

Improvements in rocking chairs / [Charles Emmanuel Hartelius].

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Complete Specification Left, 23rd Oct., 1893—Accepted, 9th Dec., 1893

PROVISIONAL SPECIFICATION.

Improvements in Rocking Chairs.

We CHARLES EMMANUEL HARTELIUS, Electrician, and ANDREW ALBERT ANDERSON, Carpenter, both of 5th Avenue and 79th Street, Town of Bay Ridge, County of Kings, State of New York, United States of America, do hereby declare the nature of this invention to be as follows:—

5 Our invention relates to improvements in that class of medical electrical appliances which are adapted to send a mild current of electricity through a person, and the object of our invention is to produce a dynamo attachment for a rocking chair, by means of which the movement of the chair will operate the dynamo and generate a mild current of electricity which passes through electrodes on prominent
10 places on the chair, such as the arms, and which, therefore, when the person sitting in the chair places his hands upon the electrodes, will pass through the body of said person. It will be seen that this arrangement for generating electricity does away with the acids commonly used in medical batteries, and it enables a person to take a gentle shock for any desired length of time, and when the person does not
15 desire to have the current pass through his body, he may simply remove his hands from the electrodes and use the chair in the ordinary way.

The chair itself is an ordinary rocking chair carrying beneath its seat a small dynamo which is driven by a belt passing over a grooved pulley mounted on a shaft journalled in hangers on the chair frame. On one side of the field of the dynamo
20 there is an adjustable keeper or plate provided with a handle or rod by which it may be set so as to make it connect the pole pieces at any desired point and the strength of the current to be controlled.

The pulley is furnished with a ratchet wheel which is engaged by a pawl pivoted on a plate journalled loosely on the shaft at one side of the ratchet wheel, the
25 lower end of the plate being enlarged to serve as a counterbalance tending to hold the pawl above and in engagement with the ratchet wheel. The upper end of the pawl projects above its pivot and between studs on one side of a plate which is arranged parallel with the first and is also counterbalanced, and is fixed to a drum which turns loosely on the shaft and is operated in one direction and then in the
30 other by means of bands or belts, which are secured to and wound in opposite directions upon the drum. One belt has its outer or free end secured to the free end of a swinging lever which is provided with a sliding weight held in place by a set screw, the lever being pivoted at one end to a hanger which extends downward in the back portion of the seat. The other belt is wound in a direction opposite to the first,
35 and its lower or free end is secured to a lever which is curved upward in the centre and pivoted to the lower end of the same hanger, the lever extending backward behind the hanger and having at its rear end a roller which runs upon the floor.

The dynamo is connected by wires with electrodes which are arranged preferably on the arms of the chair, but which may be arranged in any convenient
40 place, and consequently when the dynamo is in operation, and a person places his hands upon the electrodes, he will receive a mild current of electricity.

The operation is as follows—

When the person in the chair rocks backward, the front end of the lever having
45 the roller is depressed in relation to the chair seat, and this pulls downward upon the belt connected therewith, which causes the drum to be turned, and the upper end of the plate is thrown forward, thus causing one of the studs to engage the upper end of the pawl, and the latter being in contact with the ratchet wheel, turns the latter which carries with it the pulley so that by means of its belt the dynamo

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is driven. The pulley is made heavy enough to act as a fly wheel, so as to make the movement as steady as possible. On the return movement of the chair, the front end of the lever and the seat are brought nearer to each other, slackening the belt so that the sliding weight acts on the swinging lever and its belt, unwinding the latter and rewinding the former, and as these movements are kept up alternately 5 by the motion of the chair, a continuous movement in one direction will be imparted to the dynamo. It will be understood that when the plate swings forward it carries with it the pawl and ratchet wheel, and on its return movement the pawl slides back freely over the teeth of the ratchet wheel.

Other mechanism may be used for driving the dynamo by the movement of the 10 rocking chair and connections between the dynamo and electrodes or contacts on the chair.

