for elements other than carbon are described, and then an account is given of the typical reactions of the classes of organic compounds (hydrocarbons, phenols, amines, etc.). By means of a melting-point or boiling-point determination, a qualitative ultimate analysis, and the application of the reactions described, a large number of compounds can be easily identified.

The descriptions of such important laboratory operations as crystallization, distillation, etc., are but meagre and are scattered throughout the book. Most of them are described in the first chapter, which treats of the preparation of acids. As the student will make scarcely more than two or three of these compounds, and probably not at the beginning of the work, he is compelled to refer to the index and search out, from the details of one or more experiments, the description of the process which he wishes to use. Filtration is discussed, for example, on pages 21, 29 and 57; crystallization on pages 27 and 54, and distillation on pages 13–15, 19, 46 and 48. The book will be particularly valuable to the advanced worker in organic chemistry on account of its logical and thorough treatment of the subject, the numerous references to the literature, and the fact that it includes the recent work of importance.

JAMES F. NORRIS.

SOCIETIES AND ACADEMIES.

THE ALABAMA INDUSTRIAL AND SCIENTIFIC SOCIETY.

THE regular winter meeting of this Society was held in the city of Birmingham, on the 21st of December, Truman H. Aldrich, President, in the chair.

W. M. Brewer, of the Committee on Statistics, reported that he had collected and had published, in the technical journals of the country, monthly during the present year, the statistics of coal, coke, iron-ore, limestone and other mineral productions of the State. By the end of the first week in January he expected to have ready for publication, in the Proceedings of the Society, the complete mineral statistics for the year 1897.

With reference to the approaching Exposition at Omaha it was the sense of the Society that the State of Alabama should be represented there by a full and well arranged exhibit of its mineral and other natural resources. Four new members were elected, and a committee, consisting of Mr. James Bowron, Mr. J. H. Fitts and Dr. Wm. B. Phillips, was appointed to represent the Society at the River and Harbor Convention, which is to be held in in the city of Tuscalloosa on the 29th of December. To this committee the President of the Society was added.

M. Henri Cardoza, a Commissioner of the French Government to investigate the labor conditions of this country, was presented to the Society by Dr. Phillips, and made some remarks explanatory of his mission.

Mr. Mason H. Sherman then read a paper, prepared by Wm. Blauvelt, on 'The Semet-Solvay Coke Oven and its Products.' This paper gave a very full account of the retort oven plant which is now in course of construction at Ensley, near Birmingham, and which is the sixth installation of by-product ovens in this country. The coke, tar, ammonia, gas and other by-products of these ovens were treated in detail by Mr. Blauvelt. As usual, this subject gave rise to an animated discussion, in which Dr. Phillips, Mr. Aldrich and others took part. Inasmuch as recovery-ovens and by-product plants have occupied a very prominent place in the papers read before this Society and in the discussions thereon during the past six years, it is believed that the installation of the plant at Ensley is the direct outcome of the persistent efforts of this Society to put a stop to the appalling waste incident to the use of the old bee-hive ovens.

Dr. Phillips then read a paper on 'Some of the Results of Washing the Alabama Coals for Coking,' in which he presented a number of tests carried out by him upon the cokes from the different coals mined near Birmingham, and coked under different conditions. This paper is from advance sheets of a new edition of 'Iron Making in Alabama,' by Dr. Phillips, soon to be published as a Bulletin of the Geological Survey.

President Aldrich then spoke of the great quantity of low-grade, free-milling gold ores

occurring in the eastern part of the State, and suggested that they offer a promising field to our mining engineers for experiments in concentrating on a large scale so as to avoid the necessity of running so much barren material through the mills.

The Society then adjourned to meet again in February.

EUGENE A. SMITH,
Secretary.

THE 269TH MEETING OF THE ANTHROPOLOGICAL SOCIETY OF WASHINGTON, TUESDAY, DECEMBER 21.

MR. GEO. R. STETSON, in his paper upon 'The Climacteric of the Negro Problem,' discussed the causes which have brought about the estrangement of the races; contending that race discrimination upon the part of the whites is frequently justified by necessity; a practice of which the negro cannot justly complain, as in every instance where he has obtained governmental control—in the West Indies, in Liberia and elsewhere—white citizenship is absolutely proscribed.

The progress in the economic condition of the negro is without intention sentimentally exaggerated; while numbering 12 per cent. of the population, the value of his taxable property is but 0.39 of one per cent. of our total wealth. The negro does not suffer from the lack of opportunity, but for want of the means and knowledge to make the opportunity his own. While his criminal record is bad, if we take into consideration his opportunities and moral status, our own record of degeneracy is worse, and the White Problem is quite as serious as the Negro Problem.

Mr. Stetson attributed the present climacteric to the default on our part, and especially of those more closely associated with him, in ignoring the ethical relations of the two races and neglecting personal interest in the negro's moral, industrial and general training. "Our chief and fatal error lies in not practically reorganizing in our educational systems his peculiar racial needs and differences;" an error which has been fatal to his social progress, and highly inimical and dangerous to the collective interests of both races.

The primary and greatest need of the negro and forty-one per cent. of our white population is practical instruction in agriculture in the elementary school, a system already revived in France, Germany, Russia and Ireland.

