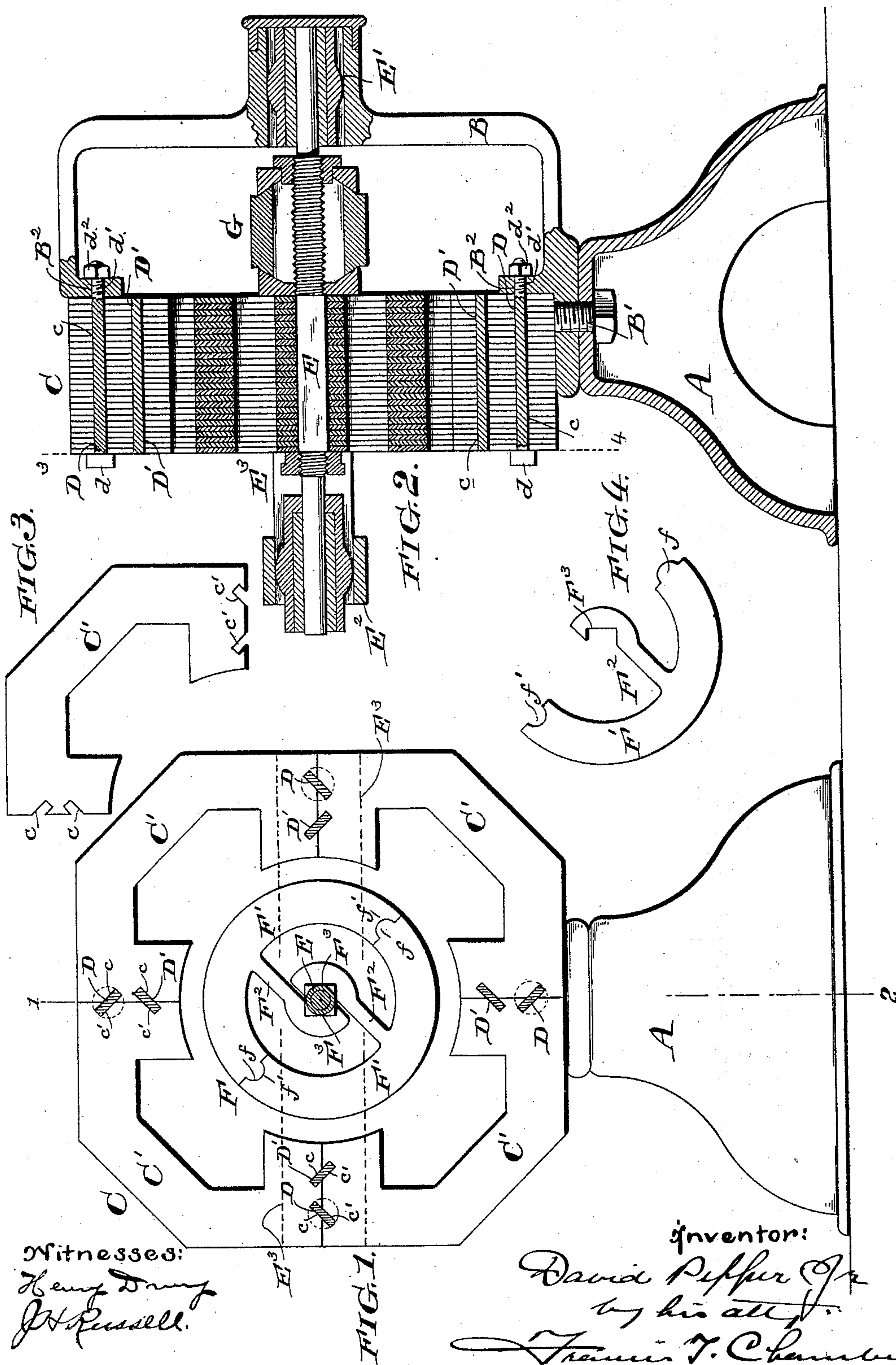


(No Model.)

D. PEPPER, Jr.  
DYNAMO ELECTRIC MACHINE.

No. 485,220.

Patented Nov. 1, 1892.





# UNITED STATES PATENT OFFICE.

DAVID PEPPER, JR., OF PHILADELPHIA, PENNSYLVANIA.

## DYNAMO-ELECTRIC MACHINE.

SPECIFICATION forming part of Letters Patent No. 485,220, dated November 1, 1892.

