

(No Model.)

W. S. PARKER.
DYNAMO ELECTRIC MACHINE.

No. 258,800.

Patented May 30, 1882.

Fig. 1

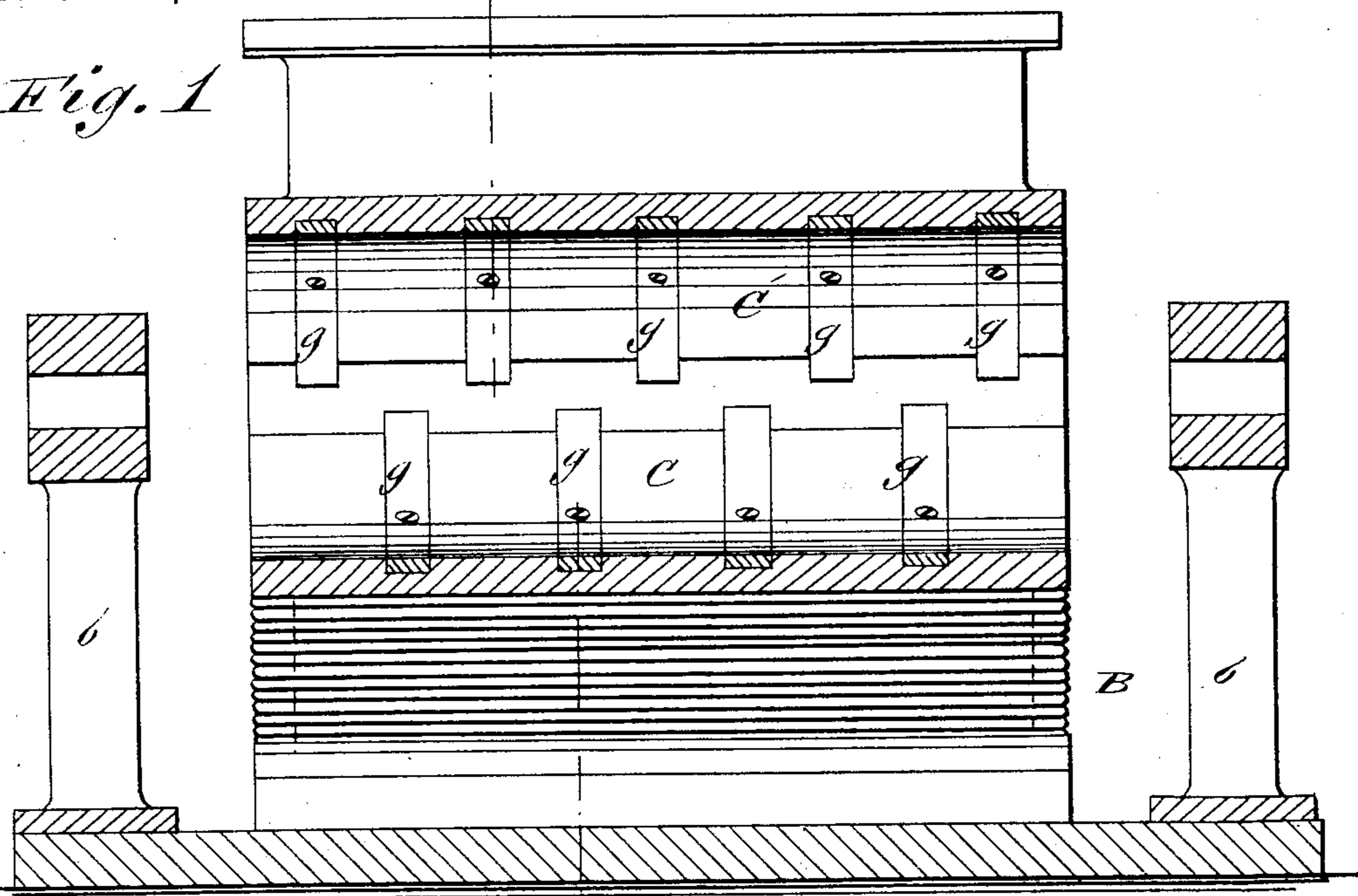


Fig. 2

