

DR. MAURICE H. GIVENS has resigned as chief of the department of biochemistry in the research laboratories of the Western Pennsylvania Hospital, Pittsburgh, Pa.

MONSIEUR BÉHAL, professor in the Paris School of Pharmacy, has been elected a vice-president and president for 1922 of the Paris Academy of Medicine to fill the vacancy caused by the death of M. Bourquelot. Professor Béal has been a member of the Academy of Medicine since 1907, and was lately elected a member of the Academy of Sciences.

THE Council of the Institution of Civil Engineers has made the following awards for papers read and discussed during the session 1920-21: A Telford gold medal and a Telford premium to Mr. George Ellson (London); Telford gold medals to Sir Murdoch MacDonald (Cairo) and Dr. T. E. Stanton (Teddington); a George Stephenson gold medal to Mr. R. G. C. Batson (Teddington); a Watt gold medal to Mr. S. A. Main (Sheffield); and Telford premiums to Mr. Algernon Peake (Sydney, N. S. W.), Mr. L. H. Larmuth (London), Mr. H. E. Hurst (Cairo), Professor T. B. Abell (Liverpool), and Mr. Percy Allan (Sydney, N. S. W.).

THE observatory founded in 1913 by Sir Norman Lockyer and Lieutenant-Colonel F. K. McClean on Salcombe Hill, above Sidmouth, is henceforth to be called "The Norman Lockyer Observatory." It is proposed to place in the observatory a portrait of Sir Norman Lockyer, in the shape of a medallion, to be executed by Sir Hamo Thornycroft.

It is announced in *Nature* that the annual meeting of the British Medical Association will be held at Newcastle-upon-Tyne on July 15-23, under the presidency of Professor David Drummond. On the occasion of the president's address on July 19 the gold medal of the association will be presented to Sir Dawson Williams, editor of the *British Medical Journal* since 1898, in recognition of his distinguished services to the association and the medical profession. In connection with the annual meeting in 1922, to be held at Glasgow, Sir William Macewen, Regius professor of sur-

gery in the University of Glasgow, is announced as president-elect. The council of the association has recommended that the annual meeting in 1923 be held at Portsmouth.

UNIVERSITY AND EDUCATIONAL NEWS

THE Connecticut legislature is being asked for \$625,000 for the State College, of which \$400,000 is for a new science building for the chemical, botanical, physics, and bacteriological departments. The remainder is for maintenance during the ensuing biennium, and would be an increase from \$150,000.

THE University of Virginia has received the promise of a gift of \$100,000 from the Carnegie Corporation of New York on condition that the money shall be used for the purposes of permanent endowment, and that it shall be payable after there has been raised not less than \$500,000 for permanent endowment from other sources.

PROFESSOR PAUL H. M.-P. BRINTON, head of the department of chemistry at the University of Arizona, has accepted appointment as professor of analytical chemistry in the school of chemistry at the University of Minnesota.

DR. CHARLES F. BROOKS, of the U. S. Weather Bureau, has been appointed associate professor of meteorology and climatology at Clark University.

DR. MEYER SOLIS-COHEN has been appointed assistant professor of internal medicine in the Graduate School of Medicine of the University of Pennsylvania.

DR. KLOTZ, of the chair of pathologic anatomy at the University of Pittsburgh, has accepted a call to the similar chair at São Paulo.

DISCUSSION AND CORRESPONDENCE

PRIMITIVE NOTIONS OF LIGHT

RELATIVE to Mr. Barton's "astonishment" (*SCIENCE*, April 15, page 364) that certain South American Indians do not recognize the sun as the source of daylight and his previous opinion that the Hibernicism,

Long life to the moon for a dear noble cratur
Which serves for lamplight all night in the dark,
While the sun only shines in the day which by
natur

Wants no light at all as ye all may remark.

was merely a "manufactured story" without antecedent, it seems pertinent to remark that this idea of the *independence* of daylight and the sun is of great antiquity and somewhat common in early civilization.

For example, in the Hebrew story of creation we find:

. . . God said, Let there be light: and there was light. And God saw the light, that it was good; and God divided the light from the darkness. And God called the light day, and the darkness he called night. And the evening and the morning were the *first* day. (Genesis I., 3-5.)

On the second day God created the land and water and on the third day the flora. Not until the *fourth* day did God create the sun (Genesis I., 14-18) "to *divide* the day from the night," "to be for a *sign*," "to *rule* the day" and incidentally "to give light upon the earth." Also, God set the "lesser light (the moon) to *rule* the night." It also gave light upon the earth. Evidently, the "Irishman's astronomy" and that of the South American Indians are in strict and complete accord with the concepts of the author of Genesis. Quite clearly, the day was light before the sun was set to "rule" it, but the night was dark before the moon lighted it. It is not to be presumed that we can attribute any Irish wit to the author of Genesis, but it may be that the Irishman was a good orthodox churchman and, in common with many others, accepted the scripture as his authority in science. However, the Indians' concept must have been of independent origin.

Seriously, does it not appear that the ancients, even in a high degree of civilization, had only very vague and confused ideas of the relation between *light* and the sun?

Simple as it may appear to us to regard a luminous body as the source of some influence, which, acting on the eye, excites the sense of sight, much doubt appears to have existed among those who

first investigated the subject as to whether objects become visible by means of something emitted by them, or by means of something issuing from the eye of the spectator.¹

Some of the Greeks conceived vision as due to something (light?) projected from the eye.

They all [some of the Greeks] had a confused notion that as we may feel bodies at a distance by means of a rod, so the eye may perceive them by the intervention of light. It is very remarkable that this strange hypothesis held ground for many centuries, and little or no progress was made in the subject till it was established on the authority of Alhazen . . . in the *eleventh century A. D.*, that the cause of vision proceeds from the object and not from the eye.²

Aristotle maintained that light was not an emission from any source, but a *mere quality of a medium*.³ This concept appears to be in substantial accord with the first light of the author of Genesis.

In spite of the existence of sun worship among many savages, it appears that our everyday commonplace concept of the sun as the primary *source* of light is of very recent origin among civilized peoples, and no astonishment need be occasioned by finding savages who have not grasped it.

IRWIN G. PRIEST

WASHINGTON, D. C.,
April 20, 1921

A SECTION OF THE AMERICAN ASSOCIATION ON THE HISTORY OF SCIENCE

TO THE EDITOR OF SCIENCE: As one of a group interested in the formation of a section on the history of science, I would venture to suggest that the inclusive nature of the designation—History of Science—is well illustrated by the use of the word "science" by the parent organization. Surely a section has the same right to include historical, philosophical, and other sciences, which touch the history of science under the designation—History of Science—as the parent organization has in its use of the term. The history of science touches diverse fields, and as this

¹ Preston, *Theory of Light*, 3rd Ed., p. 2.

² Preston, p. 5.

³ Preston, p. 4.