an insect, was unveiled. It was actually at St. Léons that Fabre was born, but St. Léons is a little village of a few hundred inhabitants, and it was thought desirable to erect the statue in the neighboring town of Millau. Fabre is chiefly associated with Sérignan, near Orange, for it was here in his garden that he pursued his entomological studies.

ACCORDING to the *Journal* of the American Medical Association the Paris branch of the Franco-Mexican Association has presented to the Pasteur Institute a replica of the medallion likeness of Pasteur that was hung on the walls of the department of medicine of the University of Mexico on the occasion of the centennial celebration. The bestowal of this work of art took place in the crypt of the institute, at the entrance to the tomb of Pasteur, the presentation speech being given by M. Honnorat, former minister and honorary president of the French section of the Franco-Mexican Association. Dr. Roux, director of the Pasteur Institute, expressed his thanks to the association for the gift and the honor accorded to the memory of Pasteur.

THE German societies for physics, the applied physical sciences and Roentgen rays held recently a joint meeting at Berlin in the large hall of the university in memory of Roentgen. The president of the republic and scientific men from all over the country spoke on the importance of Roentgen's discovery to different branches of science.

A COMMEMORATIVE tablet has been placed by the London County Council on the former residence of James Clerk Maxwell, physicist (1831–1879).

THE Hancock Life Insurance Company, Boston, has given $20,000 to the Harvard Cancer Commission, of which sum a fourth is to purchase diagnostic apparatus; the remainder is for the permanent fund. The insurance company previously gave $30,000 toward the building of the Huntington Hospital, which is devoted to cancer cases.

UNIVERSITY AND EDUCATIONAL NOTES

THE legislature has made special appropriations to the Michigan College and Station for the ensuing biennium of $1,070,000. This is in addition to the receipts from the mill tax, which aggregate about $1,000,000 and are used entirely for operating expenses. The principal items in the special appropriation are $400,000 for a horticultural building and greenhouse, $300,000 for extension work, $150,000 for a power house, $50,000 for a college hospital, $70,000 for research, and $100,000 for miscellaneous buildings.

PROFESSOR A. H. PATTERSON, head of the department of physics and dean of the School of Applied Science in the University of North Carolina, will spend the year 1923–24 in study at Harvard University, on leave of absence. His place will be filled during his absence by Dr. Paul H. Dike, who has been in charge of physics at Robert College, Constantinople, for some years past, though Dr. Otto Stuhlman, Jr., will serve as head of the department, while the duties of the deanship will be assumed by Dr. J. M. Bell, of the department of chemistry.

AT the University of Missouri, Eli Stuart Haynes, of Beloit College, has been elected professor of astronomy; Dr W. B. Robertson, of the University of Kansas, assistant professor of zoology, and Dr. H. C. Howard, Jr., assistant professor of analytical chemistry.

DR. A. RICHARD BLISS, Jr., professor of pharmacology in the Emory University School of Medicine, Atlanta, has resigned to accept the professorship of physiology and pharmacology at the University of Tennessee. Dr. Monroe F. Brown, assistant professor in the department, also goes to Tennessee.

MR. J. BASIL BUXTON, now on the staff of the Medical Research Council, London, has been elected into the newly established professorship of animal pathology in the University of Cambridge.

M. GOSS has been elected to a newly established chair of mathematics at the University of Grenoble.

DISCUSSION AND CORRESPONDENCE

THE MARINE LABORATORY AT TORTUGAS

DURING the past year a number of papers appeared in SCIENCE and elsewhere[1] which discussed the desirability of continuing the Department of Marine Biology of the Carnegie Institution of Washington and its most important single activity, the laboratory at Tortugas. Since the officers of the Carnegie Institution have not yet announced what their policy toward the Department of Marine Biology is to be, it may be presumed that the question of continuing this department is still under consideration. This department, having been created in the interest of biologists working on tropical organisms, will probably be continued only if it is evident that a sufficient number of biologists are still actively interested in this kind of work.

