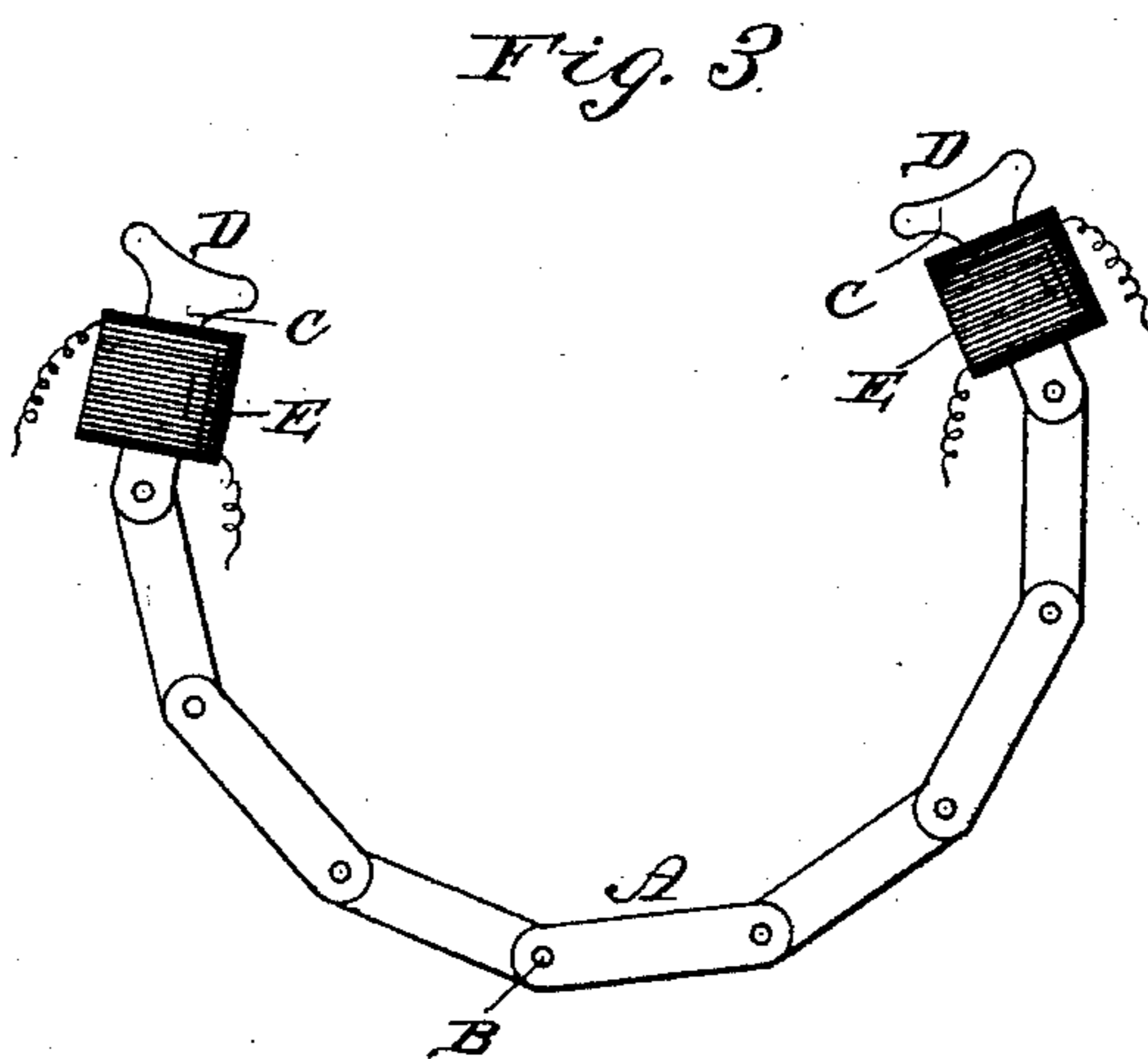
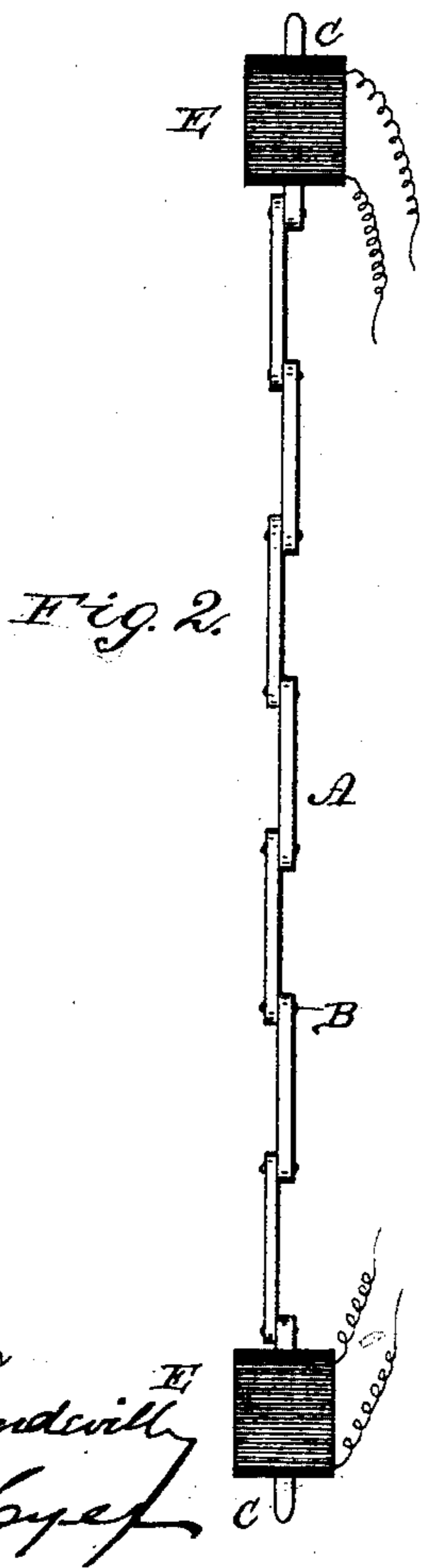
