

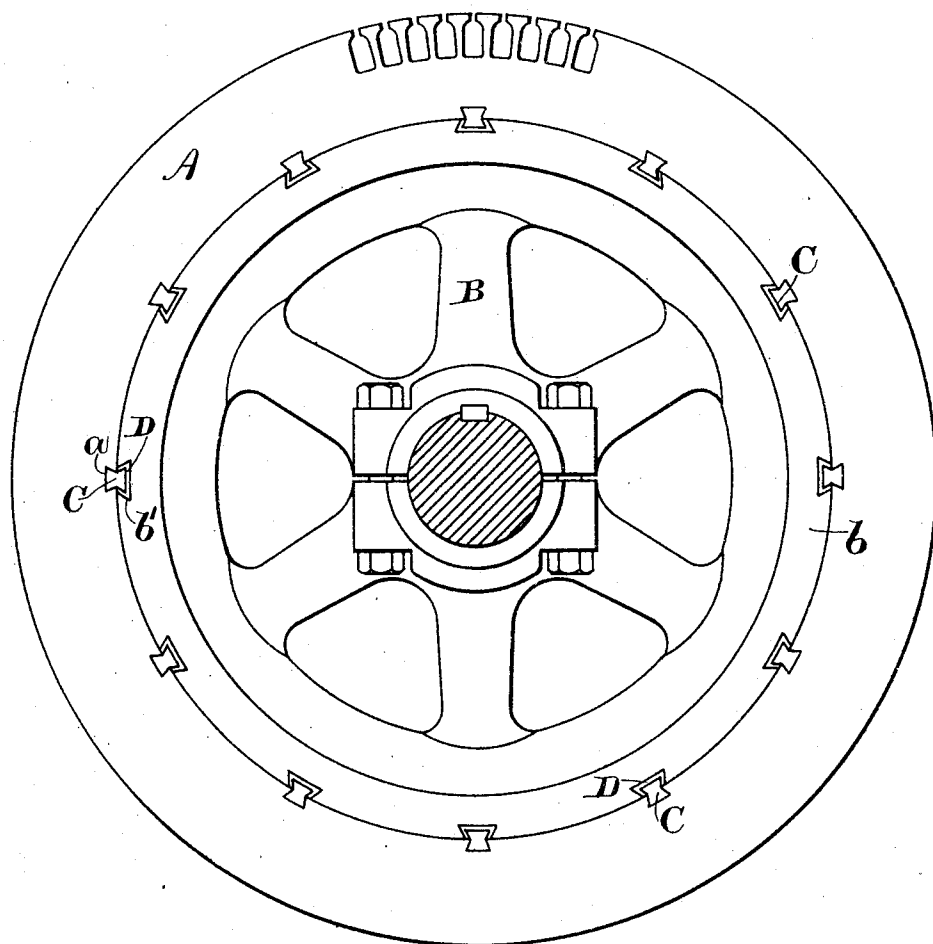
(No Model.)

H. F. PARSHALL.

ARMATURE AND METHOD OF CONSTRUCTING SAME.

No. 502,988.

Patented Aug. 8, 1893.



WITNESSES

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UNITED STATES PATENT OFFICE.

HORACE F. PARSHALL, OF LYNN, ASSIGNOR TO THE GENERAL ELECTRIC COMPANY, OF BOSTON, MASSACHUSETTS.

ARMATURE AND METHOD OF CONSTRUCTING SAME.

SPECIFICATION forming part of Letters Patent No. 502,988, dated August 8, 1893.

Application filed April 10, 1893. Serial No. 469,695. (No model.)

To all whom it may concern:

Be it known that I, HORACE F. PARSHALL, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented a certain new and useful Improvement in the Construction of Armatures, of which the following is a specification.

My invention relates to dynamo-electric machines, its object being to provide convenient and economical means for securing the core of an armature to its spider.

In carrying out my invention I provide a spider or spiders keyed to a shaft and carrying a cylindrical shell adapted to fit into and support an annular, laminated armature core. In order to prevent any movement of the core independently of its spider after the parts are assembled, grooves or key seats are made in the outer surface of the supporting shell and inner surface of the core, those on one part corresponding to those on the other, so that keys inserted therein will engage with both parts and lock them together. The grooves are preferably undercut so that with the keys a dovetail joint is formed, and the keys may be made to tightly fit the grooves, in which case they are driven home after the parts are assembled; but I prefer to have the keys fit loosely and to make a tight joint by pouring in Babbitt metal or similar material. It is obvious, however, that the keys may be fitted to one part or integral therewith, and babbitted in the other, if desired.

The accompanying drawing is an end elevation of an armature constructed according to my invention.

Referring to the said drawing, the annular disks A of which the armature core is composed are provided on their inner edges with notches *a*, so arranged as to register when the disks are assembled to form the core. These notches are preferably undercut, as shown, but it is obvious that they may be of any shape which afford a firm seat for the key C when it is inserted therein. The spiders B, of which there may be any suitable number, are provided with a cylindrical sleeve or supporting shell *b*, fitting and surrounding them, and affording the immediate support for the core. The said sleeve *b*, is provided with grooves *b'*, corresponding with the grooves in the core formed by the notches *a*, in the laminæ.

When the parts are assembled the grooves formed by the notches *a*, are opposed to the said corresponding grooves *b*, and into the openings afforded thereby the keys C are inserted, whereby the parts are locked together. In the drawing I have shown the said keys C as fitting tightly into the laminæ but loosely in the supporting shell, the space thereby afforded being filled with Babbitt metal or similar material D poured in after the parts are in place. It is obvious, however, that the keys might fit tightly in either part, or might be formed integral with either part, or might fit loosely in both parts and be completely surrounded with Babbitt metal poured in after assembly of the parts; the method of keying and babbitting being substantially the same in any of these cases.

I do not claim broadly the construction of an armature comprising a cylindrical core or support having a laminated core surrounding the same and keyed or otherwise fastened thereto, but

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

1. The combination with an annular armature core and spider, of keys projecting from one of said parts and babbitted in grooves provided therefor in the other part, as set forth.

2. The combination with an annular armature core having internal undercut grooves, of a supporting shell having corresponding undercut grooves, keys fitting snugly into one set of grooves and loosely into the other set, and Babbitt or similar material filling the space between said keys and said latter set of grooves, substantially as set forth.

3. The method of building up an armature core which consists in forming dovetail grooves in the surfaces of a carrier, placing in said grooves loose dovetail keys, slipping over said keys the armature laminæ provided with dovetail notches to fit said keys, then pouring Babbitt metal into the grooves in the carrier to secure the keys therein, substantially as described.

In witness whereof I have hereto set my hand this 7th day of April, 1893.

HORACE F. PARSHALL.

Witnesses:

JOHN W. GIBBONEY,
H. J. LIVERMORE.