

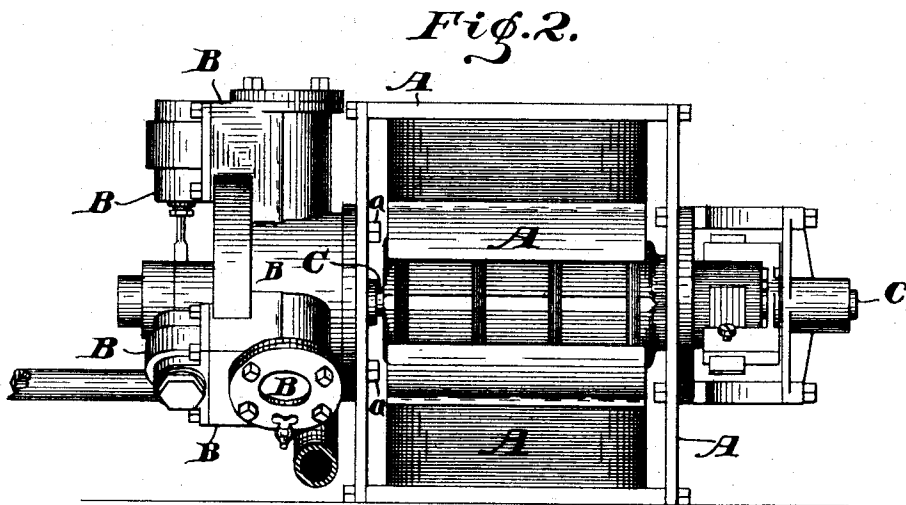
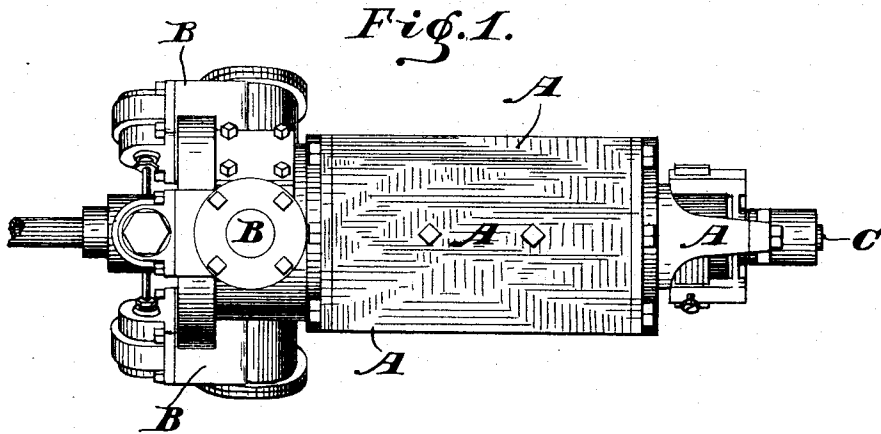
(No Model.)

L. G. WOOLLEY.

STEAM DYNAMO ELECTRIC MACHINE.

No. 341,303.

Patented May 4, 1886.



WITNESSES.

Chas. Leonard.  
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# UNITED STATES PATENT OFFICE.

LEONIDAS G. WOOLLEY, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO HENRY H. MCGAFFEY AND CHESTER BRADFORD, BOTH OF SAME PLACE.

## STEAM DYNAMO-ELECTRIC MACHINE.

SPECIFICATION forming part of Letters Patent No. 341,303, dated May 4, 1886.

Application filed November 16, 1885. Serial No. 182,907. (No model.)

*To all whom it may concern:*

Be it known that I, LEONIDAS G. WOOLLEY, of the city of Indianapolis, county of Marion, and State of Indiana, have invented certain new and useful Improvements in Steam Dynamo-Electric Machines, of which the following is a specification.

My said invention consists in securing a dynamo-electric machine and the engine by which it is driven solidly together, so that the neutral or non-magnetic portion of the dynamo; and the adjacent portion of the engine shall be actually or practically all in one piece, whereby great steadiness of motion and freedom from friction in running is secured, with the attendant desirable results, as will be hereinafter more particularly described.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a top or plan view of a dynamo-electric machine and the engine for driving the same secured together in accordance with my invention; and Fig. 2 is a side elevation of the same.

In said drawings, the portions marked A represent the dynamo; B, the engine, and C a common shaft for said engine and the armature of the dynamo. The dynamo A may be any machine of the character desired, so long as it is so arranged that the engine may be secured to the neutral or non-magnetic portion thereof. The one shown is of a compact and substantial construction, which I have made for use in connection with a locomotive electric head-light. The engine shown is the "Gardner three-cylinder engine," and is secured to the neutral portion of the dynamo by bolts *a*. The portion of the dynamo through which the bolts pass is shown as forming one head of the engine, so that the same piece forms a part of the engine and of the dynamo. The shaft C passes through the engine and the armature of the dynamo, and is

a solid continuous shaft, the construction permitting such a shaft to be used without danger of any binding in the bearings by reason of the jars to which it may be subjected, as, mechanically speaking, the whole device is practically a single structure. The engine, being secured at the neutral portion of the dynamo, is not magnetized, and consequently not affected in its operation from this cause.

This invention is particularly valuable in connection with locomotive electric head-lights, the machines for driving which, by reason of the rough usage to which they are necessarily subjected, have been difficult to keep in order, while this, being compact and rigid in construction and arrangement, cannot in ordinary use be sprung or twisted out of adjustment, and consequently no binding or heating of the bearings, which has been the most prolific source of trouble, is liable to occur therein.

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

1. The combination of an engine and a dynamo-electric machine, said engine being secured rigidly to said machine at the neutral portion thereof, substantially as set forth.

2. The combination of a dynamo-electric machine, an engine secured thereto at its neutral portion, and a common shaft for said engine and the armature of said machine.

3. The combination of the dynamo A, the engine B, and the shaft C, said several parts being arranged, operating, and secured together, substantially as shown and specified.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 30th day of October, A. D. 1885.

LEONIDAS G. WOOLLEY. [L. S.]

In presence of—

C. BRADFORD,  
CHARLES L. THURBER.