

three months' tour. His principal object is to consult the British Museum and other libraries in connection with his study of the history of American medicinal plants and drugs.

At the Montana College and Experiment Station President A. Atkinson has been granted leave of absence for study during the next college year. Dean and Director F. B. Linfield has been appointed acting president in his absence. Dr. Arnold H. Johnson, assistant chemist in the station, has also been granted leave of absence for one year to accept a fellowship for study in Europe given by the International Education Board.

FORESTERS and chemists from England, Australia, Sweden, Finland and Mexico, detailed recently to the U. S. Forest Products Laboratory of the University of Wisconsin, constitute the largest group of foreign research men ever gathered at the federal laboratory at one time. Included in the foreign research group are Wilhelm Rosen and Eric Ostlin, of the Scandinavian-American Foundation; J. E. Cummins and H. S. Dadswell, of the Australian Council for Scientific and Industrial Research; W. G. Campbell, of the Commonwealth (British) Foundation; Hermengildo Barrios, of Mexico, and Uno W. Lehtinen, of the Finnish State Forest Service.

DR. HARRISON R. HUNT, head of the department of zoology and geology at the Michigan State College, is making a lecture tour through the west in the interests of the American Eugenics Society. He planned to lecture on eugenics and human heredity at the University of Omaha, Oregon State Normal School, State Normal School at Bellingham, Washington, and the State Normal School at Ellensburg, Washington.

DR. JACK CECIL DRUMMOND, professor of biochemistry in University College, London, vice-dean of the faculty of medical science, is among those lecturing at the American Chemical Society Institute at the Pennsylvania State College.

THE death is announced on May 15 of Dr. Edwin B. Payson, professor of botany in the University of Wyoming.

UNIVERSITY AND EDUCATIONAL NOTES

YALE UNIVERSITY has received a bequest of more than \$150,000 from the estate of General Charles H. Pine, formerly of Ansonia, which, together with a gift of General Pine's made in 1913, brings the Charles H. Pine scholarship fund at Yale to a total of more than \$215,000.

At the commencement exercises of the University of Maryland gifts were announced amounting to \$150,000. The largest gift was from Captain Isaac E. Emerson, of Baltimore, who provided endowment for a professorship in the school of pharmacy and a fellowship in the school of medicine. The University of Maryland during the coming biennium will have almost \$1,000,000 for new buildings and improvements from the state.

THE University of London has received two gifts of £10,000 each, one from an anonymous donor and one from Messrs. Wander, Ltd., for the establishment of a university chair of dietetics.

It is announced at Columbia University that Dr. Durward R. Jones, recently epidemiologist of the State Department of Health of South Dakota, will succeed Dr. Alton S. Pope as assistant professor of epidemiology, and that Dr. Adelaide Ross Smith, recently physician to the New York State Industrial Board, will succeed Assistant Professor Frank G. Pedley as associate professor of medicine in industrial hygiene. Dr. Smith will be in charge of the industrial department at the Vanderbilt Clinic of the College of Physicians and Surgeons. Dr. Pope is now epidemiologist of the Chicago Health Department, and Dr. Pedley will assume charge of the new department of industrial medicine at McGill University Medical School on August 1.

ERIC PONDER, M.D., Sc.D., F.R.S., of Edinburgh, has been appointed associate professor of general physiology in New York University and will have charge of the courses in physiology in University College. He will also direct work in general physiology in the graduate school.

DR. HERBERT O. CALVERY, instructor in physiological chemistry at the Johns Hopkins Medical School, has been appointed assistant professor of physiological chemistry at the University of Michigan.

DR. D. A. WORCESTER has been appointed associate professor of educational psychology in the University of Nebraska.

DR. N. B. DREYER, assistant professor of physiology, Dalhousie University Faculty of Medicine, has resigned to accept an appointment in the department of pharmacology at McGill University Faculty of Medicine, Montreal.

DISCUSSION

MISUSE OF THE NAME "LEUCOSCOPE"

I ASK the privilege of your columns in order to clarify a somewhat confused account of some work

of mine given in Walsh's "Photometry,"¹ pp. 244-245. Since the same mistake has also been made by others heretofore and bids fair to become prevalent, it seems desirable to publish a correction. I do this not for the sake of finding fault, but to prevent in so far as possible, the continued spread of mistaken ideas in regard to the subject-matter in question. It is well known how errors once incorporated in a standard text are copied and recopied without limit.

