

(No Model.)

2 Sheets—Sheet 1.

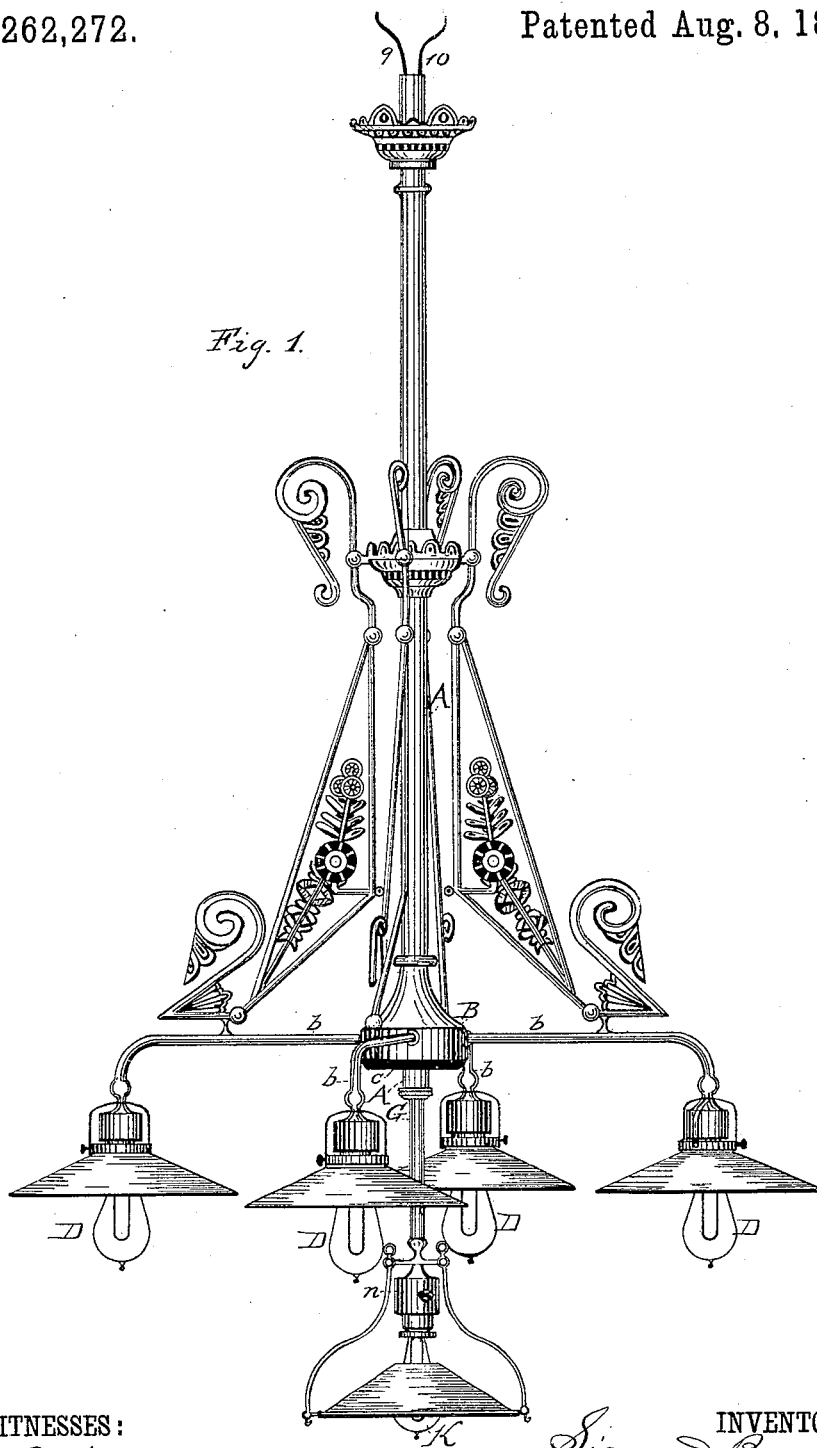
S. BERGMANN.

ELECTRICAL EXTENSION CHANDELIER.

No. 262,272.

Patented Aug. 8, 1882.

Fig. 1.



