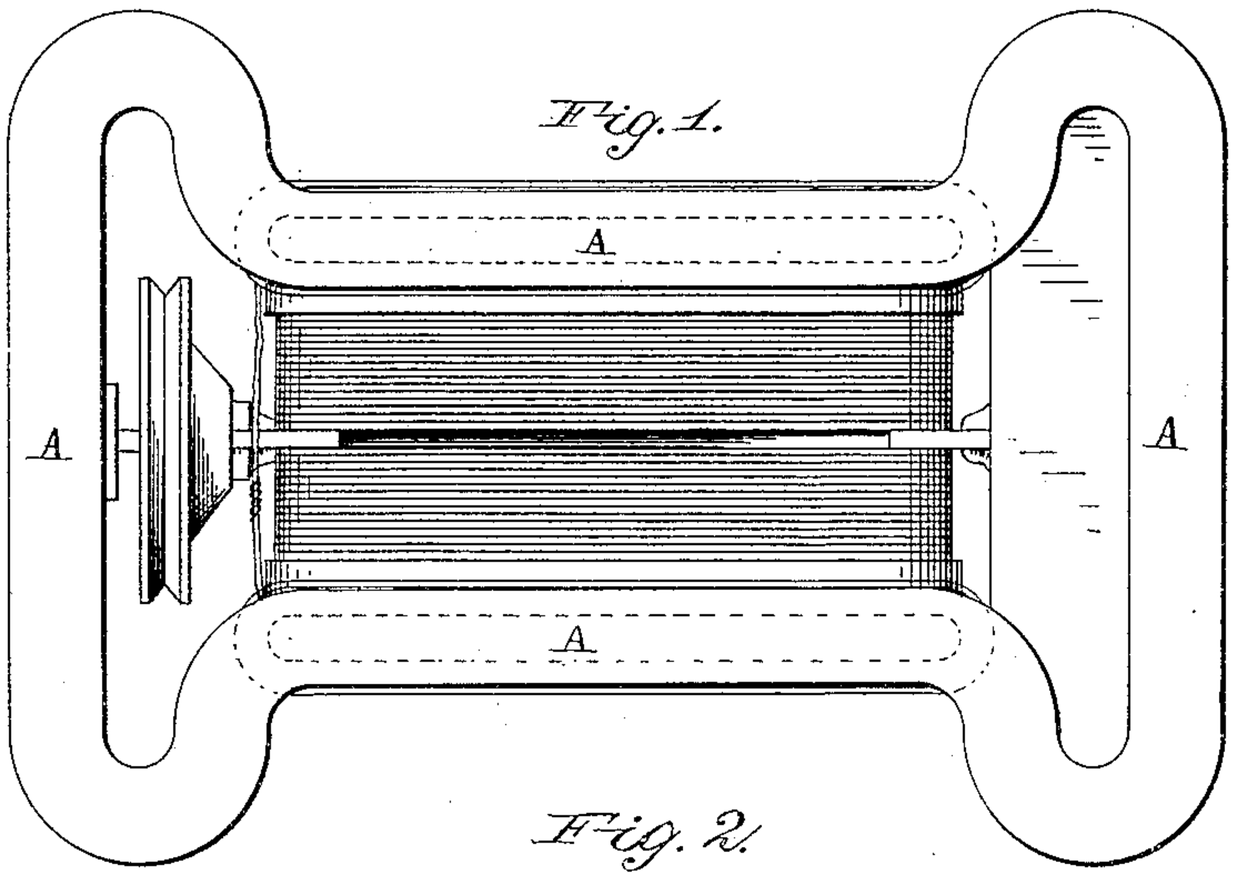


Fig. 2.