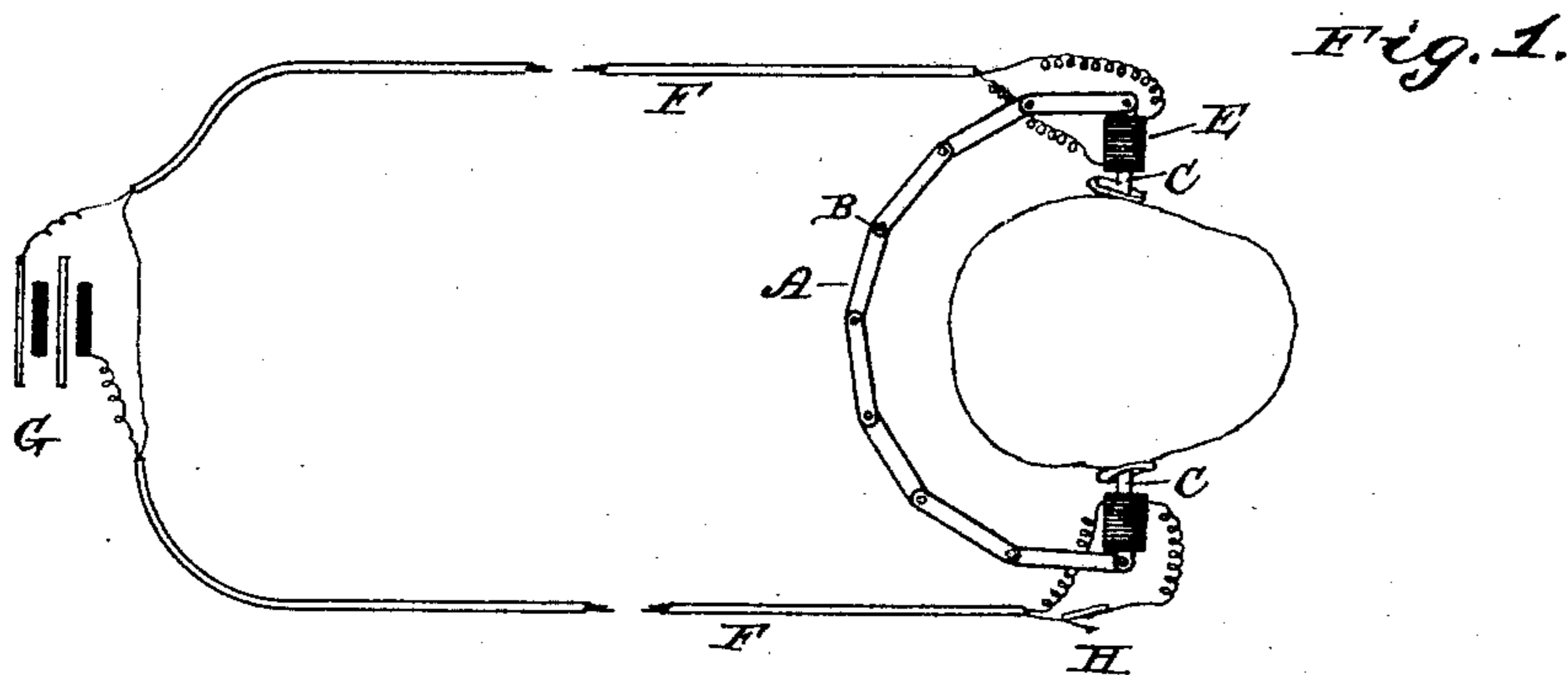