Dated this 21st day of March 1893.

C. E. HARTELIUS,
A. A. ANDERSON, 15

By A. M. & Wm. Clark,
53, Chancery Lane, London, Chartered Patent Agents.

COMPLETE SPECIFICATION.

Improvements in Rocking Chairs.

We, CHARLES EMMANUEL HARTELIUS, Electrician, and ANDREW ALBERT 20 ANDERSON, Carpenter, both of 5th Avenue and 79th Street, Bay Ridge, in the County of Kings, and State of New York, United States of America, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :— 25.

Our invention relates to improvements in that class of medical electrical appliances which are adapted to send a mild current of electricity through a person, and the object of our invention is to produce a dynamo attachment for a rocking chair, by means of which the movement of the chair will operate the dynamo and generate a mild current of electricity which passes through electrodes placed in 30 prominent positions on the chair, such as the arms, and which, therefore, when the person sitting in the chair places his hands upon the electrodes will pass through the body of said person. It will be seen that this arrangement for generating electricity does away with the acids commonly used in medical batteries, and it enables a person to take a gentle shock for any desired length of time and when 35 the person does not desire to have the current pass through his body he may simply remove his hands from the electrodes and use the chair in the ordinary way. To this end our invention consists in certain features of construction and combinations of parts which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this 40 Specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a rocking chair provided with our improved attachment.

Figure 2 is an enlarged detail elevation, partly in section, of the mechanism for 45 operating the dynamo.

Figure 3 is an end view of the operating mechanism and

Figure 4 is an enlarged detail sectional elevation of the ratchet mechanism by means of which the oscillating movement of the chair is converted into a continuous 50 rotary movement for operating the dynamo.

The chair 10 is an ordinary rocking chair and may be of any approved kind and on the under side of its seat or bottom 11 is secured a small dynamo 12 which also may be of any usual type and which is driven by a belt 13 running in a groove 13^a on a pulley 14 mounted on a shaft 15 journaled in hangers 16 on the

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chair bottom. On one side of the field of the dynamo is a keeper or plate 12^a which slides in slideways 12^b on the chair and is secured to a handle rod 12^c which extends through a staple or guide 12^d on the chair back. By adjusting the keeper or plate 12^a so as to make it connect the pole pieces at any desired point, the
5 strength of the current may be perfectly controlled.

On one side of the pulley 14 is a ratchet wheel 17 which is engaged by a pawl 18 above it, this pawl being pivoted as shewn at 19 on a plate 20 which plate is journaled loosely on the shaft 15 at one side of the ratchet wheel and the lower
10 end of the plate is enlarged as shewn at 20^a so as to operate as a counterbalance and tend to hold the pawl above and in engagement with the ratchet wheel. The upper end 21 of the pawl 18 projects above the pivot 19 and between studs 22 on one side of a plate 23 arranged parallel with the plate 20 and also counterbalanced at its lower end as shewn at 24. The plate 23 is fixed to a drum 25 which turns
15 loosely on the shaft 15 and is operated in one direction and then in the other by means of the bands or belts 26 and 26^a secured to and wound in opposite directions upon the drum. The belt 26 has its outer or free end secured to the free end of a swinging lever 27, which is provided with a sliding weight 28, and the latter is held in place by a set screw 29. The lever 27 is pivoted at one end
20 to a hanger 30, which extends downward in the back portion of the seat 11. The belt 26^a is wound in a direction opposite to the belt 26, and its lower or free end is secured to a lever 31, which is curved upward in the centre and pivoted, as shown at 32, to the lower end of the hanger 30, the said lever extending backward behind the hanger and having at its rear end a roller 33 which runs upon the
floor.

The dynamo 12 is connected by wires *a* with electrodes A, which are arranged preferably on the arms of the chair, but which may be arranged in any other convenient position, so that when the dynamo is in operation, and a person places
25 his hands upon the electrodes, he will receive a mild current of electricity.