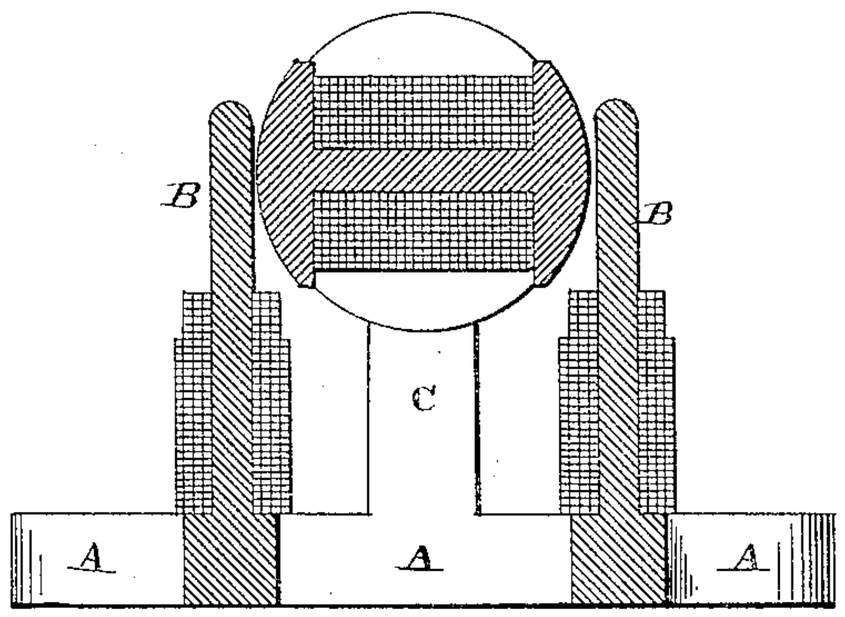
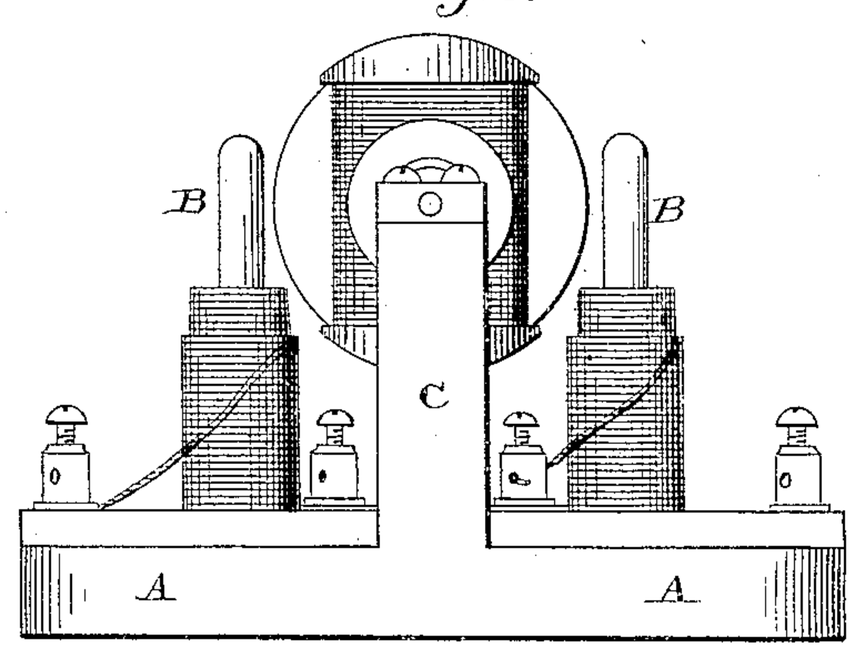


Fig. 3.



Witnesses:

J. W. Garner

L. F. Gardner

Inventor:

L. G. Woolley

per

F. A. Lehmann, Atty

UNITED STATES PATENT OFFICE.

LEONIDAS G. WOOLLEY, OF KALAMAZOO, MICHIGAN.

ELECTRIC MOTOR.

SPECIFICATION forming part of Letters Patent No. 318,589, dated May 26, 1885.

Application filed October 21, 1884. (No model.)

To all whom it may concern:

Be it known that I, LEONIDAS G. WOOLLEY of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Electric Motors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in electro-magnetic motors; and it consists in the base or body of the magnet having outward curvatures or bends for the purpose of increasing the length of the magnet, the limbs of the magnet and the posts or supports for the armature being formed on its top, as will be more fully described hereinafter.

The object of my invention is to so construct the frame of the magnet that it will form not only the base of the machine but a long magnet at the same time, thereby reducing the space heretofore usually occupied by such machines, compressing the machine into a very small space, increasing its power, and greatly reducing its cost.

Figure 1 is an inverted view of a machine embodying my invention. Fig. 2 is a vertical cross-section of the same. Fig. 3 is an end view.

A represents the base of the machine, which also forms the magnet. The central portion of this base is cut away, as shown, and the two limbs B of the magnet, and the two posts or supports C are cast in a single piece with it. In order to increase the length of the magnet it is curved outwardly at each end of each of the limbs of the magnet, as shown, and this curvature at this point may be increased to any desired extent for the purpose of obtaining a longer and a more powerful magnet. It is not necessary that this outward curvature of the magnet should be made, but it is preferable for the purpose of increasing the power of the magnet. Each of the limbs of the magnet is wrapped with wire in the usual manner, and the armature is suspended between the tops of the posts, so as to revolve between the poles of the magnet in the usual manner. No particular claim is made to the commutators or the particular construction of the armature itself. By having the limbs of the magnet cast as a part of the magnet, and upon its top, as here shown, very broad limbs are formed without increasing the height of the machine. The posts or supports for the armature, the limbs of the magnet, and the base of the machine being all cast together, a very powerful, compact, and cheap machine is produced. By cutting out the central portion of the base or magnet, and by forming the magnet in one continuous piece, a long and powerful magnet is produced. By the construction here shown a very short and broad armature can be used, thus enabling me to increase the power of the motor without increasing its size.

Although I prefer to curve the body or base of the machine outward, I do not limit my invention in this respect.

Having thus described my invention, I claim—

In an electric motor, the base or body of the magnet having the outward curvatures or bends for the purpose of increasing the length of the magnet, the limbs of the magnet, and the posts or supports for the armature being formed upon its top, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

LEONIDAS G. WOOLLEY.

Witnesses:
F. A. LEHMANN,
B. LEWIS BLACKFORD.