No. 648,673. Patented May 1, 1900.

H. SCHLESINGER.

ELECTRICAL APPARATUS FOR SURGEONS' USE.

(Application filed Nov. 28, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

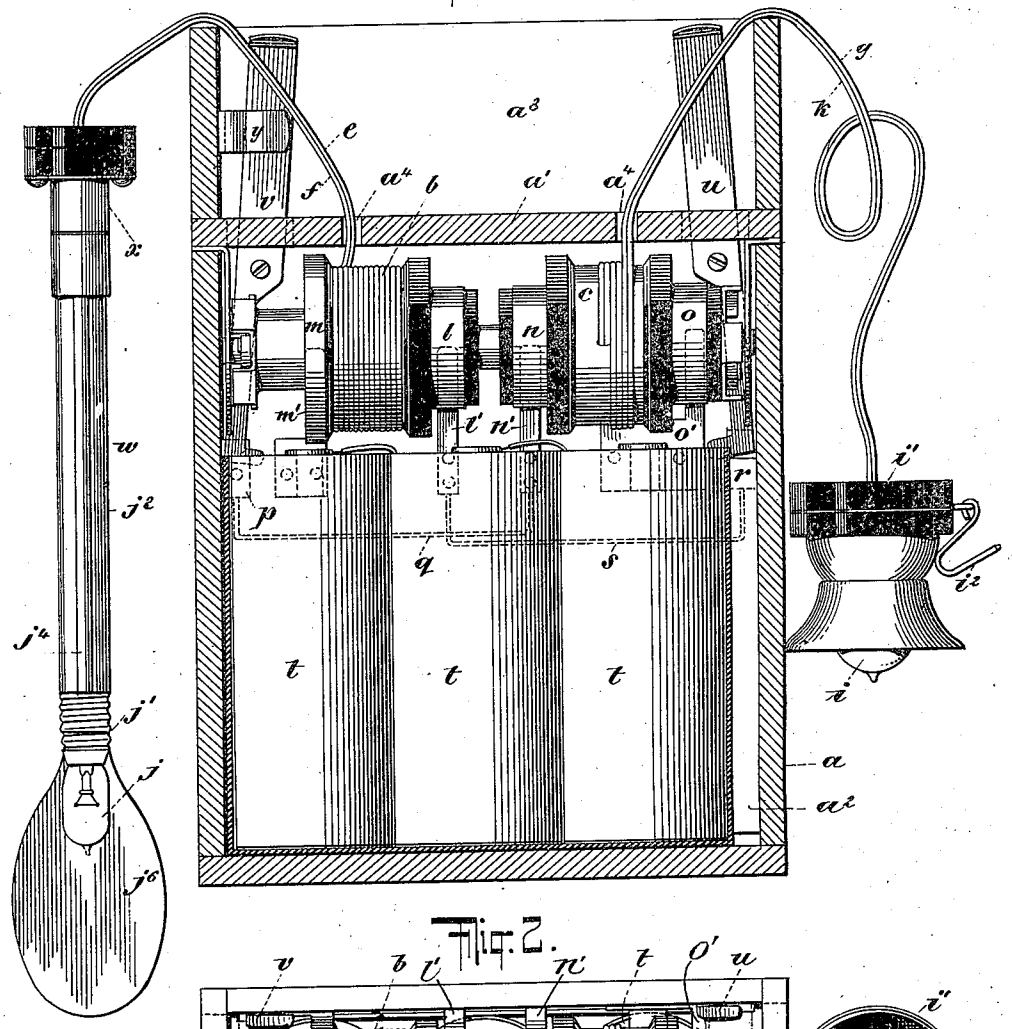
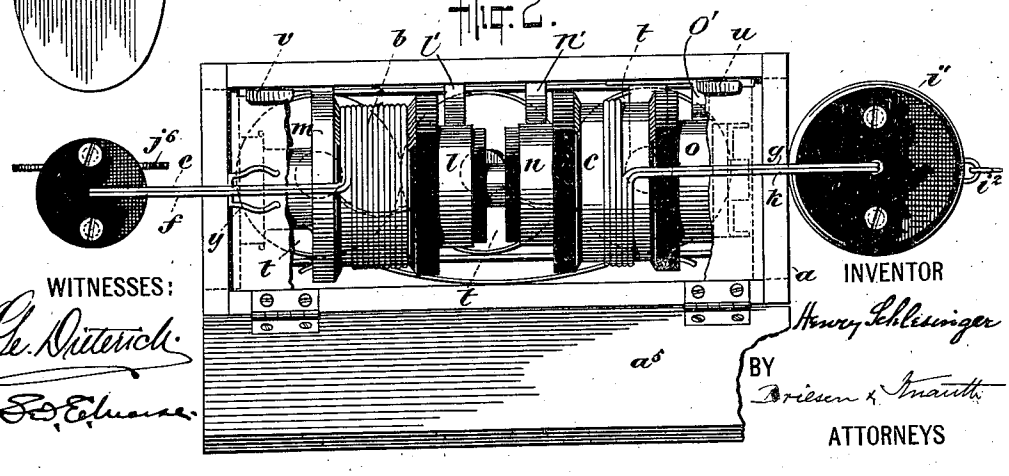


Fig. 2.