The operation of the chair is as follows :

30 When the person in the chair rocks it in the backward direction, the front end of the lever 31 is depressed in relation to the chair seat, and this pulls downward upon the belt 26^a, which causes the drum 25 to be turned, and the upper end of the plate 23 to be thrown forward, thus causing one of the studs 22 to act on the
35 upper end 21 of the pawl 18, and rotate the ratchet wheel 17, the movement of which carries with it the pulley 14, and drives the dynamo 12 by means of the belt 13. In this connection it will be noticed that the pulley 14 is made heavy enough to act as a fly wheel, so as to make the movement as steady as possible. On the return movement of the chair, the front end of the lever 31 and the seat 11
40 are brought nearer to each other, thus slackening the belt 26^a, and permitting the weight 28 to pull downward the lever 27 and belt 26, thus unwinding the belt 26 and rewinding the belt 26^a, and as these movements are kept up alternately by the motion of the chair, a continuous movement in one direction will be imparted to the dynamo. When the plate 23 swings forward it will carry with it the
45 pawl and ratchet wheel, and on its return movement the pawl slides back freely over the teeth of the ratchet wheel.

The driving mechanism connecting the lever 31 with the dynamo we do not claim as our invention, but we have described it in detail to the end that the operation of the device may be readily understood. We claim, however, as our
50 invention, any operative mechanism for driving the dynamo by the movement of the rocking chair and connections between the dynamo and electrodes or contacts on the chair.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, we declare that what we claim is,

55 1. The combination, with a rocking chair, of electrodes or contacts, carried by the chair, a dynamo arranged in circuit with said electrodes or contacts, and

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mechanism actuated by the movements of the chair for operating the dynamo, substantially as described.

2. The combination, with a rocking chair, of contacts or electrodes secured thereto, a dynamo carried by the chair and connected with the electrodes or contacts, a lever fulcrumed beneath the chair and having one end in contact with the floor, and an operative driving connection between the lever and the dynamo whereby the movement of the chair will operate the latter, substantially as described. 5

3. The combination, with a rocking chair, of electrodes or contacts secured thereto, a dynamo carried by the chair and connected with the electrodes or contacts, a lever fulcrumed beneath the chair and having at one end a roller which runs upon the floor, and an operative driving connection between one end of the lever and the dynamo, whereby the movement of the chair will operate the dynamo, substantially as described. 10

4. The combination, with the dynamo, of a slidable, adjustable keeper connecting the pole pieces of the field and adapted to control the current generated by the machine, substantially as described. 15

Dated this 23rd day of October 1893.

