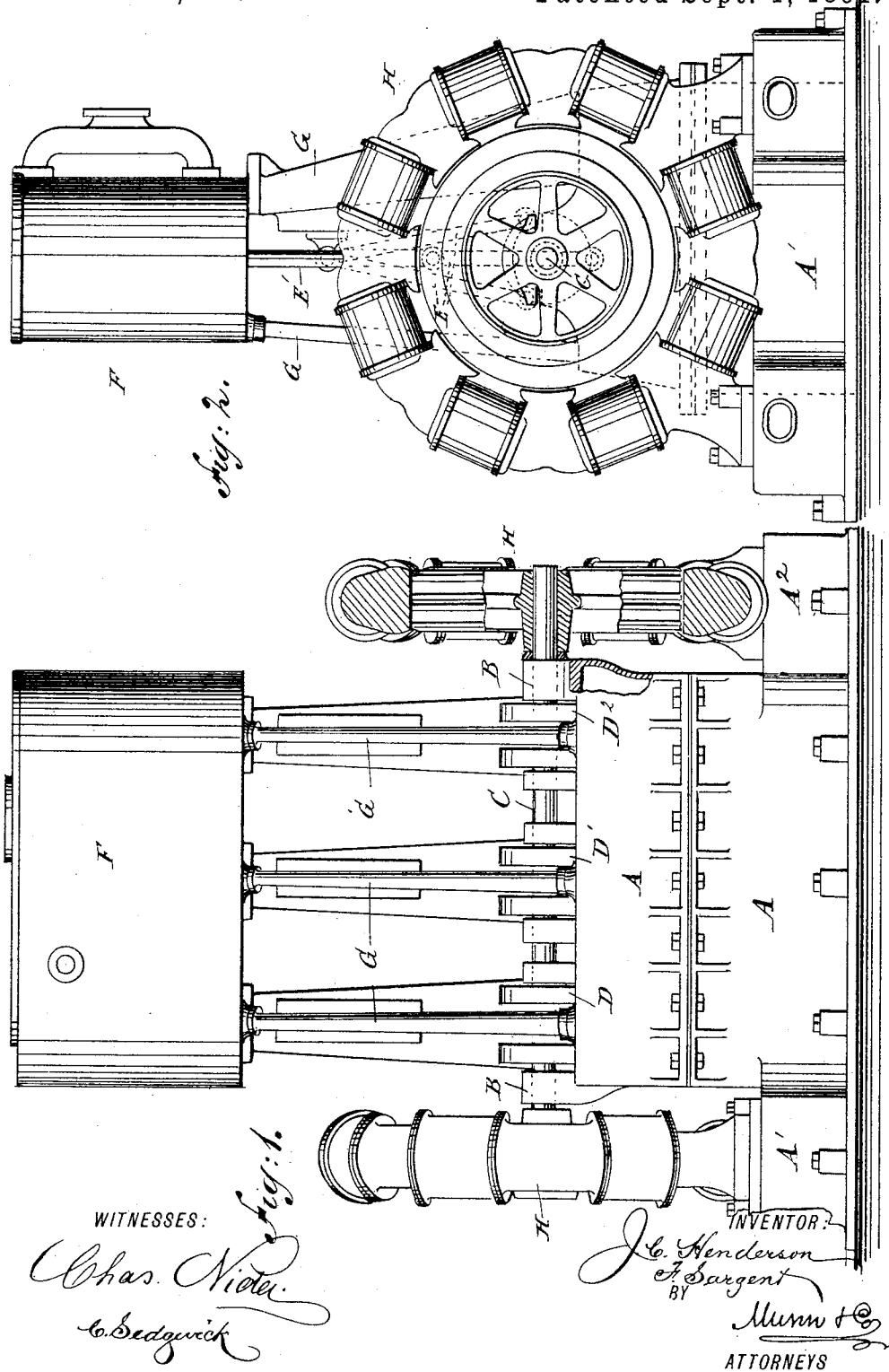


(No Model.)

J. C. HENDERSON & F. SARGENT.  
ELECTRIC GENERATOR.

No. 458,702.