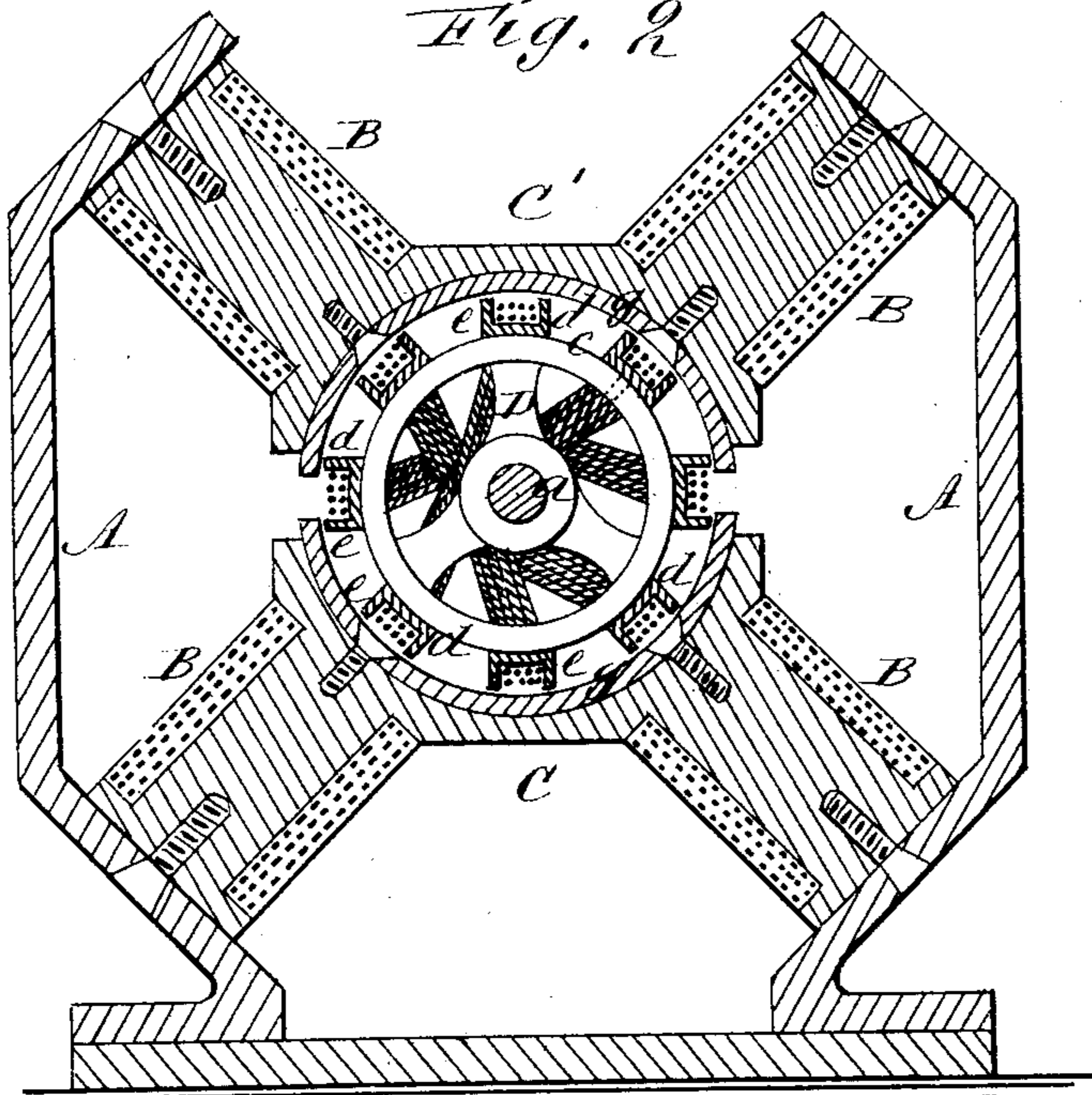
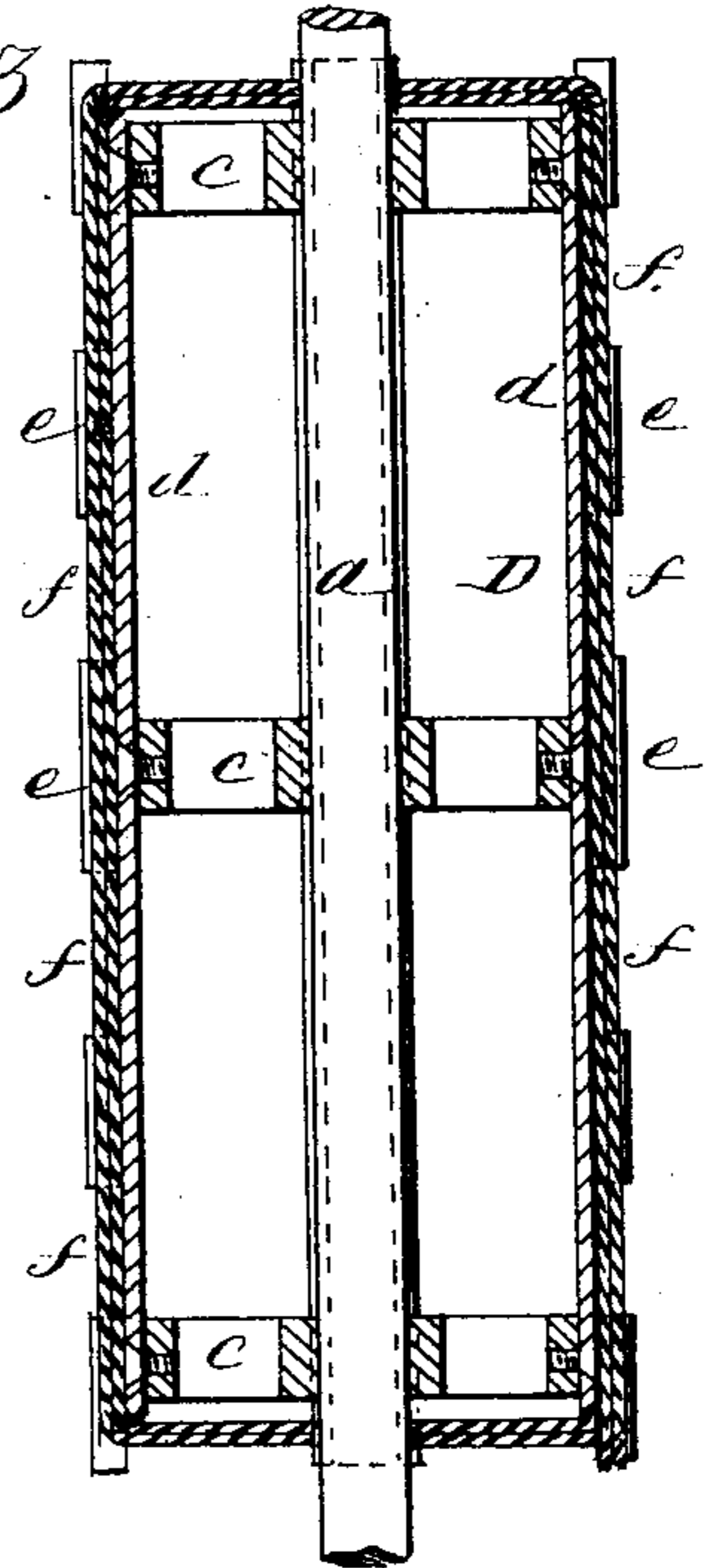


