Guyton's authority, and it is probable that he would have liked to name it 'beryllia.' All of which may be quite true, but actually he did not do it.

As regards the German use of 'Berylerde' it was merely at first the natural translation of Vauquelin's expression 'la terre du Béril,' which, as we have seen, he used in no denominative sense. If the generally accepted rules of priority have any weight 'glucinum' is the only term to be used for the element.

As regards usage, the case is hardly quite as bad as Dr. Parsons seems to think, since the index to the *Journal of the Chemical Society* (London) for 1903 gives 'Beryllium, see glucinum.' With French, English and Americans using 'glucinum,' we can afford to let the German journals cling to 'beryllium' a little while longer.

Incidentally, what shall we do when the Germans insist on kalzium, kolumbium, karolinum, zerium and zesium, or will it be kæsium?

Jas. Lewis Howe.
Washington and Lee University,
December 12, 1904.

BOTANICAL NOTES.

THE STUDY OF FIBERS.

The book ('The Textile Fibers, their Physical, Microscopical and Chemical Properties') prepared by Dr. J. M. Mathews, and recently published by John Wiley, should make the study of textile fibers somewhat easier by students and practical operators. It covers nearly three hundred pages of neatly printed text, illustrated by sixty-nine cuts, in which the author has presented the whole matter in a most helpful way. There is first a useful classification of fibers, followed by descriptions and discussions of those which enter into fabrics. Some of these fibers are, of course, of animal origin, as wool, hair and silk, and to these are given about ninety pages. The remainder of the book is devoted almost wholly to plant fibers, and here the treatment is especially clear and helpful. The origin, varieties, physical and chemical properties of cotton, and mercerized cotton, are discussed in as many chapters. Linen is given another chapter, while jute, ramie, hemp and several other fibers of minor importance are disposed of in another chapter. An interesting chapter for the general reader is the one on artificial silks, the processes for the production of which 'have been attended with a considerable degree of success.' It is said that artificial silk 'has become a commercial article, and is used in considerable quantity by the textile trade.' Of these artificial silks there are four general kinds, viz:

1. Pyrozylin silks, made from a solution of gun cotton in a mixture of alcohol and ether.

2. Fibers made from a solution of cellulose in ammoniacal copper oxide or chloride of zinc.

3. Viscose silk, made from a solution of cellulose thiocarbonate.

4. Gelatin silk, made from filaments of gelatin rendered insoluble by treatment with formaldehyde.

Most of the artificial silk is of the first variety, the manufacture of which is carried on in England, Germany, France and Switzerland. "The fibers are formed by forcing the ether-alcohol solution of pyroxylin through glass capillary tubes, and winding them on frames. As the solution is very viscous it requires a pressure of forty-five atmospheres to discharge it through the capillary openings."

A STUDY OF COMPARATIVE EMBRYOLOGY.

The comparative embryology of the *Cucurbitaceae* (Gourd Family) has been studied by Dr. J. E. Kirkwood, the results of which appear in the *Bulletin of the New York Botanical Garden* (No. 11, 1904). After an instructive historical introduction, the organogeny of representatives of the five tribes (*Fevilleae, Melothrieae, Cucurbiteae, Sicyoideae,* and *Cyclanthereae*) is summarily described, and this is followed by a quite particular examination of the embryo-sac in sixteen genera distributed among the five tribes. Twelve fine plates of 166 figures add much to the value of this portion of the paper. In a closing discussion the author finally concludes that 'in most points the differences between the *Cucurbitaceae*, and other sympetalous families are more striking than the similarities.' The paper closes with a bibli-

ography including 89 titles. It constitutes a valuable addition to our knowledge of the embryology of a family whose place in the system of plants is still in doubt.

A HELPFUL BULLETIN.

THE office of experiment stations of the United States Department of Agriculture has issued a bulletin (No. 2) consisting of an outline of a lecture on 'Potato Diseases and their Treatment,' for the use of farmers' institute lecturers. It was prepared by F. C. Stewart and H. J. Eustace, of the New York Experiment Station. It contains summaries of our knowledge of the most important diseases which affect the potato in the United States. The descriptions are given in non-technical language, and ought to convince every botanist of the possibility of treating quite difficult subjects in plain English. Following the description of diseases, is an admirable chapter on spraying and other preventive measures. A very useful bibliography is added in an appendix.

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THE NOBEL PRIZES.

IN a cablegram from Stockholm to the London *Times*, dated December 10, further details are given in regard to the Nobel prizes.

The prize for physics has been awarded to Lord Rayleigh, professor of natural philosophy at the Royal Institute. The chemistry prize is conferred upon Sir William Ramsay, professor of chemistry at University College. M. Pavloff, professor at the Military Academy of Medicine at St. Petersburg, receives the prize for physiology and medicine. The literature prize is divided between M. Mistral, the Provençal poet, and Don Jose Echegaray, the Spanish dramatist. The peace prize has been awarded to the Institute of International Law.

The distribution of the Nobel prizes took place in the great hall of the Academy of Music at Stockholm in the presence of King Oscar. Lord Rayleigh, Professor Ramsay and M. Pavloff received their prizes, together with diplomas and gold medals, in person from his Majesty, while the prizes awarded to M. Mistral and Don Jose Echegaray, who were unable to be present, were handed to the French and Spanish ministers respectively. The sum of money attaching to each prize amounts to 140,858 kroner (about $39,000). The Nobel peace prize will be presented by the Norwegian Storthing at Christiania.

The distribution of the prizes was followed by a banquet at the Grand Hotel. Covers were laid for 190 guests, the company including the Crown Prince, Prince and Princess Charles, Lord and Lady Rayleigh, Sir William and Lady Ramsay and M. and Mme. Pavloff. Count Mörner, speaking in German, proposed the health of M. Pavloff; Professor Petterson, in English, proposed the health of Sir William Ramsay; and Professor Hasselberg, in Latin, that of Lord Rayleigh.

SCIENTIFIC NOTES AND NEWS.

AT the meeting of the American Association for the Advancement of Science held at Philadelphia last week, Professor C. M. Woodward, of Washington University, was elected president for the New Orleans meeting.

AT the recent Philadelphia meeting of the American Society of Naturalists, Professor William James, of Harvard University, was elected president. Professor Chas. B. Davenport, of the Cold Spring Laboratory of Experimental Evolution of the Carnegie Institution, and Professor J. M. Coulter, of the University of Chicago, were elected vice-presidents, and Professor W. E. Castle, of Harvard University, secretary.

PROFESSOR MARY WHITON Calkins of Wellesley College, has been elected president and Mr. Wm. Harper Davis, of Lehigh University, secretary, of the American Psychological Association.

PROFESSOR JOHN DEWEY, of Columbia University, has been elected president of the American Philosophical Association.

PROFESSOR S. W. BURNHAM, astronomer at the Yerkes Observatory, has been awarded the Lalande gold medal of the French Academy of Sciences for his researches in astronomy.

PROFESSOR SVANTE ARRHENIUS has been made head of a laboratory for physical chem-