

(No Model.)

J. BUTLER.

ELECTRICAL APPARATUS FOR MEDICAL USE.

No. 252,180.

Patented Jan. 10, 1882.

Fig. 1

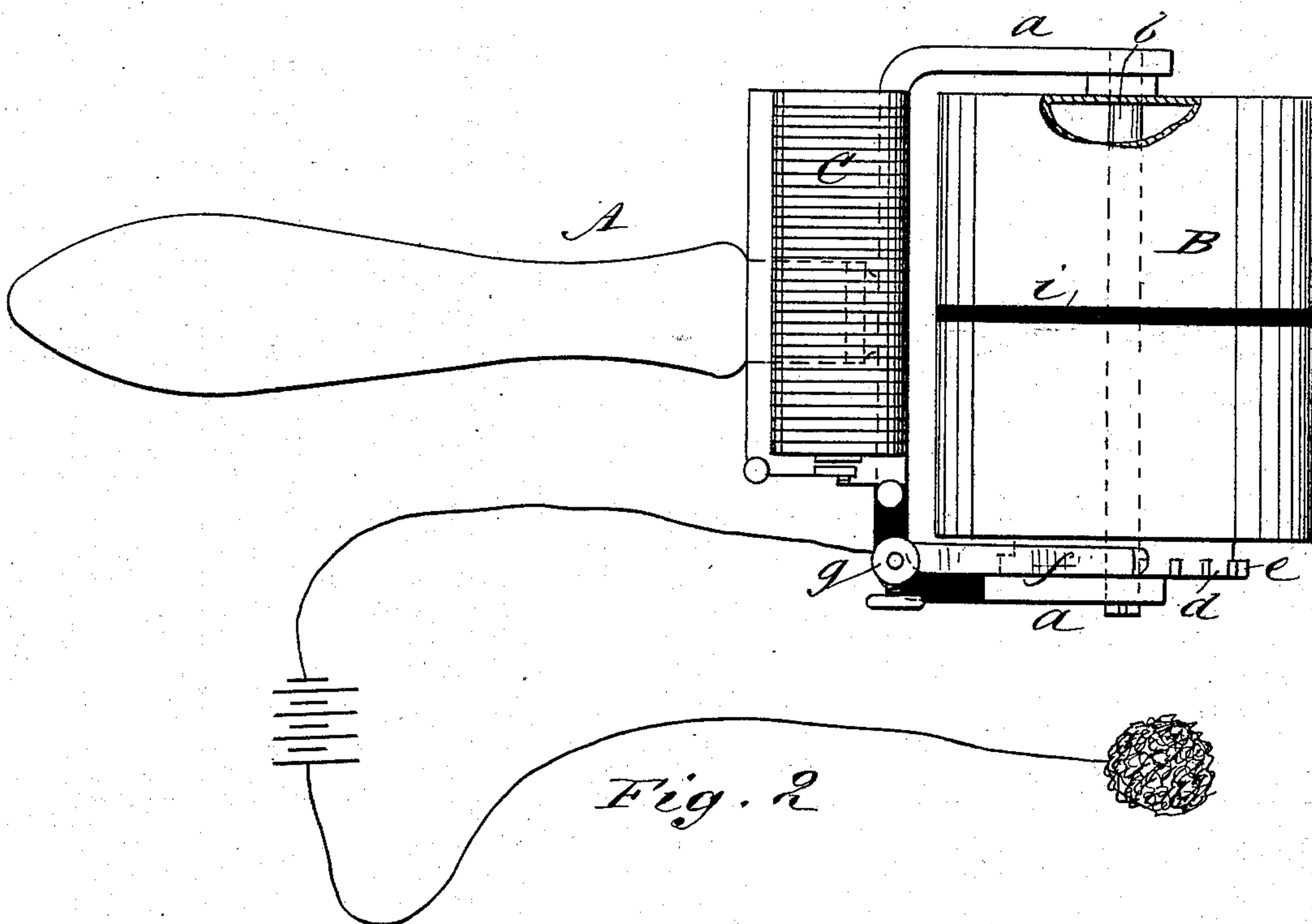
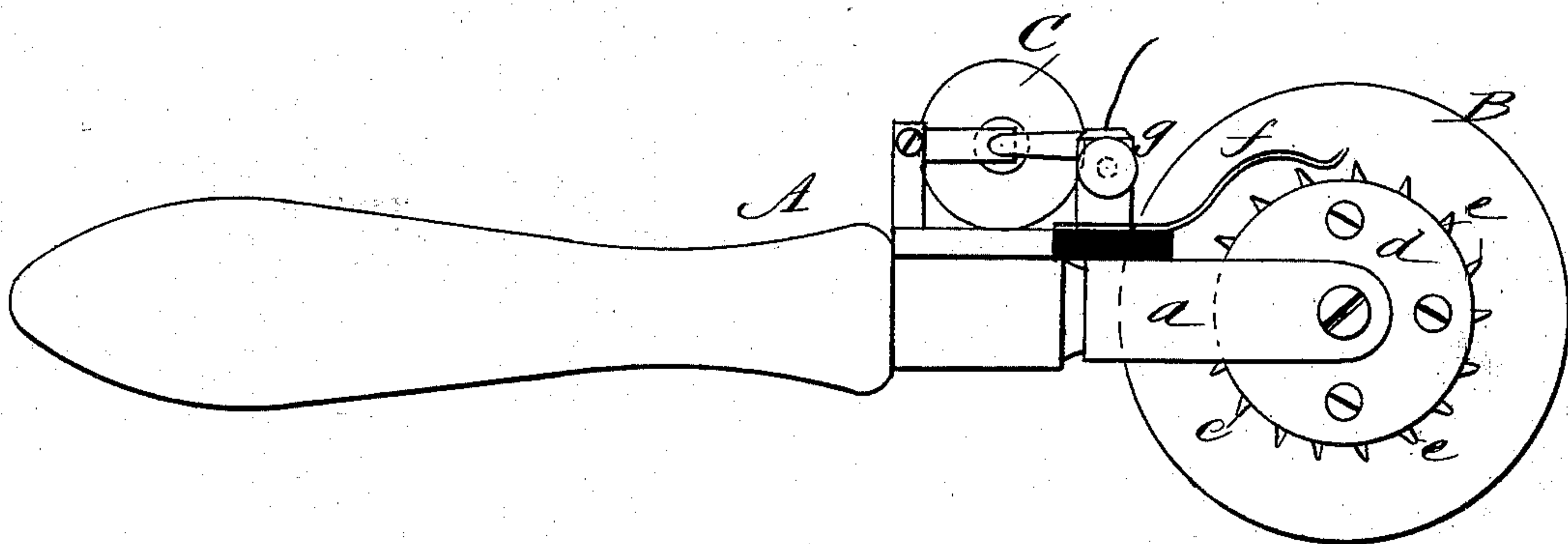