Application filed March 28, 1892. Serial No. 426,674. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID PEPPER, Jr., of the city and county of Philadelphia, State of Pennsylvania, have invented a certain new and useful Improved Dynamo-Electric Machine, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to the construction of dynamo-electric machines, either dynamos or motors, and particularly to the construction of the field-magnet cores and the armature-rings, my object being to provide simple and efficient devices by which these parts of the machines can be constructed in sections and secured together by means at once simple, efficient, and readily adjusted.

The nature of my improvement will be best understood as described in connection with the drawings, in which it is illustrated as embodied in a small motor such as is used for electrically-driven fans, and in which—

Figure 1 is a front elevation on the line 3 4 of Fig. 2; Fig. 2, a cross-section on the line 1 2 of Fig. 1; Fig. 3, a detached view of one section of the field-magnet core, and Fig. 4 a detached view of one section of the armature-ring.

A is the stand on which the motor is mounted, and B the frame or ring, to which the field-magnet core is secured and which supports the armature-shaft. The frame B, as shown, is attached to the stand A by screws, as indicated at B'. C indicates the field-magnet core, which is made up, as shown, of four sections or segments C'. Each section may be made of any desired number of thin plates or may be considered as formed of a single bar. The sections C' are formed so that when abutted against each other, as shown, they will make up the field-magnet core, and in the abutting sections I form oblique grooves  $c c'$ , the parts  $c$  in one section being made to register with the parts  $c'$  in the abutting section. When the parts are brought together in proper position, splines (shown at D D') are inserted in the registering grooves and effectually lock the two sections together. I have shown two sets of grooves and two splines for uniting the sections, and it will be obvious that a single

spline working in one part of the registering grooves will make an efficient union. To secure the sections together and unite them with the frame or ring B, the outer spline, which should have a head, as shown at  $d$ , is provided with a threaded end  $d'$ , which passes through a hole in a flange B<sup>2</sup> of the ring and is provided with a nut  $d''$  on the inside of said flange.

E is the armature-shaft, preferably squared, as shown, where the spider is secured to it, said shaft resting at one end on a bearing E<sup>2</sup>, supported by arms E<sup>3</sup>, which may conveniently be attached on each side of the field-magnet core.

F is the armature-ring, which is made up of sections, as shown at F F', these sections or segments being adapted to abut together and form the ring. Each section is provided with an arm or spoke F<sup>2</sup>, the inner end F<sup>3</sup> of which is adapted to pass around that side of the shaft E which lies farthest from the ring-segment. As shown, the part F<sup>3</sup> of the arm is formed to grip on the square shaft; but the form of the shaft is not an essential part of my invention. It will be obvious that when the different parts or sections are placed together and the shaft driven through the cavity formed by the inner ends of the arms or spokes the ring-sections will be effectually locked to position, there being devices preventing them from moving in toward the shaft and the hooked ends of their spokes preventing them from moving out away from the shaft. I prefer, as a further device for securing the sections in position, to make the ends of the sections of such shape that they will interlock together, as shown at  $f f'$ .

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

1. In an armature-ring, sections F', adapted to abut at the ends and form the ring, and each section having an inwardly-extending arm or spoke F<sup>2</sup>, the end F<sup>3</sup> of which is adapted to extend around and grasp the armature-shaft on the side farthest from the section.

2. In an armature-ring, sections F', adapted to abut at the ends and form the ring, the abutting ends being formed to interlock with each other, as described, and each section hav-



ing an inwardly-extending arm or spoke  $F^2$ , the end  $F^3$  of which is adapted to extend around and grasp the armature-shaft on the side farthest from the section.

5 3. The field-magnet C, made of a series of sections  $C'$ , abutted together and provided with oblique registering grooves  $c c'$  on their abutting faces, in combination with splines D, adapted to enter said grooves and lock the  
10 sections together.

4. The field-magnet C, made of a series of sections  $C'$ , abutted together and provided with oblique registering grooves  $c c'$  on their abutting faces, in combination with splines D,  
15 adapted to enter said grooves and lock the sections together, said splines or some of them

having threaded ends, as described, for securing the field to a frame.

5. In a motor, the combination of an armature made of sections  $F'$ , abutted together at 20 their ends, and each having an arm  $F^2$ , extending in and around the shaft, and a field-magnet core, also made in sections, the abutting parts of which are provided with oblique registering grooves, and splines adapted to 25 enter the grooves and lock the field-sections together.

DAVID PEPPER, JR.

Witnesses:

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