

mastered the imitation of the notes and calls of a large number of birds of many species, both wild and domesticated ones, that it was truly wonderful to witness some of his achievements along such lines. When a flock of crows was flying far overhead, I have seen him call them all down, alighting all about him, all giving vent to those notes they are accustomed to give when one of their kind is in trouble and cawing for help. It was remarkable to note the effect his marvelous imitations in this way produced on many kinds of birds in domestication as well as those in nature.

R. W. SHUFELDT

FRANZ STEINDACHNER

FRANZ STEINDACHNER, for many years intendant or chief director of the Hofmuseum at Vienna, died on December 10, 1919, at the advanced age of 85. His death was due directly to the inability of the Austrian Museum to secure coal to warm any of its offices.

Steindachner, a student and friend of Agassiz, spent some time at Harvard, about 1870, later collecting fishes in California and Brazil. His first systematic paper on the fossil fishes of Austria was published in 1859. From that time until 1914 when the war wrecked his nation, his memoirs on fishes, living and fossil, some 440 in all, appeared with great regularity. These were always carefully prepared and finely illustrated by the stone engravings of his most excellent artist, Edward Konopicky.

His last series of papers in quarto dealing with certain fishes of Brazil passed into the hands of the British censor, an obstacle from which but one copy has yet come across.

Steindachner conferred his attention to faunal work, especially to exact definition of genera and species. The larger combinations he left to less experienced investigators on the principle laid down by Linnæus. "*Tyro novit classes; magister fit species.*" Within the field as thus limited, no German systematist in vertebrate zoology has stood in the class with him.

When the Imperial government razed the fortifications of old Vienna, the property on the street thus opened, the "Burgring," was sold and with the proceeds three imperial public buildings were erected, the Opera House, Library and the Museum of Natural History. The last was long since placed in Steindachner's charge, but with a wholly inadequate force, and with little provision for extension. In the fishes, Steindachner had the services of an artist and a preparator, but had to do all the identification and labelling himself, and to pay from his own means for all specimens he felt it necessary to buy.

In his devotion to his work, he never married and when I visited him in 1910 he occupied humble lodgings in a stone annex to the museum, cared for only by an elderly housekeeper. To the general public he was known as a "*Bekannter Fischkenner.*" To his colleagues he was one of the most trustworthy and most devoted lovers of knowledge for its own sake. Among the tragedies of the great war nothing is more disheartening than its smothering effect on European science, one feature of which has been the death of this great master in faunal zoology.

DAVID STARR JORDAN

SCIENTIFIC EVENTS

SIGMA XI AT THE UNIVERSITY OF PENNSYLVANIA

THE society of the Sigma Xi of the university will hold its next meeting in the medical laboratory on Wednesday evening, January 19. The subject for discussion will be "Wheat; a Study in the World's Food Supply." Dr. Alonzo E. Taylor, professor of physiological chemistry, will open the discussion. Dr. Taylor was one of the advisers of the U. S. Department of Agriculture during the war and who made several food surveys in Europe for the State Department. After he has made a survey of the subject the discussion will be continued by Dr. Clyde L. King, of the Wharton School faculty, who will speak on the situation in the United States. Dr. Ernest M. Patterson, also of the Wharton

School faculty, will discuss the situation in Europe.

Three other meetings are scheduled during the remainder of the college year. On Wednesday, March 9, a meeting will be held in the Law School and the subject for discussion will be "Statistical Methods." On Wednesday, May 25, the society will meet in the botanic gardens and discuss "Fertile Border Fields in Scientific Research." The final meeting of the year will be a joint meeting with Phi Beta Kappa in Houston Hall, on Monday, June 13.

The last meeting of the society was held on Tuesday, November 23, at the Art Alliance, 1823 Walnut Street. At that time there was an illustrated lecture on "Modern American illustrations," by Thornton Oakley, '06. Dr. Erwin F. Faber, the illustrator for the medical department, spoke on "Scientific illustration." Dr. Clarence E. McClung, head of the zoological department spoke on "What a scientific illustration should contain." Dr. McClung was recently made national president of the Sigma Xi for a period of two years. Dr. McClung was on leave of absence from the university last year engaged in some special investigation for the government.

FIRST MEETING OF THE CELLULOSE SECTION AMERICAN CHEMICAL SOCIETY

At the cellulose symposium held by the Industrial Division of the American Chemical Society at the meeting in Chicago last September, it was voted to form a permanent Cellulose Section. Following the meeting the necessary steps for organization were taken, and President Noyes appointed Professor Harold Hibbert, of Yale University, chairman of the new section with Gustavus J. Esselen, Jr., secretary. One of the objects of the section is to provide an opportunity for those interested in the practical application of cellulose to get together with those concerned with the more strictly scientific aspects of cellulose chemistry and to afford an opportunity for discussion which should prove mutually helpful.

An interesting program is being arranged for the first meeting of the new section in con-

nection with the meeting of the American Chemical Society in Rochester, N. Y., beginning on April 26. Those having papers which they would like to present before the section are requested to send title and abstract before April first to the secretary, who may be addressed, care Arthur D. Little, Inc., 30 Charles River Road, Cambridge, 39, Massachusetts.

G. J. ESSELEN, JR.,
Secretary

FORESTRY LEGISLATION BY THE NATIONAL GOVERNMENT

HEARINGS on the national forestry program bill, which calls for the expenditure of \$11,000,000 a year for the protection and development of forests, were begun on January 7, before the subcommittee on appropriations of which Representative Anderson is chairman.

Newspaper publishers, paper manufactures, lumbermen, timberland owners wood-using industries, the United States Forest Service and the American Forestry Association were represented.

One million dollars a year for cooperating with the states in protecting the forests from fire, and \$10,000,000 a year for securing additional forest land for the government is being asked as a forward step in the endeavor to secure sufficient lumber and paper pulp for future needs.

R. S. Kellogg, chairman of the national forest program committee, has made the following statement:

This is a paper age, and in the United States, at least, a newspaper age. From an annual consumption of three pounds of news print paper per capita in 1880 we have gone to thirty-five pounds in 1920. The news print paper produced in the United States and Canada this year, if put in the form of a standard roll seventy-three inches wide, such as is used by many of the large newspapers, would unwind 13,000,000 miles. Our daily papers have a circulation in excess of 28,000,000 copies, and there are more than 100 dailies between the Atlantic and Pacific whose circulation exceeds 100,000 copies, and some of them have several times that number.

The proposed legislation has been indorsed by the National Lumber Manufacturers' Asso-