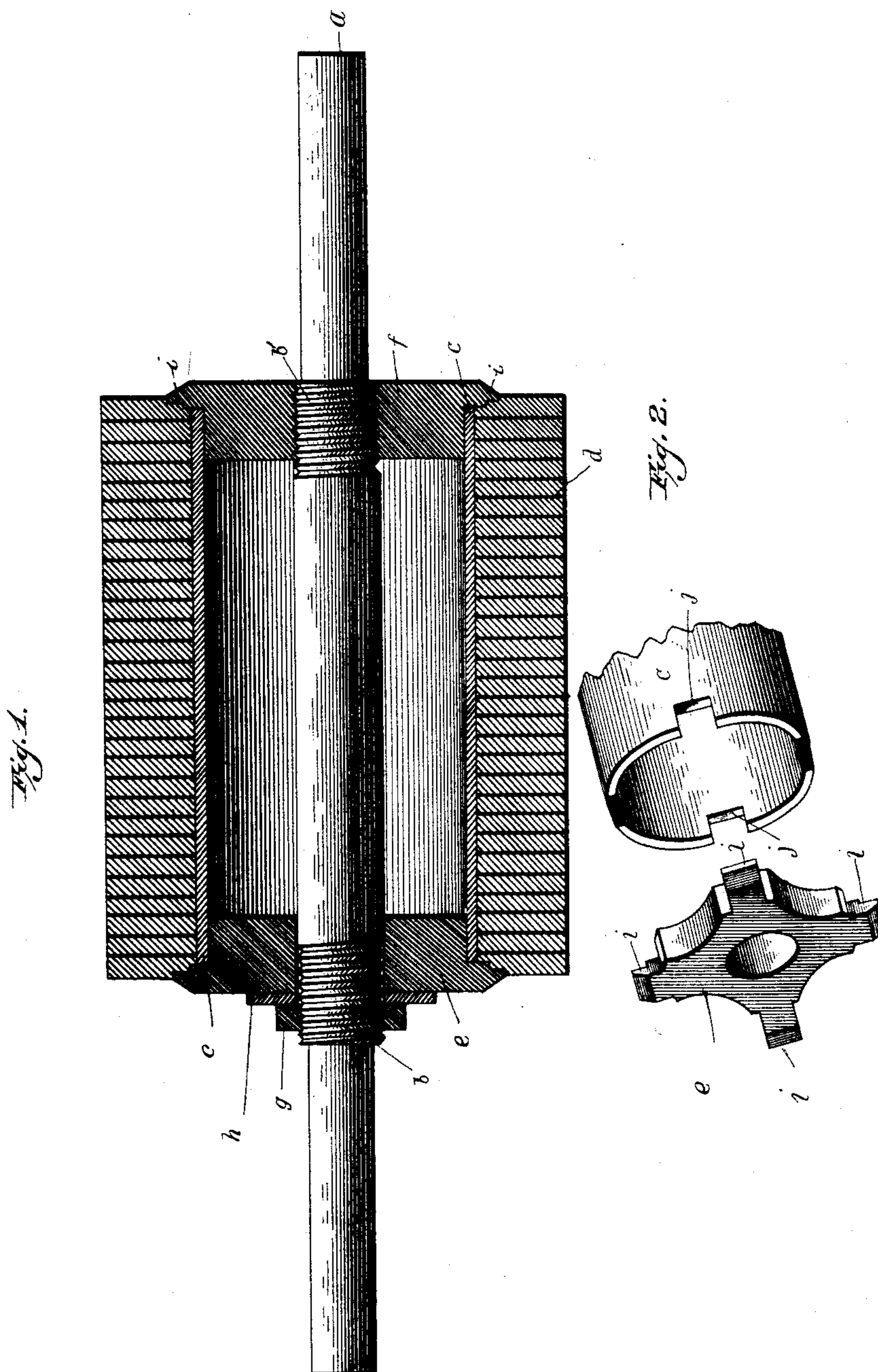


(No Model.)

J. F. KESTER.
ARMATURE CORE FOR DYNAMOS.

No. 404,713.

Patented June 4, 1889.



WITNESSES
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JESSE F. KESTER, OF TERRE HAUTE, INDIANA, ASSIGNOR OF THREE-
FOURTHS TO JOSEPH H. BRIGGS, OF SAME PLACE.

ARMATURE-CORE FOR DYNAMOS.

SPECIFICATION forming part of Letters Patent No. 404,713, dated June 4, 1889.

Application filed October 29, 1888. Serial No. 289,409. (No model.)

To all whom it may concern:

Be it known that I, JESSE F. KESTER, of Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and
5 useful Improvements in Mounting Armature-Cores on Dynamos and Motors; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it ap-
10 pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to an improvement in
15 the manner of mounting armatures.

