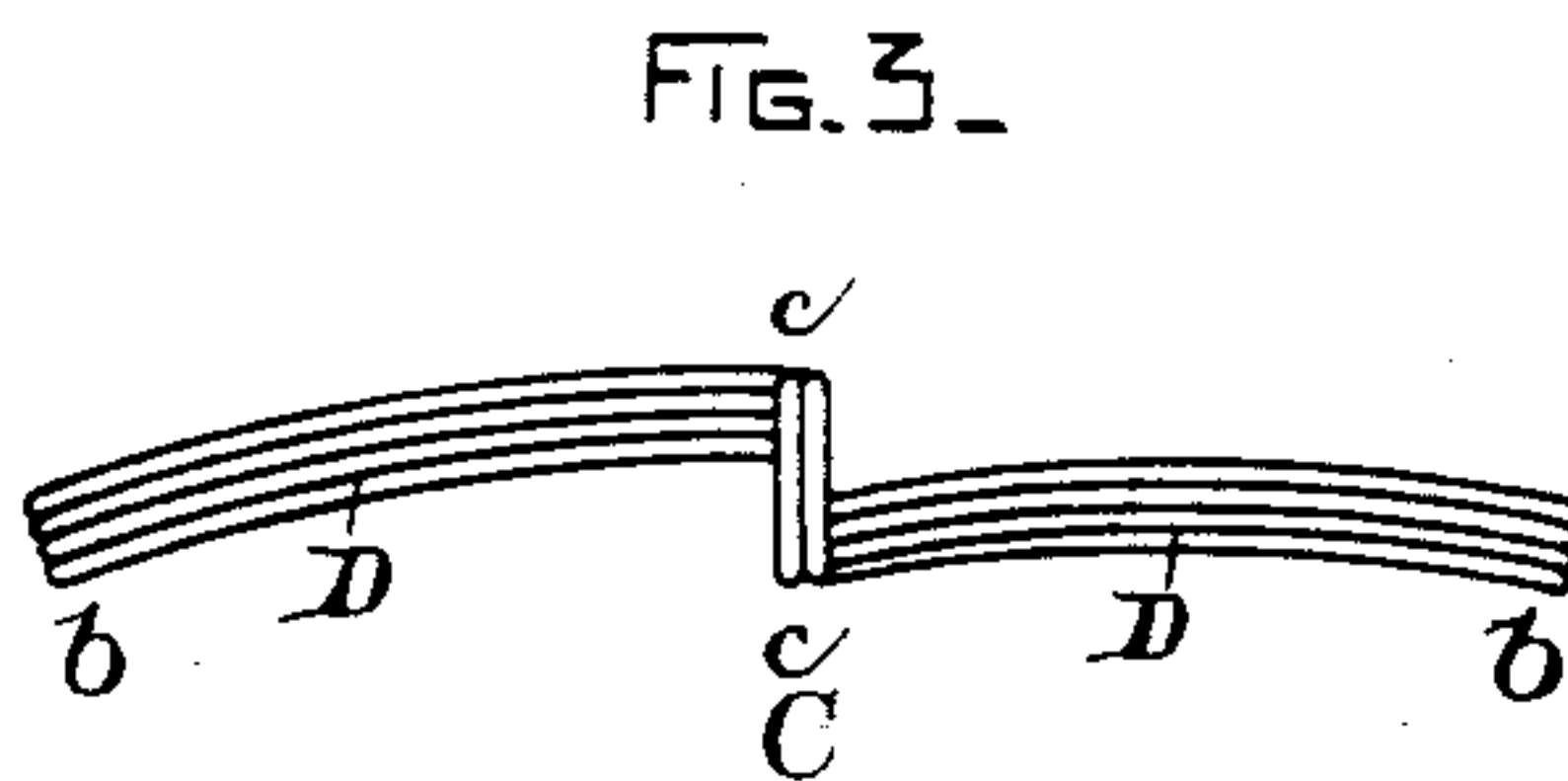
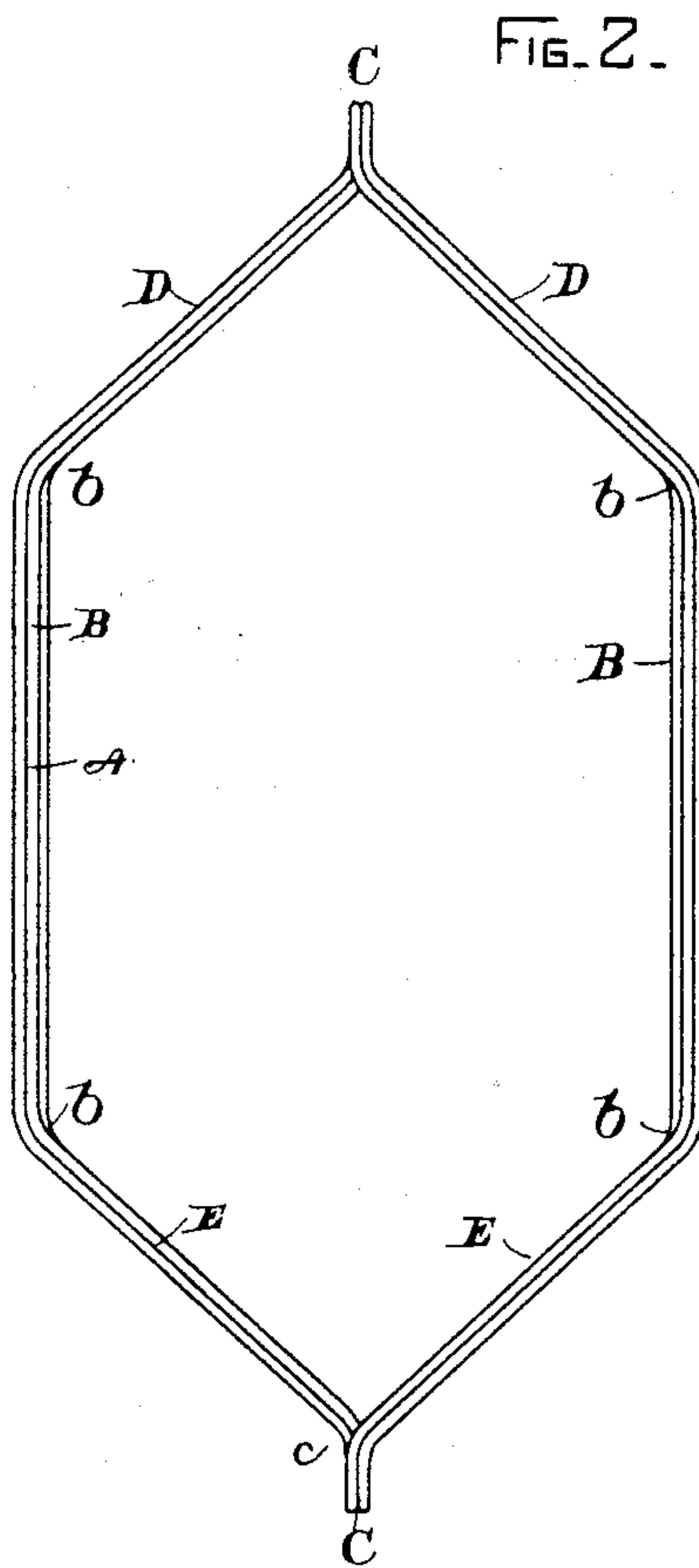
