

(No Model.)

J. KIDDER, Dec'd.

F. M. KIDDER and E. W. KEYES, Administrators.

GALVANIC BATTERY.

No. 258,857.

Patented May 30, 1882.

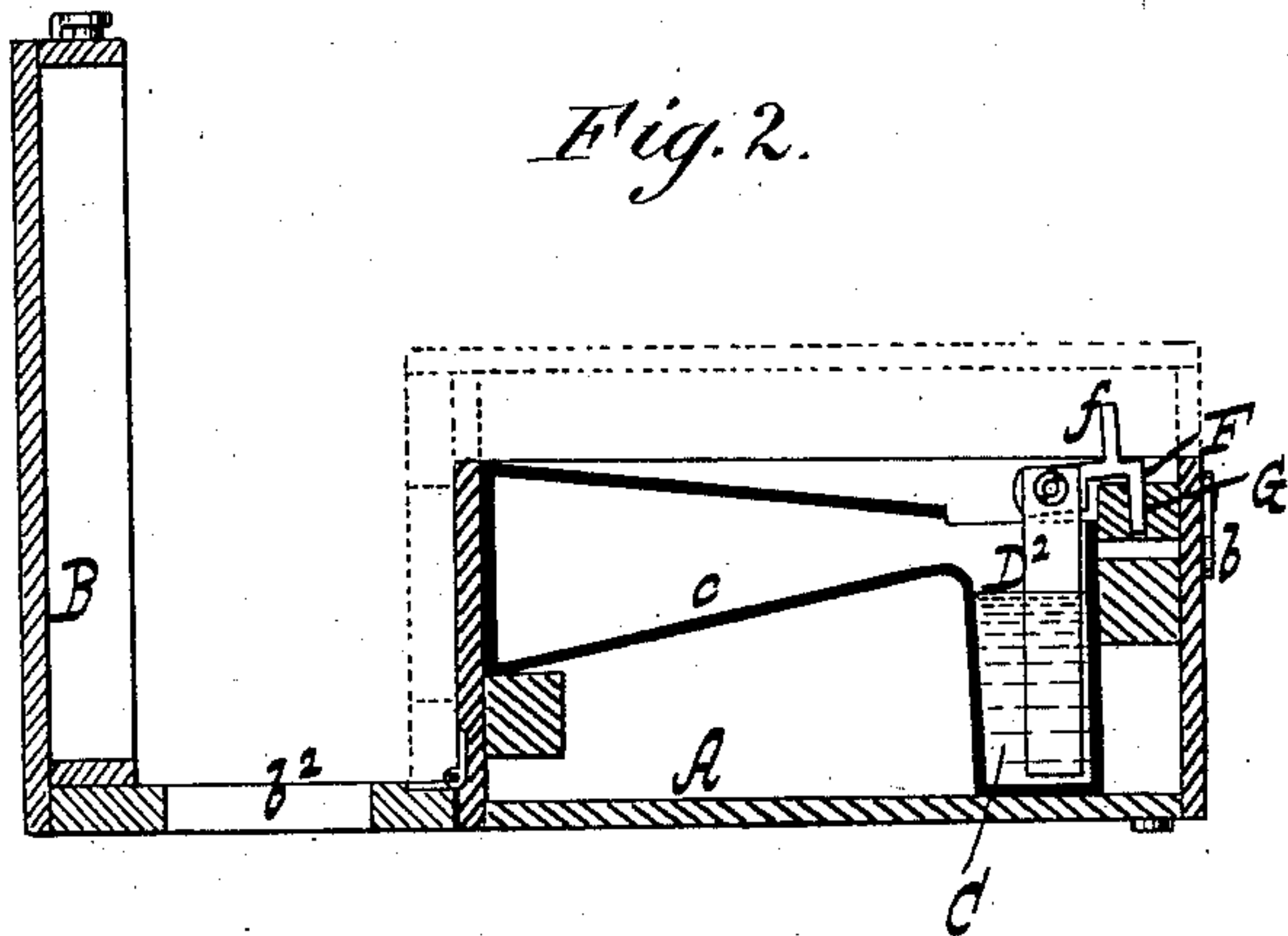
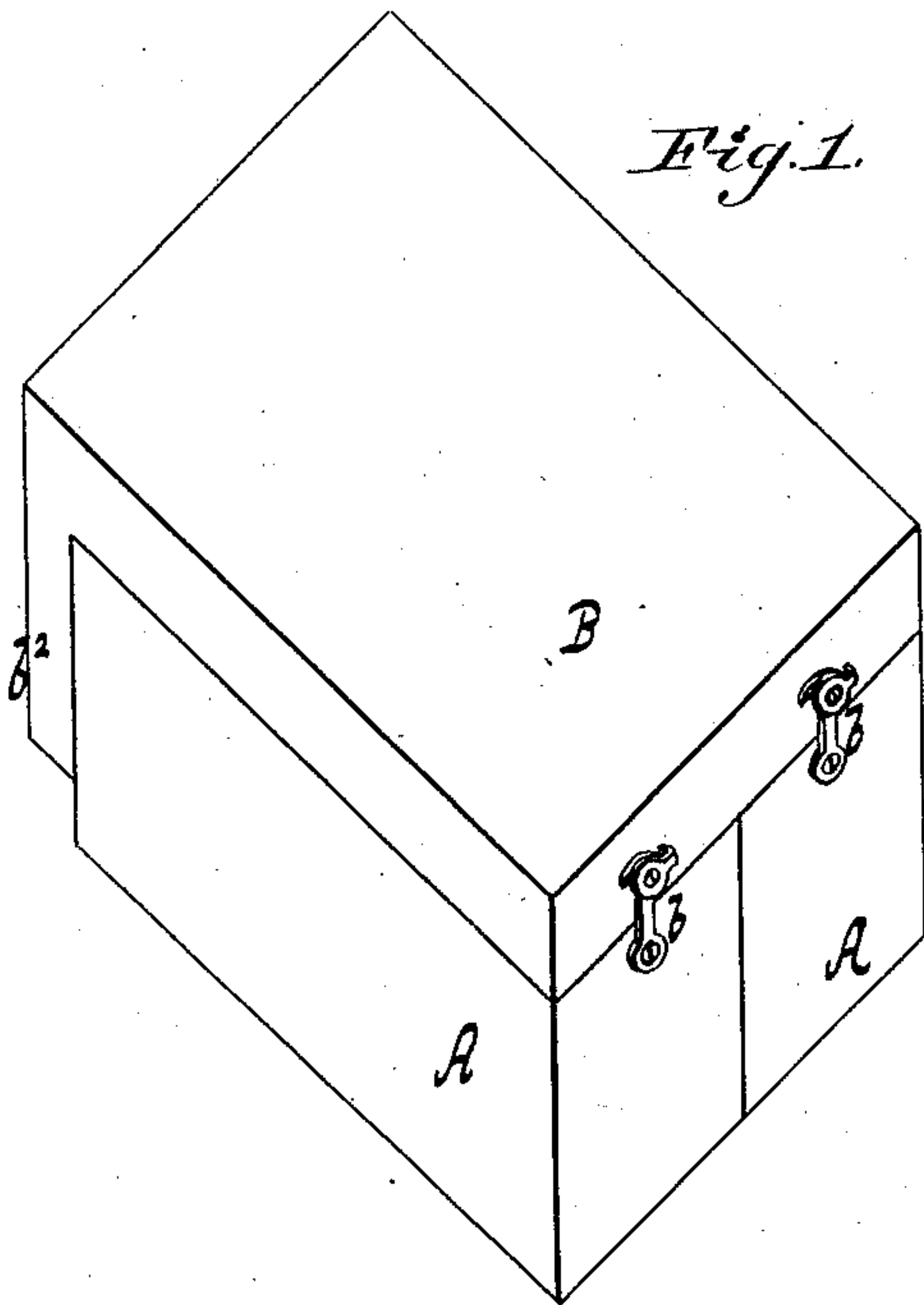


