whose death occurred on Christmas day, 1920.

A copy of the *Gothaisches Tageblatt* recently received by the writer contains an interesting sketch of his life, and shows the high esteem in which he was held by his fellow-townsmen in Gotha, where the greater part of his life was spent.

While Bruchmann is, perhaps, not so well known in America as some of his contemporaries, his work was of a very high order, and eminently worthy of recognition, and is quite indispensable to students of the Pteridophytes, which were his chosen field of study.

Helmut Bruchmann was born in Pollow, a small town of Pomerania, November 13, 1847. After his preliminary schooling he studied at Jena, where he became associated with Strasburger, who quickly recognized his abilities, and would gladly have kept him, as assistant in Jena, but financial reasons made it necessary to seek more remunerative employment.

In 1877 he accepted a position as teacher in the high school of Gotha, where he spent the remainder of his life. Later he received the title of professor.

Bruchmann's name will always be associated with his truly remarkable studies on the life history of the European species of *Lycopodium*. These familiar plants had hitherto baffled all efforts to trace their life history, and Bruchmann spent nearly twenty years at work before he published his monograph in 1898. This is a masterpiece of careful work, and its great value was quickly recognized. The patience required to complete this work will be appreciated when it is realized that in some species six to seven years elapsed before the first germination stages were evident and twelve to fifteen years before the prothallia were mature.

This monograph was followed by further investigations in *Lycopodium*, and also very important papers on the gametophyte and embryo of *Botrychium lunaria* and *Ophioglossum vulgatum*, the first connected account of the development of these ferns. These, with several notable papers on *Selaginella* comprise his most important contributions.

Douglas H. Campbell
Stanford University, California

SCIENTIFIC EVENTS

FIELD WORK OF THE SMITHSONIAN INSTITUTION

The Smithsonian Institution has issued its annual exploration report describing its scientific field work throughout the world in 1920. Twenty-three separate expeditions were in the field carrying on researches in geology, paleontology, zoology, botany, astro-physics, anthropology, archeology, and ethnology, and the regions visited included the Canadian Rockies, fourteen states of the United States, Haiti, Jamaica, four countries of South America, Africa from the Cape to Cairo, China, Japan, Korea, Manchuria, Mongolia, Australia, and the Hawaiian Islands.

In an outline of the year's work, the Institution says that

> Secretary Walcott continued his geological work in the Cambrian rocks of the Canadian Rockies in the region northeast of Banff, Alberta. The work was hindered considerably in July and August by forest fires, and by continuous stormy weather in September, but the particular questions involved in the season's research were settled satisfactorily and some beautiful photographs of this wild and rugged region obtained. Other geological field work was successfully carried on in various states of the United States by members of the staff.
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> In astrophysical research the institution was unusually active. Through the generosity of Mr. John A. Roebling of New Jersey, the Smithsonian solar observing station located on the plain near Calama, Chile, was moved to a nearby mountain peak, where the observations will be unaffected by the dust and smoke, and a new station was established on the Harqua Hala Mountain, Arizona, probably the most cloudless region in the United States. From daily observations of the radiation of the sun at these two widely separated stations, it is hoped to establish definitely the value of the "solar constant" observations in forecasting weather. Dr. C. G. Abbot, director of the work, also describes the successful operation on Mt. Wilson, California, of a solar cooker devised by him. With this apparatus it was possible, using only the sun's heat, to cook bread, meat, vegetables, and preserves.
>
> Mr. H. C. Raven represented the Smithsonian on an extensive collecting expedition through Africa from south to north. Although many difficulties were encountered, among others a railway wreck in which two members of the expedition

were killed, Mr. Raven shipped to the Institution much interesting zoological material, which was greatly needed for purposes of comparison in working up the famous Roosevelt and Rainey collections already in the National Museum. Many interesting photographs of the animals, the natives, and the country itself are shown in this account and in that of Dr. Shantz, who accompanied the expedition as a botanical collector. In Australia, a Smithsonian naturalist collected, through the generosity of Dr. W. L. Abbott, specimens of the fast disappearing remarkable fauna of the continent, while Dr. Abbott himself secured a great number of plants, birds, and other natural history material for the National Museum, in various regions of Haiti. A number of other zoological and botanical expeditions are briefly described and illustrated.

THE MEDICAL SCHOOL OF THE UNIVERSITY OF VIRGINIA

AT a session held in Cabell Hall on June 3, the General Alumni Association of the university unanimously adopted resolutions opposing the removal of the medical school to Richmond. An address was made by Dr. Alderman appealing for the preservation of the integrity of the university.

The resolutions as adopted are as follows:

WHEREAS, the commission on medical education in Virginia has, by a vote of 5 to 4, recommended the consolidation of the Medical College of Virginia with the medical department of the University of Virginia, and that the consolidated institution be operated as the medical department of the University of Virginia, and located in Richmond; and,

WHEREAS, the overwhelming weight of the testimony of disinterested experts of national reputation opposes, as utterly contrary to the best scientific thought of the day, the separation of the medical department of the University of Virginia from the other departments of the university and favors, with singular unanimity, its retention at Charlottesville; . . .

Resolved, That the General Alumni Association of the University of Virginia hereby expresses its unqualified opposition to the proposed removal to Richmond of the medical department of the university as a step opposed to the interests of the state of Virginia, as injurious to the cause of medical education, as destructive of the integrity of the University of Virginia, and as violative of those principles of higher education which, established by Thomas Jefferson, have received the sanction of time and of experience.

Resolved, further, The president of this association be and he is hereby instructed and empowered to appoint such committee, make such expenditures and do such other acts and things as in his judgment will best effectuate the purpose of these resolutions and preserve and protect the educational fabric of the state of Virginia.

THE SCIENCE CLUB OF THE UNIVERSITY OF TEXAS

During the academic year 1920–21, the Science Club of the University of Texas, composed of members of the university science faculties, held eight meetings. The following papers were presented:

Oct. 11, 1920. "Some modern conceptions of the atom," by W. T. Mather, Professor of Physics.

Nov. 1, 1920. "Habits and instincts of spiders," by T. S. Painter, Adjunct Professor of Zoology.

Dec. 6, 1920. "Relative birth-rates of white and colored races," by J. E. Pearce, Associate Professor of Anthropology.

Jan. 3, 1921. "The occurrence of latex (milk) in plants," by F. McAllister, Associate Professor of Botany.

Feb. 7, 1921. "Luminescence," by H. B. Weiser, of Rice Institute, Exchange Lecturer from the Houston Philosophical Society.

March 7, 1921. "Species of the genus *Schwazerina* and their stratigraphic significance," by J. W. Beede, Geologist in the Economic Geology Division of the Bureau of Economic Geology and Technology.

April 4, 1921. "Past, present, and future of plant pathology," by J. J. Taubenhaus, Chief of Division of Plant Pathology, Texas Experiment Station, Exchange Lecturer from the Science Seminar of the A. and M. College of Texas.

May 2, 1921. "Possible improvements in petroleum refining," by E. P. Schock, Professor of Chemistry.

The exchange lectureships with Rice Institute and Texas A. and M. college have been made annual events.

The officers for the year 1920–21 were

Dr. H. P. Bigbee—president.

Dr. H. J. Ettlinger—secretary-treasurer.