LUIS DRESCHER

Improved Galvanic Cell and Cell-Cover for Electro Magnetic Instruments

117057

PATENTED JUL 18 1871

FIG:2.

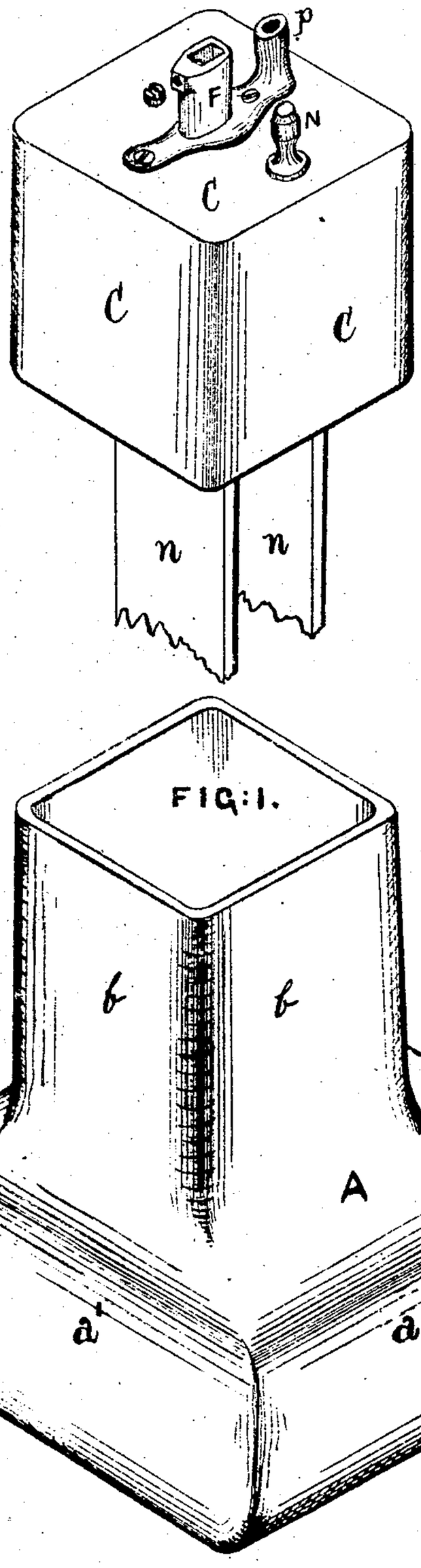

FIG:3.

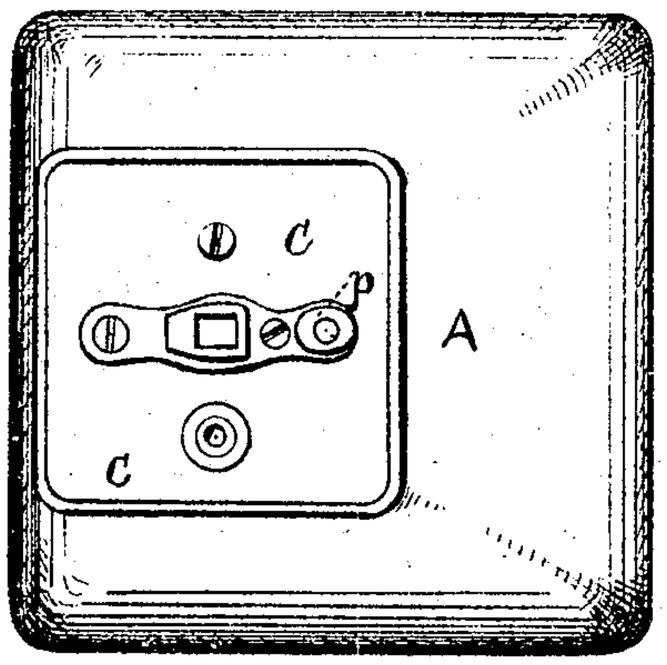

FIG:4.