Fig. 4.

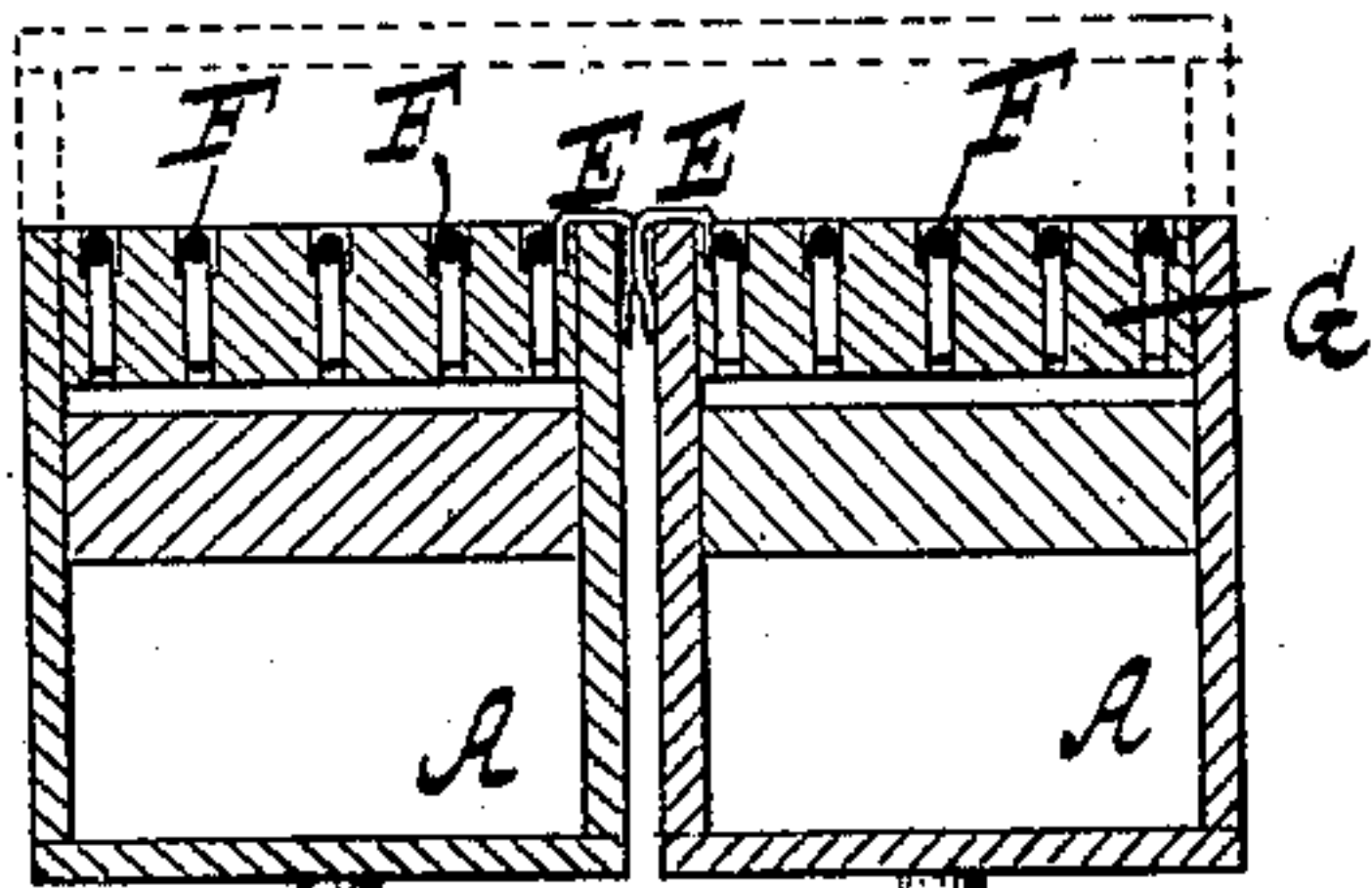