(No Model.)

F. H. BROWN.
ARTICULATED ELECTRO MAGNET.

No. 435,343.

Patented Aug 26, 1890



Witnesses
Amos H. Handwick
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UNITED STATES PATENT OFFICE.

FRED. H. BROWN, OF CHICAGO, ILLINOIS.

ARTICULATED ELECTRO-MAGNET.

SPECIFICATION forming part of Letters Patent No. 435,343, dated August 26, 1890.

Original application filed May 29, 1890, Serial No. 353,684. Divided and this application filed August 5, 1890. Serial No. 361,031. (No model.)

To all whom it may concern:

Be it known that I, FRED. H. BROWN, of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Articulated Electro-Magnets; 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 appertains to make and use it, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to an improvement in articulated electro-magnets designed to be used in connection with electric apparatus for therapeutic treatment; and it consists in an electro-magnet having its core made of permanently-magnetized steel sections or links pivoted together in series at their ends, the terminal ends of the series being each provided with a helix of wire, through which electric currents may be passed to vary the magnetic tension, as will be more fully described hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of my improved articulated electro-magnet, showing the same having its poles applied to the tympanum of a patient. Fig. 2 is a side elevation of the same. Fig. 3 is an elevation of a modified form of my invention having its terminals concave, and thereby adapted for establishing close contact with the arms or limbs of the body.

A represents a series of permanent steel magnets having their ends connected together in series by means of pivots B. The positive pole of each magnet is attached to the negative pole of the next magnet in series, and the pivots make the joints between the series of magnets flexible, whereby the device is adapted to be bent or doubled in any necessary form to enable its terminals C to be applied to any desired portion of the body. In Fig. 1 I have shown the said terminals inserted in the ears of the patient for treating the tympanums.

In Fig. 3 the terminals C of the magnet are concave, as at D, and thereby adapted to the rotundity of the arms, limbs, or other portions of the body.

On the terminals C of the articulated mag-

nets are wound helices E, of insulated wire, the terminals of which are connected to conductors F, which serve to connect the helices together and in circuit with a battery G or other source of electricity.

This apparatus is designed particularly for use in connection with my improved electro-magnetic therapeutic chair, for which I have pending an application for Letters Patent of the United States, Serial No. 353,684, of which this application is a division, and the operation of the same is as follows: When the circuit is open and the terminals C are applied to the body of the patient, he is treated solely by means of the permanent magnet; but when the circuit is closed and a current from the battery is sent through the coils or helices, the magnetic tension is increased, and by varying the strength of the currents sent through the coils the magnetic tension may be varied at will, as will be readily understood.

For the purposes of illustration I have shown the conductors F provided with a circuit-closer H, by means of which a current may be caused to flow from the battery through the helices at will.

Having thus described my invention, I claim—

1. A magnet comprising a series of sections or links pivotally connected together whereby the same is rendered flexible, for the purpose set forth.

2. An electro-magnet for therapeutic purposes, comprising the series of permanently-magnetized sections or links having their ends pivoted together, and the coils or helices on the terminals of the said magnet, substantially as described.

3. The combination, with the articulated magnet having the sections or links pivoted together, and the helices on its terminals, of the battery or source of electricity connected in circuit with the helices, substantially as described.

In testimony that I claim the foregoing I append my signature.

FRED. H. BROWN.

Witnesses:

S. G. HOPKINS,

THOS. S. HOPKINS.