

(No Model.)

2 Sheets—Sheet 1.

F. H. BROWN.

ELECTRO MAGNETO THERAPEUTIC CHAIR.

No. 435,376.

Patented Aug. 26, 1890.

FIG. 7.

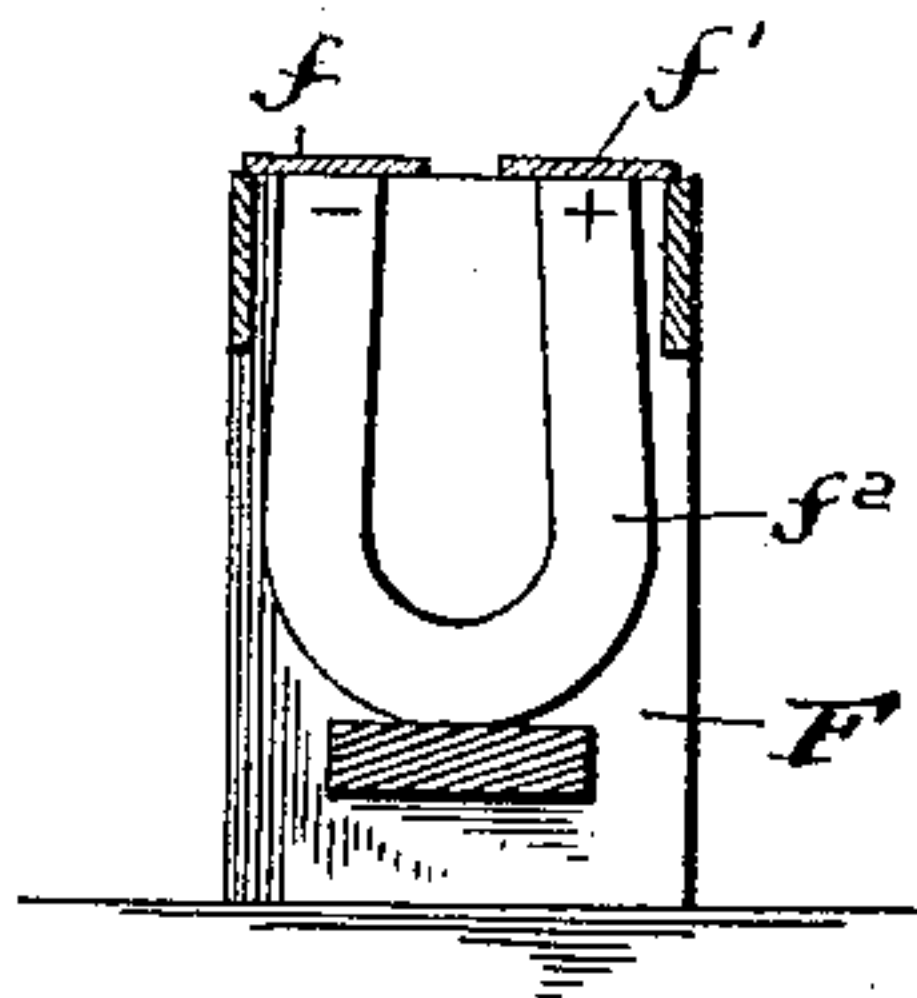
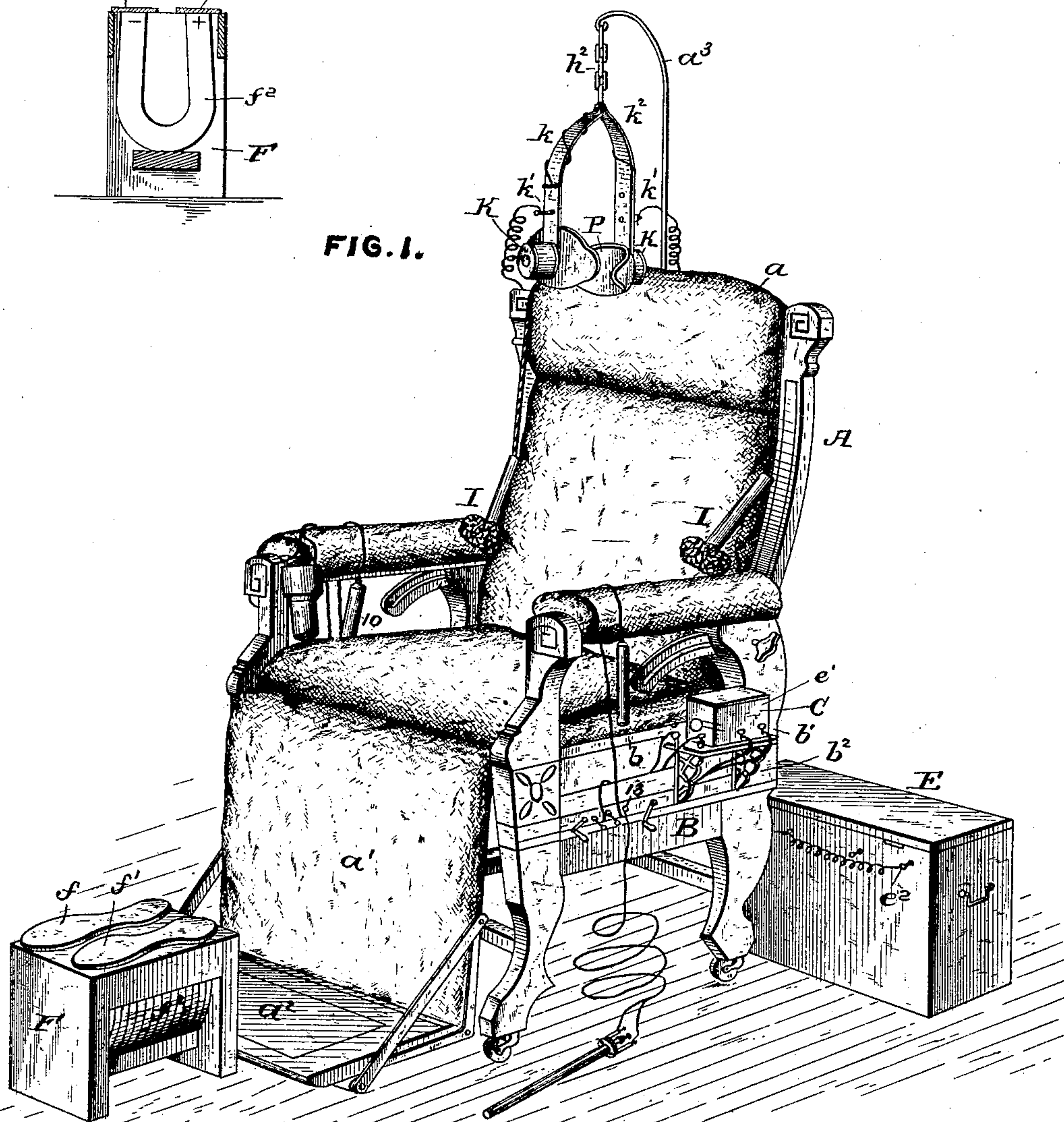