WITNESSES:
E. C. Rowland
W. P. Mott

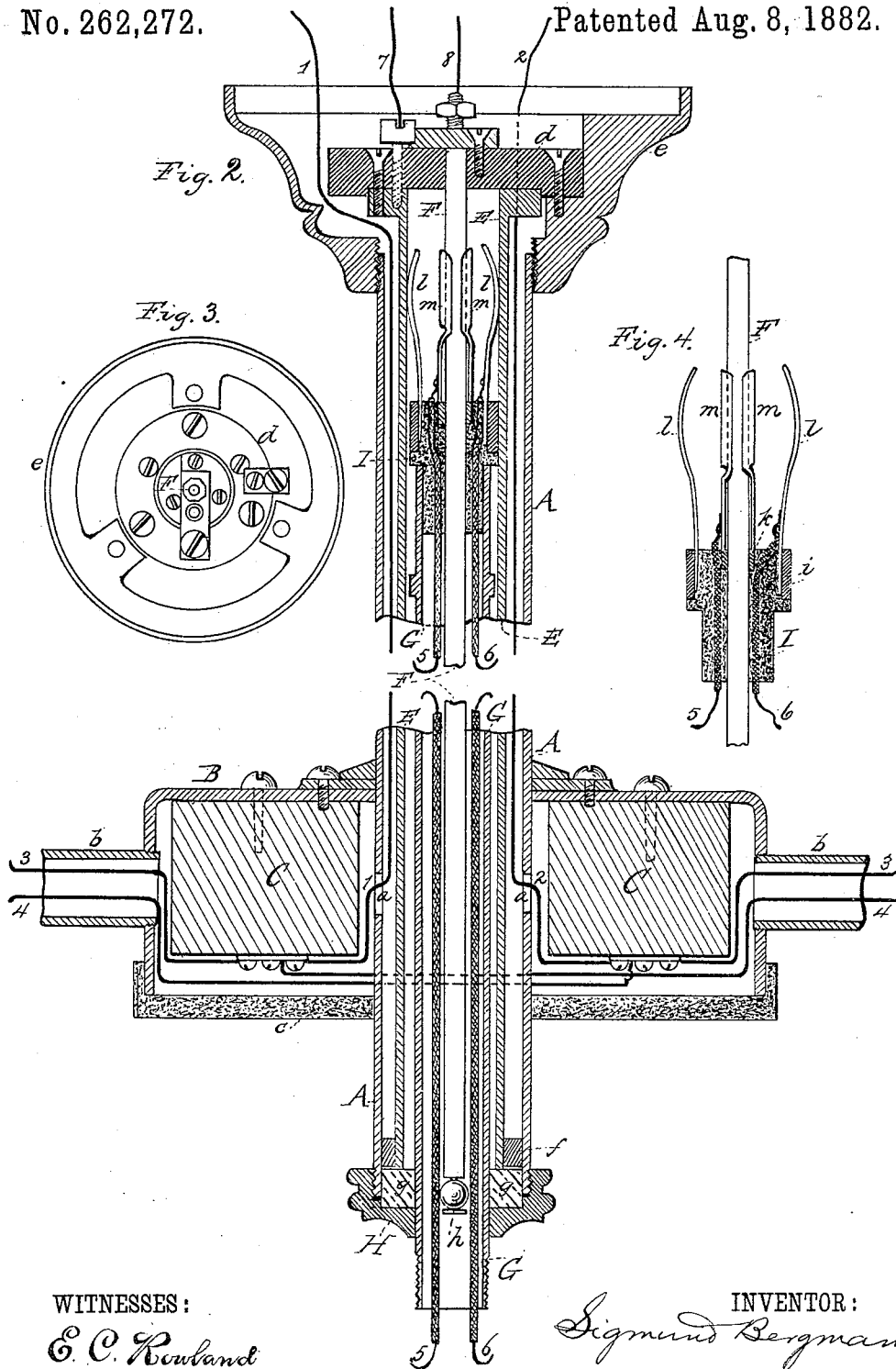
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UNITED STATES PATENT OFFICE.

SIGMUND BERGMANN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO
EDWARD H. JOHNSON, OF SAME PLACE.

ELECTRICAL EXTENSION-CHANDELIER.

SPECIFICATION forming part of Letters Patent No. 262,272, dated August 8, 1882.

Application filed May 2, 1882. (No model.)

To all whom it may concern:

Be it known that I, SIGMUND BERGMANN, of the city, county, and State of New York, have invented a certain new and useful Improvement in Electrical Extension-Chandeliers, of which the following is a specification.

The object I have in view is to produce a sliding, drop, or extension chandelier for carrying electric lamps, which will be simple, compact, and ornamental in construction and efficient in operation, will not have any conducting parts exposed to view or external contact, and will be capable of a rotary as well as a sliding movement.

The features of invention are fully hereinafter explained, and are pointed out by the claims.