Fig. 2



WITNESSES:

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ELECTRICAL APPARATUS FOR MEDICAL USE.

SPECIFICATION forming part of Letters Patent No. 252,180, dated January 10, 1882.

Application filed May 20, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN BUTLER, of the city, county, and State of New York, have invented a new and Improved Electrical Apparatus for Medical Use, of which the following is a specification.

My improvements relate to apparatus used for medical purposes, combining mechanical manipulation and electrical treatment.

The object of the invention is to allow of using a galvanic battery for such purpose in connection with the manipulating-roller; and to that end my invention consists in an apparatus combining a roller and induction coil, as hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of the apparatus, and Fig. 2 a side elevation of the same.

Similar letters of reference indicate corresponding parts.

A is a handle of suitable form, provided with forked arms *a a*, between which the roller B is sustained by a shaft, *b*, that is journaled in arms *a*.

C is an induction-coil fitted on the handle, and in metallic connection at one end with roller B.

d is a disk fixed on the end of roller B, and provided with numerous contact-points *e* on its edge.

f is a spring-arm connected with a binding-post, *g*, that is sustained on the handle by an insulated support. The outer end of spring *f* is extended into the path of the contact-points *e* and the post *g* connected with the induction-coil.

In use the wire from one pole of a galvanic battery will be connected to post *g*, thereby

connecting the roller B with the battery through the wire coil or helix, so that the roller constitutes one electrode. The other electrode, consisting of a sponge or other device, will be connected to the other pole of the battery and be held by the person being operated upon. The apparatus is held by the operator, who uses the roller in the usual manner, and the rotation of the roller makes and breaks the circuit.

The roller B is hollow, and, if desired, the coil may be placed within the roller instead of upon the handle. The roller is preferably made in two parts separated by a ring or band of non-conducting material, as shown at *e'*. One portion will be connected to one pole of the battery and the other portion with the other pole, so that the roller forms both the negative and positive electrodes.

The interrupter may also be arranged otherwise than as shown.

Having thus described my invention, I claim as new as far as perfected—

1. The combination of roller B, provided with contact-breaker *d*, wire coil or helix C, and handle A, substantially as shown and described.

2. In electrical apparatus for medical use, the combination of a wire coil or helix with a roller-electrode and connections to a battery, substantially as shown and described.

3. In electrical apparatus, the double electrode consisting of roller B, made of two insulated portions, substantially as shown and described.

JOHN BUTLER.

Witnesses:

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