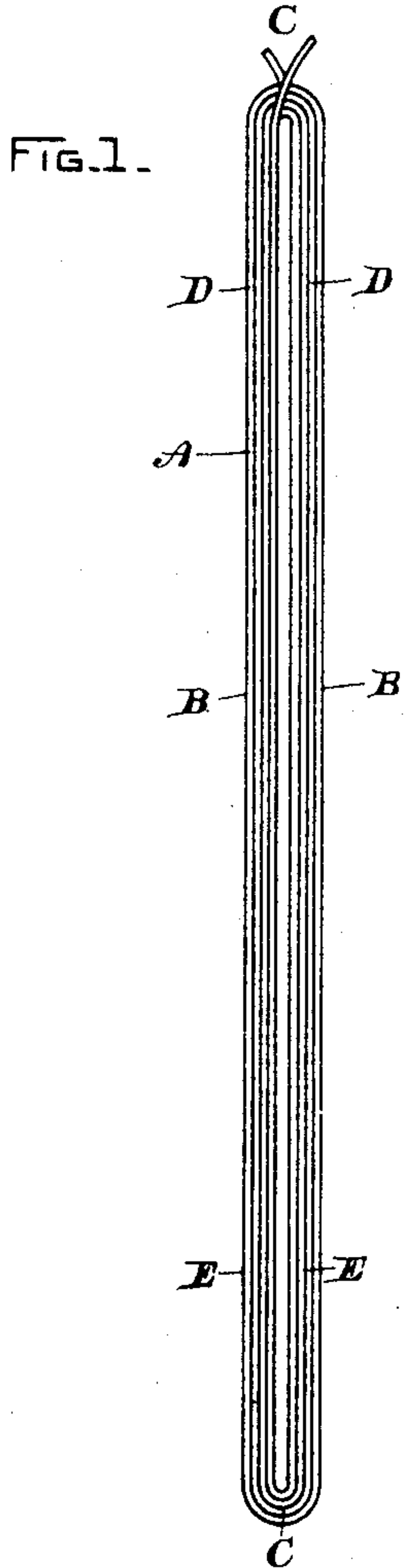