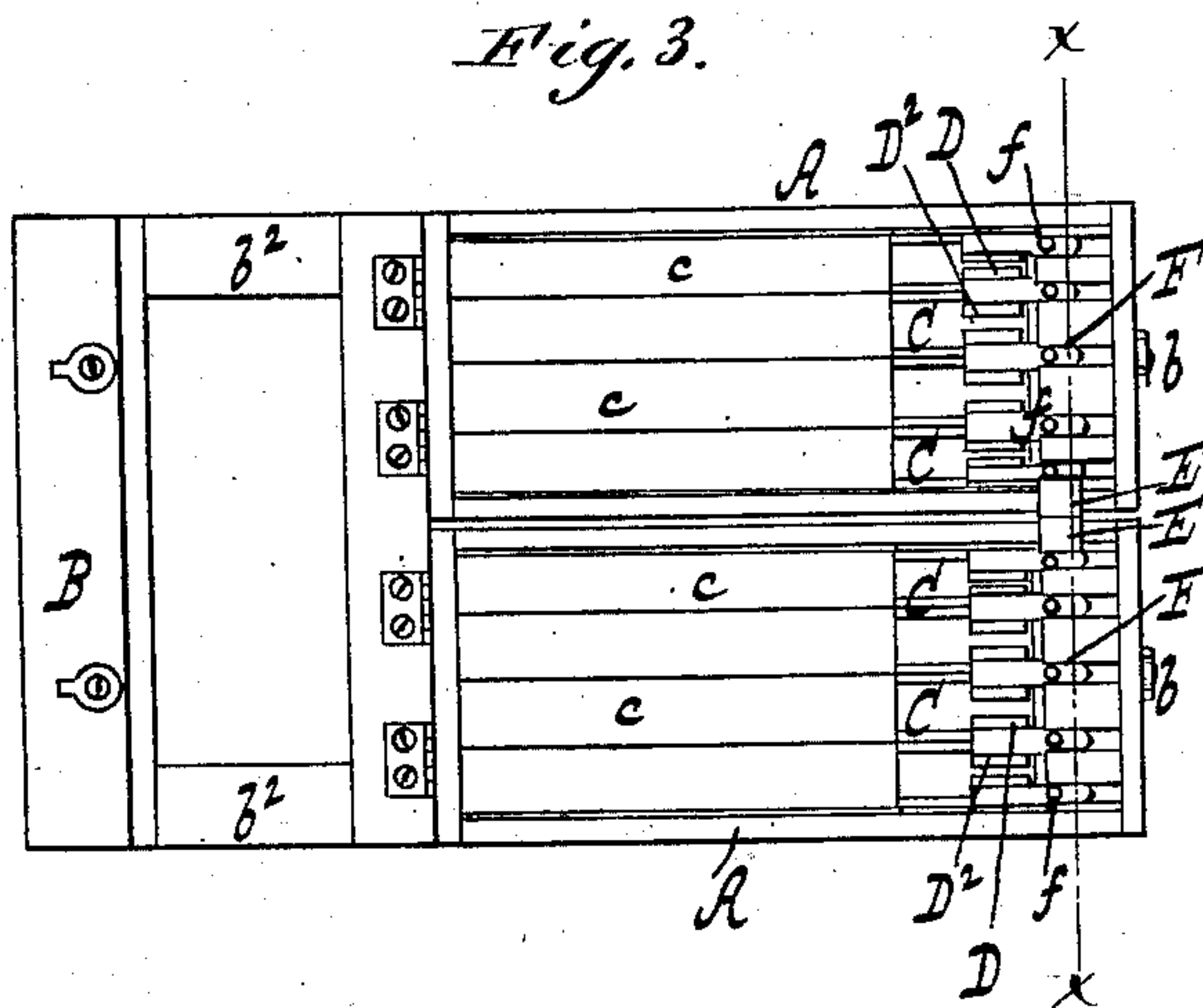


