fession. The remaining lectures will be given at 5 P.M. on the following dates:

August 5—"The Treatment of Fibrinous and Sero-fibrinous Pleurisy," F. T. Lord, M.D., instructor in clinical medicine.

August 9—"Some Common Affections of the Spinal Cord" (illustrated), E. W. Taylor, M.D., instructor in neurology.

August 12—"Examination of the Stools in Infancy," J. L. Morse, M.D., assistant professor of pediatrics.

August 16—"Intestinal Bacteria," A. I. Kendall, Ph.D., instructor in preventive medicine and hygiene.

August 19—"The Symptomatology and Treatment of Arteriosclerosis," W. H. Smith, M.D., instructor in clinical medicine.

August 23—"Dementia Præcox," E. E. Southard, M.D., Bullard professor of neuropathology.

August 26—"Surgical Diagnosis of Diseases of the Gall Bladder," F. B. Lund, M.D., lecturer on surgery.

According to the *Bulletin* of the American Mathematical Society, a meeting of the commissioners of the international commission of mathematical instruction will be held at Brussels during the week of August 9. While the meeting is of particular interest to Belgium and adjacent countries, some of the sessions will be public and of general interest. After the routine business, the chairman, Professor F. Klein, will deliver an address on the aims of the commission and give a report of the work already accomplished; Professor Bourlet will speak on the reciprocal relations between pure and applied mathematics in secondary instruction. A third report of the German sub-committee is in the press, and will be presented at the forthcoming meeting; it is by W. Lietzmann, on the organization of mathematical instruction in the boys' high schools of Prussia. Three reports from Austria and one from France are also in the press.

At the recent Boston meeting of the National Education Association the department of secondary education passed with only one dissenting vote the following resolutions:

Whereas, a wide range of high school subjects is now demanded in view of the varied needs of society, and the diversified interests of the different students; and

Whereas, manual training, commercial branches, music, home-making science and art, agriculture, etc., when well taught and thoroughly learned are justly entitled to recognition in college entrance credits; and

Whereas, colleges in certain parts of the United States continue to require two foreign languages of every applicant, regardless of his own interests; and

Whereas, this requirement in addition to such work in English, mathematics, history and science as is essential to the high school course of every student, precludes the possibility of giving adequate attention to these subjects; therefore, be it

Resolved, That it is the sense of this department that the interests of high school students would be advanced by the reduction of the requirement in foreign languages to one such language, and by the recognition as electives of all subjects well taught in the high schools; and be it further

Resolved, That it is the sense of this department that until such modifications are made by the colleges, the high schools are greatly hampered in their attempts to serve the best interests of the boys and girls in the public schools.

UNIVERSITY AND EDUCATIONAL NEWS

During the past few months Allegheny College, Meadville, Pa., has received the following gifts as part of a $500,000 endowment which is to be completed before April 24, 1912: $100,000 from the Rockefeller General Educational Board, $100,000 from Mrs. Sarah B. Cochran, of Dawson, Pa., and $25,000 from John F. Eberhart ('53), of Chicago, Ill.

The Yale Medical School has received $25,000 from an anonymous donor for the purpose of increasing the efficiency of the dispensary service.

Dr. Joseph A. Leighton, professor of philosophy and chaplain at Hobart College, has been elected to the chair of philosophy at the Ohio State University, vacant by the retirement from active service of Professor W. H. Scott. Dr. G. G. Richardson, of the University of Georgia, has been appointed professor of veterinary pathology, and Dr. O. V. Brumley has been promoted from associate professor of veterinary medicine. Mr. Frank J. Ryder, of the Forest Service, has been appointed instructor in forestry.

AT the University of Illinois assistant professors have been appointed as follows: Dr. John Byrnie Shaw, mathematics; Dr. George F. Arps, of Indiana University, psychology; Mr. David Varon, of New York City, architectural design, and William Thomas Bawden, of the State Normal School, Normal, Ill., engineering.

RECENT appointments in the School of Mines of the University of Pittsburgh are as follows: Horatio C. Ray, B.S., instructor in metallurgy; Harry N. Eaton, A.M., instructor in geology and petrography; Henry Leighton, A.B., instructor in mining geology and mineralogy; Harry B. Meller, E.M., instructor in mining.

THE Toronto correspondent of the New York *Evening Post* states that appointments at the university have been made as follows: Dr. J. A. Arnyot, director of the laboratory of the provincial board of health, to be professor of hygiene, in succession to Dr. William O. Wright, resigned; H. E. T. Haultain, professor of the new chair of mining engineering; Dr. W. H. Piersol, associate professor of histology and embryology; Dr. K. C. McIlwraith, associate professor of obstetrics; S. R. Creaser, lecturer in surveying; W. W. Frey and J. J. Traill, lecturers in mechanical engineering; J. H. White, lecturer in forestry and botany; Alex. McLean, lecturer in geology.

DR. HOWARD L. BRONSON, assistant professor of physics in McGill University, has been appointed to the chair of physics in Dalhousie University, Halifax, vacated by the resignation of Professor A. S. McKenzie to accept a chair in the Stevens Institute of Technology.

DISCUSSION AND CORRESPONDENCE

THE BEARING OF PSYCHROMETER READINGS ON MEASUREMENTS OF MARTIAN AQUEOUS VAPOR

TO THE EDITOR OF SCIENCE: Referring to Dr. Abbot's letter to Director Percival Lowell,[1] the point at issue can not be settled by psychrometer readings, taken merely at the earth's surface.

Dr. Slipher, in commenting upon the Flagstaff Mars-moon spectrogram Rm 3050, taken at the Lowell Observatory, January 15, 1908, when the psychrometer indicated 1.30 grains of water-vapor per cubic foot of air, and comparing it with plate Rm 3062, taken on January 21, with a vapor-reading of 1.02 grains, says:

> A long series of exposures to the spectrum of the moon at different altitudes, made on the same night [January 15] . . . verify the lunar images of the Mars spectrogram in showing that the moisture in our air was relatively very much less than for plate Rm 3062, notwithstanding the meteorological records to the contrary. The strength of the *a* band depends upon the actual amount of aqueous vapor in the light path and is, therefore, a very reliable measure, whereas the meteorological observations can not be reliable for they depend upon the moisture in a small sample of air at the earth's surface which may be very different from what it is a short distance above.[2]

Director Campbell says:

> It would be interesting to know how much vapor was traversed by the rays of Mars and the moon when the spectra were recording themselves on the sensitive plates, but to speculate on the subject, from the thermometer readings, seems useless, in view of the unknown law of distribution of vapor in the strata above the thermometers. The vapor bands in the spectrograms themselves furnish the only known rational method of estimating the quantity of vapor traversed.[3]

The same principle is recognized in my "Reply to Campbell's criticism," where I say:

> It is the distribution of moisture through the entire air column that we should like to know, and this is hardly affected by such surface changes as occur in an arid region. . . . Any great accuracy in the determination of surface humidity would be labor wasted for the present purpose. A mean diurnal, or possibly a mean monthly, humidity may be quite accurate enough.[4]

[1] SCIENCE, June 24, 1910, p. 987.

[2] V. M. Slipher, "The Spectrum of Mars," *Astrophysical Journal*, Vol. 27, No. 5, p. 401, December, 1908.

[3] W. W. Campbell, "The Spectrum of Mars as Observed by the Crocker Expedition to Mt. Whitney," *Lick Observatory Bulletin*, No. 169, p. 153, October 1, 1909.

[4] Frank W. Very, "Water Vapor on Mars—Reply to Campbell's Criticism," *Lowell Observatory Bulletin*, No. 43, p. 240.