In the accompanying drawings, forming a part hereof, Figure 1 is an elevation of a chandelier embodying my invention; Fig. 2, a sectional view on a central vertical line of the main part or section of the same; Fig. 3, a plan view of the upper end of this main section, and Fig. 4 a separate view of the contact-springs.

Like letters denote corresponding parts in all four figures.

A represents the outside tubing of the main or lower section of the chandelier. It carries near its lower end the main body B of the chandelier, which receives the wires 1 2 from the inside of the tube A through openings *a*. This body has a wood block, C, upon which the connections of the wires 3 4 of a number of lamp-arms, *b*, with the chandelier-wires 1 2 are made. The arms *b* carry stationary lamps D, as shown. The lower side of the body B is closed by a cap, *c*, of insulating material.

Within the tube A are placed a stationary tube, E, a stationary rod, F, and an intermediate tube, G. The stationary tube E and rod F are secured to a block, *d*, of insulating material, which is secured in a shell, *e*, secured to the upper end of tube A. Both the said tube and rod are kept out of contact with A and *e*, and also out of contact with each other by the insulating-block *d*.

Tube E extends nearly, although not quite, to the lower end of tube A, where it is separated from A by a ring, *f*, of insulating material.

Upon the lower end of A is screwed a cap, H, and between this cap and the end of E is placed a packing-ring, *g*, of insulating material, cork being preferably used. The sliding tube G passes freely through the cap H, but is hugged closely by the packing-ring *g*. The cap H can be so adjusted that there will be sufficient friction of *g* upon G to hold G at any point within the limit of its sliding movement, while allowing an easy movement of G. If the joint becomes loose, it can be made to bind to the desired degree by the screwing up of the cap H.

The use of counterbalancing springs or weights is avoided by the means just described.

The rod F is held centrally by the block *d*, and extends within the sliding tube G to about the lower end of tube A, its lower end being free and not secured. To keep the rod F out of contact with G at its lower end it is provided with an enlarged end, *h*, of insulating material. This is preferably in the form of a ball, as shown.

The sliding tube G is provided with a head, I, of insulating material, at its upper end, which head is securely fastened thereto, and has passing centrally through it the rod F, which is thereby kept out of contact with G. This insulating-head I carries two metal rings, *i* *k*, one on its outside next to E and the other on the inside of the head next to F. The ring *i* has one or more springs, *l*, projecting therefrom and making contact with the tube E, while the ring *k* is provided with springs *m*, grasping the rod F. Wires 5 and 6 are connected with *i* and *k* or *l* and *m*, preferably by soldering, and pass down through separate holes in I into the interior of the sliding tube G, and extend to the lower end of the same. These wires, as all other wires used, are covered with a suitable insulation.

The sliding tube G carries at its lower end a socket, *n*, for a lamp, K, and the wires 5 6 are run into such socket and properly connected with its terminals; or the tube G may have a body attached to its lower end, from which one or more arms will project, carrying sockets and lamps, the proper connections with the arm-wires being made within the body.

At the block *d* the tube E and rod F are connected with wires 7 8, which may be joined

with 1 2 to main chandelier-wires 9 10; or the wires 1 2 and 7 8 may be run separately through to the top of the fixture.

It will be seen that the tube E and rod F, which form part of the electric circuit, are concealed, and that the wires 5 6, running to the drop lamp or lamps, are concealed within the sliding tube.

The tube G can be drawn down and pushed up without breaking contact, and it may also be given a rotary movement. This latter movement is especially advantageous when the sliding tube supports one or more lateral lamp-arms.

It is evident that the parts may be reversed, and the movable portion of the extension-chandelier be made to slide upon instead of within the stationary portion, and that many changes could be made in details of construction without departing from the spirit of my invention.

What I claim is—

1. In an extension-chandelier for electric lamps, the combination, with the stationary and movable parts sliding one upon or within the other, of contacts, as described, permitting a rotary as well as a sliding movement of such movable part, substantially as set forth.

2. In an extension-chandelier for electric lamps, the combination, with a stationary tube and stationary rod acting as conductors of opposite polarity, of an intermediate sliding tube carrying two sets of contact-springs connected with conductors within said sliding tube, substantially as set forth.

3. In an extension-chandelier for electric lamps, the combination, with the external covering-tube, of the stationary conducting-tube and rod supported at their upper ends by an insulating-block, the intermediate sliding tube having an insulating-head through which the rod passes, contact-springs carried by said insulating-head and rubbing on stationary tube and rod, insulated conductors passing through said sliding tube and connected with said contact-springs, and projecting insulation on the lower end of the central rod, substantially as set forth.

SIGMUND BERGMANN.

Witnesses:

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