

(No Model.)

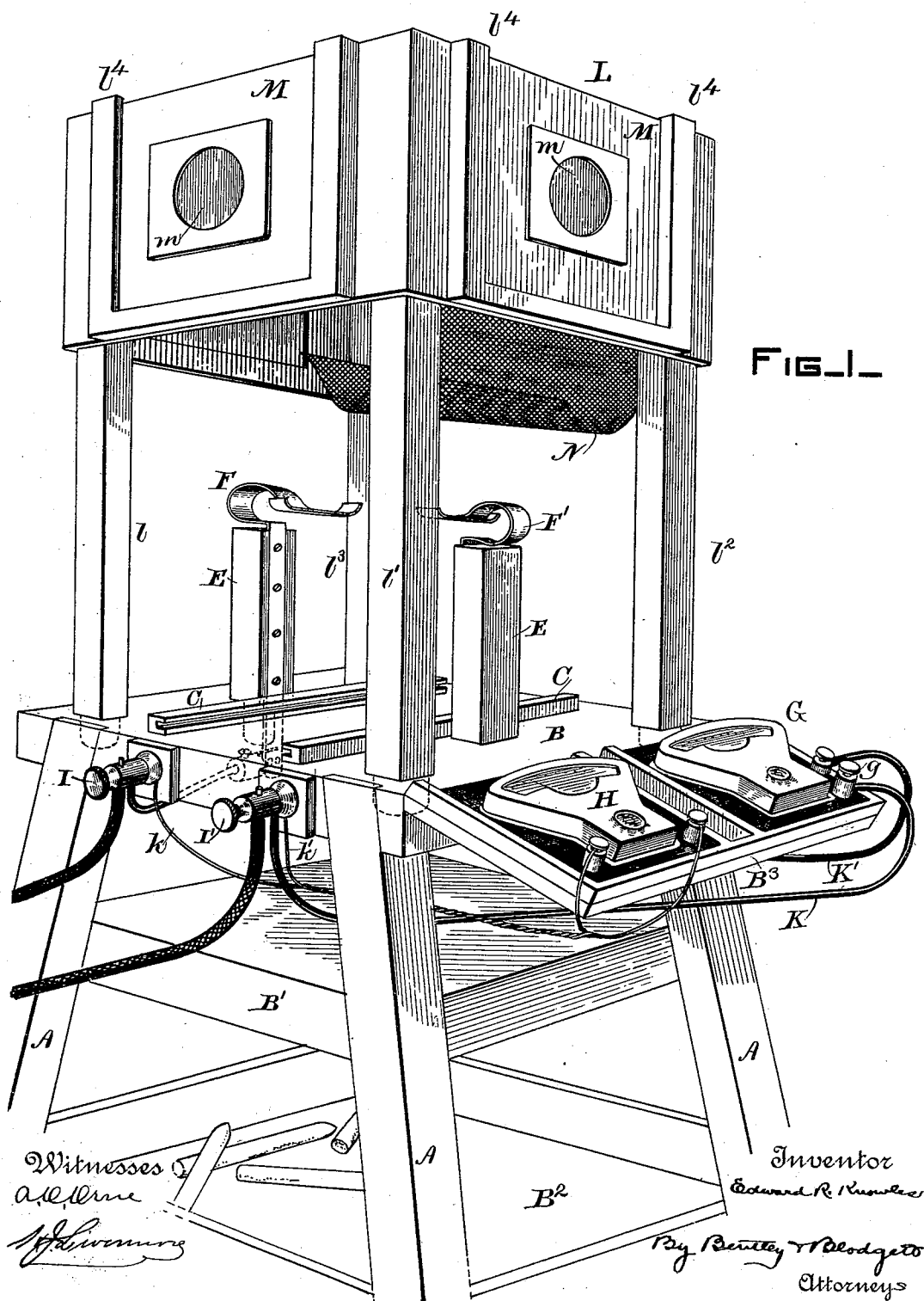
2 Sheets—Sheet 1.

E. R. KNOWLES.

STAND FOR TESTING ELECTRIC ARC LAMPS.

No. 508,623.

Patented Nov. 14, 1893.