The object of the invention is to provide a new, improved, and exceedingly simple manner of mounting armatures, whereby the armature can be quickly and easily placed upon
20 the shaft or removed from the same when injured, and it is impossible for the armature to get out of true. If a dynamo or motor should need a new shaft, the armature can be readily removed from the old shaft and placed
25 on the new shaft, or if the armature should need rewinding a new core already wound can be substituted for the old core in a very short time.

My invention consists in certain novel features of construction and combinations of
30 parts, more fully described hereinafter, and particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a longitudinal section of an armature-core mounted upon its shaft, the coils
35 not being shown; and Fig. 2 is a detail perspective view of one of the removable end pieces or spider-frames and the cylinder upon which the armature is mounted.

In the drawings, *a* indicates an armature-shaft, preferably strengthened or enlarged near its central portion, or that portion surrounded by the armature, and the opposite
40 ends of this enlarged portion are screw-threaded, as shown at *b b'*.

The armature-core consists of a hollow tube or cylinder *c*, open at each end and surrounded by a metallic cylinder composed of a series of
50 rings or disks *d*, tightly clamped or otherwise secured together. The armature-coils (not shown) are suitably wound and secured upon

the outer periphery of the outer cylinder formed by the separate rings.

The armature is secured to the shaft by means of spider-frames or end pieces *e f*. The
55 end piece *f* is provided with a central screw-threaded aperture, which screws upon the screw-threaded portion *b'* of the armature-shaft, and said end piece is provided with a
60 suitable number of radially-extending lugs or projections *i*, adapted to extend and fit into corresponding apertures or notches *j* in the tubular cylinder *c* and the end disks *d*, if desired. The opposite end piece *e* is similar to
65 end piece *f*, except that its central bore or aperture is not screw-threaded, and is of such diameter that it can loosely slip over screw-threaded portion *b* of the armature-shaft, with its lugs *i* fitting in the apertures in the
70 cylinder *c*, and this end piece *e* is secured in position by a nut *g*, screwing upon the armature-shaft tightly against a washer *h*, interposed between said end piece and nut. It will thus be seen that the armature or the
75 shaft can be readily and easily removed or replaced at any time, and that the lugs *i* will rigidly hold the armature in position clamped to the shaft to rotate with the same and prevent any lateral play or movement independent of the shaft. 80

From the foregoing it will be evident that the armature-cores and end pieces can be independently manufactured of standard sizes, so that if a machine needs a new shaft or the
85 armature should need new windings the old shaft can be removed from the armature and a new shaft placed upon the same armature, or a new core already wound can be placed upon the old shaft in place of the defective
90 armature, and by reason of the centered end pieces, when the cords or shafts are removed or replaced, the armature will always be true.

The further great commercial value and utility of the herein-described invention can be readily seen and understood by all persons
95 who have had experience with dynamo machines or motors; hence it is not deemed necessary to fully set forth the same herein. It is also evident that various changes and modifications might be made in the form and arrangement of the parts described without departing from the spirit and scope of my in- 100

vention; hence I do not wish to limit myself strictly to the precise construction herein set forth, but consider myself entitled to all such changes.

5 What I claim is—

1. As an article of manufacture, a removable interchangeable armature for dynamo-electric machines or motors, comprising a cylinder open at the ends, a series of rings embracing and clamped together upon the periphery of the cylinder, and end pieces provided with aligned central openings to removably receive the armature-shaft, and with radial arms engaging the ends of the cylinder, substantially as described.

2. In a dynamo or motor, the combination, with the armature-shaft having screw-threads, of an armature having a hollow core open at the ends removably located on the shaft, end pieces for the same provided with radial arms removably engaging the armature to hold the same to the shaft, and with central apertures to receive the shaft, one of said apertures being screw-threaded to screw upon the shaft and the other aperture of a size to slip over the screw-threads, and a nut on the shaft to hold the loose end piece.

3. In a dynamo or motor, an armature-shaft provided with screw-threads, in combination with an armature removably mounted on the shaft and comprising a hollow cylinder open at the ends, end pieces provided with central apertures to receive the shaft and with arms holding the cylinder, one of said apertures being screw-threaded to screw upon the shaft, and a nut screwed upon the shaft to clamp the other end piece to the shaft, substantially as described.

4. As a new article of manufacture, an armature consisting of a hollow core open at the ends and upon the outer periphery of which the coils are adapted to be placed, the ends of said core being notched, and end pieces consisting of central aligned hubs to fit upon the armature-shaft, and radial arms to fit in said notches and hold the armature to the shaft.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JESSE F. KESTER.

Witnesses:

HUBERT E. PECK,
CHAS. M. WERLE.