

on the philosopher's stone are dated 1412. The first person of high rank to practice alchemy was the Empress Barbara (wife of Emperor Sigismund, 1451) who acquired a high reputation.

The second section deals with the beginnings of pharmacy in Bohemia. Up to the end of the fifteenth century the art of the apothecary was chiefly connected with the merely mechanical preparation of drugs, but when iatro-medicine began to develop, chemical processes and medicaments acquired an important place in pharmacy; a certain Master Bandinus de Aretio (Aretino = Arezzo) is named as apothecary to Prague in a manuscript of the early part of the fourteenth century.

This second section contains an interesting and useful table giving the names by which a large number of pharmaceutical preparations were commonly known in the years 1585, 1699, 1750 and modern times (besides several intermediate years), which shows that Bohemia was little behind other nations in introducing chemistry and chemical nomenclature into pharmacy.

In the succeeding sections the author treats of the metallurgy and the technological industries of the sixteenth, seventeenth and eighteenth centuries (III.); of chemistry in educational institutions (IV.); of scientific researches and publications in the past one hundred and fifty years (V.), and progress made in all branches of chemistry up to the middle of the nineteenth century (VI.).

At the University of Prague the professor of botany gave the instruction in chemistry in accordance with the statute of 1654, and it was not until 1745 that a committee appointed to reorganize the curriculum reported in favor of establishing an independent chair, which was done the following year by the installation of Johannes Antonius Scrinci, the first professor of chemistry and physics in Bohemia. Scrinci at once gathered a quantity of apparatus, etc., at his own expense, and opened public lectures which attracted students from all parts of Bohemia as well as from adjoining nations. Among his successors should be named Josef von Freysmuth,

who was the first professor of general and pharmaceutical chemistry in 1812; under him modern rooms and fittings were introduced, but he died at the early age of thirty-three. Among the Bohemians who became eminent in chemistry may be named Plischl, Lerch, Balling (1805-1868), noted for his treatise on fermentation and his work on sugar, and lastly Ammerling (1807-1884).

A comment of the author is true of other nations than Bohemia; he writes: 'Analyses made in the eighteenth century, as late as the second half, have only historical value.' This remark is made apropos of examinations of the many mineral springs, whose healing qualities early attracted attention.

In the last section of this comprehensive and carefully arranged work Dr. Wrany discusses the introduction and growth of the coal industry, of assaying, of iron smelting, of the extraction and refining of the precious metals (especially in Joachimsthal), as well as the metallurgy of lead, mercury and other heavy metals. Nor does he neglect the historical aspects of the industries peculiarly connected with chemistry, as the manufacture of ink, of matches, of dyestuffs, of glass, ceramics, sugar and of the brewing of beer.

The volume is full of details not found elsewhere, and made accessible by an author and a subject index separately (why divided?).

Dr. Wrany is already known by his work on mineralogy in Bohemia, from a historical point of view (1896), but he has not survived the publication of the book under review. This book is clearly printed on good paper, but so wretchedly sewn (two stitches placed close together) that only with the greatest care in handling has it survived the examination made for this review, and it goes immediately to a bookbinder.

HENRY CARRINGTON BOLTON.

SOCIETIES AND ACADEMIES.

NEW YORK ACADEMY OF SCIENCES.

THE annual meeting of the New York Academy of Sciences was held at the American Museum of Natural History on Monday, December 15, at 8:15 p.m., President J. McKeen Cattell presiding.

The reports of the officers for the past year were presented, dealing with the work of the academy since the last annual meeting, on February 24. During this period, twenty-three meetings of the academy have been held, at which forty stated papers and four public lectures were presented. There are three hundred active members, of whom ninety-six are fellows. Among the important changes during the year mentioned was the decision to publish articles accepted by the publication committee as separate brochures, to be collected at the end of the year, and bound up with the proceedings. An entire formal reorganization, furthermore, has been effected. By the passage of a legislative act last winter granting increased powers to the academy, it has been possible to adopt a new constitution and new by-laws to suit the present needs of the academy. Many minor changes have therefore been made in details of organization, terminology and procedure. An event of considerable importance to the academy has been the change in place of holding meetings to the American Museum of Natural History.

No publications have been brought out, owing partly to lack of funds. As, however, the treasurer's report shows a much more prosperous condition of the academy, it is expected that publication will be resumed. The library, still in Schermerhorn Hall, Columbia University, has been carefully maintained, special efforts having been made to fill gaps in serial publications of value.

The following active members were recommended by the council for election as fellows, because of their scientific attainments or services, and their election followed:

Professor Edward F. Buchner, Clark University, Worcester, Mass.

Miss Esther F. Byrnes, Ph.D., Girls' High School, Brooklyn.

Dr. R. H. Cunningham, 200 West 56th Street.

Professor Albert W. Chester, 39 College Ave., New Brunswick, N. J.

William Dutcher, 525 Manhattan Ave.

Dr. Harrison G. Dyar, U. S. National Museum, Washington, D. C.

Dr. George I. Finlay, Columbia University.

John Eyerman, Easton, Pa.

Professor William J. Gies, College of Physicians and Surgeons, 537 W. 59th St.

Professor Amadeus W. Grabau, Columbia University.

Dr. John D. Irving, U. S. Geological Survey, Washington, D. C.

