

relations between the United States and these tribes. This will treat of the various negotiations for peace and for the acquisition of territory, the causes rendering such negotiations necessary, and the methods observed by the government through its authorized agents in this diplomacy, as well as other matters of public concern growing out of the same. The eminent value of this work to the historian is self-evident, and the laborious care bestowed by Mr. Royce upon the carrying-out of this plan promises that it will be at once an exhaustive and clear treatment of this important part of the history of our Republic.

The first paper of the volume is Professor Cyrus Thomas's treatise on "Burial-Mounds of the Northern Section of the United States." Since this paper was written, much evidence has accumulated which has been outlined in a bulletin of the Bureau of Ethnology. It corroborates the views expressed by Professor Thomas in the present report.

His conclusions, as set forth in this paper, are that different sections of the country were occupied by different mound-building tribes, which, though belonging to much the same stage in the scale of culture, differed in most instances in habits and customs to a sufficient extent to mark, by their modes of burial, construction of their mounds, and their works of art, the boundaries of the respective areas occupied. He furthermore concludes that each tribe adopted several different modes of burial, depending, in all probability, to some extent upon the social condition, position, and occupation of the deceased. The custom of removing the flesh before the final burial apparently prevailed very extensively among the mound-builders of the northern sections; the bones of the common people being often gathered together, and cast in promiscuous heaps, over which mounds were built. Usually some kind of religious ceremony was performed at the burial, in which fire played a prominent part; but, notwithstanding the very common belief, there is no evidence whatever that human sacrifice was practised. The builders of the mounds had not reached a higher culture than that attained by some of the Indian tribes found occupying the country at the time of the first arrival of Europeans. Professor Thomas concludes his treatise by expressing his opinion that the mound-building age cannot have lasted longer than about a thousand years, and that it continued to be practised in several localities in post-Columbian times.

There remain two papers to be noted, both of peculiar interest, — the one by Dr. Washington Matthews, who gives a very detailed description of one of the remarkable religious ceremonies of the Navajo; the other by Mrs. T. E. Stevenson on the religious child-life of the Zuñi.

Dr. Matthews describes the long ceremonies of the Mountain-Chant, and gives the long myth which is the foundation of these ceremonies. His paper concludes with the original texts of the songs, and translations of the same. It is impossible to give an account of the interesting contents of this essay, which is full of new facts of the greatest importance to the student of anthropology.

Mrs. Stevenson's paper is of a somewhat similar character, treating of the connection between certain customs and myths. This field of study, so ably taken up by Dr. Matthews and Mrs. Stevenson, has so far received comparatively little attention; and yet it is one of the most important for the study of the human mind and of the growth of institutions.

The publications of the Bureau of Ethnology mark every one a long step forward in our knowledge of man in America, and are therefore anxiously awaited by all students. We hope that the following volumes may be issued at shorter intervals, that the important material contained in them may soon become public property.

#### BOOK-REVIEWS.

*The Birds of the West Indies.* By CHARLES B. CORY. Boston, Estes & Lauriat. 8°.

IN preparing the present work, Mr. Cory examined a large series of birds from nearly all the islands of the West Indies, the combined collections representing many thousands of specimens. He made five trips to different parts of these islands, besides which a

number of collectors were sent out, for the purpose of obtaining as complete a series as possible. Several of these collectors were engaged upon their task from six to eighteen months, and it is fair to assume that their collections contained nearly all of the resident species of the islands which they visited. Some of these collections proved especially interesting, being very rich in novelties, the collections of one person containing no less than seventeen species new to science.

Most of the matter contained in the present work appeared originally in the *Auk* during the years 1886, 1887, and 1888; but since that time a large number of species have been added to the West Indian avifauna which were either new to science or had not been previously recorded from that locality. Descriptions of these are given in an appendix, unless included in their proper order in the body of the work. A number of alterations and corrections have been made in the original plates, and several new illustrations have been added. No descriptions are given of well-known North American birds, and the references to such are mainly restricted to the citation of works and papers on West Indian ornithology.

The excellent mechanical make-up of the book admirably supplements the painstaking and thorough work done by Mr. Cory in its preparation.

*Louis Lambert.* By HONORÉ DE BALZAC. Tr. by Katherine P. Wormeley, with introduction by George F. Parsons. Boston, Roberts Bros. 12°. \$1.50.

BALZAC seems to have written this story for the express purpose of making known what he would call his philosophy, which is a curious compound of mysticism and nonsense. The hero of the tale, Lambert, is introduced when a boy, and considerable space is given to his experience and reflections while at school. At a later time, after a season in Paris, he falls in love with a titled lady, and marries her. Unfortunately, however, he becomes insane just before his marriage, and remains so ever after, and dies while still a young man. The "philosophy" of the book is contained partly in his conversations and letters, but chiefly in some papers composed after he became insane; and these latter seem to be the dearest to the soul of Balzac. The doctrine expressed in them is of the occult kind, as will be seen from the following specimens: "Here below all is the product of an ethereal substance, the common base of several phenomena. . . . Will is a fluid, the attribute of every being endowed with motion. . . . Facts are nought; they do not exist; ideas alone exist. . . . All things here below exist only by motion and by number. . . . There is a number which impurity cannot transcend — the number wherein creation is finished. . . . Three and seven are the two great spiritual numbers" (pp. 138-148). Besides the story that gives name to the book, there are two others in the volume; but there is little connection between them and Louis Lambert; and the second of them, *Gambara*, we have found intensely disagreeable. The introduction to the book, which is as long as the leading story, is partly a summary of Balzac's ideas, and partly an attempt to reconcile them with the teachings of physical science, — an attempt which, as may be supposed, is not very successful.