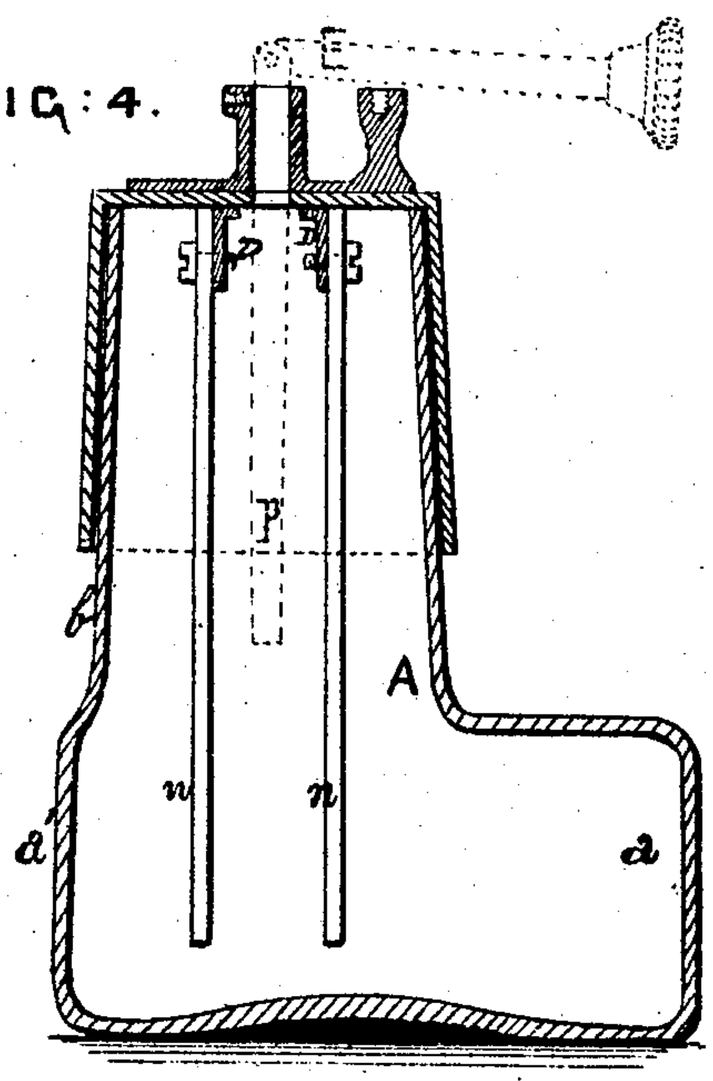

FIG:1.

WITNESSES
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UNITED STATES PATENT OFFICE.

LUIS DRESCHER, OF NEW YORK, N. Y.

IMPROVEMENT IN GALVANIC BATTERIES.

Specification forming part of Letters Patent No. 117,057, dated July 18, 1871.

To all whom it may concern:

Be it known that I, LUIS DRESCHER, of the city, county, and State of New York, have invented an Improved Cell and Cell-Cover for the Galvanic Battery of an Electro-Magnetic Machine, of which the following is a specification:

My invention relates, first, to an improvement in the construction of the ordinary form of vessel or jar constituting the battery-cell in an electro-magnetic instrument; and it consists in so forming the vessel as that its narrow contracted but extended neck (within which the zinc or other equivalent positive metallic plate or reophor of the battery is suspended when lifted out of the solution) shall spring and project upwardly from one side of the enlarged base or bottom of the cell within which the fluid is contained, instead of centrally, as in the ordinary form of cells; the object of my invention being to obtain a cell which, without reduction of capacity, can be combined with an electro-magnet in the least possible compass, and to produce thereby a more compact and portable instrument than any now in use without diminishing the power of the battery. The second part of my invention relates to the suspension of the battery-plates or reophors directly from a cap of hard rubber or other equivalent insulating material, made to fit upon and over the upper end of the neck of the cell, and to extend well down its sides, and to the combination, directly with said cap, of the binding-posts and other appliances required to make connection with the poles of the battery; the object of this part of my invention being to simplify the construction of the battery by dispensing entirely with the metallic clamp or flange and other appliances and devices ordinarily combined with the flat insulated plate forming the usual cover of the cell, and by substituting for all these a simple cap of non-conducting material.

Figure 1 is a view, in perspective, of my improved vessel for battery-cell; Fig. 2, a view, in perspective, of the insulated cap to cover the cell, with the negative plates permanently secured thereto and suspended therefrom; Fig. 3, a top view of the covered cell; and Fig. 4 a central vertical section in line *x x* of Fig. 1 with the positive reophor and the electro-magnet illustrated by dotted lines.

A is a vessel, of glass or other suitable material, formed with an enlarged base or bulb, *a*, and a comparatively narrow contracted neck, *b*, projecting upward therefrom to a distance nearly twice the height of said base or bulb. The vessel is so formed as that this neck *b* projects wholly from one side, *a'*, of the enlarged base or bulb forming its body, so as to constitute substantially at this point of the base an upward extension or projection of the central portion of the side *a*, as illustrated in Figs. 1 and 2 of the drawing. C is a cap, so formed of hard rubber or other equivalent non-conducting material as to fit snugly over the mouth of the neck *b* of the vessel, and resting upon its edge or rim, to project down and cover its sides for about one-half its height, more or less. To the top of this cap C, upon its under surface, is secured a metallic plate, D, from which are suspended the two carbon-plates or negative reophors, *n n*, of the battery. The lower end of a binding-post, N, secured upon the top of the cap C, passes through the cap into contact with said plate D, and it forms the negative pole of the battery. A metallic collar or sleeve, F, is secured centrally upon the top of the cap C so as to project therefrom, and the cap is perforated in coincidence with the opening in the collar, as illustrated in Fig. 4. A jointed metallic rod, E, illustrated by dotted lines in the drawing, is fitted to slide up and down in the collar F through the cap. To the lower end of this rod, within the vessel A, and between the negative plates *n n*, is secured the zinc plate or positive reophor *p* of the battery, which, by means of the sliding rod E, may be lifted out of the battery-fluid when the instrument is not in use. P is a binding-post, connected, as shown in the drawing, with the projecting collar F, and which constitutes the positive pole of the battery.

I claim as my invention—

1. The within-described improved battery-jar or cell A, so formed as that its projecting neck shall constitute, substantially as herein set forth, an extension of the central portion of one side of its enlarged base or bulb.

2. The within-described non-conducting or insulating-cap C, in combination with the neck of the jar or cell of a galvanic battery and with its positive and negative reophors, substantially as and for the purpose herein set forth.

Witnesses: LUIS DRESCHER.

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