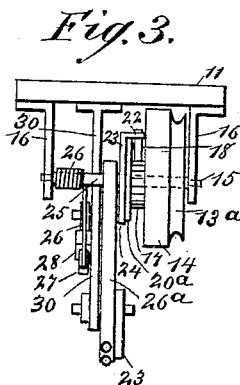
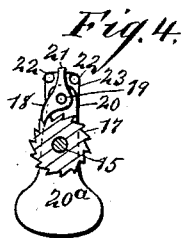
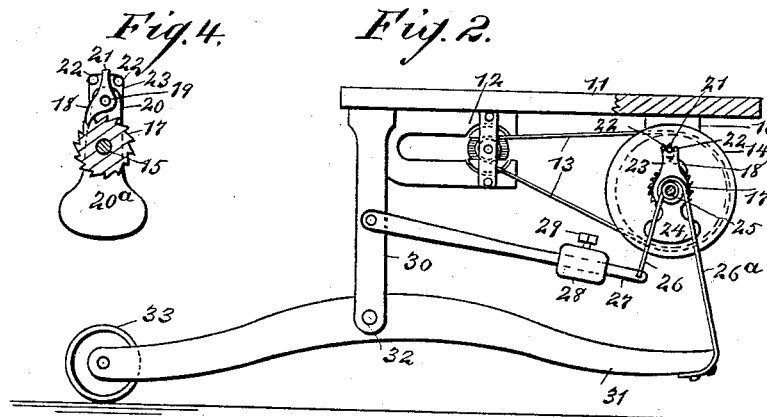
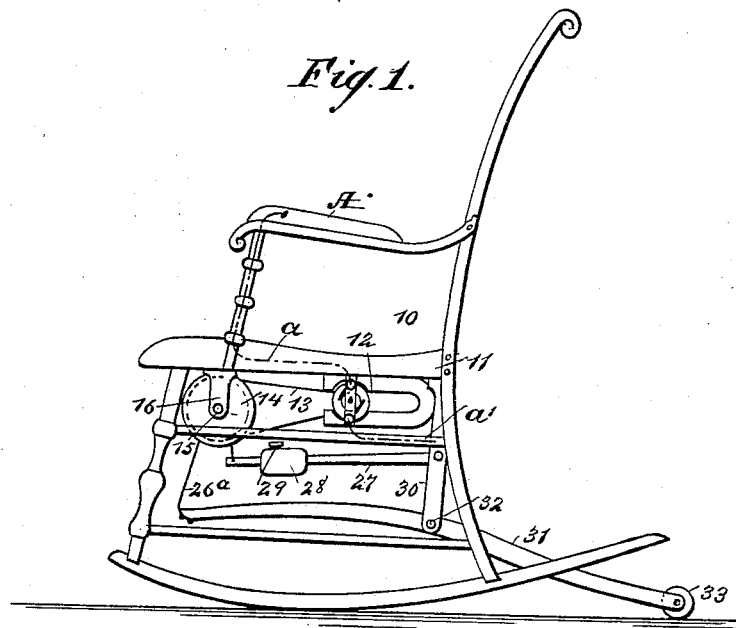


(No Model.)

C. E. HARTELIUS.
ELECTRICAL ATTACHMENT FOR ROCKING CHAIRS.
No. 493,997. Patented Mar. 21, 1893.



WITNESSES:

Donn Twitchell
C. Sedgwick

INVENTOR
C. E. Hartelius
BY
Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES E. HARTELIUS, OF BAY RIDGE, NEW YORK.

ELECTRICAL ATTACHMENT FOR ROCKING-CHAIRS.

SPECIFICATION forming part of Letters Patent No. 493,997, dated March 21, 1893.

Application filed November 22, 1892. Serial No. 452,820. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. HARTELIUS, of Bay Ridge, in the county of Kings and State of New York, have invented a new and
5 Improved Electrical Attachment for Rocking-Chairs, of which the following is a full, clear, and exact description.

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

30 To this end, my invention consist in certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying
35 drawings forming a part of this 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
40 chair provided with my improved attachment. Fig. 2 is an enlarged detail elevation, partly in section, of the mechanism for operating the dynamo. Fig. 3 is an end view of the operating mechanism; and Fig. 4 is an enlarged
45 detail sectional elevation of the ratchet mechanism by means of which the oscillating movement of the chair is converted into a continuous rotary movement for operating the dynamo.

50 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 fastened

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, which
55 pulley is mounted on a shaft 15, and the latter is journaled in hangers on the chair bottom.

On one side of the pulley 14 is a ratchet wheel 17, which is engaged by a pawl 18 above
60 it, this pawl being pivoted, as shown 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 end of the plate is enlarged, as
65 shown at 20^a, so that the enlarged end operates as a counterbalance and tends to hold the pawl above and in engagement with the ratchet wheel. The upper end 21 of the pawl
70 18 projects above the pivot 19 of the pawl and between studs 22 on one side of a plate 23, which plate is arranged parallel with the plate 20, and is also counterbalanced at its lower end, as shown at 24. The plate 23, is
75 fixed to a drum 25 which turns loosely on the shaft 15, and this drum is operated in one direction and then in the other by means of the bands or belts 26 and 26^a, these being secured to and wound in opposite directions upon the drum. The belt 26 has its outer or free end
80 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 to a
85 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
90 31, which is curved upward in the center and pivoted, as shown at 32, to the lower end of the hanger 30, and the lever extends backward behind the hanger and has as its rear
95 end a roller 33 which runs upon the floor. The dynamo 12 is connected by wires *a* and *a'* with electrodes A, which are arranged preferably on the arms of the chair, but which
100 may be arranged in any convenient 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 of the chair is as follows: When the person in the chair rocks backward, 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 is thrown forward thus causing one of the studs 22 to engage the upper
 5 end 21 of the pawl 18, and the latter, being in contact with the ratchet wheel 17, causes the ratchet wheel to be turned, and the movement of the ratchet wheel carries with it the pulley 14, so that by means of the belt 13, the
 10 dynamo 12 is driven. 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
 15 end of the lever 31 and the seat 11 are brought nearer to each other, thus slackening the belt 26^a, and the weight 28 is thus permitted to pull downward on the lever 27 and belt 26, thus unwinding the belt 26 and rewinding the
 20 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. It will be seen that when the plate 23 swings forward it will carry
 25 with it the 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 I do not claim as my invention, but I have described it in detail to the end that the operation of the device may be readily understood. I claim, however, as
 30 my 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 thus described my invention, I claim as new and desire to secure by Letters Patent—

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 mechanism actuated by the movements of the chair for operating
 45 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 ful-
 50 crumed 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 de-
 55 scribed.

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 ful-
 60 crumed 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.

CHARLES E. HARTELIUS.

Witnesses:

CHARLES W. CHURCH, Jr.,
 JOHN R. KUHN.