

such eggs. I see no reason why such luminous phenomena might not be connected with eggs, as well as with other decomposing animal matter. But I should like to know if any scientific chemist has actually observed such fact. The folk-lore is voluminous and unanimous.

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THE CONSERVATION OF BEAVER BY AN INDIAN

JIM LAKNITZ, a Gitksan Indian, one of the two leaders in the village of Kitwanga, British Columbia, has an ancestral beaver trapping ground where he is trying to conserve the beaver. The place is an artificial lake formed by a beaver dam about four miles south of the totem poles of Kitwanga. He will neither trap beaver at this place nor allow any one else to do so, but he makes frequent patrols to watch and guard his beaver as he wants them to replenish the trapping ground so he can have good beaver trapping for himself and to leave to his nephew, who in his tribe would be his successor.

How is this for conservation?

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ANDRÉ PARMENTIER AND THE BROOKLYN BOTANIC GARDEN

IN SCIENCE for October 23, 1925 (p. 368) is a news item stating that, "The memory of André Parmentier, horticulturist and founder of the Brooklyn Botanical Garden, was honored on October 17 at the unveiling of a tablet within the garden near the entrance at Eastern Parkway."

André Parmentier never had anything to do with the present Brooklyn Botanic Garden. He was a pioneer landscape gardener and nurseryman, who came to this country in 1825 from Belgium and conducted a nursery which was very remarkable for its day. He called his nursery the "Horticultural and Botanic Garden of Brooklyn." It was located about one mile from the location of the present Brooklyn Botanic Garden on an area which is now entirely built over. Its area was about twenty-five acres.

So far as known, this nursery was the first institution in Brooklyn to be called a botanic garden. Of course it only remotely resembled a botanic garden as the term is now understood, and it had no historical or other connection with the present Brooklyn Botanic Garden. The credit for the founding of the present Brooklyn Botanic Garden is due chiefly to the late Mr. Alfred T. White.

The significance of Mr. Parmentier's work lay largely in the fact that he was a pioneer, blazing the trail for horticulture and for beauty in gardening in a place where such work was sorely needed.

C. STUART GAGER

BROOKLYN BOTANIC GARDEN

QUOTATIONS

"MILLIKAN RAYS"

DR. R. A. MILLIKAN has gone out beyond our highest atmosphere in search for the cause of a radiation mysteriously disturbing the electroscopes of the physicists. This was more difficult of determination than the mathematical location of a planet which had not been seen by any astronomer. The study had to be made out upon the edge of what the report of his discovery calls "finite space," many miles above the surface of the earth in balloons that carry instruments of men's devising where man himself can not go. His patient adventuring observations through twenty years have at last been rewarded. He has brought back to earth a bit more of truth to add to what we knew about the universe. There is no human satisfaction that can be greater than adding even a fragment to the body of ascertained truth.

He found wild rays more powerful and penetrating than any that have been domesticated or terrestrialized, traveling toward the earth with the speed of light and yet of almost unimaginably short wavelengths, shorter than the ultra violet waves, shorter even than the waves of the X-rays and the gamma rays of radium, beating ceaselessly beyond the ken of the known spectrum, probably completing its alphabet for the language by which the stars communicate with man. These immigrant rays come out of the "depths of outer space" into our highest atmosphere with an energy that, it is intimated, might be disastrous to the earth if it were to continue to increase, but do not at present come in such numbers as to be menacing. There is no possibility of the human production of these rays except at the expenditure of an impracticable energy. The author of "The Great Analysis" said a few years ago that there was nothing unknown this side of the moon, but here are these till now unknown and even now mysterious forces playing in the great spaces between our earth and the moon—forces of whose origin we know no more than we do of the origin of life on the earth itself. Even the mammal whose ten-million-year-old bones have been found in the same rocky nest with the unhatched dinosaur eggs does not remember the first day of Genesis.

