C. A. KAISER.

ELECTROMAGNET.

APPLICATION FILED SEPT. 10, 1913.

1,164,356.

Patented Dec. 14, 1915.

2 SHEETS—SHEET 1.

FIG. 1.

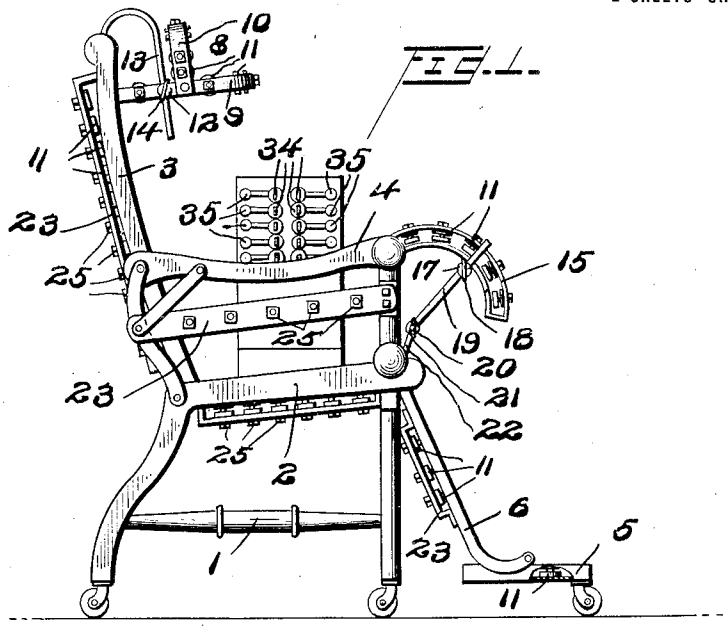
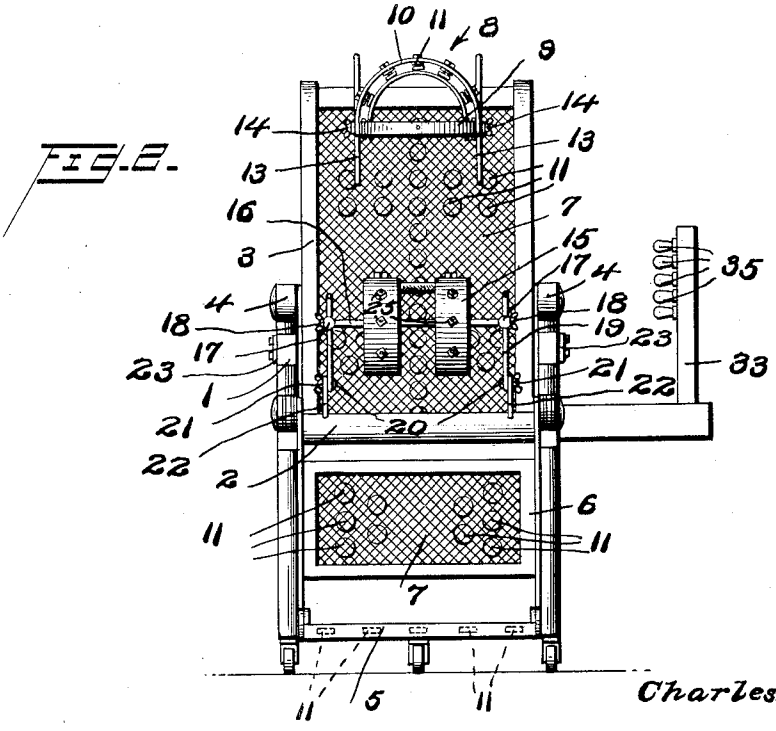


FIG. 2.



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2 SHEETS—SHEET 2.

FIG. 3.

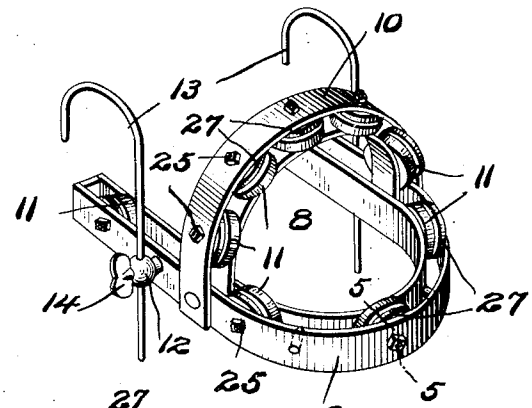


FIG. 4.