FIG. 1.



ATTEST.

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Benj. Munro

INVENTOR.

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by *James H. Mandeville*
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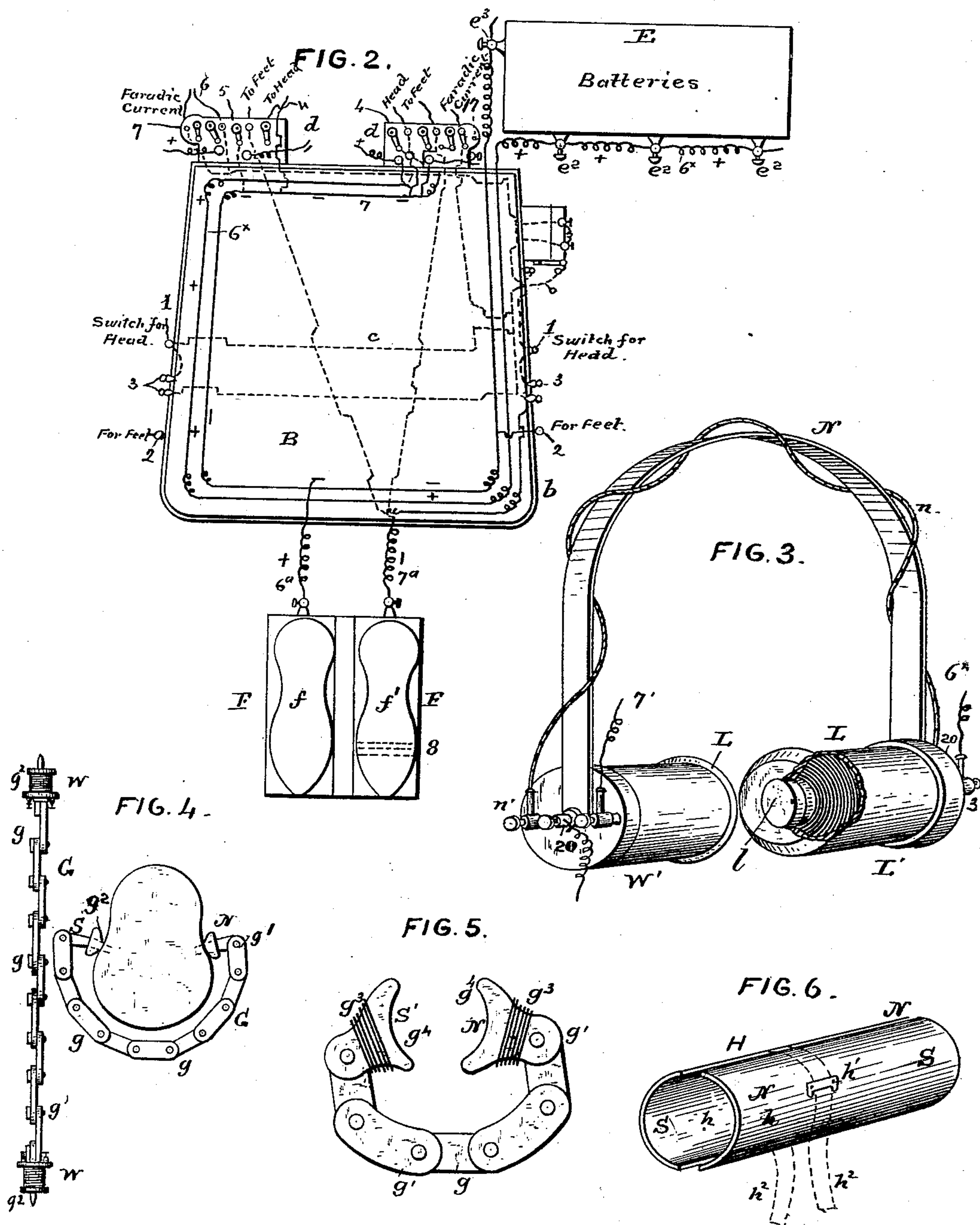
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UNITED STATES PATENT OFFICE.

FREDERICK H. BROWN, OF CHICAGO, ILLINOIS.

ELECTRO MAGNETO THERAPEUTIC CHAIR.

SPECIFICATION forming part of Letters Patent No. 435,376, dated August 26, 1890.

Application filed May 29, 1890. Serial No. 353,684. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK H. BROWN, a citizen of the United States, residing in Chicago, in the State of Illinois, have invented a new and useful Improvement in Magnetic and Electric Therapeutic Chairs, of which the following is a specification.

My invention relates to a method and means for treating the human body with magnetism and electricity.

In carrying out my invention I provide a chair, into which the patient can be conveniently seated, and supply the chair with certain permanently-attached and certain detachable devices of a size and shape to conform to the configuration of various portions of the human body. These devices are either permanent or electro magnets.

My invention further contemplates that certain of my devices shall be so arranged that they can each separately, or any two or more of them, or all of them unitedly, be charged with primary and secondary currents of electricity.

