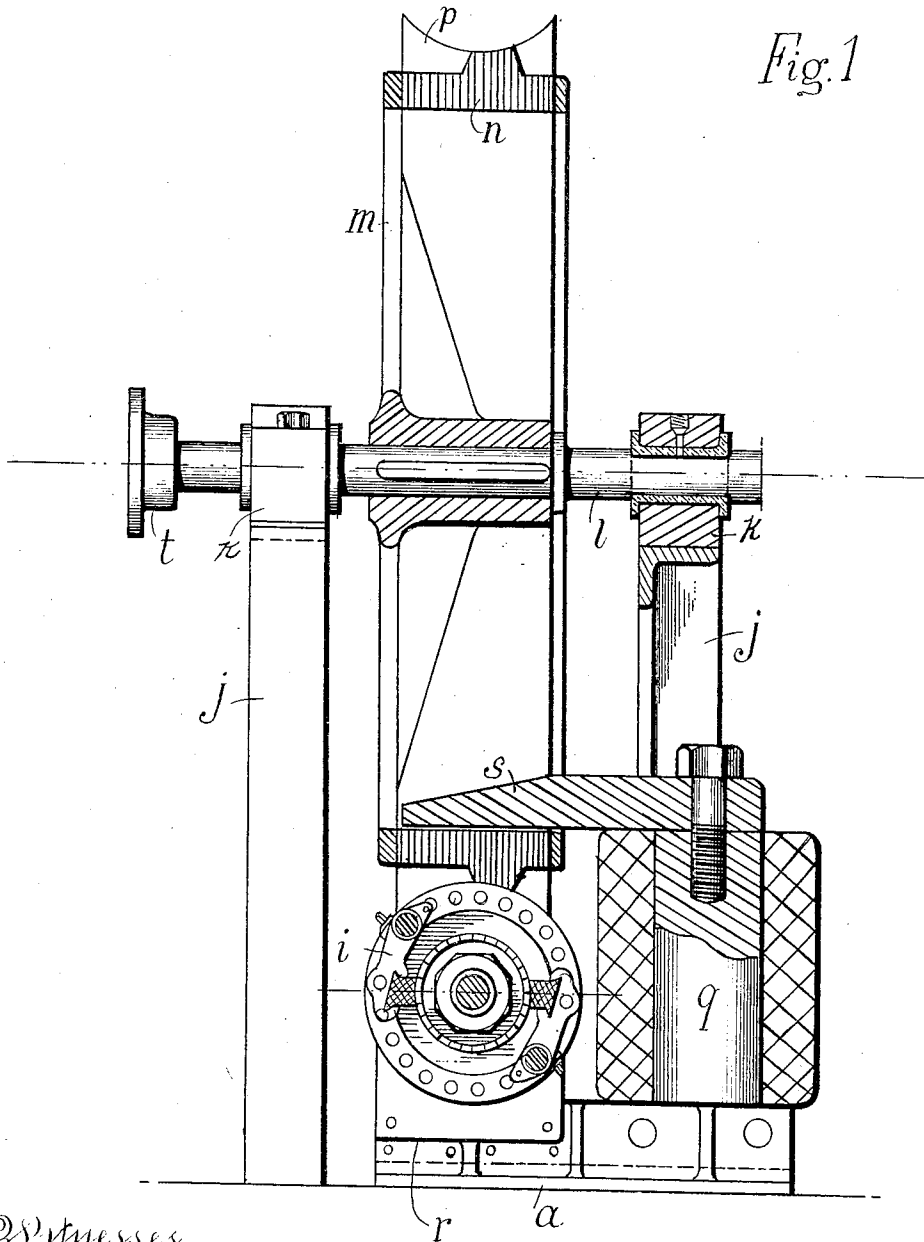


J. LECOCHÉ.
DIRECT CURRENT ELECTRIC MOTOR.
APPLICATION FILED OCT. 24, 1910.

1,031,561.

Patented July 2, 1912.

2 SHEETS—SHEET 1.



2 Witnesses.

Arthur Matten.

J. S. Spusta

Inventor

Jules Lecoche.