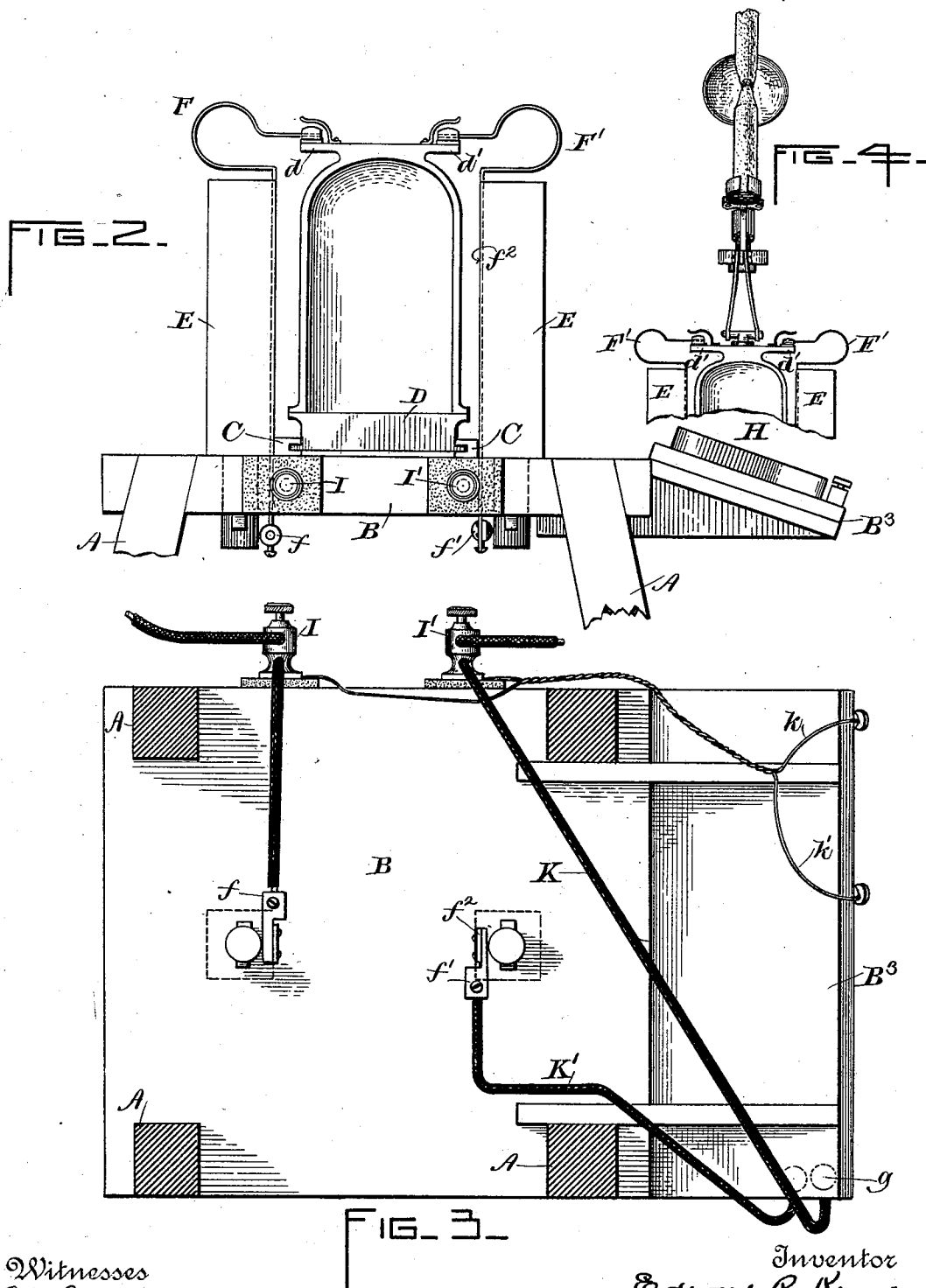
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Witnesses
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UNITED STATES PATENT OFFICE.

EDWARD R. KNOWLES, OF MIDDLETOWN, CONNECTICUT, ASSIGNOR TO THE
SCHUYLER ELECTRIC COMPANY, OF CONNECTICUT.

STAND FOR TESTING ELECTRIC-ARC LAMPS.

SPECIFICATION forming part of Letters Patent No. 508,623, dated November 14, 1893.

Application filed November 29, 1892. Serial No. 453,503. (No model.)

To all whom it may concern:

Be it known that I, EDWARD R. KNOWLES, a citizen of the United States, residing at Middletown, county of Middlesex, State of Connecticut, have invented a certain new and useful Improvement in Stands for Testing Arc Lamps, of which the following is a specification.