The mere discovery of these rays is a triumph of

the human mind that should be acclaimed among the capital events of these days. The proposal that they should bear the name of their discoverer is one upon which his brother-scientists should insist. The power of these rays to pass through six feet of solid lead has suggested the name "penetrating rays," and the fact that they are immigrants upon this vapor sphere has suggested the name "in-coming rays"; but they would more appropriately bear the name of the penetrating mind that passed through the miles of space to the far frontiers of our atmosphere and there met these strange forces of the universe coming out of space—the mind that lived among them for years to learn their ways, and at last brought us word of their mysterious existence. "Millikan rays" ought to find a place in our planetary scientific directory all the more because they would be associated with a man of such fine and modest personality.—*New York Times*.

SCIENTIFIC BOOKS

The Climates of the United States. By ROBERT DECOURCY WARD, professor of climatology in Harvard University. Ginn & Company, 1925; 21 by 15 cms, 518 pp., 1 map in color and 145 figures in the text; price \$4.00.

THIS book differs from the usual run of text-books, though a college text-book it unquestionably is. It is cleverly camouflaged in appearance and content; and nine out of ten old graduates will not suspect its real character, while eight out of ten eagle-eyed undergraduates, always suspicious of a professor's offering, will after reading the book admit that it is good stuff. And that is high commendation from critical, calculating youth.

The book will appeal to the general reader for various reasons. One is the absence of tables. When in a treatise on climatology extensive tables of mean temperatures, maximum, minimum, mean maximum, mean minimum temperatures, relative humidities, pressures and wind directions are suppressed, it is a sure sign that the author cares little for show and much for the story back of such data. This is one reason why the book is positively entertaining.

Instead of loading paragraphs with details, Professor Ward has kept these within bounds (wisely, we think); but he furnishes numerous footnotes and extensive references.

The opening chapters on the development of climatological work, major climatic controls and the climatic provinces of the United States are presented in a readable manner, details coming in later chapters. The fourth chapter takes up the weather element in our climates; and we are given a full discussion of

weather types, which varying seasonally and regionally make up the average sum-total known as climate. There are sixteen figures of storm paths and typical disturbances ranging from winter storms over the northern Plains to the hurricane on the South Atlantic Coast. It would have been a step in the right direction if pressure values in these illustrations had been given in units of force. These take less room in printing and make for clearer conceptions of the magnitude of the pressure gradient. For example, in the typical hurricane (see page 60) instead of 29.30 inches at the center and 30.20 inches at the border of the "high," there might have been printed -8 and $+22$. Then the student at a glance appreciates the steepness of the slope. He sees a depression of 0.8 (of one per cent.) contrasted with an excess 2.2 per cent. In other words from north to south there is a gradient of three per cent. of a standard atmosphere. Also it would have been an improvement if Professor Ward had broken away from Fahrenheit temperatures. True, the slow-moving people of these United States cling to the scale devised by the German instrument maker in 1714; yet no German to-day uses that scale; and there are some seven hundred million people in the world—not counting our own chemists, physicists and men of science generally—who have scrapped it.

The chapter on temperature, the longest in the book—fifty pages—is a mine of information. We must, however, call attention to the charts of lowest and highest temperature ever observed (Figs. 47 and 48). These are based upon the climatic charts of the United States, official but inaccurate and misleading. Professor Ward in the text gives records which contradict the chart values. Following the discussion of temperature, we have rainfall and prevailing winds. In the diagrams of types of rainfall, values are given in millimeters as well as in inches; which is in accord with British practice. We wish our Weather Bureau would get in step with the rest of the world.

The use of correlation coefficients in the discussion of rainfall is avoided. Of late this method has been somewhat overworked. It has been shown, for example, that there is a high correlation between the rainfall at Jerusalem and the growth of the Sequoia gigantea in California. This has been discussed elaborately in some treatises on quaternary climates; yet who can believe for a moment that there is any direct causal relation between these two sets of data?

Snowfall, humidity, sensible temperature, sunshine, cloudiness and fog are treated at some length. There is an interesting paragraph on dark days; and we are told the incident of the interruption of proceed-