The magnetic devices are so constructed and shaped that in practicing my invention each one is adapted to be placed in juxtaposition with a special part of the human body, by which such special part will be subjected to the influence of simple direct magnetism or to primary or secondary currents of electricity. Such magnetic devices, whether permanently attached to the chair or detachably connected thereto, are adapted to be placed in suitable position for application to a given member of a patient's body, and each of said devices is so constructed and arranged as to be readily connected to and disconnected from the circuit-wire of an electric battery, and when connected can have primary and secondary currents of electricity imparted thereto by means of switches. These several devices, or any one or more of them, can have imparted to them simply a primary current or a secondary current, also by the switches.

In other words, my invention consists, mainly, in a chair wherein a patient can be seated and having connected to it certain attached and detachable devices whereby the patient can be subjected separately or jointly to any and all the various forms of

magnetic and electrical therapeutics. Such treatment, whatever may be its character, can by my invention be directed onto a special part or parts of the patient's body.

By employment of my devices a given member or members of the human body may be treated by simple magnetism, while another member or members may be brought under the influence of electricity or electro-magnetism, and such treatment may be instantly changed, reversed, increased or decreased in intensity, as desired, without removal of the patient or change of position. To be more explicit, first, the patient can be subjected solely to magnetic treatment upon one member or more; second, the patient can be subjected solely to electrical treatment upon one member or more; third, the patient can be subjected to electrical treatment upon one member or more from a primary current alone or from a primary and secondary current; fourth, the patient can be subjected to electrical treatment upon one member or more partly by a primary and partly by a primary and secondary current, and, fifth, the patient can be treated at one and the same time upon one member or more by magnetism and upon one member or more by electricity from a primary current alone or from a primary and secondary current, and said current be increased or diminished at the will of the operator.

The drawings show devices adapted to carry out my invention, but it is manifest that the same may be varied in details of mechanical construction and still be within the scope of my invention.

Similar letters of reference point out like parts on each figure of the drawings, in which—

Figure 1 is a front perspective view of a chair with its attachments, illustrating my invention. Fig. 2 is a view of several of the electric appliances, showing the circuit-wires taken upon the horizontal plane of the seat of the chair. Fig. 3 is a detached view, partly broken away, of a pair of inclosed helices connected with a battery-circuit, N being a bridge of sheet-iron and connecting the cores of the helices. Fig. 4 is a detail view of a permanent magnet consisting of a series of pivoted links, illustrating the manner of employ-

ing this device so as to impart magnetism to each tympanum. Fig. 5 is a detailed view of a similar articulated magnet adapted to encircle the leg or arm of the patient, and Fig. 6 represents a magnetic cylinder or casing split longitudinally into two sections for enclosing an arm or leg, the poles of the respective sections being shown in relatively-opposite directions. Fig. 7 is a transverse sectional view of the magnetic footstool.

In the drawings, A is a chair, preferably formed with a hinged back a and folding foot-piece a' a'' , common in reclining-chairs.

B is the seat-frame provided with a metallic facing or plating b , for a purpose presently explained. Said frame is supplied outwardly upon its side with a shelf b' and brackets b'' to support an induction-coil e' . The primary wires of this induction-coil are connected through switches to the battery, the secondary wires of the coil being connected by switches to different parts of the chair, as shown in Fig. 2. The wires c are shown in dashes or hatched lines, and are the secondary wires, while the wires forming the primary circuit from the batteries are shown in solid lines. Besides the wires for forming the circuit, the frame B has an outer facing or plating b , which, as occasion may require, can be utilized to form part of the circuit. Attached to either side of this frame are switches or circuit-breakers 1 2, controlling, respectively, the head and foot electro-magnetic appliances, thus enabling the operator to make and break the circuit to the head or foot, or both, independently or simultaneously from either side of the chair by moving switches.

3 3 are binding-posts at either side of the chair for connection of any of the detachable electric appliances.

Upon the frame are switch-boards $d d$. Each of the switch-boards is provided with a switch 4 to make and break the primary circuit to the head. A switch 5 is a circuit-breaker of the primary circuit to the foot, and there are separate circuit-breakers 6 7 for switching on and off the Faradic current, respectively, in like directions.

