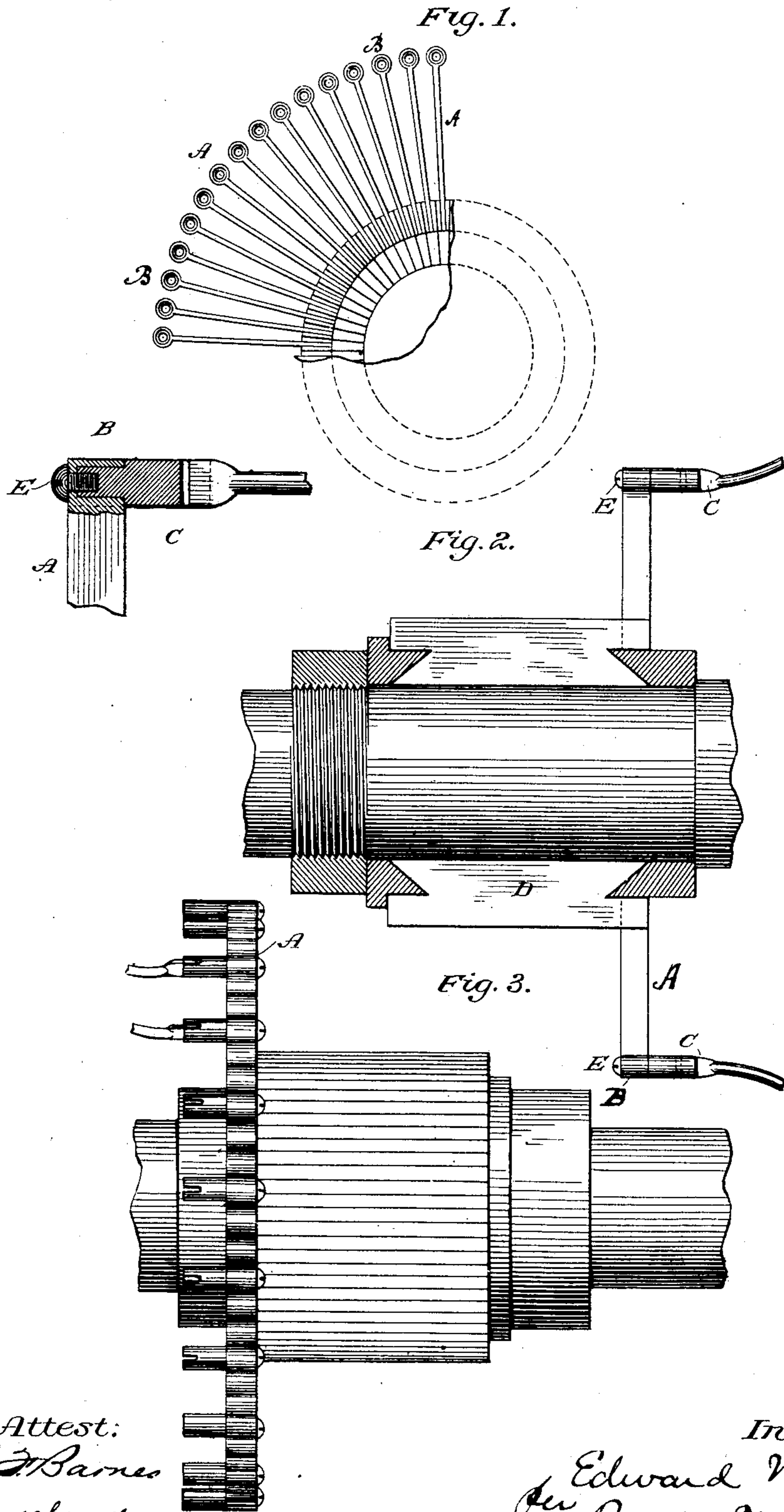


(No Model.)

E. WESTON.  
DYNAMO ELECTRIC MACHINE.

No. 255,366.

Patented Mar. 21, 1882.



Attest:  
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# UNITED STATES PATENT OFFICE.

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## DYNAMO-ELECTRIC MACHINE.

SPECIFICATION forming part of Letters Patent No. 255,366, dated March 21, 1882.

Application filed July 12, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD WESTON, of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Dynamo-Electric Machines, of which the following is a specification.

My invention consists in devices to be used with the armature-coils for connecting the ends to the commutator-segments, as will be understood by reference to the following description and to the drawings, in which—

Figure 1 is an end view of a portion of a commutator; Fig. 2, a central sectional view of a commutator containing my improved devices for connecting the wires thereto, the latter being shown also in a detail sectional view; Fig. 3, an elevation of a commutator illustrating the invention more fully.

The commutators represented in the several figures, and those in general to which the invention is more especially applicable, are composed of a great number of independent plates or segments, each of which forms one of the terminals of a coil or loop wound about the armature. Such commutators are used with the Gramme type of machines, or with such machines as form the subject-matter of Letters Patent granted to me January 14, 1879, No. 211,311. In these machines, where the number of plates is quite large, it is very difficult to secure the ends of the armature coils or loops to their respective plates, as the latter are necessarily very narrow. A series of radial arms, as shown at A, Fig. 1, is therefore generally used, each arm connecting to a plate, as D, and to the ends of the arms the wires are attached by being passed through small slots, and secured by a drop of solder. This, while making a good connection, is objectional, from the fact that the commutator can only be removed by cutting the wires. To avoid this I make the commutator and connections as follows:

The ends of the radial arms A are provided with eyes B. To the free ends of the armature-conductors are fastened small brass tips the points of which pass through the eyes B and are screwed to the arms A. The tips are of copper or brass, and are reduced in size along a portion of their length to fit in the eyes B. The butts or enlarged portions C are split, as at F; and are passed over the flattened ends of the wires, to which they are fastened by solder or compression. The tips are held in the eyes by screws E. By this means perfect contact is secured between the armature-coils and the commutator, while the latter is capable of easy removal, and may taken off and put on at any time by simply taking out the screws E.

The specified means of connecting the wires to the tips and the latter to the commutator-segments is capable of being modified in many respects without departing from the invention, which is summarized in the following claims.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the armature-coils of a dynamo-electric machine, of commutator-segments D, radial arms A, and metallic connecting-tips attached to the free ends of the wires composing the said coils, and fitted to eyes in the radial arms, and adapted for connection therewith by means of clamping or binding screws, substantially as described.

2. The combination of segments D, radial arms A, having eyes B at or near their ends, with connecting-pins C, attached to the free ends of the armature-coils, and fitted to and fastened in the eyes B by means of screws E, as and for the purpose set forth.

EDWARD WESTON.

Witnesses:

HENRY HINE,  
W. STANLEY, Jr.