manently to the staff of the Bureau of Standards.

H. H. Hansen, chemist in charge of feeding stuff analysis in the West Virginia Experiment Station, has been appointed state chemist of Delaware in charge of a new laboratory which has been equipped in Dover, by the State Department of Agriculture to conduct the chemical and seed testing work of the state.

Dr. Arthur W. Dox has resigned as chief in chemistry of the Iowa Agricultural Experiment Station to accept the position of research chemist for Parke, Davis & Co., Detroit, Mich.

Dr. E. H. Starling, professor of physiology in the University of London, who has gone to India to advise the British government with regard to the foundation of a central medical research institute for India, will visit Bombay, Poona, Bangalore, Calcutta, Delhi and Kasauli.

Professor Richard P. Strong, of Harvard University, will attend the annual congress of the British Royal Institute of Public Health, which is to be held this year, upon special invitation from Belgium, from May 20 to 24, in the city of Brussels.

Joseph T. Singewald, Jr., associate professor of economic geology at the Johns Hopkins University, who has been on leave of absence since December to carry on geologic investigations in Peru, has returned to Baltimore.

Dr. Willard J. Fisher, assistant professor of physics in the University of the Philippines, and since July, 1919, acting head of the department, is leaving the university to return to the United States this summer.

Mr. Calvert Townley, president of the American Institute of Electrical Engineers, visited the sections of that body at Chicago, Milwaukee, Ann Arbor, Detroit and Toronto during April. He delivered addresses at each place.

The meeting of the New York Section of the American Chemical Society on the evening of May 7 was devoted to papers on the general subject of Colloids and Colloidal Chemistry in accordance with the following program: "The general chemistry of gelatine," by Jacques Loeb; "Silica gel and its uses," by W. A. Patrick, and "Electroendosmosis," by T. R. Briggs.

A Liebig museum was opened at Giessen on March 26, when an address was given by Professor Burger on the relation of Liebig to medicine.

Applications for three Ramsay memorial fellowships for chemical research will be considered by the trustees. They must be received by June 15, by Dr. W. W. Seton, organizing secretary, Ramsay Memorial Fund, University College, London. The fellowships will each be of the annual value of £250, with, possibly, a grant of not more than £50 per annum for expenses, and tenable for two years, with the possible extension of a year.

Dr. E. Schwalbe, director of the pathological institute at the University of Rostock, was killed during the recent rioting.

UNIVERSITY AND EDUCATIONAL NEWS

The Mississippi legislature has appropriated $250,000 for a new chemical building at the University of Mississippi which will provide laboratory and other facilities for students in the medical school. An additional appropriation of $10,000 was made to secure permanent equipment for the medical school, exclusive of chemistry. Additional funds were appropriated for the university with which salaries of all teachers could be reasonably increased. The total appropriation for the university exceeds $1,000,000.

Mr. F. A. Heron has given to Queen's University, Belfast, the sum of £5,000 to provide the necessary equipment for teaching physical chemistry, and £1,000 towards the provision of accommodation for the department.

James T. Jardine, investigator for the United States Forest Service, has been elected director of the Oregon Agricultural College Experiment Station.

A. H. FULLER, director of engineering at Lafayette College, and previously dean of engineering at the University of Washington, has been appointed head of the civil engineering department of Iowa State College at Ames, and will take up his new duties about the first of July.

DR. OTTO V. HUFFMAN, who has resigned as dean of the Long Island College Hospital and has resumed practise in New York City, has been appointed a member of the faculty of the New York Post Graduate Medical School and Hospital in the department of internal medicine.

PROFESSOR F. B. ISELY, of Central College, Fayette, Mo., has accepted the position of dean and professor of biology at Culver-Stockton College, Canton, Mo., and will begin work in June.

AT Yale University instructors have been appointed as follows: Leonard H. Caldwell, in engineering drawing; Arthur H. Smith, in physiological chemistry; Wilbur Willis Swingle, in biology; J. H. Fithian, Jr., and Howard B. Meek, in mathematics.

MR. JOHN B. FERGUSON, formerly of the Geophysical Laboratory, of the Carnegie Institution of Washington, and now a member of the research department of the Western Electric Company of New York City, has accepted a position as associate professor of chemical research at the University of Toronto.

DR. J. H. ANDREW, chief of the Metallurgical Research Department of Sir W. G. Armstrong, Whitworth, and Co., Manchester, has been appointed to the chair of metallurgy in the Royal Technical College, Glasgow, vacant by the transfer of Dr. Desch to the University of Sheffield.

DISCUSSION AND CORRESPONDENCE

THE AURORA OF MARCH 22, 1920

THE bright aurora of March 22 was first noticed at Urbana about 7:00 P.M. It must have developed quickly, for I had glanced over the entire sky looking for clouds at 6:45, without noticing anything unusual. Soon after 7:00 the illumination was covering more than half of the sky but it was a couple of hours before the streamers were well marked near the magnetic zenith. This aurora was the longest in duration I have ever noticed at Urbana, as it was followed continuously from 7^h to 13^h, and observations of the apparent radiant were made at times during two hours. My assistant, Mr. C. C. Wylie, was also watching the display from a position a quarter of a mile distant from the observatory, and our independent estimates of the apparent radiant or focus of the streamers high up in the south, are given in the table. The times are Central Standard Time, 6 hours slow of Greenwich Mean Time.

C. S. T.	Declination	Hour Angle	Observer	Remarks
9^h 05^m	20°.8	+4°.0	S	
9 08	21.3	+3.8	S	
9 22	20.6	+1.2	S	
9 25	19.0	+1.1	W	Fair
10 05	20.4	−4.8	W	Fair
10 09	20.7	+2.5	S	Fair
10 21	19.6	+3.0	S	
10 22	22.3	+2.0	W	Good
10 25	20.0	+2.8	S	Good
10 34	20.7	+0.2	S	Good
10 55	21.0	−1.6	W	Good
11 12	20.5	+1.5	S	Fair
11 12	19.1	+0.0	W	Good
11 18	20.5	+0.2	S	Fair
Mean of S's	20°.5	+2°.1		
Mean of W's	20.4	−0.7		
Mean of all	20.5	+1.1		
Magnetic zenith	21.2	+1.1		
Difference	0.7	0.0		

The mean of all estimates differed by only 0.°7 from the magnetic zenith, as defined by the magnetic elements for Urbana determined by Mr. Merrymon of the Coast Survey in 1917. This agrees with previous results.[1]

The auroral light interfered with our photometric observations at the telescope that evening, because of the variable bright sky background for any star. A few rough measures gave the result that a patch of auroral streamer equal in apparent area to the full moon gave about as much light as a second

[1] SCIENCE, 47, 314, 1918.