E represents batteries, from the binding-posts e^2 of which is led the positive wire 6^x , which from thence extends around the frame, laterally and transversely crossing, but not in contact with, the secondary wires c , and returned to complete the circuit through the binding-posts e^3 , the return-wire being indicated at 17. The negative sides of the battery are connected with binding-posts on the ends of the battery-box. Branches of the wires 6^x 17 are led to the switch-boards $d d$, passing through appliances common to such devices. After passing through the binding-posts on the switch-boards d the wires 6^x 17 are continued in a convenient length (shown in the drawings as broken off) for attachment to binding-posts of the several detachable oper-

ative devices. Branches of the main circuit are extended forward for connection to helices (not shown in the drawings) on the feet appliances. (See 6^a 7^a of Fig. 2.)

In Fig. 3 is represented a detached view of an apparatus that can be connected to the electric circuit for treating any part of the human body. It consists of incased helices L, wound around a soft-iron core l , a circuit being maintained between said helices by a wire n passing within binding-posts. The helices are inclosed within casings $L' L'$, and cores in said casings are connected by a band N, on which are binding-posts $n' n'$, adapted to receive the wires n and the line-wire 6^x and 17 of the main circuit. By interposing a part of the body between the poles of these cores such portion is subjected to magnetism by this detachable device independently or in conjunction with any or all of the other herein-described magnetic or electric apparatus, and by reason of its portability it can be moved about from one location to another, and thus form an important element of my improved combined method and means for magnetic and electric therapeutics.

3 3 are binding-posts extending from plating b on either side of the frame B, onto which the circuit-wire can be adjusted to conduct electricity to handles 10, or to insulated sponges I, or to any of the several described devices.

F is a magnetic footstool supplied upon its upper surface with iron soles or armatures f f' , to which are respectively connected the opposite poles of a series of horseshoe-magnets f^2 , arranged side by side.

In Fig. 2 the south poles of all the magnets are shown as connected to one armature f' and the north poles to the other one f . By placing the feet upon the iron armatures $f f'$ they are immersed in a magnetic field. It will be understood that in either form the soles are magnetized. By connecting the battery or secondary wires to the binding-posts attached to the iron armatures or soles these currents can be sent into the feet. Some of these devices are so constructed by attaching binding-posts 20 to the cores that both primary and secondary currents can be sent through the cores themselves, thus making the cores a part of the electrical circuit, and thereby adapted to perform the functions of simple electrodes.

When it is desired to impart magnetism to any part of the body, the primary wires are connected to the helices surrounding the different cores in the different devices; but when it is desired to send electricity direct into any portion of the body the circuit-wires from the battery or secondary wires of the induction-coil are connected with the binding-post attached to the cores of some of the devices. This connection is not shown.

G, Fig. 4, is an articulated permanent magnet consisting of a series of links g , pivoted

together, as at g' . At each terminal point is a tapering spur g^2 . These spurs comprise the opposite poles of the articulated magnet. This device may be provided on the terminal links with helices of wire for attachment of the circuit-wires from the battery.

In the drawings the articulated magnet is shown as passed around the cranium, and the spurs are shown as inserted, respectively, within the auditory canal. The device is adapted and intended for similar adjustment to any openings in the body; but it may appropriately be used for magnetizing any parts, whether having openings or not, and it forms a convenient and useful magnetic apparatus for moving about upon the body by reason of its articulated links. Fig. 5 is similar in construction to Fig. 4, except the terminal links. They are formed to fit an arm or leg. The end plates are widened from beyond their pivotal connections, and their free side ends are recessed or invertedly arched, as shown at g^4 . As in the devices shown in Fig. 4, this articulated-link magnet may have binding-posts arranged thereon for connecting thereto the battery-wires; but all matter relating to the articulated magnet not claimed herein is made the subject of a divisional application filed August 5, 1890, Serial No. 361,031.

