

F. C. KINEMUND.
GALVANIC-BATTERY.

No. 175,112.

Patented March 21, 1876.

Fig. 1

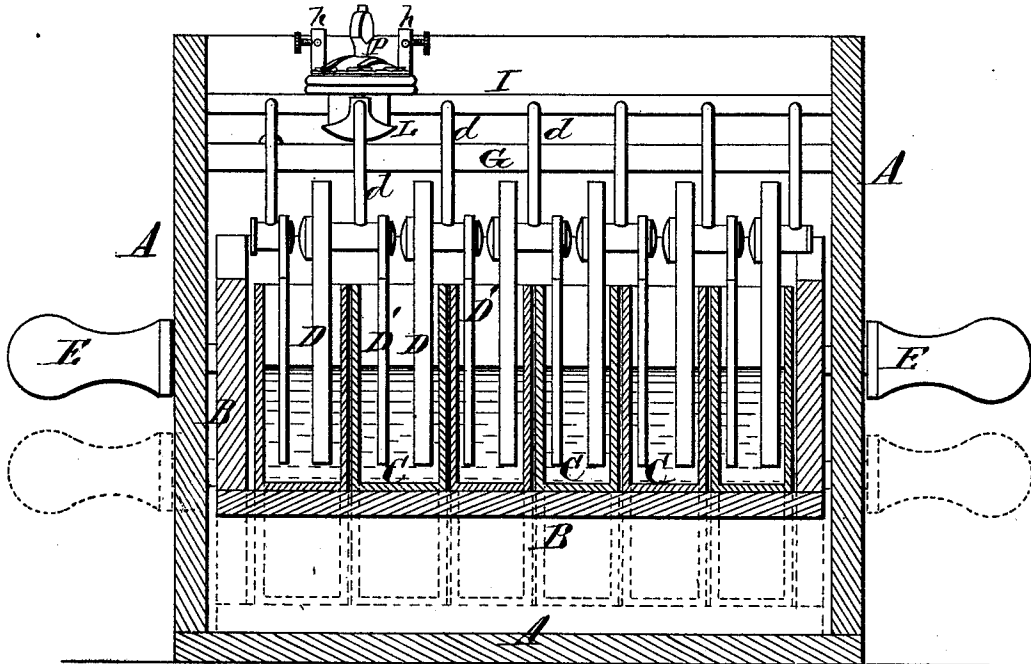
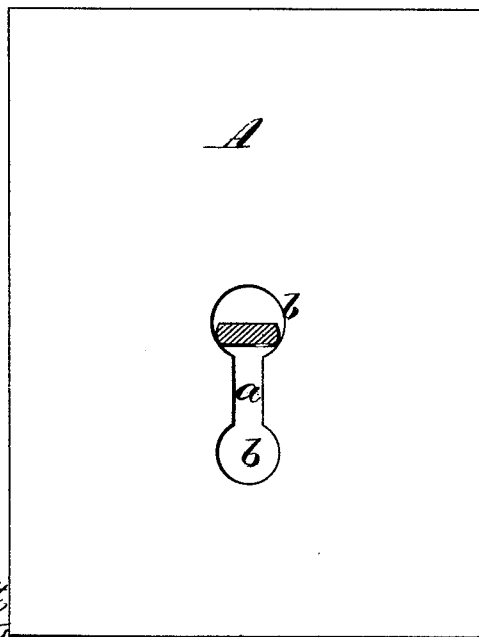