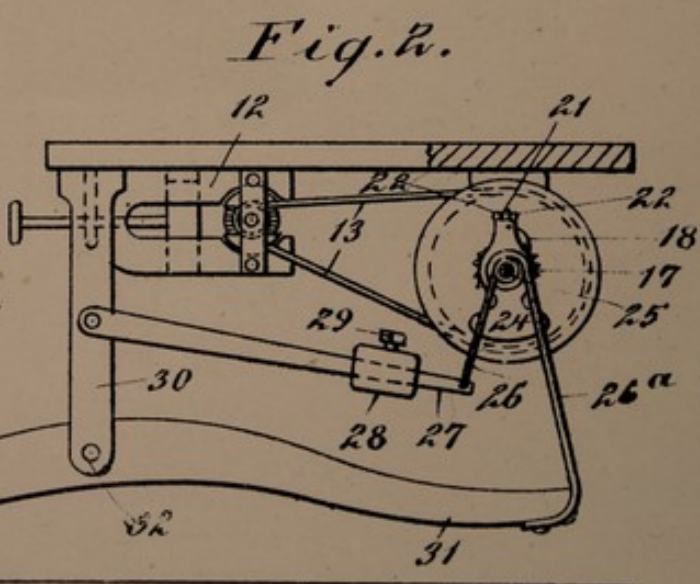
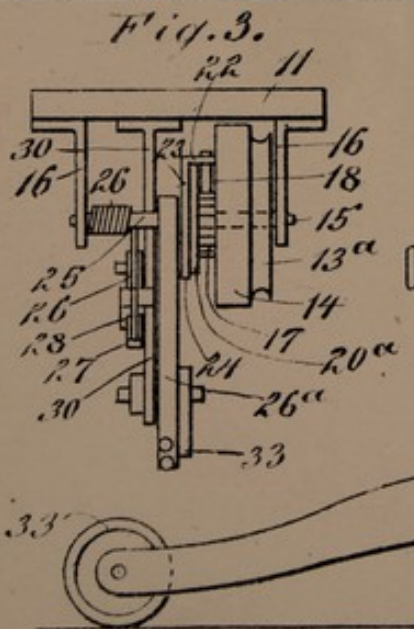
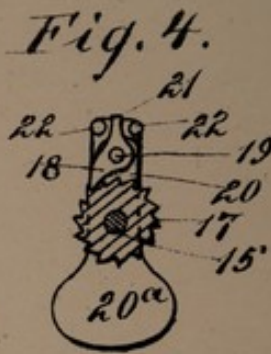
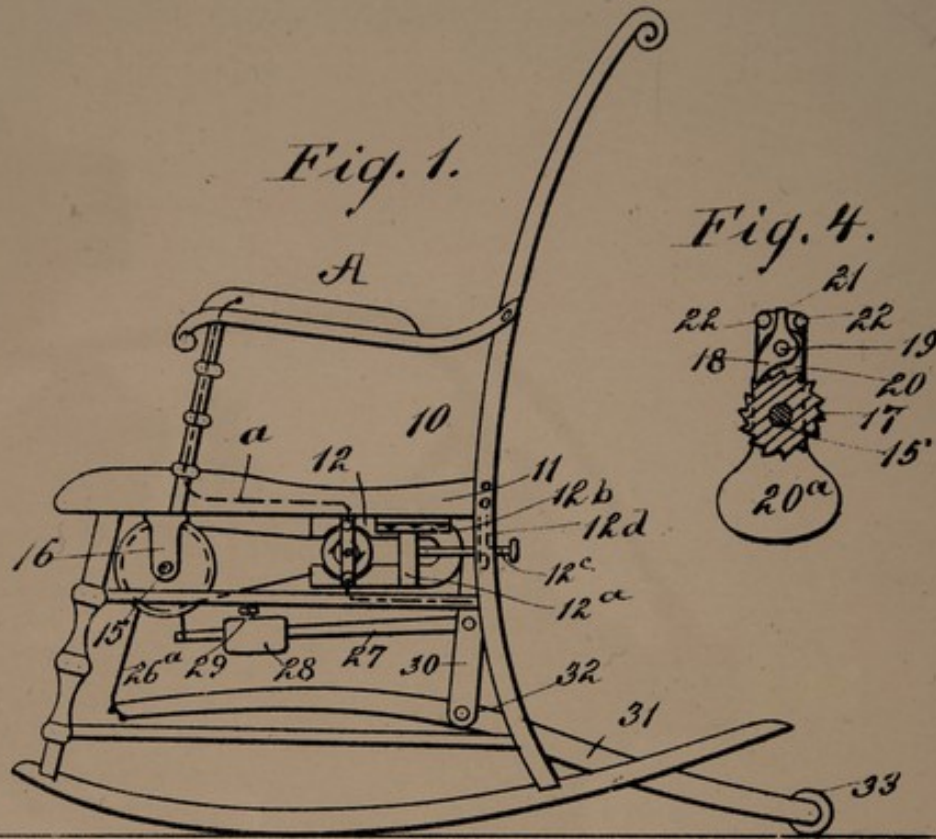
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[This Drawing is a reproduction of the Original on a reduced scale]

