

Though oil was known to exist in the Big Horn Basin as early as 1888 and sporadic attempts have from time to time since been made to discover it in large quantities, the production of oil in this region may be said to have begun in 1906, when wells were drilled in the Byron field. Wells were afterwards drilled in several other parts of the basin, and though small quantities of oil and gas have been discovered in fourteen fields, the region is well known largely because of the production since 1914 from the Grass Creek, Elk Basin, Greybull and Torchlight fields. From 1914 to 1916 the production of oil in Wyoming rose from 3,560,375 to 6,234,137 barrels, and a considerable part of this increase has been derived from the fields just named. The report describes fifty anticlines and domes, twenty-seven of which have been tested by drilling. Four of these contain very productive oil and gas fields, and seven contain fields that are less productive and less promising. The anticlines lie in a broad belt around the border of the Big Horn Basin, and the authors of the report conclude that those which are nearest the central trough of the basin offer the greatest prospect for successful drilling. In fact, none of the explored anticlines that are separated from the central trough by other anticlines have yet yielded more than traces of oil and gas. As nine anticlines adjacent to the central trough remain untested there is a good prospect that other productive fields may yet be discovered. The report was prepared by D. F. Hewett and C. T. Lupton.

UNIVERSITY AND EDUCATIONAL NEWS

By the will of Elmer P. Howe, of Marblehead, Mass., after private bequests amounting to between \$35,000 and \$40,000 are provided for, the residue of the estate is to be divided equally between Yale University and the Worcester Polytechnic Institute for general use. For the purposes of the probate bond the estate is estimated at \$30,000 real and \$400,000 personal property.

DR. CHARLES A. TUTTLE has presented to Yale University his home and offices, a large

brick building on York Street, adjacent to Wrexham Hall.

ACCORDING to the Journal of the American Medical Association the number of students enrolled in the medical department of the University of Buenos Aires is over 5,000. In 1917, there were 4,078 enrolled, distributed as follows: medicine, 3,051; pharmacy, 317; doctor in pharmacy, 88; odontology, 428, and obstetrics, 194. Including the departments of law, engineering, philosophy and literature, agronomy and veterinary science, there are a total of 9,521 matriculated students. There are 984 students inscribed in the medical department of the other university in the country, the University of Cordoba.

DURING the absence of President Harry Pratt Judson, of the University of Chicago, as head of the American Commission for Relief in Persia, the dean of the faculties, Professor James R. Angell, head of the department of psychology, has been designated by the board of trustees as vice-president of the university.

FRANK L. DE BEUKELAER, professor of chemistry at Washburn College, Topeka, Kansas, has been appointed to an instructorship in the department of chemistry at the University of Chicago.

DR. CYRUS H. FISKE, who has held the position of assistant professor of biological chemistry at Western Reserve University, Cleveland, will join the Harvard medical staff with the same title.

DISCUSSION AND CORRESPONDENCE THE SUPPLY OF ORGANIC REAGENTS

TO THE EDITOR OF SCIENCE: In order to provide for the supply of organic reagents for research and industrial purposes the Eastman Kodak Company has determined to commence their preparation in its research laboratory.

This decision was arrived at partly as a result of the letters of Dr. Roger Adams and Professor Gortner¹ which drew our attention to the need for an adequate supply of these materials produced by a firm of standing.

¹ SCIENCE, March 8, 1918, p. 226 and June 14, 1918, p. 590.

In order to carry on the work a separate section of the laboratory has been established under the title of the "Department of Synthetic Chemistry," which will be under the immediate direction of Dr. H. T. Clarke, well known for his publications on organic chemistry.

In order to meet the need expressed in Professor Gortner's letter and to make available to research laboratories in this country the organic chemicals which they require, it is proposed that chemicals for research work shall be supplied at the lowest possible price. At first, no doubt, this price will necessarily be higher than that charged by the German firms before the war, but it is hoped that eventually the profit made on chemicals supplied for commercial purposes may enable the rarer materials made in small quantities for research work to be sold at a price which will be within the reach of all who require them.

At first, of course, the laboratory will be able to supply only a limited number of substances, and these in small amounts, but the department will be expanded to meet the demand and with the assistance of other laboratories interested in organic chemistry, and of the firms who are producing dyes and intermediates, it is hoped that after a time an adequate supply of synthetic organic reagents can be made available.

It is possible that laboratories may have in stock unusual reagents which they are unlikely to require. If any laboratories possessing such reagents will write to us we shall be glad to make an offer for the materials, thus making them available on the market.

Our thanks are due to many of the chief chemists of the country who have encouraged us to commence this work and especially to Professor Roger Adams for the way in which he has received our proposals and has assisted us by placing at our disposal the information as to this work which he has accumulated.

Communications regarding reagents should be addressed to the Research Laboratory, Eastman Kodak Company, Rochester, N. Y.

C. E. K. MEES

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FIREFLIES FLASHING IN UNISON

IN SCIENCE for February 4, 1916, I published a short note entitled "Fireflies Flashing in Unison" in which I gave my own observations with confirmatory notes of K. G. Blair regarding a European species. This note led to a discussion in the pages of SCIENCE in which various views were expressed; one writer throwing doubt on the correctness of my observations, another suggesting that I was deceived and the effect psychological, another that it was the result of coincidence and still another giving confirmatory evidence of the phenomenon in question.

IN SCIENCE for September 15, 1916, I was able through the courtesy of Professor E. B. Poulton of Oxford, to note the advanced pages of a book entitled, "A Naturalist in Borneo," by Mr. S. Shelford, an old student of Professor Poulton. Mr. Shelford describes vividly the synchronous flashing of fireflies he observed in Borneo. In SCIENCE for October 27, 1916, Mr. F. Alex. McDermott, who has made a special study of the light emission of American Lampyridæ,¹ has found no periodicity in the phenomenon. In SCIENCE for November 17, 1916, Mr. H. A. Allard says:

The synchronal flashing of fireflies appears to be a very rare phenomenon in North America. So rarely does it seem to occur that one may consider himself fortunate if he has observed the phenomenon once in a lifetime.

His observations were made at Oxford, Mass. A heavy thunder storm had passed over followed by a profound calm, the air was very warm and humid; thousands of these insects were sailing low over the ground flashing incessantly as far as the eye could see. After a while a most remarkable synchronism in the flashing appeared to take place, giving one the impression of alternating waves of illumination and darkness in the distance. Though Mr. Allard had given great attention to the flashing of fireflies since these observations were made twelve years before he had never since observed this phenomenon.

In SCIENCE for September 28, 1917, Mr. Frank C. Gates, of Carthage College, from ex-

¹ *Canadian Entomologist*, Vols. 42, 43, 44.