Fig. 2



WITNESSES

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Fig. 3

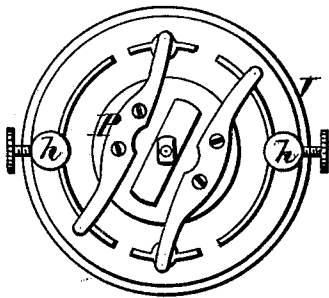


Fig. 4

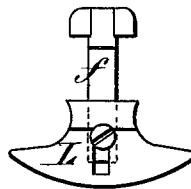


Fig. 5

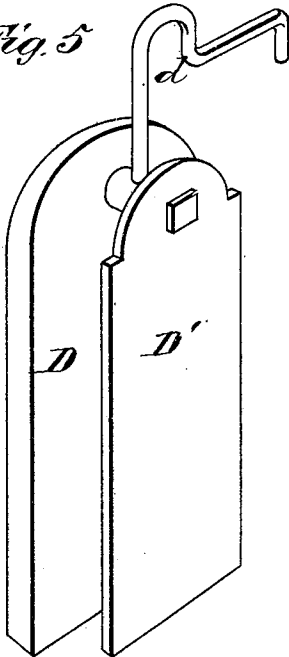
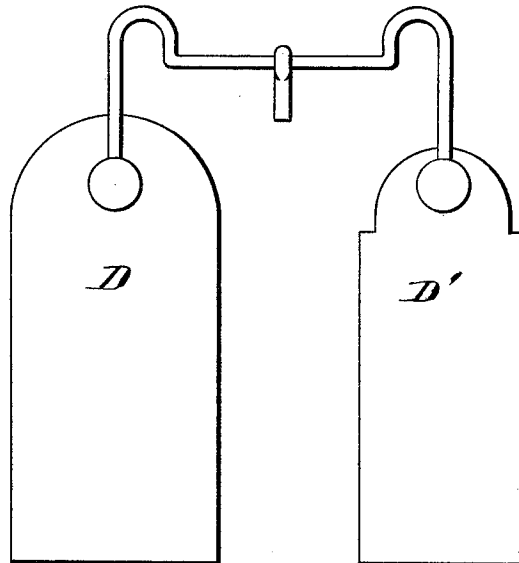


Fig. 6



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UNITED STATES PATENT OFFICE.

FREDERICK C. KINEMUND, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN GALVANIC BATTERIES.

Specification forming part of Letters Patent No. **175,112**, dated March 21, 1876; application filed February 5, 1876.

To all whom it may concern:

Be it known that I, FREDERICK C. KINEMUND, of Baltimore, in the county of Baltimore and State of Maryland, have invented a new and valuable Improvement in Galvanic Batteries; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical section of my battery; and Figs. 2, 3, 4, 5, and 6 are detail views thereof.

The nature of my invention consists in the construction and arrangement of a galvanic battery for medical purposes, as will be hereinafter more fully set forth.

In the annexed drawings, A represents the outer case or box, constructed in any suitable form and dimensions, and provided with an interior trough, B, containing the cells C C. The trough, with the cells, is raised and lowered at will by means of the handles E E, the shanks of which are made flat and pass through a vertical slot, *a*, in the ends of the box, said slot having an enlargement, *b*, at each end, so that by turning the handle the shank or stem will be turned flatwise, as shown in Fig. 2, and thus support the trough.

In each cell C are placed one carbon plate, D, and one zinc plate, D', which are, however, not connected; but the carbon plate for one cell is connected with the zinc plate for the adjoining cell, and said two plates are supported by means of a curved wire, *d*, as shown in Fig. 5, from a longitudinal bar, G, at the top.

There are two rows of cells, and the plates from the two rows are all suspended from the same bar. In the cell at each end there is one

plate connected with a plate in the cell on the other side, as shown in Fig. 6, and also supported on the bar G.

Above the bar G, in the box or case A, is a rail, I, on which slides a disk or carriage, J, having two upright posts, *h h*, for the attachment of the two connecting-wires. On each side of this carriage is a metal post, *f*, with a sliding shoe, L, placed thereon, to form connection with the wires *d* of the plates D D'. On top of the carriage is an ordinary switch, P, for changing the current.

By moving the carriage J back and forth on the rail I, as many pairs of cells as desired may be included in the working portion of the battery, and thus the current made of any power required.

Instead of moving the plates out and in the cells, I leave the plates stationary, while the trough, with the cells, is moved up and down and held in position by the handles, as above described.

The carriage, with its posts, slides, and switch, forms a simple and convenient means for increasing and decreasing the power of the current, and for changing the course of the current as required.

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the plates D D', suspended from the bar G by the wires *d*, and the sliding carriage J, containing the binding-posts *h*, posts *f*, with movable shoes L, and the switch P, as and for the purposes herein set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FREDK. C. KINEMUND.

Witnesses:

GEORGE E. UPHAM,
JOS. B. LOOMIS.