leum refineries in the past, even though enormous in quantity, has been restricted almost entirely to the extraction and clarification of products which exist ready-made in the crude oil. The various grades of gasoline and naphtha, illuminating oil, lubricating oil, paraffin, fuel oil and road oil are all marketed in a low-developed stage in the art of manufacture. The coal-tar industry, on the other hand, which utilizes a crude material closely resembling petroleum, and not a bit more inviting, has reached a high stage of development in that its products are completely transformed into an almost infinite variety of costly dye-stuffs, flavoring matters, medicinal preparations and other articles which have contributed to our wealth, our comfort and to the advance of our civilization. This utilization of what was formerly a waste product which could be disposed of only at considerable expense is a splendid example of what chemical industrial research has accomplished. The fact that petroleum products are not similarly utilized simply demonstrates that we lack the requisite knowledge.

F. W. Bushong

AN ASCENT OF THE SNOW MOUNTAINS OF NEW GUINEA

Dr. A. F. R. Wollaston has recently returned from his second expedition to Netherlands, New Guinea. Last year he published an official account of the unlucky expedition of the British Ornithological Union to the "Snow Mountains" of New Guinea. Those who have read his "Pygmies and Papuans" (London, Smith, Elder & Co., 1912) will gain some idea of the extreme difficulty of traveling in the unknown districts of that island. That expedition did not attain its main objects, but, determined not to be beaten, Dr. Wollaston has made another attempt, which has proved successful. On the present occasion Mr. C. B. Kloss, curator of the Kuala Lumpur Museum, Federated Malay States, accompanied Dr. Wollaston, and, in addition to an engineer and five native collectors, they took with them seventy-five Dyaks, and a large escort was provided by the Netherlands government. It took four and a half months to reach the mountains from the coast. The mountains, as approached from the south, are a steep escarpment of limestone rock rising abruptly from broken foothills, through which many large torrents flow in excessively steep gorges. The heavy forest of the low country extends up to between 6,000 and 7,000 feet, beyond which height it becomes less dense, and more herbaceous plants appear. Geraniums, gentians, daisies and many other palæarctic forms, besides numerous terrestrial orchids, are found in the higher regions. The limit of perpetual snow on the Ingkipulu Mountains (Nassau range) was found to be at a height of about 14,200 feet.

Unlike the Mimika River, visited by the former expedition, the Utakwa is uninhabited, probably on account of the absence of sago. The expedition was frequently visited by natives from other rivers, some of whom came from great distances. Unfortunately, they did not provide themselves with supplies for the return journey, and as the expedition proceeded on its way it encountered the dead bodies of some 30 or 40 natives, mostly women and children, whose curiosity had led them down to the low country, and who had perished from exhaustion as they were going home. The meeting with these bodies was the most terrible experience of the expedition. A hitherto unknown tribe of a rather short people of Papuan type were met with at an elevation of some 4,000–6,000 feet. Despite the very cold nights they wear no clothing. They are mainly collectors and hunters, but also grow sweet-potatoes, tobacco and sugar cane. They carry bows and arrows and shoulder bags containing apparatus for making fire, tobacco, knives, spoons and other small belongings in true Papuan style. Their knives are made of a hard, slaty stone that can be brought to so keen an edge that bamboos can be cut with them. The people are said to be extremely attractive, most friendly and in some respects

more intelligent than the people on the coast. Considerable ethnological collections were made, a few skulls of the mountain people were obtained and numerous photographs taken.

The extensive zoological collections comprise some 1,300 birds, 150 mammals, a large number of snakes and other reptiles, and several thousand insects. Among the birds is a very beautiful bird-of-paradise, which may prove to be new to science. A. C. HADDON

SCIENTIFIC NOTES AND NEWS

DR. JOHN H. FINLEY, president of the College of the City of New York, was appointed State Commissioner of Education by the State Board of Regents on July 2. Dr. Finley succeeds the late Dr. Andrew S. Draper.

NORTHWESTERN UNIVERSITY has conferred the degree of doctor of science on Dr. Robert Andrews Millikan, professor of physics in the University of Chicago.

PROFESSOR ALEXANDER GRAHAM BELL has received the honorary degree of doctor of laws from Dartmouth College in recognition of his invention of the telephone.

THE University of Michigan has conferred the honorary degree of doctor of science on Dr. Otto Klotz, astronomer of Ottawa, Canada.

THE Royal Agricultural Society of England has awarded its honorary diploma of membership to James Wilson, lately U. S. Secretary of Agriculture.

ON June 4 a number of former pupils of Professor W. E. Byerly, Perkins professor of mathematics, emeritus, at Harvard University, gave an informal dinner in his honor at the Union Club, Boston. Professor E. H. Hall was toastmaster, and the speakers were Professor Byerly, President Lowell, President Eliot, Professor Bôcher and Professor E. B. Wilson, of the Massachusetts Institute of Technology. At the close of the dinner Professor Byerly was presented with a gold watch as a gift from over 250 of his former pupils.

WE learn from *The Electrical World* that at the annual meeting of the Verein Deutsche Ingenieure, held at Leipzig, Germany, on June 23, and attended by the visiting members of the American Society of Mechanical Engineers, the Grashoff gold medal was awarded to Mr. George Westinghouse. The medal was established by the Verein in 1894 in honor of one of its founders, Frank Grashoff, who died in 1893. Each year the memorial is presented to an engineer who has rendered distinguished service to technology. Mr. Westinghouse is the first American to receive the medal. Others to whom it has been awarded are Sir Charles A. Parsons, England; Mr. Gustav de Laval, Sweden; Count Ferdinand von Zeppelin, Germany, and Mr. Aurel Stodola.

DR. C.-E. A. WINSLOW has been appointed chairman of a commission on the experimental study of ventilation problems, with an appropriation of $50,000 to be expended during the next four years. The other members of the commission are: Professor F. S. Lee, of the College of Physicians and Surgeons, Columbia University; Professor E. L. Thorndike, Teachers College, Columbia University; Professor E. B. Phelps, Massachusetts Institute of Technology; Dr. James Alexander Miller and Mr. D. D. Kimball. The fund is part of a gift made by Mrs. Elizabeth Milbank Anderson to the Association for Improving the Condition of the Poor.

M. DEBOVE, professor of clinical medicine in the University of Paris, has been elected permanent secretary of the Académie de Médicine, in the place of the late Professor Jaccoud.

DR. IRA D. CARDIFF, professor of botany in the State College of Washington, has been appointed director of the Washington Experiment Station.

DR. J. A. ALLEN, of the American Museum of Natural History, has been working at the British Museum during the past six weeks on the mammals of Korea and South America. His work is particularly complete on South American squirrels, the material which Mr. Chapman's expedition secured in Colombia and the large unidentified collections of the