Patented Sept. 1, 1891.



WITNESSES:

*Chas. Nider*  
*to Sedgwick*

INVENTOR:

*J. C. Henderson*  
*& F. Sargent*  
BY

*Munn & Co*  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

JOHN C. HENDERSON, OF NEW YORK, AND FREDERICK SARGENT, OF NEW ROCHELLE, ASSIGNORS TO THE EDISON GENERAL ELECTRIC COMPANY, OF NEW YORK, N. Y.

## ELECTRIC GENERATOR.

SPECIFICATION forming part of Letters Patent No. 458,702, dated September 1, 1891.

Application filed June 21, 1890. Serial No. 356,193. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN C. HENDERSON, of New York city, in the county and State of New York, and FREDERICK SARGENT, of New Rochelle, in the county of Westchester and State of New York, have invented a new and Improved Generator, of which the following is a full, clear, and exact description.

The invention relates to machines for generating electric currents; and its object is to provide a new and improved generator which is simple and durable in construction, utilizes the motive power applied to the fullest advantage, and permits of conveniently repairing parts without disturbing the others.

The invention consists in the combination of a base of special construction, an engine, and a dynamo or dynamos, as herein set forth.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a side elevation of the improvement with parts in section, and Fig. 2 is an end view of the same.

Our improved apparatus is provided with a base, which is made in two parts A A, one above the other, the two being bolted together. The upper part is provided with journal-bearings B, and the lower part is provided with steps or extensions A' A<sup>2</sup>, projecting beyond the body of the base at each end. On the base is supported a triple-expansion or compound engine F, provided with piston-rods E', connected through pitmen E with cranks D D' D<sup>2</sup> on the driving-shaft C, which shaft is supported in the bearings B. The body of the engine is supported above the base by the pillars G. The ends of the driving-shaft project beyond the bearings B and beyond the main body of the base, and each end carries the movable member of a dynamo, which may be either the field-magnet or armature. The other members of the dynamos are supported on the projecting steps of the base, and are securely bolted thereto.

It will be seen that by constructing an apparatus in the manner described the dynamos can be easily repaired whenever necessary without disturbing any parts of the engine, the base, or the main driving-shaft. It will further be seen that as the base is adapted to be secured to one foundation no additional foundations are required for the dynamos or extra bearings for the main driving-shaft. It will further be seen that as the motive power of the engine is directly transmitted to the main driving-shaft and the latter directly actuates the dynamos no waste of power takes place. By placing a generator at each end of the shaft the strain is evenly distributed and both generators are rotated easily and smoothly. Since the two steps A' A<sup>2</sup> supporting the dynamos are made integral with the base there is no possibility of their settling or otherwise getting out of proper relation to the shaft and its bearings.

What we claim is—

1. The combination of a supporting-base built up in sections, an engine mounted on it and having a shaft extending from the body of the base at both ends, the movable part of a dynamo on each end of said shaft, and the stationary part of a dynamo mounted on a part of the same base at each end, whereby two dynamos are driven by a single engine with little strain and whereby the dynamos and the engine-shaft are securely held in the same relative position, substantially as described.

2. The combination of a supporting-base having a projecting step at each end, an engine mounted on the main body of the base and having a shaft extending from the body of the base at both ends, the movable part of a dynamo on each end of said shaft, and the stationary part of a dynamo mounted on each step of the base, whereby two dynamos are driven by a single engine and whereby the dynamos and engine-shaft are securely held in the same relative position, substantially as described.

3. The combination of a supporting-base  
made in two parts, one above the other and  
bolted together, journal-bearings on the up-  
per part, an engine on the base, having a shaft  
5 in said bearings and projecting beyond the  
body of the base, the movable part of a dy-  
namo on said shaft, and the stationary part  
of the dynamo on an integral projecting por-

tion of the lower part of said base, substan-  
tially as described.

JOHN C. HENDERSON.  
FREDERICK SARGENT.

Witnesses:

J. H. GIBSON,  
A. C. NIVEN.