

cally nothing remained of it,—my husband was fully prepared to accept the conclusions to which you had been led for that particular section of the country, as you will see from the notes appended to his English work.

In Ohio a set of conditions occur wholly unlike anything which my husband himself had seen in his glacial work, and making the allowance for a different glacial behavior, such as these conditions demanded, he felt that your own opinion with regard to them was the most logical he could reach at that time. In England, Wales, and Ireland a terminal moraine everywhere bounded the absolute ends of the separate or coalescing tongues of ice, except, as I have stated, where the ice had passed off to sea, or the moraine deposits had been disturbed by contemporary or subsequent water action, of which, in either case, there was always more or less distinct evidence. The moraine lines mentioned in your paper are all given in full in my husband's sketch of "The Terminal Moraines of the Great Glaciers of England," published for the Meeting of the British Association in Manchester in September, 1887; and his later opinions as to the origin of the "fringe" will be found in a similar article on "Some Great Extra-Morainic Lakes in England and North America at the Time of Maximum Glaciation."

My husband distinctly held that the maximum submergence in the West of England had attained a depth of from 450 to 500 feet, but had not reached that of 1,000 feet or more, as claimed by some of the leading British geologists.

Another point to be emphasized is that in my husband's mind a terminal moraine showed the halting-place of the solid ice only at the time of its greatest extension, and did *not* define or limit the irregular drift-covered areas in many instances found lying beyond it, which were due to the action of drainage-streams, icebergs or the deposits in temporary lakes.

As I have elsewhere stated, the first and only instance my husband ever saw which led him to believe in the existence of a large ice-stream (whether local or otherwise remains to be determined), between which and the glacial epoch as vast an interval of time had elapsed as that which separates the glacial period from the present day, was found in the deposits on Frankley Hill, near Birmingham. It was his intention, had he remained in this world, to make a thorough re-examination of all England, lest similar deposits had elsewhere escaped his notice; but he never at any time associated the Frankley Hill till and gravel with the "fringe" of the glacial period, from which it was wholly distinct.

Permit me to say in closing that the unlimited courtesy and generosity shown me by Dr. Crosskey and many others among the English geologists—some of whom are entirely opposed to my husband's conclusions—are beyond all praise and any acknowledgment which it is in my power to give. If, when I have in future to turn to my own countrymen for aid in finishing my husband's MSS. relating to the geology of the New World, I experience even a fraction of the kindness which has surrounded me in England, I shall have nothing left to desire.

CALENDAR OF SOCIETIES.

Philosophical Society, Washington.

May 21.—H. A. Hazen, Scientific Ballooning; Alexander S. Christie, The Method Employed to Find the Latitude-Variation Tide.

Publications Received at Editor's Office.

- ABBOTT, LYMAN. The Evolution of Christianity. Boston, Houghton, Mifflin & Co. 12°. 266 p. \$1.25.
- BAILEY, L. H. Cross-Breeding and Hybridizing. New York, Rural Pub. Co. 12°, paper. 44 p. 40 cts.
- HOLBROOK, M. L. The Hygienic Treatment of Consumption. New York, M. L. Holbrook & Co. 12°. 219 p.
- LYDEKKER, R. Phases of Animal Life Past and Present. New York, Longmans, Green & Co. 12°. 248 p. \$1.50.
- NEW JERSEY. Annual Report of the State Geologist for 1891. Trenton, J. L. Murphy Pub. Co., printers. 8°, paper. 270 p.

Societas Entomologica.

International Entomological Society, Zurich-Hottingen, Switzerland.
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The new volume began April 1, 1892. The numbers already issued will be sent to new members.

For information address Mr. FRITZ RUHL, President of the Societas Entomologica, Zurich-Hottingen, Switzerland.

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To exchange Wright's "Ice Age in North America" and Le Conte's "Elements of Geology" (Copyright 1882) for "Darwinism," by A. R. Wallace, "Origin of Species," by Darwin, "Descent of Man," by Darwin, "Man's Place in Nature," Huxley, "Mental Evolution in Animals," by Romanes, "Pre-Adamites," by Winchell. No books wanted except latest editions, and books in good condition. C. S. Brown, Jr., Vanderbilt University, Nashville, Tenn.

Wants.

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ADDRESS WANTED.—Will some one please send the address of the Secretary of the American Philological Society. Also that of Herbert Spencer. "ADDISON," Room 84, 164 Madison St., Chicago, Ill.

As the publication of this letter may serve to elucidate my husband's views and to explain what his exact position was with regard to the leading questions of the day in glacial geology, pending the publication of his own work, I shall be greatly indebted if you will insert it at such a place in your detailed defense of his views as your own greater wisdom shall direct.

Again thanking you for your interesting and valuable paper, believe me to be, with regard,

Faithfully yours,

JULIA F. LEWIS.

Hotel Lang, Heidelberg.

AMONG THE PUBLISHERS.

