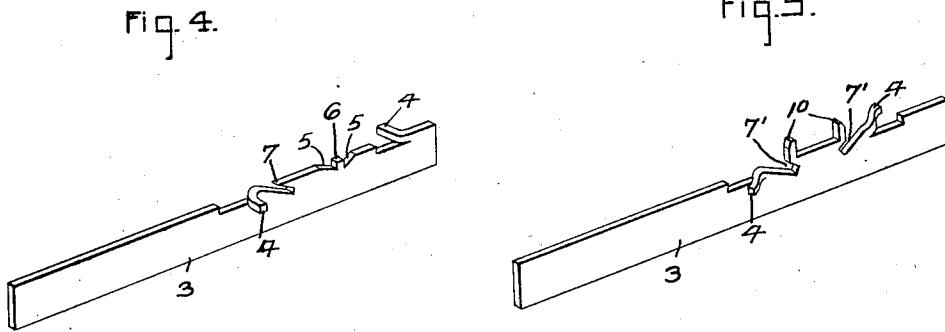
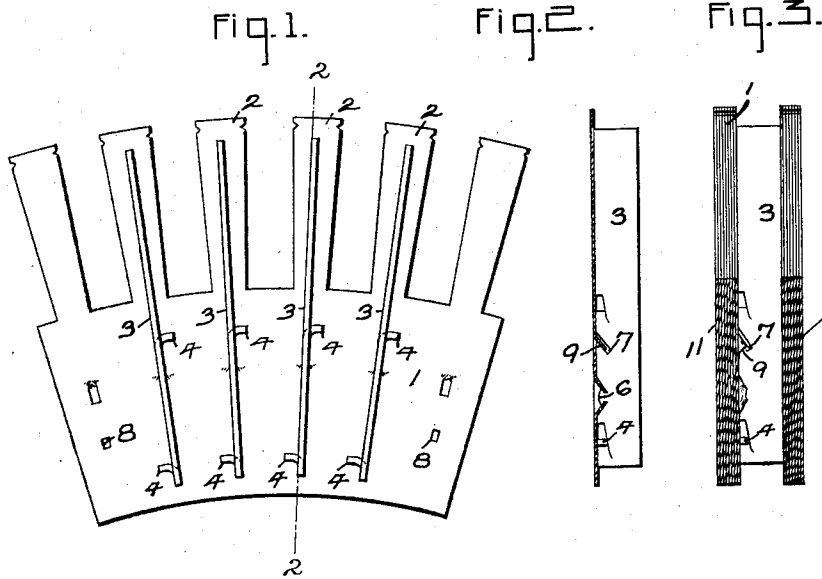


E. H. FARQUHAR.
SPACE BLOCK.
APPLICATION FILED SEPT. 19, 1908.

1,022,021.

Patented Apr. 2, 1912.



WITNESSES:
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UNITED STATES PATENT OFFICE.

EDMUND H. FARQUHAR, OF SCHENECTADY, NEW YORK, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

SPACE-BLOCK.

1,022,021.

Specification of Letters Patent.

Patented Apr. 2, 1912.

Application filed September 19, 1908. Serial No. 453,736.

To all whom it may concern:

Be it known that I, EDMUND H. FARQUHAR, a citizen of the United States, residing at Schenectady, county of Schenectady, State of New York, have invented certain new and useful Improvements in Space-Blocks, of which the following is a specification.

My invention relates to space blocks for separating adjacent bundles of laminae of armatures or other members of dynamo-electric machines.

Space blocks, as heretofore constructed, have had numerous disadvantages. Some forms are liable to be thrown out from between the laminations when the armature revolves at high speed. Other forms of blocks become loose and twisted so as to close up the air ducts between the laminae. Still others bend over when placed under the pressure necessary to assemble the punchings into a compact mass. Some blocks have had corrugations therein so that they will remain at right angles to the laminations and not turn over, but these corrugations also tend to block up the air ducts. To overcome these disadvantages I have devised a new construction in which each space block is provided with at least two projecting portions, one on each side of the block, these projecting portions being punched out from the metal of the block and resting upon a lamination, the block having an inclined notch therein which engages a portion of the lamination and being attached to the lamination by means independent of the projecting portions. The projecting portions of the blocks keep them at right angles to the laminations without closing up the air ducts between adjacent blocks. By fastening the blocks to the laminations by means independent of these projecting portions, and by providing them with an inclined notch which engages a portion of the lamination the blocks cannot twist nor can they be thrown out by centrifugal force.

For a better understanding of my invention reference may be had to the following description taken in connection with the accompanying drawing in which—

Figure 1 is a side view of a part of an armature lamination equipped with my space block; Fig. 2 is an elevation, partly in section, looking to the right from the line

2 2 in Fig. 1, the space block being shown in full; Fig. 3 is a section through a portion of an armature supplied with my invention; Fig. 4 is a perspective view of my space block; and Fig. 5 is a perspective view of a modification.

The armature lamination 1 in Fig. 1 is provided with the teeth 2. To one side of this lamination are fastened the radially extending space blocks or ribs 3. These space blocks 3 have projecting portions 4 which are punched out of the metal of the block at the base. Each block is provided with at least two of these projecting portions, one on each side thereof. These portions 4 rest against the lamination 1 and keep the blocks 3 in an upright position when the laminations are assembled and put under pressure in order to make a compact mass 11. Each space block has two notches 5 which form a portion 6. Each of the ribs has also a notch 7 which is inclined at an obtuse angle to the teeth of the lamination. The lamina has holes 8 into which the portions 6 fit. These portions 6 are then headed over so as to form rivets, as is clearly seen in Fig. 2. Portions 9 of the lamina engage the notches 7 of the blocks and hold the blocks in place against centrifugal force.

In the modification shown in Fig. 5 a different means for fastening the blocks 3 to the laminae is shown. Two inclined notches 7 are cut in each block, the metal being bent back as shown, leaving two portions 10 which extend into holes cut into the lamination. These portions 10 are then bent back in order to rivet the block to the lamina, the notch which is inclined at an obtuse angle to the teeth of the lamina serving as an additional safeguard for holding the block in place against the action of centrifugal force.

I desire it to be understood that my invention is not limited to the particular construction shown and described, and I aim in the appended claims to cover all modifications which do not depart from the spirit of my invention.

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

1. The combination with a lamination in a dynamo-electric machine, of a sheet metal space block or rib having at least two projecting portions punched out at the base

thereof one on either side of said rib, said projecting portions resting on said lamination, said block having an inclined notch therein which engages a portion of said
5 lamination, and means independent of said projecting portions for riveting said block to said lamination.

2. The combination with a lamination in a dynamo-electric machine having a hole
10 therein, of a sheet metal space block or rib having at least two projecting portions punched out at the base thereof one on

either side of said rib, said projecting portions resting on said lamination, said block having another portion entering said hole
15 in order to fasten said rib to said lamination, and an inclined notch therein which engages a portion of said lamination.

In witness whereof, I have hereunto set my hand this 15th day of September, 1908. 20

EDMUND H. FARQUHAR.

Witnesses:

BENJAMIN B. HULL,
MARGARET E. WOOLEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."