The error in question is that the instrument designated by Mr. Walsh as "The Leucoscope" is *not* the leucoscope, but the "rotary dispersion colorimetric photometer." The pertinent facts are as follows:

(1) The leucoscope is an instrument, the invention of which is commonly attributed to Helmholtz, about 1870-80.² It consists essentially of a quartz plate between a *Wollaston* prism and a nicol prism through which the observer views *two* images of the *same* source.

(2) The instrument which Mr. Walsh describes, and calls "The Leucoscope" is properly called the "rotatory dispersion colorimetric photometer."³ I particularly object to naming it "Priest's leucoscope" as is done in the index of Mr. Walsh's book. It is a special form of the Arons Chromoscope⁴ and its embryonic form may be seen in Zoellner's colorimeter.⁵ My connection with this instrument has been to develop the theory and practice of its use in the colorimetry and photometry of incandescent sources and daylight, and to design an instrument especially suited to these purposes.

(3) In principle, manner of use and specific purpose served, the two instruments are very different. About all that they have in common is the fact that they both contain nicol prisms and quartz plates and the circumstance that I have written papers dealing with each of them separately.

It seems unnecessary to use your space to set forth in detail the distinctions between these two instruments. All confusion may be removed by consulting

¹ J. W. T. Walsh, "Photometry," Constable, London, 1926.

² There has been some slight controversy as to the relative contributions of Helmholtz, and one of his pupils, Diro Kitao, to the development of the instrument. Edm. Rose (1863) described an instrument which may be regarded as the prototype of the leucoscope. A review of the history of the instrument and a full bibliography have been published in my paper on the leucoscope, *Jour. Op. Soc. Am.* 4, pp. 448-495, 1920.

³ *J. O. S. A. & R. S. I.* 7, folded insert facing p. 1199, December, 1923.

⁴ Leo Arons, *Ann. der Phys.* (4) 39, pp. 545-568, 1912.

⁵ J. C. F. Zoellner, "Photometrie des Himmels," Berlin, 1861; G. Mueller, "Photometrie der Gestirne," pp. 244-254, Leipzig, 1897.

my papers which deal, respectively, with the two different instruments.⁶

IRWIN G. PRIEST

TADPOLES AS A SOURCE OF PROTOZOA FOR CLASSROOM USE

IN SCIENCE, Vol. 56, pp. 439-441, there appeared a note by Dr. R. W. Hegner on frog and toad tadpoles as sources of intestinal protozoa for teaching purposes. During the last four years the writer has examined hundreds of tadpoles for intestinal protozoa, and is able to state that he has frequently found most of the species listed by Hegner in his paper, viz., *Trichomonas augusta*, *Hexamitus intestinalis*, *Nyctotherus cordiformis*, *Opalina ranarum*, *Endamoeba ranarum*, and *Euglenamorphia hegeneri*, the latter an *Euglena*-like flagellate with three flagella. *Giardia agilis* and *Balantidium entozoon* have never been observed by the writer. *Euglena spirogyra*, *Phacus* sp.? and several species of desmids and diatoms, which are normally free-living forms, are often present in large numbers in the rectum of tadpoles, in which habitat they appear to be little the worse for any contact they may have had with the digestive juices of their host.

In addition to the protozoa enumerated by Hegner several other species have been more or less frequently encountered. These are *Chilomastix caulleryi* Alexeieff 1909, *Mastigina hylae* (Frenzel 1892) Goldschmidt 1907, and *Endolimax ranarum* Epstein and Ilowaisky 1914.

Chilomastix caulleryi is a flagellate which lives in the rectum of the tadpoles of *Rana catesbiana* and *Rana clamata*. It sometimes occurs, in large numbers, but is likely to be overlooked among the more numerous representatives of the species *Trichomonas augusta*. Its morphology is practically identical with that of *Chilomastix mesnili* of man. Its larger size makes it more favorable for study than the human form.

Mastigina hylae is a large and extremely interesting protozoon which belongs to the flagellate family Rhizomastigidae. Its most striking features are the prominent anterior nucleus and the constant active streaming of the protoplasm filled with remnants of the green algae and protozoa upon which it has fed. The small anterior flagellum is inconspicuous and will be overlooked unless carefully searched for. The writer has never seen in any other cell protoplasmic streaming so vigorous and continuous as in this form. For a more detailed description of this species the reader is referred to a paper by the writer in the

⁶ "A New Study of the Leucoscope . . .," *J. O. S. A.* 4, pp. 448-495, November, 1920; "Colorimetry and Photometry . . . by the Method of Rotatory Dispersion," *J. O. S. A. & R. S. I.* 7, pp. 1175-1209, December, 1923.