The abandonment of secondary education at the public expense was advocated upon the ground of its inaccessibility to the great majority of both races, and especially to the negro, the effect of such education upon races of inferior development and upon inferior classes of the higher races being to create a prejudice against manual labor. Incidentally, Mr. Stetson advocated positive religious instruction in the elementary school, and the establishment of the kindergarten as a necessary reënforcement of our school systems in the presence of an environment seething with the most virulent moral pest germs.

Mr. O. F. Cook, professor of natural science in Liberia College, Monrovia, read a paper on 'Traits of Native African Character,' in which he described the negro as he exists to-day in this negro republic, and gave the difference in character between them and those of the United States. His remarks showed a close and true study of these people, and how they had succeeded, notwithstanding the current belief in this country to the contrary. In Liberia and among the native population generally they respected the judgment and ability of the white man.

J. H. MCCORMICK,
General Secretary.

GEOLOGICAL SOCIETY OF WASHINGTON.

AT the meeting of December 22, 1897, Mr. W. Lingdren, of the United States Geological Survey, read a paper on 'The Canyons of the Salmon and Snake Rivers, Idaho.' The little known region between Idaho and Oregon where the Snake River and its mighty tributary, the Salmon, join is one of exceptional interest. In this vicinity lies the eastern margin of the great Columbia lava-fields, the shore line, so to speak, where the moulten flows were arrested by the mountain ranges of Idaho. Near Weiser, Snake River leaves the broad open valley occupying such a large part of southern Idaho, turns northward and flows across the great lava

masses in a canyon which in grandeur is only second to the Canyon of the Colorado. It is an abrupt trench cut to a depth of over 5,000 feet in the basaltic plateau. The deepest and most impressive part lies in the vicinity of the Seven Devils, a group of peaks rising to elevations exceeding 9,000 feet on the eastern side of the river. From the summits of these there is a sharp and continuous slope of 8,000 feet down to the level of the river. The exposures along the canyons are magnificent, showing from 1,000 to 4,000 feet of horizontal lavas covering a series of older slates and greenstones.

The Salmon River Canyon, for a long distance above its junction with the Snake, is between 4,000 and 5,000 feet deep. Except in its lowest portion, it is cut in the rocks of the older series. Granitic rocks, forming a large part of the great Idaho granite area, occupy a large space in Idaho adjacent to the Columbia lava. Instead of being of Archean age, as has been hitherto supposed, the granite is probably post-Carboniferous, as shown by the contact metamorphism of the Paleozonic series adjoining on the north.

This series of slates, limestone, schist and greenstones present the greatest similarity to the Auriferous slates of the Sierra Nevada. Round Crinoid stems were found in one of the limestone lenses. Excellent exposures are found in the lower Salmon River Canyon and along the Snake River. The Columbia lava flows are of Miocene age. They consist nearly exclusively of massive basalt, and are piled up one on another in seemingly endless succession. Slight differences of structure make the individual flows conspicuous and from a distance the exposures along the canyon side appear like those of a sedimentary series. The lava flows were poured out over an exceedingly uneven surface of deep valleys and precipitous mountain ranges. The latter tower far above the summit of the lava plateau, while the bottom of the former lie below the level of the river. Coupling this evidence with the fact that the sediments in the lower Snake River Valley, above Weiser, are of great depth, their bottom probably not being far from sea level, it appears that this whole area has suffered a depression since pre-volcanic times. The great outpouring of the Columbia lava evidently dammed a gap between the two high pre-volcanic ranges, the Blue Mountains of Oregon on the west and the Salmon River Ranges on the east. This barrier produced a great lake, the Miocene and Pliocene sediments of which now fill the upper Snake River Valley. The inland sea overflowed its barrier, established an outlet and the mighty volume of water has worn a canyon which eventually drained the lake.

At this meeting the Society elected officers for the ensuing year. These are: President, Arnold Hague: Vice-Presidents, Joseph S. Diller and Whitman Cross; Treasurer, M. R. Campbell; Secretaries, C. Willard Hayes and T. W. Stanton; Members-at-Large of Council, S. F. Emmons, George P. Merrill, W. H. Weed, David White and Bailey Willis.

W. F. Morsell.

U. S. Geological Survey.

NEW BOOKS.

The Smithsonian Institution, 1846–1896. The History of its first half century. Edited by George Brown Goode. City of Washington. 1896. Pp. 856.

Audubon and his Journals. Maria Audubon. With zoological and other notes by Elliott Coues. New York, Charles Scribner's Sons. 1897. Vol. I., pp. x + 532. Vol. II., viii + 535. $7.50.

Revision of the Orthopteran Group Melanopli (acridiidæ). With special reference to North American Forms. Samuel Hubbard Scudder. Washington, Government Printing Office. 1897. Pp. 421. 26 plates.

An Elementary Course of Infinitesimal Calculus. Horace Lamb. Cambridge, The University Press; New York, The Macmillan Company. 1897. Pp. xx + 616. $3.00.

Theoretical Mechanics. A. E. H. Love. Cambridge, The University Press; New York, The Macmillan Company. 1897. Pp. xiv + 370. $3.00.

Lessons With Plants. L. H. Bailey. New York and London; The Macmillan Company. 1898. Pp. xxxi + 491. $1.10.