AN EFFICIENT LAMP FOR EYE OPERATIONS.

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Several years ago I was appointed chairman of a committee to provide satisfactory artificial illumination for eye operations at the Massachusetts Charitable Eye and Ear Infirmary. A previous committee had been unable to obtain on the market an entirely satisfactory lamp for the purpose, so I decided that it would be necessary to attempt to construct one. The lamp here described is the result of this attempt and has proved satisfactory in every way. It may be used to give either diffuse or focal illumination, but experience has shown that the former is seldom needed. The lamp consists essentially of a 6-8 volt nitrogen-tungsten automobile electric bulb, enclosed in a case, the light from which is focused by two convex lenses.

Fig. 1.

Fig. 1. Complete instrument showing convex lenses in place. (Verhoeff.)

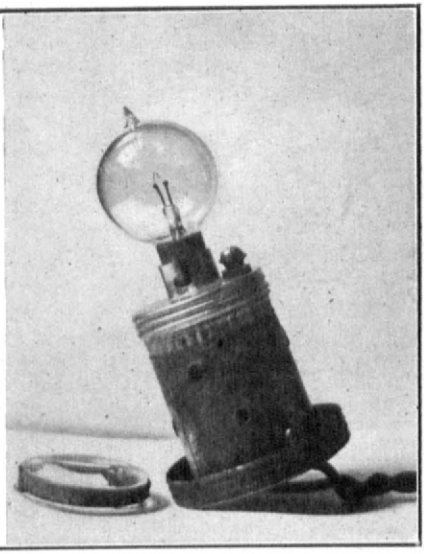

Fig. 2.

Fig. 2. Lamp fixed on smaller cylinder ready for insertion in the larger. (Verhoeff.)

The case is an ordinary pasteboard mailing case, 5.8 cm. in diameter and 13.6 cm. in length. At a distance of about 3.8 cm. from the bottom, a hole is cut of proper size and shape to take a smaller mailing case, 4.2 cm. in diameter. A section 2.5 cm. long is cut from the open end of the smaller case, the threads for the screw top being left on. This section is glued into the hole in the larger case. The large case is now wrapped with adhesive plaster which is also carried around the smaller case so as to hold it more securely. See Fig. 1.

To the tin screw top of the large case is attached a third mailing case 4.2 cm. in diameter and cut off so as to be about 8 cm. long, as shown in the illustration. Fig. 2. This is done by first attaching a solid cylinder of wood about 2 cm. long (cut from a curtain rod) to the screw top by means of screws, and then sliding the cut end of the smaller case over it. A large hole to take the electric cord should be bored through the wooden cylinder and screw top. A hole is cut in the screw top of the smaller case, and an automobile lamp socket soldered into it. Seven or eight air holes are bored through the walls of the inner case, and four air holes through the screw top (not

the closed end) of the large case. No other air holes are necessary. The cases should now be given at least two coats of shellac inside and out. This is important, as otherwise moisture will be precipitated upon the lenses when the lamp is in use. To improve its appearance, the large case may be painted black or covered with leather.

The lenses consist of two trial case lenses with edges unground, each 41.5 mm. in diameter, one of 9 and the other of 18 diopters. These are kept from contact by means of a cardboard cylinder ½ cm. long. They are conveniently attached to the lamp by means of a threaded lens holder removed from a bull's eye flash lamp of suitable size. (See Fig. 1.) If this is not obtainable, a holder can be made of cardboard and attached by means of adhesive plaster. The stronger lens should be outside and at a distance of 5.5 cm. from the lamp filament. For diffuse illumination it is simply necessary to remove one of the lenses.

To obtain the proper current of 6-8 volts, we have made use of an electric generator connected with the house current, but a rheostat may be used instead. Sufficient current may also be obtained from a series of five dry cells of 1½ volts each. It is important that the electric cord attached to the lamp should be in good condition as otherwise sufficient current may not reach the lamp. The lamp never becomes too hot to be held in the hand. One of these lamps has been in use almost daily at this institution for over two years and is still in perfect condition.

QUININ AMBLYOPIA FROM RECTAL ADMINISTRATION.

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Lieut. Col. R. H. Elliott's concise review of Quinin Poisoning (this Journal for August and September last) would seem to invite practical addenda. In the history I wish to submit "the drug was pressed, at a time when it should have been totally withheld," tho not for the reason assigned by Elliott (page 549).

On July 18, last, Mrs. G. H. aet. 60, presented herself with the following history. After an operation of colectomy for "fibroid of transverse colon" (apparently no anatomic examination) on June 17, 1917, another operation for gall-stones was performed a few months later on October 26. After the failure to inject something into the brachial vein during second day after operation, an (hypodermic?) injection was made over breast. The following day the patient received an enema of unknown character for heart failure, after which she fell unconscious for about thirty hours; and thereafter found herself totally blind for a month. She then began gradually to improve for several months, but had apparently made no further progress during the last few months. Both the patient and her husband stated that according to current rumor a mistake in regard to the enema had been made. (The reference to the few days between second operation and onset of blindness has always appealed to me as probably garbled, for natural reasons; and perhaps, also, others—this being a medico-legal case.)

Present Condition—R. Hm. +0.75=0.8. L. Hm. +0.25=0.6 with +3, Snellen 1 with some difficulty. Visual fields contracted concentrically close to point of fixation, except that in the left upper quadrant of each field there is a normal roundish area for white, and all colors to a maximum extent of 25° right. The fundus in both shows retinal arteries as well as veins very narrow, with absolutely white sheathing, more particularly of the arteries (thickening of walls). Both discs are of extreme pallor and sharply defined. Macula normal. The diagnosis of quinin amblyopia was made, with just a possible alternative of embolism of both central arteries (of which—simultaneously bilateral—there are four cases on record), or, rather remotely, ischemia retinae from loss of blood. After five weeks of strychnin treatment, vision had improved to 0.9 and kept the same under same treat-