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THE PRACTICE OF MEDICINE[1]

By Dr. RUFUS COLE

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HAVING lived until recently in the shadow of this enormous and beautiful pile of buildings, comprising the New York Hospital and Medical School of Cornell University, I am somewhat embarrassed to stand before this august assemblage of faculty and students and presume to bring you a message. My awe is a little tempered, however, by the recollection of a remark made by the Minister of Health of Egypt, who visited me at the Rockefeller Hospital several years ago. Thinking even one whose life had been spent in proximity to the pyramids might be impressed, I called his attention to your buildings and asked him what he thought of them. "I can tell better after a thousand years," was his cryptic reply. To-day the recollection of his remark makes me conscious of the ephemeral nature of most human undertakings, especially of commencement addresses, and boldens me to speak frankly.

[1] Address delivered at the commencement exercises of Cornell University Medical College, June 15, 1938.

To you, members of the graduating class, I offer my most sincere congratulations, and they are especially warm on this occasion since the degree which you have just received has real significance; it has been obtained only after a long residence in the university, and after you have carried on work as arduous, as intensive and as truly intellectual as that required by any university in the world for the doctor's degree, even for one in philosophy or in pure science.

Until a relatively few years ago the degree of doctor of medicine, even in the best universities of this country, signified something quite different from this. In almost all schools the chief emphasis was laid on vocational training. All of the teachers spent at least a portion of their time in private practice and, in selecting the material which they presented to their students, they chose that which was likely to be of immediate value in professional activities. Gradually, however, the teaching in the courses of the first two

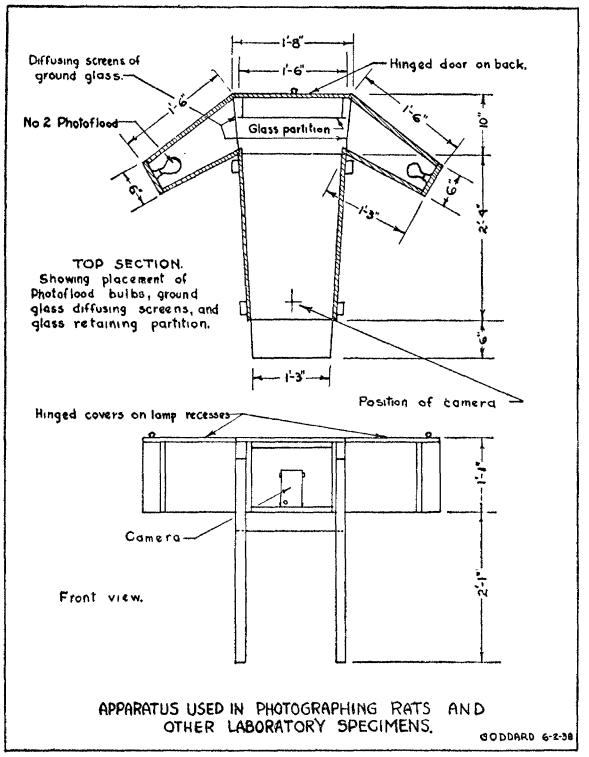

FIG. 1. Apparatus designed at the New Mexico Agricultural Experiment Station to assist in photographing rats and other laboratory specimens. The camera lens is placed 30 inches from the hinged door. The removable glass partition is 9″ × 18″ with four-inch wings cemented one inch from each end.

from the picture later if desired. A switch and plug-in light cord are attached to one side of the hinged back door. The dimensions given in Fig. 1 are for an apparatus to accommodate an Eastman kodak number 620, with a portrait attachment. Using supersensitive film, excellent photographs are secured with the lens of the kodak set 30 inches from the back wall, and with the kodak set for 1/25 second, an opening of 16, and the distance set as close as possible, slightly less than 5 feet. The objects photographed in this manner are approximately 14 per cent. of natural size, and when enlarged 3½ times, are ½ natural size. A photograph of a full-grown rat would thus be accommodated in the average journal page that is about 4⅓ inches wide. The dimensions given may readily be adapted to other cameras.

L. H. ADDINGTON

PHOTOELECTRIC "COLORIMETERS"

MESSRS. HARE AND PHIPPS, in SCIENCE, 88: 153, 1938, refer to certain alleged difficulties with the use of a single photocell in a photoelectric colorimeter, citing them as reasons for the development of another two-cell instrument. Inasmuch as such statements—though made, perhaps, because of insufficient information about a rapidly developing art—may create prejudice, it seems fair to present a correct statement regarding one of the instruments to which reference is made.

The authors state that the use of a single cell "requires a constant light source, the constancy of which is maintained by variable resistances in the lamp circuit, by a trickle charger on to a storage battery, or by a diaphragm placed between the lamp and the absorption cell." Of the three arrangements mentioned, the first makes possible the adjustment of current from a storage battery, whether or not the latter is kept on charge; but the light source is not thereby maintained constant except by manual setting. Obviously the purpose of the diaphragm can not be to maintain the light source at constant brightness.

The alleged difficulty of keeping the light source constant has been completely obviated in the Sheard-Sanford instrument through the use of a specially designed transformer which, on a source of constant frequency alternating current, maintains a constant power output regardless of voltage variations in the input. The purpose of the adjustable diaphragm is entirely different. It enables the operator to make precise adjustment of the amount of total light flux reaching the photocell, but does not affect the constancy of the light source. Neither are measurements with the Sheard-Sanford "Photelometer" affected by error "from the variations in the current produced by the cell caused by fatigue and changing temperature."

The Sheard-Sanford "Photelometer" is covered by U. S. Patents Nos. 2,051,317 and 2,051,320, the specifications in which disclose completely the principles employed in obtaining accurate measurements with a single photocell. All royalties from the sale of "Photelometers" have been assigned by Drs. Sheard and Sanford to the American Society of Clinical Pathologists.

P. E. KLOPSTEG

CENTRAL SCIENTIFIC COMPANY

BOOKS RECEIVED

BUCHANAN, ESTELLE D. and ROBERT E. BUCHANAN. *Bacteriology for Students in General and Household Science.* Fourth edition. Pp. xv + 548. 245 figures. Macmillan. $3.50.

FISHER, R. A. and F. YATES. *Statistical Tables for Biological, Agricultural and Medical Research.* Pp. 90. Oliver and Boyd, London and Edinburgh. 12/6.

HEVESY, GEORGE and F. A. PANETH. *A Manual of Radioactivity.* Second edition, revised. Pp. xvi + 306. 54 figures. Oxford University Press. $5.50.

MACDOUGAL, DANIEL T. *Tree Growth.* Pp. 240. 20 figures. Chronica Botanica, Leiden, Holland; Stechert, New York. Guilders 7; About $4.

MORRIS, ROBERT T. *Fifty Years a Surgeon.* Pp. 347. Dutton. $2.00.