By William J. H. Witherspoon

his Attorney

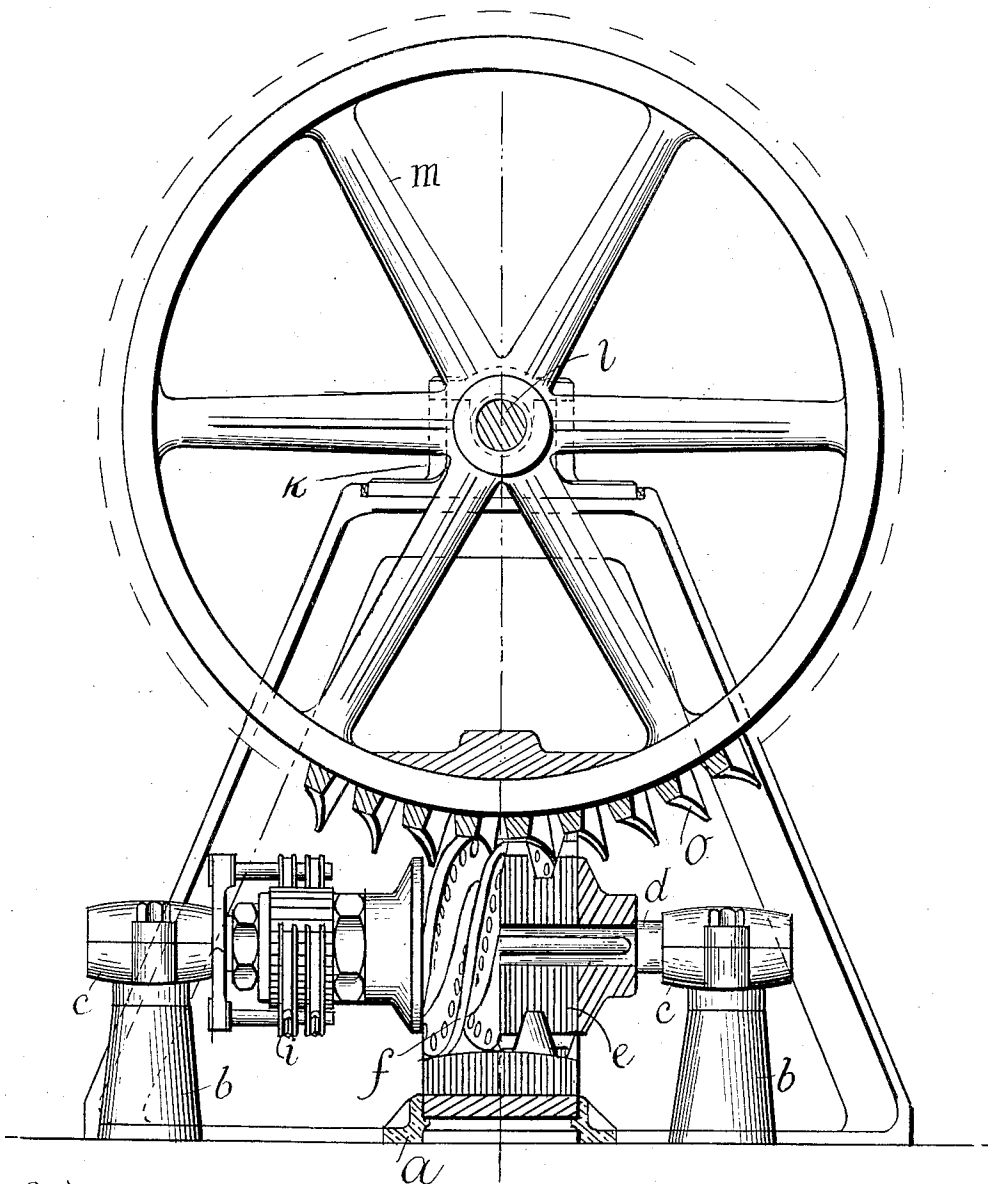
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2 SHEETS—SHEET 2.

Fig. 2.



Witnesses
Hurst Hattum.
J. Spina

Inventor
Jules Lecoque,
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His Attorney

UNITED STATES PATENT OFFICE.

JULES LECOCHÉ, OF WESTMINSTER, LONDON, ENGLAND.

DIRECT-CURRENT ELECTRIC MOTOR.

1,031,561.

Specification of Letters Patent.

Patented July 2, 1912.

Application filed October 24, 1910. Serial No. 588,855.

To all whom it may concern:

Be it known that I, JULES LECOCHÉ, a citizen of the French Republic, residing at 39 Victoria street, Westminster, London, S. W., England, have invented certain new and useful Improvements in Direct-Current 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 appertains to make and use the same.

This invention consists in improvements in direct current electric motors, the object being to construct, without lessening the efficiency, a low speed motor at a less cost than is at present possible when low speed motors are built in the ordinary manner.

In further explanation of my invention I make reference to the accompanying drawing wherein—

Figure 1 shows a part sectional side view and Fig. 2 a part sectional front view.

I provide a bed plate *a* having the up-rights *b* of non-magnetic material supporting, in ball or other suitable bearings *c* the ends of the armature shaft *d*.

The armature core is built up of a number of star-like stampings *e* threaded on the shaft *d* in such manner that the points of the stars will form helical threads *f* in number equal to the number of the points in each stamping, and through the said threads and parallel with the axis of the shaft *d* are holes *g* to receive the conductors connected to the commutator *h*, having the brushes *i*. From the bed-plate *a* also upstand the standards *j* carrying the bearings *k* for the ends of the shaft *l* of a wheel *m*, having an out-standing rim *n* built up of toothed rings

arranged to provide the screw teeth *o*, in number such as will bear the same ratio to the number of threads in the armature, as the speed of the wheel *m* is required to be, relatively to the armature.

The rim *n* of the wheel *m* is arranged so as to stand directly over the armature and is made of concave cross-section as at *p* in order that it may revolve over the armature without touching it.

g is the magnet, one pole piece *r* of which is below the armature and the other one *s* extended behind the rim *n* of the wheel, and made of suitable shape to lie therein without touching. *t* is part of the coupling of the motor.

What I claim as my invention and desire to secure by Letters Patent is:—

1. In a continuous current motor the combination of an armature having spirally disposed projections; a pole piece constituting the rim of a wheel; diagonally arranged teeth on said rim coacting with said spirally disposed projections; and a shaft on which said wheel is mounted, substantially as described.

2. In a continuous current motor the combination of an armature having screw shaped projections; a wheel rim constituting a pole piece having teeth coacting with said projections; and a field magnet for energizing said pole piece and armature.

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

JULES LECOCHÉ.

Witnesses:

RIPLEY WILSON,
C. P. LIDDON.