[1] Davenport, SCIENCE, Vol. 56, p. 134.
Schaeffer, SCIENCE, Vol. 56, p. 468.
Crozier, SCIENCE, Vol. 56, p. 751.
Crozier, SCIENCE, Vol. 57, p. 498.
Fisher, SCIENCE, Vol. 57, p. 233.
Allen, SCIENCE, Vol. 57, p. 499.
Coe, *Amer. Jour. Sci.*, Ser. V, Vol. 4, p. 173.
Potts, *Nature*, Vol. 110, p. 224.

The papers to which reference was made above are unanimous in agreeing that the Department of Marine Biology should be continued, but there is divergence of opinion as to the desirability of continued operation of the laboratory at Tortugas, the alternative suggestion being the establishment of a *permanent* laboratory of the type of Wood's Hole, Plymouth or Naples and located somewhere in the tropics or the subtropics or in Bermuda or southern California. It is with reference to the latter suggestion that I wish to contribute the following observations to the discussion.

As a general proposition, biologists would probably be almost unanimous in welcoming the establishment of a permanent laboratory in another faunal and floral region than the one Wood's Hole now draws upon; there is no doubt that its facilities could and would be used to advantage. But since it seems only a remote possibility at best that such a station will be established at present because of the great expense involved, it seems to me to be far more in the interest of biology to urge instead the retention of a station already in effective operation. It may be added that because of the more or less temporary nature of the laboratory at Tortugas, it could be moved to another locality without great expense, and its transformation into a permanent station at Panama or Jamaica or any of the localities named above, could be effected at any time in the future at no greater expense than would attach to such change now. It may be presumed that as soon as a considerable body of biologists strongly feel the necessity of a permanent station in our southern waters the Carnegie Institution or some other agency of research will take the matter under serious consideration.

In weighing the desirability of continuing the operation of the Tortugas station the following seem to me to be among its outstanding qualities and should receive careful consideration:

1. For American biologists, Tortugas is the best equipped and most accessible tropical marine station.

2. It has been in effective operation for eighteen years and the large amount of published results emanating from it are generally admitted to be of high order.

3. The work carried on there could not for the most part have been done satisfactorily at any other station. It does not compete with but complements the work of other stations.

4. There is evident demand for a station like Tortugas. During the past eighteen years 68 different investigators studied there, each investigator spending on the average three seasons at the laboratory.

5. The living and working conditions are entirely satisfactory.

This point needs a word of explanation. In the earlier years of the laboratory the living conditions were undoubtedly "trying" to a few of the investigators. In recent years, however, a new laboratory has been built and the old one remodeled and the cuisine has been greatly improved, so that the living and working conditions are now in fact considered almost ideal by most of the investigators. One can work ten hours a day every day through the entire season of eight or ten weeks and remain in perfect physical condition. It is not unusual indeed for one to gain in weight while working at this rate.

Altogether the Tortugas laboratory seems too effective an instrumentality for furthering biological science to allow it to lapse with nothing definite in view to take its place.

A. A. SCHAEFFER

HISTORICAL NOTE ON THE PROBLEM OF LIGHT DEFLECTION IN THE SUN'S GRAVITATIONAL FIELD

A SERIES of articles recently published by Professor T. J. J. See, U. S. Navy,[1] gives a quite incorrect impression of the relation of J. Soldner's and of Einstein's work in connection with the deflection of light in the sun's gravitational field. It therefore seems desirable to make a short statement of the history of this problem.

In 1801 Soldner[2] calculated the deflection of light according to (1) The corpuscular theory of light (light consisting of material particles which are subject to gravitation), and (2) Newton's law of gravitation. The problem was simply that of determining the hyperbolic orbit of a small mass traveling with the speed of light under the influence of the gravitation of a celestial body. Considering a ray of light just touching the surface of the attracting body, Soldner worked out the well-known solution of the problem of two bodies. In setting up the differential equations for the motion of the particle he erroneously used for the gravitational force the expression

$$2gr^{-2}$$

where g = acceleration at the surface of the attracting body, and
r = distance from the center of the attracting body (adopting the radius of this body as unit distance).

The factor 2 has no justification and should be omitted.

Designating by ω the angular deflection of light from a star at infinity until it reaches the surface of

[1] San Francisco *Journal*, May 13, 20, 27; 1923.

[2] Bode, "Astronomisches Jahrbuch für das Jahr 1804," Berlin, 1801, p. 161.