WITNESSES:

Ge. Dittrich.

S. D. Edwards.

INVENTOR

Henry Schlesinger

BY

Briesen & Knauth

ATTORNEYS

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Fig. 5.

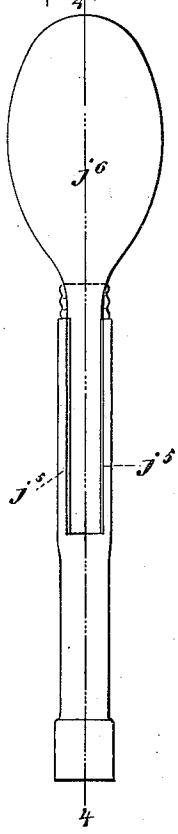


Fig. 4.

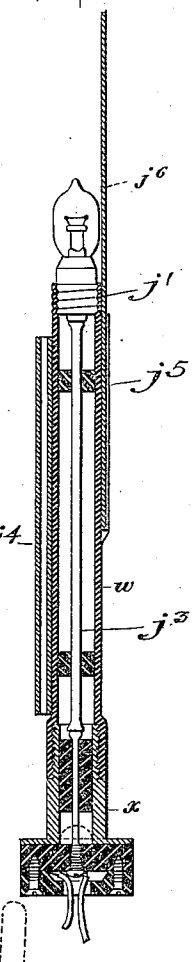
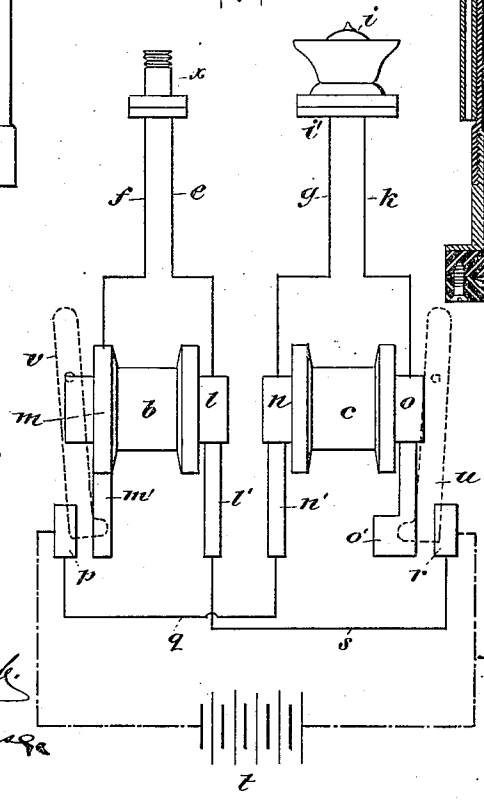


Fig. 3.



WITNESSES:

Gustav Peters Jr.

INVENTOR

Henry Schlesinger

BY Briesen & Knauth

ATTORNEYS

UNITED STATES PATENT OFFICE.

HENRY SCHLESINGER, OF NEW YORK, N. Y., ASSIGNOR OF TWO-THIRDS TO CHARLES GRAF, OF SAME PLACE, AND WILLIAM E. WILLMANN, OF HOBOKEN, NEW JERSEY.

ELECTRICAL APPARATUS FOR SURGEONS' USE.

SPECIFICATION forming part of Letters Patent No. 648,673, dated May 1, 1900.

Application filed November 28, 1899. Serial No. 738,528. (No model.)

To all whom it may concern:

Be it known that I, HENRY SCHLESINGER, a subject of the Emperor of Germany, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Electrical Apparatus for Surgeons' Use, of which the following is a specification.

My invention relates to electrical apparatus for surgeons' use; and it consists in the construction hereinafter claimed.

In the accompanying drawings I have shown one form of apparatus embodying my invention. This form is shown by way of illustration merely and is intended to illustrate the idea of my invention, without necessarily limiting my invention to the construction shown.

