No. 692,294. Patented Feb. 4, 1902.

H. J. JAEGER.

DENTAL LAMP.

(Application filed May 5, 1900.)

(No Model.)

Fig. 1.

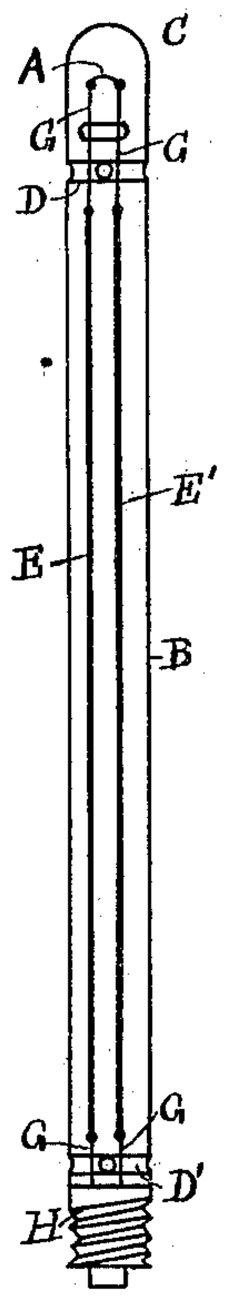
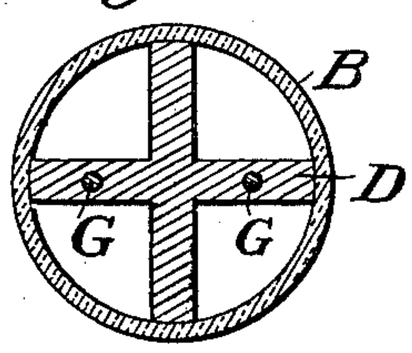


Fig. 2.



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HERMAN J. JAEGER, OF NEW YORK, N. Y.

DENTAL LAMP.

SPECIFICATION forming part of Letters Patent No. 692,294, dated February 4, 1902.

Application filed May 5, 1900. Serial No. 15,583. (No model.)

To all whom it may concern:

Be it known that I, HERMAN J. JAEGER, a citizen of the United States of America, and a resident of New York city, in the county and State of New York, have invented certain new and useful Improvements in Dental Lamps, of which the following is a specification.

Heretofore it has been common to construct dental and similar miniature electric lamps for luminating the mouth or other cavities in surgical operations by mounting the usual very small and short bulb upon the end of a rubber rod, which has sometimes been covered throughout its length by a glass covering. When the rubber rod is employed, it becomes obligatory to insert the same into the mouth or among the tissues and with the risk of blood-poisoning or other injury because of the lack of effectively removing the microbes from the rubber. By the use of the outer covering of glass this difficulty of want of cleanliness is partially removed, but at the sacrifice of other advantages. The instrument with the glass covering is so bulky and so expensive as to be objectionable, and now it may be readily understood that my invention is adapted to overcome all of these difficulties and to provide a lamp that may be sterilized and at the same time is simple in construction and very slender, so that it may be inserted into the smallest cavities and, if desired, immersed into the living tissues and yet without fear of danger from germs.

The device is represented in all of its details in the accompanying drawings, in which like letters refer to like parts.

Figure 1 is a vertical elevation of the complete lamp. Fig. 2 is a horizontal section through one of the bridges D D′, which consist of small crosses joining the walls of the lamp.

The miniature lamp is shown at the upper end, the letter A indicating the filament. The stem of the lamp is lettered B, and it is extended to take the place of the usual rubber handle. This stem is as small as the diameter of the lamp C itself and forms in one sense a part of the lamp itself, for it is tubular and is exhausted, being one chamber, with the lamp C at the upper end. By means of this construction all difficulties are not only done away with, but there are many advantages, as the glass stem does not cut off the light nor absorb it, as in the old form. The space to be exhausted is so small, any way, that the additional amount to be evacuated is very small, even when the total space is taken into consideration.

D and D′ are bridges of glass sealed to the walls of the tube or stem B, and they serve to hold in place the leading-in wires E and E′, which are terminated on both ends by platinum wires G, which pass through the said bridges D and D′, one of which is near one end of the stem B and the other of which is near the other end.

H is the base of the lamp, threaded, so as to be adapted to be screwed into a suitable socket, which has nothing to do with the present invention.

The bridges D D′ are crosses, which do not separate the tube into divisions.

In order to operate the device, the socket is applied to the base H and the lamp inserted into the mouth or other cavity and the same illuminated by turning on the current for raising the filament A to incandescence in the ordinary manner.

Before and after using the instrument the whole stem and lamp and base should be thoroughly sterilized, and this may be accomplished without danger to the device, because it is made entirely of mineral substances that cannot be injured by hot water during the sterilizing process.

I claim as my invention—

1. A dental lamp, consisting of the combination of a miniature bulb containing a given filament, a slender stem of substantially the same diameter as that of the lamp, extended to the proper length to permit the lamp to reach to any part of the mouth of a person operated upon, the lamp and stem being formed entirely of glass in one piece and evacuated, the leading-in wires, extending from the filament end of the lamp to the end of the stem farthest removed from the lamp, so as to be entirely inclosed in the glass stem.

2. A dental lamp, consisting of the combination of a long and slender tube, having a filament at one end, glass bridges at the ends, platinum wires extending through the bridges, and all connected to given conductors extending throughout the length of said

tube, one pair of said platinum wires being connected to the filament of the lamp, and the other pair being extended to the base of the lamp, said tube being of glass, exhausted, and of sufficient length to reach to any part of the mouth or throat of the person to be operated upon.

In testimony whereof I have hereunto subscribed my name this 30th day of April, 1900.

HERMAN J. JAEGER. [L. S.]

Witnesses:
EMIL BACK,
GEORGE W. SELKINGHAUS.