SECTIONS.

Section of Physics and Chemistry.—A stated Meeting of the Section was held in the Hall of the Institute on Thursday, October 26, at 8 o'clock P.M. with Dr. Harry F. Keller in the chair. The minutes of the previous meeting were approved as read. John Johnston, Sc.D., of the Geophysical Laboratory of the Carnegie Institution of Washington, Washington, D. C., read a paper on "Some Effects of High Pressure." The apparatus used for the production, application and measurement of high pressures—pressures as high as 30,000 atmospheres—was described, and certain parts of the apparatus were exhibited. The influence of high pressures on such properties as volume, melting point, and electrical resistance was discussed; and stress was placed upon the fact that temperature and pressure are analogous variables. The communication was discussed, and, on motion of Dr. Walton Clark, a vote of thanks was extended to Dr. Johnston. The meeting then adjourned.

JOSEPH S. HEPBURN,
Secretary.

Section of Physics and Chemistry.—A stated meeting of the Section was held in the Hall of the Institute on Thursday, November 2, 1916, at 8 o'clock P.M. Dr. Gellert Alleman occupied the chair. The minutes of the previous meeting were approved as read.

A. V. Bleininger, B. S. C., Ceramic Chemist, Bureau of Standards, Pittsburgh, Pa., delivered a lecture entitled "The Development of the Ceramic Industries in the United States." The various classes of ceramic raw materials were discussed, and special reference was made to the resources of the United States, and to recent applications of the principles of colloidal chemistry in the purification of kaolin. A description was given of the changes produced by the action of heat on kaolin (dehydration, polymerization, sintering, and fusion), and of the influence exerted by these changes on the porosity, density, and viscosity. The minute structure of pottery was discussed. The manufacture of structural clay products, refractories, stoneware, whiteware, and porcelain received attention; and various forms of machinery used in the industry were described, especial stress being placed on the adaptation of the principle of the tunnel kiln to American conditions.

An interesting discussion followed the lecture; a vote of thanks was extended to the speaker of the evening, and the meeting adjourned.

JOSEPH S. HEPBURN,
Secretary.

Section of Physics and Chemistry.—A stated meeting of the Section was held on Thursday, November 9, 1916, in the Hall of the Institute at 8 o'clock P.M. Dr. George A. Hoadley occupied the chair.

P. G. Nutting, Ph.D., Director of Research Laboratory, Westinghouse Electric and Manufacturing Company, Pittsburgh, Pa., delivered a lecture entitled "The Fundamental Principles of Good Lighting." Dr. Nutting

stated that criteria for proper lighting rest ultimately with the performance of the eye itself; that is, upon the ease, comfort and precision with which the eye functions. The eye adapts itself to certain lighting conditions with extreme facility, to others with great difficulty or not at all. Data on visual sensibility, efficiency and tolerance were reviewed. From these are deduced the principles governing visually efficient lighting at each of the four lighting levels with which we are concerned. Ideal lighting was described and finally applications to practical lighting were outlined.

After an interesting discussion by Dr. Herbert E. Ives, Mr. Norman Macbeth, and others, a vote of thanks was extended to the speaker of the evening and the meeting adjourned.

T. R. PARRISH,
Acting-Secretary.

MEMBERSHIP NOTES.

ELECTIONS TO MEMBERSHIP.

(Stated Meeting, Board of Managers, November 8, 1916.)

RESIDENT.

- MR. JOHN C. BULLITT, 3D, 222 South Nineteenth St., Philadelphia, Pa.
DR. FARRY R. M. HITCHCOCK, 4038 Walnut St., Philadelphia, Pa.
MR. I. N. KNAPP, Engineer, The United Gas Improvement Company, Broad and Arch Sts., Philadelphia, Pa.
MR. JOHN M. MCCHESENEY, General Manager, Keystone Leather Chemicals Company, and for mail, 150 West Central Ave., Moorestown, N. J.
MR. IRVING B. SMITH, Chief of Research Department, Leeds & Northrup Company, Philadelphia, Pa., and for mail, Ambler, Pa.
MR. HOLLINSHEAD N. TAYLOR, Manufacturer of Tin Plate, 300 Chestnut St., Philadelphia, Pa.

NON-RESIDENT

- MR. ARTHUR E. CHILDS, President, Massachusetts Lighting Companies, 77 Franklin St., Boston, Mass.

ASSOCIATE.

- MR. CHARLES N. WEYL, Student, 6506 Lincoln Drive, Germantown, Philadelphia, Pa.

CHANGES OF ADDRESS

- MR. WILLIAM N. ALLEN, 557 Church Lane, Germantown, Philadelphia, Pa.
MR. IRWIN A. BECKER, 2839 Ellis Ave., care of Michael Reese Hospital, Chicago, Ill.
MR. THOMAS J. DOLAN, Torresdale, Pa.
MR. MITCHELL HARRISON, Nokesville, Va.
DR. CHARLES H. HERTY, 35 East Forty-first St., New York, N. Y.
MR. CARY T. HUTCHINSON, 33 West Thirty-ninth St., New York, N. Y.
MR. E. E. KELLER, 21 Arnold Park, Rochester, N. Y.