First Glances at New Books

DOWNLAND MAN—H. J. Massingham—*Doran* ($6). A scholarly but easy-to-read examination of megalithic monuments in Britain, with comparisons in other lands. After the popular attention that has been concentrated recently on man's development as an individual, in the Old Stone Age, this book will be doubly useful and welcome for the light it brings to the question of the early development of permanent social structures.

Science News-Letter, March 26, 1927

THE DOMESTIC OIL BURNER—Arthur H. Senner—U. S. Department of Agriculture Circular 405—*Government Printing Office* (10c). A pamphlet for all who use or contemplate using oil for heating their homes.

Science News-Letter, March 26, 1927

CASEIN AND ITS INDUSTRIAL APPLICATIONS — Edwin Sutermeister — *Chemical Catalog* ($5). Casein nowadays is a good deal more than the cheese from which its name was originally derived; it is paint, glue, billiard balls, photographic film, soap, infants' food, or what have you. This monograph gives in compact and complete form the known facts about the uses, chemistry and technology of this interesting and versatile substance.

Science News-Letter, March 26, 1927

EQUILIBRIA IN SATURATED SALT SOLUTIONS—Walter Charles Blasdale —*Chemical Catalog* ($4.50). A summary of our knowledge in one important phase of the study of water solutions of electrolytes.

Science News-Letter, March 26, 1927

INDIAN REMAINS OF THE PENOBSCOT VALLEY AND THEIR SIGNIFICANCE—University of Maine Studies, Second Series, No. 7—Walter B. Smith — *Maine University Press.* Relics of prehistory which Maine soil has yielded are described, and Mr. Smith presents a plea that future discoverers of such objects in Maine have their finds carefully identified, lest long sought clues to Norse occupancy of the region be tossed into the scrap heap.

Science News-Letter, March 26, 1927

ANCIENT POTTERY FROM TRUJILLO —Archæological Exploration in Peru, PartI—A. L. Kroeber—*Field Museum of Natural History.* Another step forward in tracing the complex story of pre-Hispanic Peru has been taken by Dr. Kroeber in this study of pottery of the Peruvian coast.

Science News-Letter, March 26, 1927

PHYSICS

Electricity and Frogs' Legs

Quotation from chapter on Physiology by W. D. Halliburton in PROBLEMS OF MODERN SCIENCE. New York: Henry Holt and Co. 1922.

Towards the end of the eighteenth century there was in Bologna, in Italy, a man, destined for the Church of Rome, but subsequently turned out for his heretical opinions, who then happily applied himself to Science and became the Professor of Anatomy and Physiology at the university of his native city. His name, which has reverberated down the ages, was Galvani. Those were not the days of palatial laboratories . . . and, so far as one can gather from what we know of Galvani's work, his arrangements were somewhat primitive, and he either used his laboratory as a kitchen, or, what seems much more probable, he used his wife's kitchen as his laboratory, and Mrs. Galvani had her share in the accidental discovery which took place during the preparation of a midday meal. She was preparing some frogs' legs for dinner, and had got them hung up in a row. Her husband was working a frictional electricity machine in the neighborhood—in the same room—and she noticed and called her husband's attention to the fact that these apparently dead frogs' legs began to twitch. Galvani was so struck with this singular occurrence that he wanted to try the effect of atmospheric electricity upon the frogs' legs, and, hoping for a thunderstorm, he went up on the roof and hung up his row of frogs' legs on copper hooks, attached to a railing made of iron. Instead of a thunderstorm there came a gentle breeze, and he noticed that when the toes of the frogs were blown against the iron railings they again began to twitch; i. e., he discovered that, by the contact of dissimilar metals, he had made what was the first electric battery, and, in his contemporary Volta's hands, the voltaic cell was constructed, and that was the progenitor of our modern batteries and of the great branch of electrical science whose name, 'galvanism,' is an indication of its origin. As Helmholtz said, writing nearly a hundred years later, if this little experiment with the frogs' legs and the dissimilar metals had been disregarded as being of no use to anyone, what would not the world have lost, for, in a comparatively short time after the discovery, electric messages by telegraphic wires were traveling with the speed of lightning from one end of Europe to the other. If Helmholtz had been alive now, how much more might he have expanded that theme, for, since he died, radium, X-rays, and other forms of radiant energy related to electricity have been discovered, and have proved of benefit to mankind not only from the commercial, but also from the medical point of view, by relieving disease and suffering.

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PALEONTOLOGY

Coal Age Fossils

The weird forests of the Coal Age that grew in the widely separated swamps of what are now the States of Rhode Island and Missouri were strikingly alike in the plants that composed them, according to Dr. Eda M. Round, writing in the *Botanical Gazette.* Dr. Round has made a close comparison of fossil plant remains from the sandstones and shales of these regions, and states that over fifty per cent of the plant pecies of the two localities were identical. None of the species that grew there those many millions of years ago survives into the present time, but the nearest relatives of some of them are now represented by ferns, club-mosses and scouring-rushes or horsetails. Two classes of plants, in some ways the most interesting of all, are now totally extinct. These were a group of trailing or vine-like plants related to the ferns, and another group with leaves like ferns but bearing true seeds, which are unknown among modern ferns.

Science News-Letter, March 26, 1927

FORESTRY

Conserves Turpentine Trees

The producers of yellow pine lumber in the South need no longer regard the producers of turpentine and rosin as enemies, destroying the best part of their trees. A new method of extracting the valuable oleoresin "gum" which is the basis of naval stores conserves nearly two-thirds of the wood hitherto wasted through damage caused by the long scars made on the pines near their bases, according to Dr. Eloise Gerry of the U. S. Forest Products Laboratory at Madison, Wisconsin. Dr. Gerry, who has just returned from a tour of conferences with the naval stores producers in Mississippi, Georgia and Florida, stated that the new method obtained a better yield of gum from a nine-inch scar than the old was able to realize from a scar 23 inches long.

Science News-Letter, March 26, 1927

The eyes of a fly are as rigid as the jewels of a watch.