My invention relates to appliances for the use of arc electric lamp manufacturers, and its object is to facilitate and simplify the testing of such lamps.

It consists in a stand possessing certain novel features of construction, as hereinafter described and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view. Fig. 2 is an elevation of a portion, showing the base of a lamp in position. Fig. 3 is a bottom plan view, and Fig. 4 is a sketch showing a portion of the upper part of the lamp.

The stand comprises four stout legs A and a top B. Below the top are one, two or more shelves B', B'', for holding tools, extra carbons, and the like. Fastened upon the top B are two parallel rails C, having their adjacent sides grooved, as shown, to receive the flanged base D of an arc electric lamp. Two posts E rise from the top B adjacent to the rails, and support the T-headed spring contact plates F, F', at a proper height to rest upon the contacts d, d', of the lamp. The ends of the T-head are preferably curved upward to facilitate the entrance of the lamp contacts under them.

Attached to one side of the top B is an inclined shelf B³ having raised ledges to hold an am-meter G and a volt-meter H. At another side of the top B are fastened two binding posts I, I', one of which, I', is electrically connected, as by a conductor K, with one of the binding posts g of the ammeter. The other binding post of the ammeter is connected, as by a conductor K', with a socket f' attached to a conductor f² which is attached to or integral with the contact plate F'. The other contact plate F is connected with a socket f and that in turn to the binding post I. The current supply mains are led to the

posts I, I'. The volt meter is connected in multiple arc with both supply mains, as by means of conductors k, k'. It is evident that various changes may be made in the arrangement of these parts, the essential feature being that the contact plates F, F' shall be connected respectively with the supply mains, the am-meter being in series and the volt meter in parallel circuit.

A hood L is arranged to surround the lamp on three sides, to shield the eyes of the operator. The hood is preferably removable, and may comprise four posts l, l', l'', l''', having tenons at their lower ends to fit into sockets or holes in the top B. The upper ends of the posts are united by frames l⁴, adapted to receive and hold sliding windows M containing panes of red or other colored glass m, which are preferably protected on the inside by wire gauze. The windows are arranged at the level of the arc, and the height of the stand is such that they are also at the level of the operator's eyes. A wire gauze screen N is provided to protect his hands from sparks while handling the regulating screws of the lamp.

In using my invention, the lamp to be tested is slid into the hood from its open side, the base of the lamp being guided and held by the grooved rails. The contacts on the lamp slide under the plates F, F'. The current is then turned on, and the operator proceeds to regulate and adjust the lamp, watching the arc through the windows M, and having always before him the ammeter and volt-meter to indicate the variations in the current. The windows M may be removed, when necessary, to give access to the mechanism of the lamp. If desired, a rheostat may be arranged in the lower part of the stand, in series with the ammeter.

What I claim as new, and desire to secure by Letters Patent, is—

1. A stand for testing arc electric lamps, comprising a top carrying contact plates, and guides for receiving and holding the base of the lamp, substantially as described.

2. A stand for testing arc electric lamps, comprising a top carrying guides for receiving and holding the base of the lamp, spring contact plates, and a support for one or more

current measuring instruments, substantially as set forth.

3. A stand for testing arc electric lamps, comprising a top carrying guides for receiving and holding the lamp, suitable contacts to engage with the lamps and a hood containing windows, substantially as described.

4. A stand for testing arc electric lamps, comprising a top on which to rest the lamp, suitable contacts to engage with the lamps and a removable hood, for surrounding the lamp, substantially as set forth.

5. A stand for testing arc electric lamps, comprising a top carrying two grooved rails, and two posts supporting spring contact plates, substantially as set forth.

6. The combination with the top B, provided with means for detachably holding an arc lamp of the shelves B', B², B³, the post E, the contact plates F, F', carried by said posts and the binding posts I, I', electrically con-

nected with the contact plates substantially as described.

7. A stand for testing arc lamps, having a top provided with contacts to engage with the lamp, and a hood open on one side to permit the lamp to be slid into it, substantially as described.

8. A stand for testing arc electric lamps, comprising a table adapted to hold an arc lamp and provided with spring contact plates, binding posts for current supply mains, an ammeter connected with one of said binding posts and contact plates, and a volt-meter connected with both of said binding posts, substantially as set forth.

In witness whereof I have hereto set my hand this 19th day of November, 1892.

EDWARD R. KNOWLES.

Witnesses:

LEWIS T. ROBINSON,
MAX LOEWENTHAL.