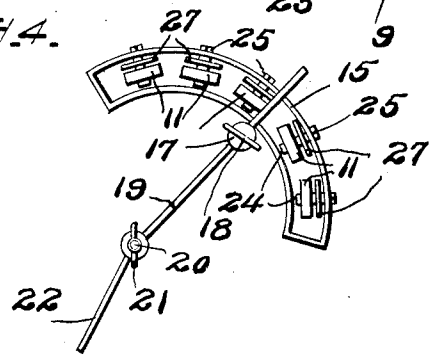


FIG. 5.

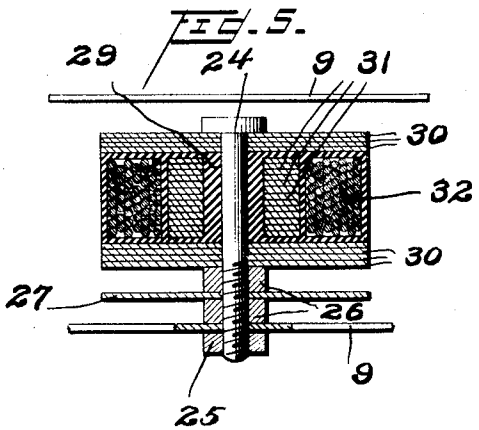
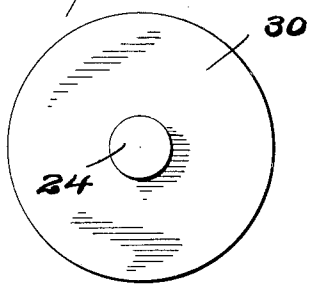


FIG. 6.



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UNITED STATES PATENT OFFICE.

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ELECTROMAGNET.

1,164,356. Specification of Letters Patent. Patented Dec. 14, 1915.

Application filed September 10, 1913. Serial No. 789,107.

To all whom it may concern:

Be it known that I, CHARLES A. KAISER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Electromagnets, of which the following is a specification.

My invention relates to improvements in apparatus for treating the body by electro-magnets, the object of the invention being to provide an apparatus of this character which will, through the improved magnets, impart heat, vibration, and magnetism to various parts of the body to heal various diseases.

A further object is to provide a chair with improved attachments, said chair at the back, seat, sides, leg rests, and foot rest containing electro-magnets and provide an improved head piece and improved knee pieces, all containing electro-magnets so that the different parts of the body may be treated.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1 is a view in side elevation illustrating my improved chair equipped with my improved attachments. Fig. 2 is a view in front elevation of Fig. 1. Fig. 3 is a perspective view of the head piece. Fig. 4 is a view in side elevation of one of the knee pieces. Fig. 5 is a view in section on an enlarged scale through one of the electro-magnets, and Fig. 6 is an end view of the magnet shown in Fig. 5.

1 represents a chair having a seat portion 2, a back 3, sides 4 constituting the arms, a foot rest 5, and a leg rest 6 connecting the seat with the foot rest.

The chair may be made in various ways so that it may be adjusted to allow the patient to assume a comfortable position and in the back, seat, and leg rest, I preferably provide ordinary caning as indicated at 7, but do not limit myself in this particular.

To the upper end of the back 3 of the chair, I removably connect my improved head piece 8. This head piece is shown in perspective in Fig. 3, and comprises a U-shaped horizontal frame 9 connected at opposite sides by an inverted U-shaped vertical frame 10. These frames each comprise strips of metal spaced apart and having between them my improved electro-magnets 11. While I do not limit myself to any particular number of such magnets, I preferably provide five in each of the frames.

The horizontal frame 9 is provided with sleeves 12 in which hooks 13 are adjustably secured by set screws 14, and these hooks 13 are adapted to be positioned in recesses in the back of the chair to hold the head piece in place.

At the forward edge of the seat 2, I support my improved knee pieces 15. These knee pieces are curved in the arc of a circle and comprise metal straps spaced apart and supporting electro-magnets 11. The knee pieces are connected by a rod 16 which is adjustably secured by sleeves 17, and set screws 18, with the free ends of arms 19.

The arms 19 are adjustably connected at their ends by bolts 20 and wing nuts 21 with arm sections 22 adapted to be positioned in sockets in the seat portion of the chair. By reason of this construction the knee pieces may be properly positioned over the knees of the patient.

To the back 3, seat 2, sides or arms 4, leg rests 6 and foot rest 5, I secure metal bars or frames 23 supporting electro-magnet 11. I give all of these electro-magnets the same reference numeral because they are precisely alike in construction, one of which being shown in longitudinal section in Fig. 5. Assuming this section to be taken on the line 5—5 of Fig. 3, the bolt 24 constituting the core of the magnet is projected through the outer strip 9, and is secured by a nut 25.

Between the magnet and the strip 9, and confined between nuts 26, is a disk 27 preferably of aluminum which is utilized for its repulsive qualities to increase the vibrations of the magnet.