Fig. 6 represents two limb-casing magnets that consist, essentially, of a tube H split longitudinally into sections h , although it is not desired to limit them to two, it being manifest that there may be more than that number of sections and be within the scope of my invention. In adjustment of the limb-casing upon an arm or leg the poles of the respective sections are arranged in alternate directions, whereby a more uniform and even distribution of the magnetic lines is accomplished, as hereinbefore set forth in the modification of foot device F. The sections h are provided with keepers h' , through which a strap or band h^2 may be passed to secure the sections on a limb of the patient.

For supporting the devices, especially those intended for head treatment, the chair is provided with a suspension-rod a^3 , bent over and provided at its free end with a hook, to which a chain is attached for the purpose of hanging to it any of the described devices, so as to relieve the patient from carrying undue weight. This rod passes through eyes or staples in rear of the chair-back, and it can be elevated or lowered and kept projected to any desired length by means of a thumb-screw. In Fig. 1, hanging from this rod and chain, there is shown a device for special treatment of the head. It consists of two incased iron cores K, adjusted at the opposite ends of an arched iron band k . The coils connect with binding-posts k' . At the lower end of the band k on each side and facing the core K is an oval arched iron plate P, which plates when the device is being operated are intended to inclose the head. Electricity can be con-

ducted into this device from the primary and secondary circuits by operation of the circuit-breakers upon switch-boards d , or from either side of the chair by means of switches.

The binding-posts 3 3 at either side of the chair-frame serve the purpose of providing means for attachment of any of the movable devices, especially for handles 10, to be grasped for the purpose of imparting an electric shock to the patient, or for connecting magnetic devices. Sponges, such as at I I, may be connected in the same manner.

13 is an orifice in the frame B through which (see Fig. 1) a branch of the circuit-wires can be led. In Fig. 1 there is also shown a magnetic device for vaginal treatment.

The articulated electro-magnet shown and described herein is not claimed in this patent, for the reason that the same forms the subject-matter of another pending application filed by me.

Having thus fully described my invention and the manner of its operation, what I claim as new, and desire to secure by Letters Patent, is—

1. An electric and magnetic therapeutic chair having independent conductors, in combination with a battery for generating a primary electric current and a coil for inducing a secondary electric current, electro-magnetic devices having the coils and cores adapted to be independently connected to the conductors, and switches to complete either the primary or secondary current at will, substantially as described.

2. An electric and magnetic therapeutic chair the seat of which is provided with an outer surrounding metal plating, in combination with the wires of a primary and secondary electric circuit, whereby when connections are made between said wires the plating will comprise part of the electric circuit, substantially as described.

3. An electric and magnetic therapeutic chair having led along and within its seat the circuit-wires of an electric battery and the secondary wires of an induction-coil provided at opposite sides of its seat-frame with circuit-breakers, said sides having binding-posts in combination with batteries, substantially as described.

4. A footstool having sole-armatures resting upon and in contact with the poles of a series of horseshoe-magnets, in combination with the circuit-wires of an electric battery, substantially as described.

5. The compound magnetic therapeutic footstool consisting of the series of horseshoe magnets and the sole-plates for the feet attached, respectively, to the positive and negative poles of the series of magnets, substantially as described.

6. In a therapeutic electric and magnetic apparatus, the pair of electro-magnets having the connecting flexible band N and the binding-posts on their cores, whereby the same may be either magnetized at will or used for

the purpose of simple electrodes, substantially as described.

7. An electro-magnetic device consisting of a pliable iron band having at either end an incased helix of wire, having binding-posts for connection respectively thereto with the circuit-wires of an electric battery, each helix being provided with a core, the end of each core having at its inner sides a bent plate of oval perimeter, substantially as described.

8. In combination with an electric battery and a secondary coil, a magnetic and therapeutic chair supplied with attached and detachable electro-magnetic and electric apparatus, substantially as described.

9. In an electro-therapeutical apparatus, the combination of a chair, electro-magnetic devices, and a battery to actuate the same, substantially as described.

10. In a therapeutic electric and magnetic apparatus, the pair of electro-magnets having their cores provided with binding-posts, whereby they are adapted for use either as electro-magnets or as simple electrodes, substantially as described.

FREDERICK H. BROWN.

Witnesses:

IRA I. C. L. MOORE,
GEO. L. MATCHAN.