

(No Model.)

J. F. GILLILAND.

ARMATURE FOR ELECTRO MAGNETS.

No. 323,663.

Patented Aug. 4, 1885.

Fig. 1.

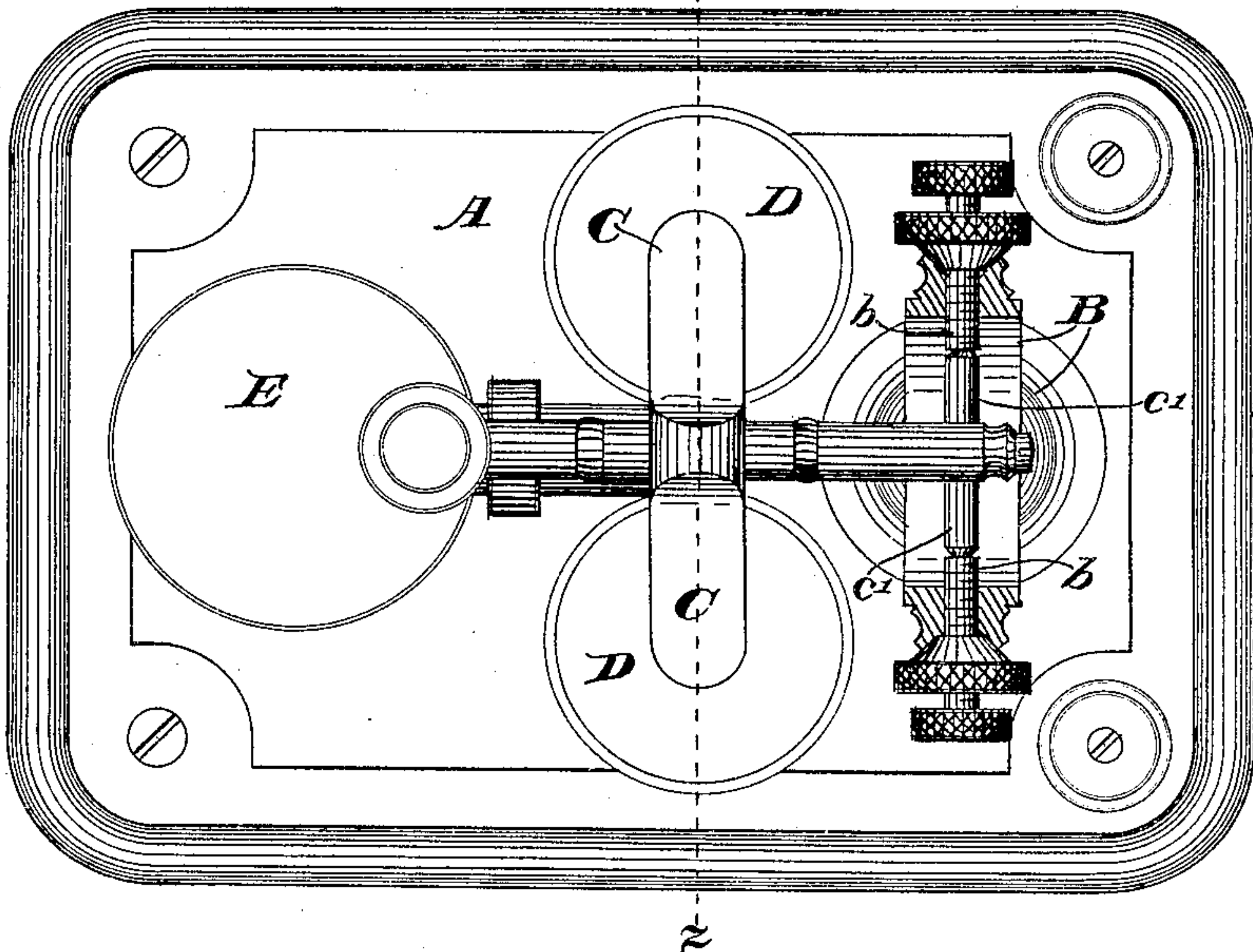


Fig. 2.