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRANCIS M. KIDDER, OF NEW YORK, AND EMERSON W. KEYES, OF BROOKLYN, N. Y., ADMINISTRATORS OF JEROME KIDDER, DECEASED.

GALVANIC BATTERY.

SPECIFICATION forming part of Letters Patent No. 258,857, dated May 30, 1882.

Application filed March 4, 1882. (No model.)

To all whom it may concern:

Be it known that we, FRANCIS M. KIDDER and EMERSON W. KEYES, citizens of the United States, and residing respectively at New York city, in the county of New York and State of New York, and at Brooklyn, in the county of Kings and State of New York, administrators of the estate of JEROME KIDDER, late a citizen of the United States, and residing at New York city, county and State of New York, deceased, state that the said JEROME KIDDER, M. D., invented certain new and useful Improvements in Galvanic Batteries, of which the following is a specification.

This invention relates to certain improvements in that class of batteries for which Letters Patent No. 119,855 were granted to Jerome Kidder, October 10, 1871.

This invention consists in a novel construction, arrangement, and combination with each other of sections or cases provided with a lid common to all, which acts as a support for the sections or cases not in use, each case containing a series of cells constructed according to the above-mentioned invention, said sections or cases being so arranged as to allow any required number of them to be charged and electrically connected with and disconnected from each other by the operation of lowering and raising the cases, thus increasing or decreasing the power of the battery, as hereinafter more particularly described.

In the accompanying drawings, Figure 1 is a perspective view of the invention as it appears when closed. Fig. 2 is a longitudinal vertical section of the same open. Fig. 3 is a plan view of the same open, and Fig. 4 is a vertical section taken in the line $x x$ of Fig. 3.

A A are sections or cases, each of which contains a battery, of any required number of cells, C, which are provided with limbs c , as and for the purposes fully described in the specification of the above-mentioned Letters Patent. The said sections or cases are hinged or otherwise suitably attached near the bottom to a lid or support, B, which is common to all of said cases. The said lid consists of two parts—namely, the lid proper and a frame, b^2 . When the lid is open and thrown back, as shown in

Fig. 2, it serves as a support for any of the cases or sections not in use when they are hinged over on the back and secured to the lid by hooks b . When a large number of cases are attached to one lid the frame b^2 may be strengthened by means of one or more braces or connecting-pieces from front to back. The positive elements D and negative elements D^2 are connected and suspended in the cells C by means of hooks F, which are inserted in insulated sockets in the beam G; but we do not confine ourselves to this particular mode of connection and suspension, as the usual or any other suitable arrangement of the elements may be employed. Each of the hooks F which support the elements is provided with a stud, f , upon which binding-posts for the insertion of a wire may be secured, when desired, by means of a set-screw. The hook F, supporting the outermost single elements of the cases A, is provided with a strip or rod, E, of suitable metal, which extends outward for electrically connecting the cells of adjoining sections or cases when they are lowered into position, so that said strips E come in metallic contact with each other; but we do not confine ourselves to this mode of connection, as it can also be done by a wire, the ends of which may be secured in binding-posts upon the studs f of said single elements, or by any other suitable means.

The operation of this invention is as follows: When the battery is to be used one of the sections or cases is charged by lowering it, as described in the specification of the Letters Patent above referred to. When only a weak current is desired one cell alone may be used, the wires being attached to posts on the studs f of adjoining hooks F. When a stronger current is needed one of the posts is removed from its stud and attached to one of the other studs, so as to include in the circuit the number of cells necessary to produce a current of the desired strength. If a current is needed stronger than can be obtained from the cells of one case, one or more of the other cases is lowered and charged and one of the wires connected with one of its studs f of said case, the metals E completing the circuit.

The posts for attaching the wires may be

either permanently attached to the studs *f* or they may be removable and provided with set-screws for attachment to any one of said studs.

Among the principal advantages of this invention are the following:

First. The strength of the current may be regulated, and either increased or decreased much more easily than by the devices formerly in use for that purpose.

Second. When the strength of the current is decreased by taking one of the cases A out of the circuit, the said case may be raised up and thrown out of action, thus effecting a saving of the elements.

The cases may, if desired, be constructed each with a different number of cells, so that if it is desired to use but one of said cases one may be selected and charged of the required power.

Having thus described the invention, what we claim as new, and desire to secure by Letters Patent, is—

A battery consisting of sections or cases A, attached to a lid or support, B, containing cells of a battery, and provided with strips or rods of metal E for electrically connecting the cells in any of said sections or cases with the cells of adjoining cases when charged and in the proper position, substantially as and for the purposes above described.

In testimony we have hereunto set our hands this 16th day of February, 1882.

FRANCIS M. KIDDER,
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Administrators of Dr. J. Kidder, deceased.

Witnesses:

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