Dr. Gustav Langmann, 121 West 57th St.

Dr. H. R. Linville, DeWitt Clinton High School, 174 W. 102d St.

Professor J. E. Lough, School of Pedagogy, New York University.

Professor R. MacDougall, School of Pedagogy, New York University.

T. Cumerford Martin, The Monterey, West 114th St.

Dr. Adolf Meyer, Pathological Institute, New York City.

Dr. S. A. Mitchell, Columbia University.

Herschel C. Parker, Columbia University.

Dr. Frederick Peterson, 4 West 50th St.

J. C. Pfister, Columbia University.

Professor John D. Prince, 31 West 38th St.

Dr. H. G. Piffard, 256 West 57th St.

Professor Michael I. Pupin, Columbia University.

Dr. Ivan Sickels, 17 Lexington Ave.

Professor M. Allen Starr, 5 West 54th St.

George T. Stevens, M.D., 22 East 46th St.

C. A. Strong, Columbia University.

Dr. F. B. Sumner, 17 Lexington Ave.

Professor W. Gilman Thompson, 34 East 31st St.

C. C. Trowbridge, Columbia University.

Professor John F. Woodhull, Teachers College, West 120th St.

E. R. Von Nardroff, 360 Tompkins Ave., Brooklyn.

The annual election of officers was then held, and the following were chosen:

President, J. McKeen Cattell.

Vice-Presidents, Section of Geology and Mineralogy, James F. Kemp; Section of Biology, Bashford Dean; Section of Anthropology and Psychology, E. L. Thorndike; Section of Astronomy, Physics and Chemistry, C. L. Poor.

Corresponding Secretary, R. E. Dodge.

Recording Secretary, H. E. Crampton.

Treasurer, C. F. Cox.

Librarian, Livingston Farrand.

Editor, C. L. Poor.

Councilors: (three years) Franz Boas, Hermon C. Bumpus; (two years) D. W. Hering, N. L. Britton; (one year) E. B. Wilson, George F. Kunz.

Finance Committee, John H. Caswell, John H. Hinton, C. A. Post.

Vice-president Kemp was then called to the chair, and the president delivered his annual address, entitled 'The Academy of Sciences.' At its close a vote of thanks was carried, on the motion of Professor E. B. Wilson. The academy then adjourned.

HENRY E. CRAMPTON,
Recording Secretary.

DISCUSSION AND CORRESPONDENCE.

NOTES ON NEGRO ALBINISM.

LAST spring, while engaged in archeology work in Coahoma County, Mississippi, I noticed some negro albino children hoeing in a cotton field. The fact that there was more than one in the family led me to make inquiry which brought out the following facts. The grandfather of these children was an albino. He married a normal negro woman and had three normal sons. All three sons married. Two have had only normal children; but the third, who has been twice married, is the father of fifteen children, four of whom are albinos. The first wife had five normal children and one albino; the second, six normal ones and three albinos. I was unable to learn anything about the ancestry of these women.

The particular interest in the case is that the anomaly reappears in one of three lines of descent in the third generation. According to Mendel's law of heredity, we should not expect it to reappear at all. Yet, if we suppose that albinism was recessive in the mothers of these albino children, the observed result is just what we should expect.

These albinos, two of whom have attained full stature, and others in the vicinity, are noticeably taller and have broader shoulders than their normal fellows. Are these accompanying characters?

WILLIAM C. FARABEE.

NOTE ON MR. FARABEE'S OBSERVATIONS.

MR. FARABEE has kindly shown me the proof of his interesting 'Notes on Negro Albinism,' and generously consents to the publication of the following note with his own.

The point needs emphasizing that albinism in mammals in general is a *recessive character* in the sense of Mendel's law. Mr. Farabee writes as if this fact were generally recognized, but I doubt whether this is so. Last winter in my lectures on heredity, which were attended by Mr. Farabee, I showed from the statistics published by von Guaita in 1900 that albinism in mice is a recessive character. This result has been confirmed by Mr. G. M. Allen, who has been carrying on breeding experiments with mice, under my direction, for the past two years. Some results of Mr. Allen's work have been in manuscript for several months, but their publication has been unavoidably delayed. Meanwhile Bateson (1902), in two recent important papers on heredity, has made the first published recognition of the fact that albinism in mice is a recessive character.

During the last few months I have been able to demonstrate experimentally that albinism is a recessive character likewise in guinea-pigs and rabbits. Mr. Farabee's observations indicate that the same is true also in man. It is probable, therefore, that this is a general law of heredity in all mammals. But Bateson has shown that in certain crosses among poultry white plumage is a *dominant* character; consequently we must apparently limit our generalization for the present to mammals. Yet it should be pointed out that the white breeds of fowls used by Bateson in his experiments are not pure albinos, since the eyes, at least, of white birds are pigmented. Consequently we must exercise caution in generalizing from those experiments.

In the case of negro albinism observed by Mr. Farabee, the result is throughout a Mendelian one, on the hypothesis that albinism is recessive. For the original male albino married to a normal negro woman should have only normal offspring, in whom, however, *the albinic character is recessive*. The recorded observation is three sons, all normal.

Two of the sons, apparently, married wives who were 'pure dominants,' *i. e.*, who were entirely free from the recessive (albinic) character. The theoretical expectation in such cases is that half the offspring will be