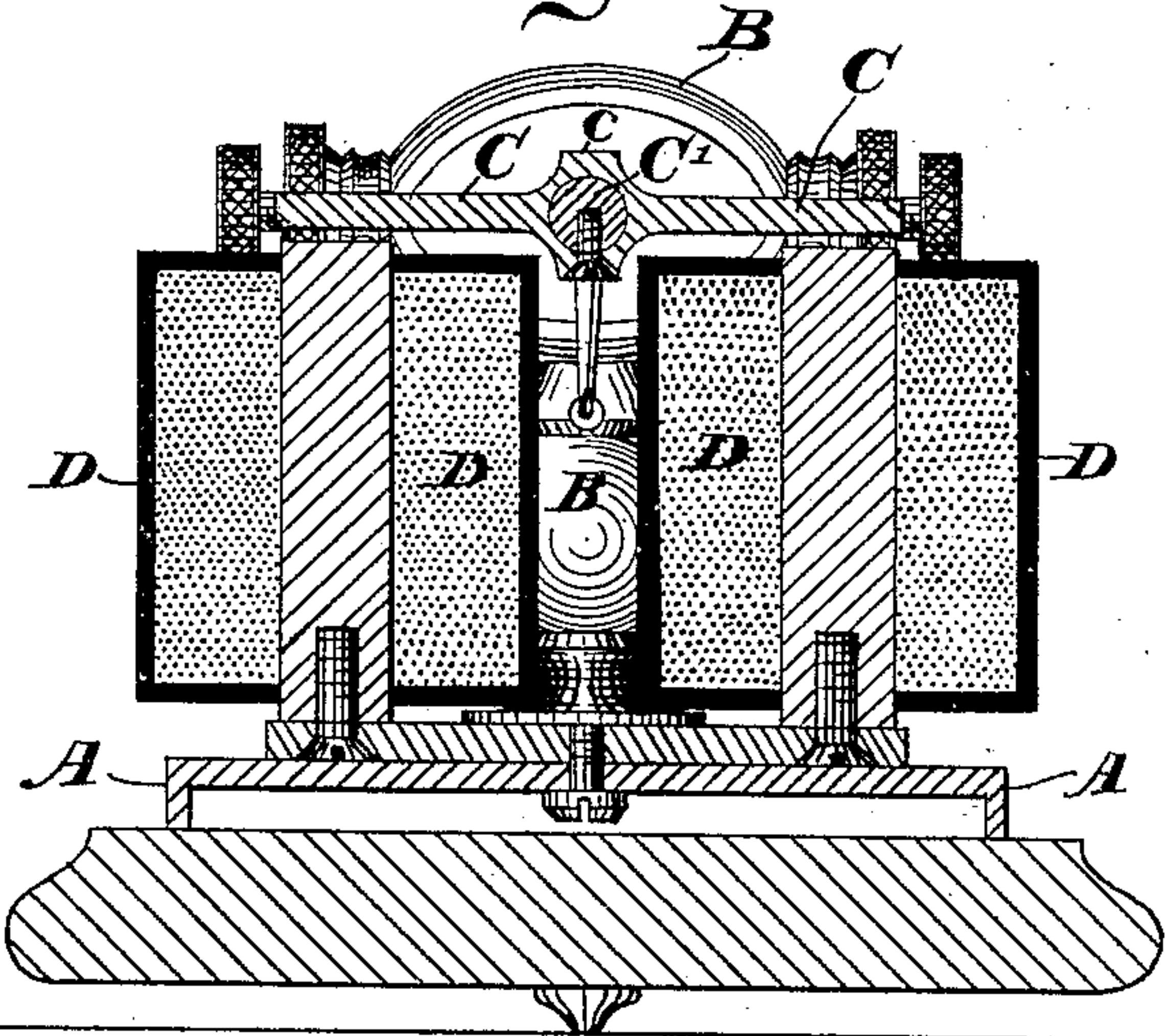
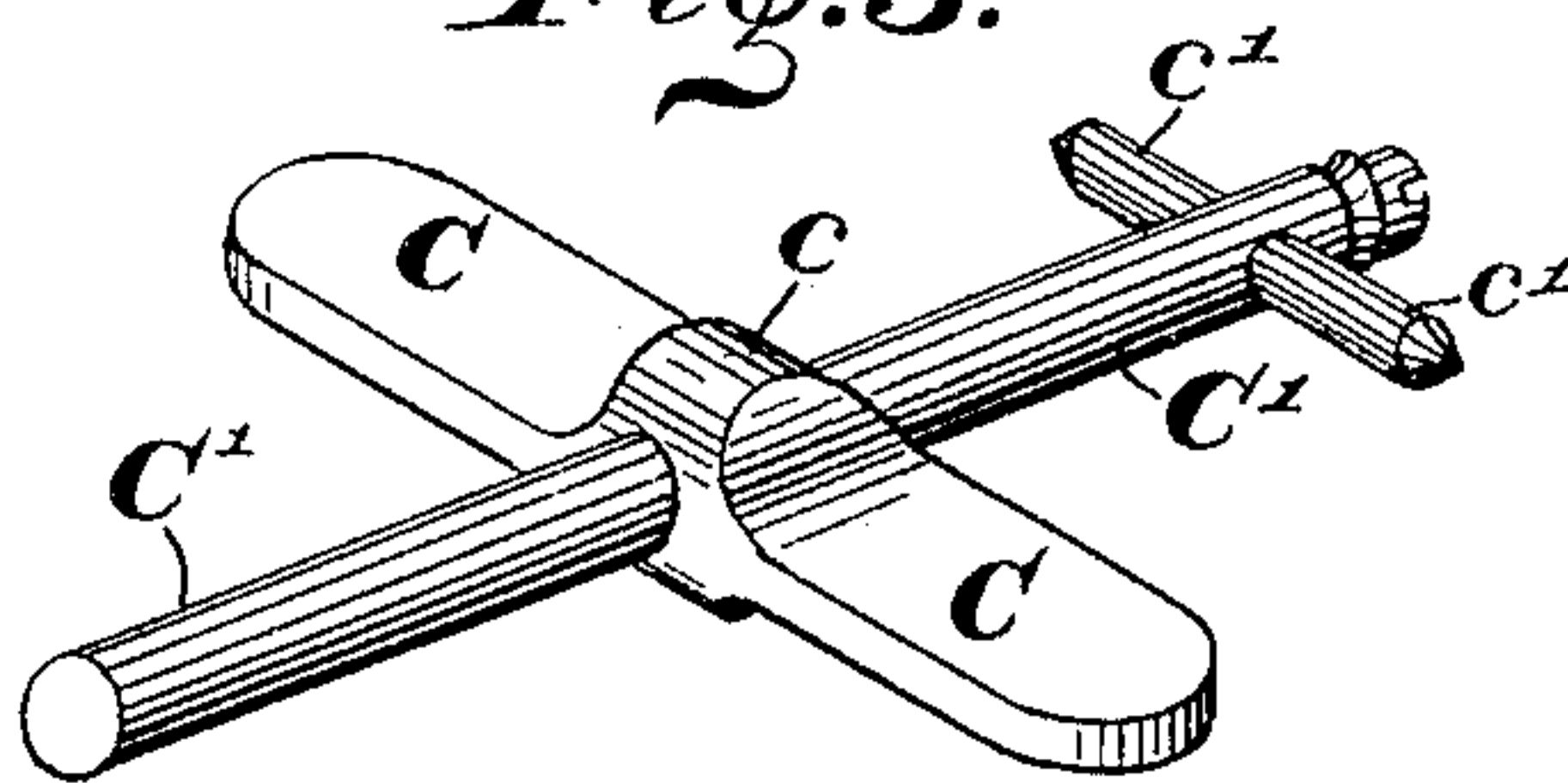