THE fourth number of the "Columbia College Studies in Political Science," completing the first volume of that series of monographs, is entitled "The Financial History of Massachusetts from the Organization of the Massachusetts Bay Company to the American Revolution," by Charles H. J. Douglas, Ph.D., Seligman Fellow in Political Science in Columbia College. Doctor Douglas, before he returned East some four or five years ago to take charge of the work in history and English literature in the Brooklyn Boys' High School, was proprietor and managing editor of the *University*, a weekly literary and critical journal of Chicago, since merged in *Unity*, the well-known liberal religious weekly of that city. The *University*, during the two or three years of its separate existence, gained a high position as an inde-

pendent medium of scholarly discussion. Besides Doctor Douglas, then an instructor in the University of Wisconsin, its editorial staff included the late Professor Alexander Winchell, of the University of Michigan; Professor William H. Payne, now chancellor of the University of Nashville; Professor Charles K. Adams, lately president of Cornell University, and Professor George W. Knight, now of the Ohio State University, all of whom contributed to each number. Complete volumes of the *University* are now excessively rare.

—The next annual meeting of the Royal Society of Canada will be held at Ottawa on May 31 and following days, and will be opened with the usual inaugural address by the President, the Reverend Abbé Laflamme. Amongst the papers to be presented the following are of scientific interest: In the section of English literature a vocabulary of the language of the Beorhicks, or Red Indians of Newfoundland, by the Rev. Dr. Patterson, and a grammar and dictionary of the language of the Haida Indians of the Queen Charlotte Islands, by Rev. Chas. Hamilton of British Columbia; in the Physical section, "The Fundamental Hypothesis of Abstract Dynamics," by Professor J. G. MacGregor; "Long Columns," by Professor Bovey; and "On a New Form of Application Goniometer," by Professor Chapman; and in the Geological and Biological section, "The Fossils of the Hudson River Formation in Manitoba," by J. F. Whiteaves, and "On the Correlation of Early Cretaceous Floras in Canada and the United States, and on Some New Plants of this Period," by Principal Sir William Dawson.

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TO THE READERS OF SCIENCE.

PUBLISHER'S ANNOUNCEMENT.

OUR PLANS.

WITHIN the past six months the use of *Science* by scientific men and women as a medium for prompt publication and weekly discussion, has increased very materially, so that the pages are now well filled each week with original matter. As the number of those promising contributions is increasing at the rate of three or four each day, it cannot be long before *Science* at its present size will be too small for the amount of matter offered. We have under consideration therefore an enlargement of the paper by one-half, but must first learn the temper of our constituency as to an advance in price to \$5.00, which was the subscription price from the start for four years, up to June 30, 1887. Further, to carry out the proposed enlargement, we shall need five hundred additional subscribers. If you are not already a subscriber, are you willing to aid in making *Science* more worthy of American scientific work by becoming one?

It goes without saying, that the demand for scientific literature is limited, when compared with that for literature which is more to the public taste, so that the receipts of most of the Scientific Journals, in this country, do not pay quite for their printing and paper, to say nothing of the other items of expense. We say this merely to emphasize the fact, that generous and prompt support must be accorded this move if it is to succeed.

Titles of Some Articles Published in *Science* since Jan. 1, 1892.

Aboriginal North American Tea.
Actinism.
Amenhotep, King, the tomb of.
Anthropology, Current Notes on.
Arsenical Poisoning from Domestic Fabrics.
Anatomy, The Teaching of, to Advanced Medical Students.
Astronomical Notes.
Botanical Laboratory, A.
Brain, A Few Characteristics of the Avian.
Celts, The Question of the.
Collection of Objects Used in Worship.
Deaf, Higher Education of the.
Diphtheria, Tox-Albumin.
Etymology of two Iroquoian Compound Stems.
Eye-Habits.
Family Traits, Persistency of.
Fishes, The Distribution of.
Fossils, Notice of New Gigantic.
Grasses, Homoptera Injurious to.
"Healing, Divine."
Hemipterous Mouth, Structure of the.
Hypnotism among the Lower Animals.
Hypnotism, Traumatic.
Indian occupation of New York.
Influenza, Latest Details Concerning the Germs of.
Infant's Movements.
Inventors and Manufacturers, the American Association of.
Iowa Academy of Sciences.
Jargon, The Chinook.
Klamath Nation, Linguistics.
Lightning, The New Method of Protecting Buildings from.
Lissajou's Curves, Simple Apparatus for the Production of.
Malze Plant, Observations on the Growth and Chemical Composition of.
Mineral Discoveries, Some Recent, in the State of Washington.
Museums, The Support of.
Patent Office Building, The.
Pocket Gopher, Attempted Extinction of.
Psychological Laboratory in the University of Toronto.
Psychological Training, The Need of.
Rain-Making.
Rivers, Evolution of the Loup, in Nebraska.
Scientific Alliance, The.
Star, The New, in Auriga.
Storage of Storm-Waters on the Great Plains.
Teaching of Science.
Tiger, A New Sabre-Toothed, from Kansas.
Timber Trees of West Virginia.
Tracheæ of Insects, Structure of.
Vein-Formation, Valuable Experiments in.
Will, A Recent Analysis of.
Wind-Storms and Trees.
Wines, The Sophisticated French.
Zoology in the Public Schools of Washington, D. C.

Some of the Contributors to *Science* Since Jan. 1, 1892.

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Barnes, Charles Reid, Madison, Wis.
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Beal, W. J., Agricultural College, Mich.
Beals, A. H., Milledgeville, Ga.
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