In the drawings, Figure 1 is a sectional elevation of the apparatus, the front of the case being removed. Fig. 2 is a plan view thereof. Fig. 3 is a diagram of the circuits, and Fig. 4 is a section through the lamp and instrument-carrying holder. Fig. 5 is a detail side view of the device for holding a spatula or other instrument. This figure also shows the line 4 4 on which the section Fig. 4 is taken.

In the drawings, *a* is a suitable casing in which are journaled suitable spring-barrels *b c*. Insulated conducting-wires *e f g k* are provided for supplying current to suitable electric lamps *i j*. One of the wires, let us say *e*, is connected to a conducting-band *l* of the spring-barrel *b*, and the other of the said wires *f* is connected to a conducting-band *m* of the said spring-barrel. In like manner the wire *g* is connected to the conducting-band *n* of the other spring-barrel and the wire *k* connected to the other band *o* of the spring-barrel *c*. The contact-brush *m'*, carried by the casing, bears upon the band *m;* a contact-brush *l'*, carried by the casing, bears upon the band *l;* a contact-brush *n'*, carried by the casing, bears upon the band *n*, and a contact-brush *o'*, carried by the casing, bears upon the band *o*. The contact-brush *n'* is connected to a contact-plate *p* by wire *q*, (see Fig. 3,) and the contact-plate *l'* is connected to the contact-plate *r* by wire *s*. The battery is herein shown as ordinary dry cells *t*, connected in series, and one terminal thereof connected to the wire *q* by a suitable plate or contact *p* and the other terminal connected to the plate *r*. A suitable pivoted switch *u* is provided for closing circuit between the contacts *r* and *o'*, and another suitable pivoted switch *v* is provided for closing circuit between the contact *p* and the brush *m'*. The lamp carrier or socket *i'*, which carries the lamp *i*, is provided with a suitable hook or fastening device i^2 for hanging the lamp upon the clothing of the physician. The lamp *j* is carried in a suitable socket *j'* in the elongated holder *w*. This holder *w*, as shown in Fig. 4, consists of an external shell j^2, forming one terminal of the device, and an interior rod j^3, which is adapted to contact with the central contact of the lamp. The elongated holder *w* is seated on a plug *x*, which is likewise formed with a central contact and a surrounding contact. The elongated holder *w* is provided with a tubular socket j^4 for receiving the shanks of suitable surgical instruments and likewise with a pair of oppositely-placed jaws or flanges j^5 for receiving the curved shank of a spatula or other instrument j^6. These jaws extend longitudinally of the body *w*.

As illustrating the convenience of my device, let it be supposed that the surgeon desires to examine a patient's throat. He hangs the lamp *i* upon his coat or forehead, using a band around his forehead to receive the hook i^2 and by employing the combined lamp-holder and spatula can illuminate the laryngeal cavity of the throat directly by means of the lamp carried in the same instrument as the spatula and also by means of the lamp *i*. It will be observed that the case *a* is divided into two chambers by the partition *a'*. The lower chamber a^2 contains the batteries, and the upper chamber a^3 is adapted to contain the other parts of the device. For this purpose the wires which wind on the spring-barrel after the manner of the Hartshorn roller pass freely through the apertures a^4 in the partition *a'*, so that by unscrewing the elongated holder *w* from its socket *x*, unscrewing

the lamp j and placing it between the resilient jaws y, and removing the spatula j^6 from the elongated holder w all the parts which are not contained within the chamber a^2 may be packed into the chamber a^3 and the swinging cover a^5 may be swung down and securely fastened, thereby carrying all the parts in a case of small compass.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an electrical apparatus for surgeons' use, the combination of a casing carrying a battery, an electric lamp, insulated conducting-wires for carrying current to the said lamp, the said conducting-wires being electrically connected to terminals carried upon an automatic spring-barrel carried by the casing and circuit connections between the battery and spring-barrel, substantially as described and for the purposes set forth.

2. In an electrical apparatus for surgeons' use, the combination of a casing divided into two chambers, a battery contained in the lower chamber, a spring-barrel, in electrical connection with said battery, electrical conductors also connected to said spring-barrel and an electric light connected to the said electrical conductors and adapted to be housed in the upper chamber of the structure.

3. In an electrical apparatus for surgeons' use, the combination of a casing, an electric battery carried thereby, a spring-barrel provided with insulated conducting-wires in electrical connection with an electric lamp, contact-brushes adapted to maintain a rubbing contact with the spring-barrel and electrical connections between the battery and said brushes.

HENRY SCHLESINGER.

Witnesses:
GEO. E. MORSE,
MAURICE BLOCK.