(No Model.)

O. F. PERSSON & D. P. THOMSON.  
ARMATURE COIL AND METHOD OF MAKING SAME.

No. 539,881.

Patented May 28, 1895.



WITNESSES.  
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# UNITED STATES PATENT OFFICE.

OTTO F. PERSSON AND DAVID P. THOMSON, OF SCHENECTADY, NEW YORK,  
ASSIGNORS TO THE GENERAL ELECTRIC COMPANY, OF SAME PLACE.

## ARMATURE-COIL AND METHOD OF MAKING SAME.

SPECIFICATION forming part of Letters Patent No. 539,881, dated May 28, 1895.

Application filed October 6, 1894. Serial No. 525,128. (No model.)

*To all whom it may concern:*

Be it known that we, OTTO F. PERSSON, a subject of the King of Sweden and Norway, and DAVID P. THOMSON, a citizen of the United States, residing at Schenectady, county of Schenectady, State of New York, have invented certain new and useful Improvements in Armature-Coils and Methods of Making the Same, of which the following is a specification.

Our invention relates to the manufacture of armature coils for dynamo-electric machinery; and has for its object to provide a method of making such coils uniformly and cheaply; for which purpose we first wind the coil in close parallel layers, and then bend it, as herein more fully described, into the final shape desired, such bending consisting in moving the two adjacent sides of the coil away from each other, at the same time drawing the ends of the coil more closely together, until the coil assumes a six-sided shape, two of the sides being increased in length.

We do not claim herein the apparatus employed in making the coil, this being the invention of another person.

The accompanying drawings show an armature coil constructed according to our improved method.

Figure 1 is a side elevation of the coil when first wound, and Fig. 2 an elevation of the coil completed, Fig. 3 being an end elevation of the completed coil shown in Fig. 2.

Referring by letter, A is the coil, in the case illustrated supposed to be formed in two layers of three turns each, but it is of course immaterial how many turns are put into it.

B, B are the two longer sides of the six-sided figure referred to in the statement of invention.

C, C are the ends of the coil.

D, D, E, E, are the shorter sides of the six-sided figure.

As shown in Fig. 3, the six-sided figure is divided into two equal parts lying in different planes, and it is so constructed for the purpose of enabling us to apply it to the ordinary toothed armature core.

In winding our core, we first wind it in the shape disclosed in Fig. 1 upon a form or mandrel of any desired type. The coil is then bent

into the shape shown in Fig. 2 (which is at a right angle to the view shown in Fig. 1), by engaging the two sides B, B, and drawing them apart, at the same time bringing the ends C, C nearer together. The sides D, D and E, E, thus assume the positions shown in Fig. 2, it being of course understood that any suitable means are employed for keeping the parts of the coil under tension between the points *b, b*, and the points *c, c*, at the ends of the coil, which are points of flexure.

The coil constructed by our improved method is thus a six-sided figure, four of the sides of which are curved to conform to the shape of the armature core to which it is to be applied, the two parts of the six-sided figure lying in different planes, and being joined by a part radial to the curved sides.

By the method thus described we are enabled to construct the coils rapidly and cheaply and by the use of suitable forms or tools they may be easily made interchangeable.

The method is peculiarly adapted to the mechanical winding of coils, and forms an important economy in their construction.

What we claim as new, and desire to secure by Letters Patent of the United States, is—

1. The method herein set out of winding armature coils, which consists in winding a coil having its two sides closely approximated and then drawing the sides away from each other, at the same time drawing the ends of the coil together, so as to form a six-sided figure, the two halves of which lie in different planes, as herein set out.

2. As a new article of manufacture, an armature coil in the shape of a six-sided figure, four of the sides of which are curved to conform to the shape of the armature core, the two parts of the six-sided figure lying in different planes and being joined by a part radial to the curved sides.

In witness whereof we have hereunto set our hands this 3d day of October, 1894.

OTTO F. PERSSON.  
DAVID P. THOMSON.

Witnesses:

B. B. HULL,  
A. F. MACDONALD.