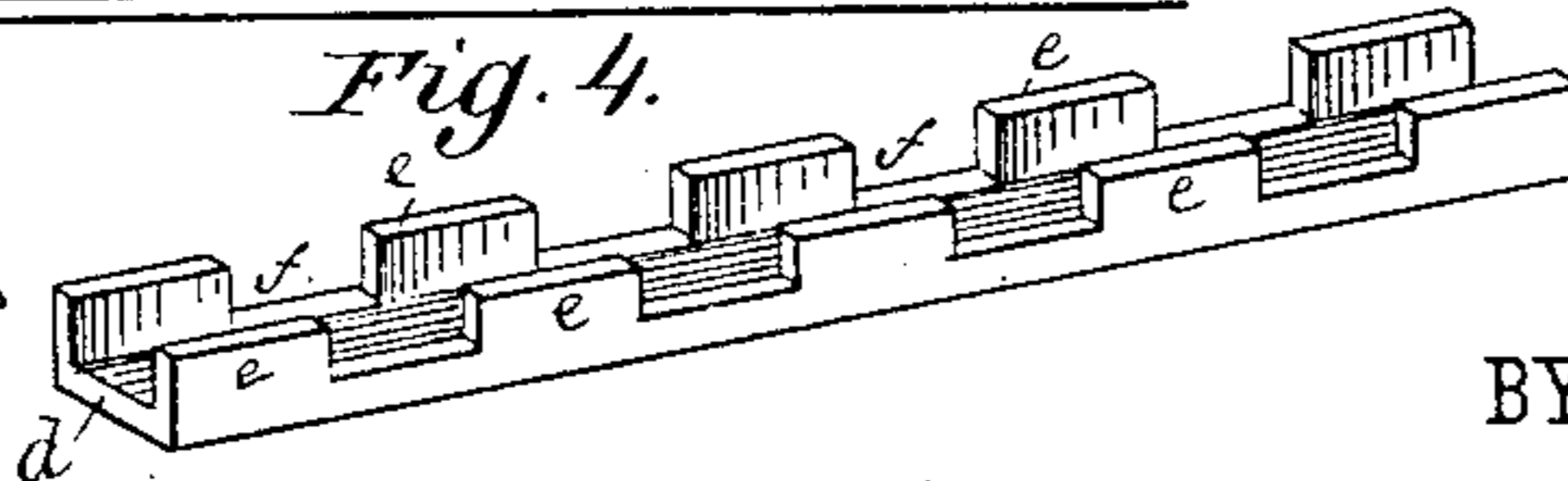
Fig. 3



WITNESSES:

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Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM S. PARKER, OF NEW YORK, N. Y.

DYNAMO-ELECTRIC MACHINE.

SPECIFICATION forming part of Letters Patent No. 258,800, dated May 30, 1882.

Application filed March 4, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. PARKER, of the city, county, and State of New York, have invented a new and useful Improvement in Dynamo-Electric Machines, of which the following is a full, clear, and exact description.

The object of my invention is to prevent or break up induced currents in the supporting-bars of the armatures. The heating of the machine is produced by the induced magnetism in these bars. This magnetism being retained keeps the armature-wires magnetized at all times, so that there is no opportunity for them to cool, although they should only be magnetized at the moment of cutting the several magnetic centers. I reduce the bars to the smallest possible size and prevent circulation in the flanges by the spaces between them, so that while the wires are magnetized as they cut the magnetic fields the magnetism is not kept up by that remaining in the bars.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical longitudinal section of the machine with the armature removed. Fig. 2 is a transverse section of the complete machine. Fig. 3 is a longitudinal section of the armature; and Fig. 4 is a perspective view of a complete armature-bar, showing the side flanges and the spaces which alternate therewith.

A A are standards carrying the field-magnets B.

C C' are the concave pole-blocks, and D is the armature on shaft *a*, sustained by standards *b b*.

The construction of the armature is as follows: *c c* are circular heads fixed on shaft *a*. *d d* are bars of soft iron, formed with side flanges, *e*, and attached at their ends to the

heads *c*, at equal distances apart, the space between them being about equal to their width. The flanges *e* are at each side of the bars, and form the poles of the armature-magnets; but instead of being continuous in the length of the bar, spaces *f* are left in the flanges at suitable intervals. The bars are wound lengthwise, as shown, and the wire is retained by the flanges *e*. This construction gives an armature open for the air to circulate freely, and the spaces *f* serve to prevent the circulation of currents, thereby reducing the liability to heat and loss of power.

The pole-blocks C C' are mainly of cast-iron, and are fitted on their inner faces with bars *g* of soft iron. The bars, which are secured in grooves formed transversely of the blocks, are placed at uniform intervals, and are of a width to constitute about one-third the surface. The soft iron being more susceptible of magnetization than the cast-iron has the effect to induce a more powerful action, while the cast-iron retaining the magnetism longer than soft iron acts to equalize the discharge.

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

1. In dynamo-electric machines, the armature D, consisting of heads *c* and bars *d*, formed with separated flanges *e*, and wound with wire, substantially as shown and described.

2. In armatures for dynamo-machines, the soft-iron bars *d*, formed with flanges *e*, separated by the interspaces *f*, substantially as and for the purposes set forth.

3. The pole-blocks C C', having transverse grooves in their concave faces, and soft-iron bars *g*, fitted in said grooves, as shown and described.

WILLIAM S. PARKER.

Witnesses:

GEO. D. WALKER,
C. SEDGWICK.