It is to be understood that the magnets are connected in circuit with an alternating current, so that the rapid pulsations of the current cause vibrations as well as magnetic discharges.

The magnet 11 around the bolt or core is provided with a sleeve 29 of insulation, and at opposite ends of the sleeve with relatively large laminations 30. Around the sleeve 29, relatively small laminations 31 are located, and around these laminations, suitably

spaced therefrom, is the winding 32 of the magnet. When these magnets become energized, they impart rapid vibrations to the part of the body exposed thereto, and furthermore they give off heat and magnetism, thereby utilizing all three of these important factors as healing and curing agents.

The several magnets may, of course, be wired in any way, but preferably in series and controlled by any suitable switch mechanism. In connection with the chair, however, I preferably provide at one side thereof, a box 33 containing electric switches 34 and electric lights 35, so that the operator can readily control the circuits and observe by the lights just which sets of magnets are energized.

By arranging the magnets as above set forth, the various parts of the body may be treated.

By reference to Fig. 2, it will be noted that the back 3 of the chair has its magnets arranged so as to effect the lower or the upper portion of the back, and it will also be noted that the magnets are preferably arranged in groups of five and ten, but of course this number is not essential.

The patient assumes a natural position on the chair and if the head is to receive treatment, the head piece 8 is positioned on the chair as shown, and the head of the patient is located inside of both the frames 9 and 10. The knee pieces 15 will rest directly over the knees of the patient, and the head piece and knee pieces may be detached if not desired.

When the magnets are excited by an alternating current, Foucault or eddy currents are established in the repulsive disks. A vibration and increased temperature of the disk is thus produced and this condition, together with the magnetic field produced has a beneficial effect upon the body when brought into proximity thereto.

Various slight changes might be made in the general form and arrangement of parts described without departing from my invention, and hence I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

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

1. In an apparatus of the character described, a support, a core fixed to said support, a winding around said core, laminations on said core at the ends of said winding and a disk of non-magnetic conducting material on said core spaced from the laminations at one end, substantially as described.

2. In an apparatus of the character described, the combination with a support, of a bolt secured to the support and constituting the core of a magnet, a sleeve of insulation around the bolt, relatively small laminations around the sleeve, a winding around the relatively small laminations, and relatively large laminations on the bolt at both ends of the sleeve and insulated from the relatively small laminations and the winding, substantially as described.

3. In an apparatus of the character described, the combination with a support, of a bolt secured to the support and constituting the core of a magnet, a sleeve of insulation around the bolt, relatively small laminations around the sleeve, a winding around the relatively small laminations, and relatively large laminations on the bolt at both ends of the sleeve and insulated from the relatively small laminations and the winding, and a disk of non-magnetic conducting material secured on the bolt and spaced from the relatively large laminations, substantially as described.

4. In an apparatus of the character described, the combination with a support, of a bolt secured to the support and constituting the core of a magnet, a sleeve of insulation around the bolt, relatively small laminations around the sleeve, a winding around the relatively small laminations, and relatively large laminations on the bolt at both ends of the sleeve and insulated from the relatively small laminations and the winding, nuts screwed onto the bolt, and a disk of non-magnetic conducting material secured between said nuts, substantially as described.

5. In an apparatus of the character described, the combination with a support, of a bolt secured to the support and constituting the core of a magnet, a sleeve of insulation around the bolt, relatively small laminations around the sleeve, a winding around the relatively small laminations, and relatively large laminations on the bolt at both ends of the sleeve and insulated from the relatively small laminations and the winding, and an aluminum disk secured on the bolt and spaced from the relatively large laminations, substantially as described.

6. In an apparatus of the character described, the combination with a support, of a bolt secured to the support and constituting the core of a magnet, a sleeve of insulation around the bolt, relatively small laminations around the sleeve, a winding around the relatively small laminations, and relatively large laminations on the bolt at both ends of the sleeve and insulated from the relatively small laminations and the winding, nuts screwed onto the bolt, and an aluminum disk secured between said nuts, substantially as described.

7. In an apparatus of the character described, the combination with a bolt, rela-

tively small laminations around the bolt and insulated therefrom, a winding around the relatively small laminations, relatively large laminations at the ends of the winding, and a repulsive disk on the bolt spaced from the relatively large laminations, substantially as described.

8. In an apparatus of the character described, the combination with a bolt, relatively small laminations around the bolt and insulated therefrom, a winding around the relatively small laminations, relatively large laminations at the ends of the winding, and an aluminum disk on the bolt spaced from the relatively large laminations, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES A. KAISER.

Witnesses:
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S. W. FOSTER.