Fig. 3.



WITNESSES.

Chas. N. Leonard,
E. W. Bradford

INVENTOR.

James F. Gilliland,

PER

C. Bradford,
ATTORNEY.

UNITED STATES PATENT OFFICE.

JAMES F. GILLILAND, OF INDIANAPOLIS, INDIANA.

ARMATURE FOR ELECTRO-MAGNETS.

SPECIFICATION forming part of Letters Patent No. 323,663, dated August 4, 1885.

Application filed June 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. GILLILAND, of the city of Indianapolis, county of Marion, and State of Indiana, have invented certain
5 new and useful Improvements in Armatures for Electro-Magnets, of which the following is a specification.

My said invention consists in the construction of armatures for electro-magnets, whereby
10 they are rendered simple and inexpensive, as will be hereinafter more fully described.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar
15 parts, Figure 1 is a top or plan view of a telegraph-sounder embodying my said invention; Fig. 2, a transverse vertical section thereof, looking to the right from the dotted line $z z$ and Fig. 3 a perspective view of the armature
20 separately.

In said drawings the portions marked A represent the base of the instrument; B, the armature-post; C, the armature; D, the electro-magnets, and E the sounder-drum.

25 The base A, magnets D, and drum E form no part of the present invention, and will not therefore be further described herein.

The post B has the usual pivot-screws, b , on which the armature is mounted.

30 The armature C is constructed of a straight bar, as usual, except that it has an enlarged portion, c , in the center, through which is formed a hole to receive the armature-rod, which, in the form illustrated, also forms the
35 sounder-bar. I prefer to make this armature of malleable iron, but may make it of drop-forgings or otherwise.

The armature rod C' is a plain round rod of suitable length, and is provided at one end with the pivots c' , and is mounted and oper- 40 ated in the usual manner.

As will be readily seen, this armature, being constructed of two easily-formed parts, is simple and less expensive than those heretofore used. 45

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

1. An armature for electro-magnets, consisting of an armature proper, formed of a flat 50 bar with an enlarged center provided with a hole, and a round straight armature-rod passing through said hole, substantially as set forth.

2. The combination of the straight flat bar 55 C, having an enlarged central portion, c , through which is formed a hole, and a round straight rod, C' , passing through said hole, forming an armature for electro-magnets, substantially as set forth. 60

3. The combination of the armature-post, pivot-screws therein, a round straight armature-rod having pivot c' , straight flat armature C, having enlarged center c , and the magnets, substantially as set forth. 65

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 13th day of June, A. D. 1884.

JAMES F. GILLILAND. [L. S.]

In presence of—

C. BRADFORD,

E. W. BRADFORD.