#### AMONG THE PUBLISHERS.

GINN & Co. announce "An Introduction to the Poetry of Robert Browning," by William John Alexander, Munro professor of English language and literature, Dalhousie College and University, Halifax, N. S., and formerly fellow of Johns Hopkins University, to be published in February. The book opens with an account of Browning's most striking peculiarities in method and style, and attempts to find an explanation of these in the conditions amidst which the poet has worked, and in the nature of the themes which he treats. In the next place, an exposition is given of those general ideas pervading his work, which can only be gathered from the study of many of his poems, and yet are needful for the full understanding of almost any one of them. This exposition is contained in a series of chapters on "Browning's Philosophy," "Christianity as presented in Browning's Works," and "Browning's Theory of Art." These chapters are followed by a brief chronological review of his writings, and characterization of his development. The various points treated throughout the introduction are illustrated

by a series of selected poems furnished with careful analyses and copious critical comments. It is hoped that by thus unfolding, in a few typical examples, the characteristics and merits of Browning, the reader may at once be enabled to acquire a real knowledge of his poetry, and be prepared for further unassisted study of his work. The attention of those already familiar with Browning is especially directed to the analysis of "Sordello," much fuller and more exact, it is believed, than any heretofore published.

—The *Revue Philosophique de la France et de l'étranger*, edited by Th. Ribot, professor at the Collège de France, has just commenced its fourteenth year. This periodical is published monthly, each number containing about one hundred pages. Special attention is paid to psychology and its indispensable auxiliaries, anatomy and physiology of the nervous system, pathology of the mind, anthropology, and inductive and deductive logic. Reports on the current philosophic literature enhance the value of the journal.

—The *Revue Historique* for 1889 continues to be of great interest. It is published bi-monthly, and, besides original contributions, each number contains notes of general interest, unpublished documents, and a useful bibliography. It is published by F. Alcan, Paris.

—Neumayr, the distinguished paleontologist of Vienna, has just published through Tempsky a first stout imperial octavo volume of a work upon which he has been engaged for many years, in which he is to review the entire series of extinct animals in the light of the derivative theory of organic life. Under the title "Die Stämme des Thierreiches" he discusses the lower forms of life, leaving the mollusks, arthropods, and vertebrates for future volumes. The purely theoretical side of the subject and the purpose, with which he began his studies, to search in every quarter for proofs of the alteration of forms, have gradually, in working out his scheme, given place to a critical and scholarly investigation into the general morphology of fossil animals; and his work will thus prove of the utmost value not to the paleontologist only, but equally to the zoölogist. No living naturalist is more competent than he to perform the task. In an introduction of over 150 pages he discusses the general questions of the relations of the derivative theory to paleontology in a masterly manner; subsequent chapters take up successively the protozoa, coelenterates, echinoderms, worms, and molluscoids. The second volume, treating presumably of the remaining invertebrates, is, he tells us, nearly completed. The work forms an excellent complement to Zittel's nearly completed "Handbook of Paleontology."

—The *American Naturalist* for January (New York, Leonard Scott Publishing Company) will contain an article on "Primitive Architecture," by Mr. Barr Ferree, in which is traced the various sociological causes that have influenced the form and construction of the dwellings of primitive peoples. The same number will contain an article on "The Food of the Owls," by Dr. W. S. Strode; on "The Ancient Glaciers of North Wales," by Professor Evans; and on "Lichens," by Professor Williams. The departments of the magazine will present their usual summary of the progress of all branches of natural science within the past month.

—A remarkably successful attempt at photographing the very shy Big-horn, or Rocky Mountain sheep, will be described in the February *Scribner* by Frederick H. Chapin, who succeeded in taking a group on Table Mountain, Colorado, in 1887. The photograph has been engraved to accompany the article. In the same number Austin Dobson will recall some memories of "Old Vauxhall Gardens" in its prime,—the days of Walpole, Fanny Burney's "Evelina," and Fielding's "Amelia." The article will be fully illustrated from old prints. In his article on Sir Walter Scott, Ex-President Andrew D. White of Cornell will say of him, "Never was there a more healthful and health-ministering literature than that which he gave to the world. To go back to it from Flaubert and Daudet and Tolstoi is like listening to the song of the lark after the shrieking passion of the midnight pianoforte; nay, it is like coming out of the glare and heat and reeking vapor of a palace ball into a grove in the first light and music and breezes of the morning." George Hitchcock, the artist whose contribution to

*Scribner's* Christmas number on "Botticelli" will be recalled, will appear in the February number, with a second article on "The Picturesque Quality of Holland," this time describing "Interiors and Bric-a-brac." Mr. Hitchcock has for many years lived in Holland. The February instalment of Robert Louis Stevenson's romantic novel, "The Master of Ballantrae," will describe the pathetic persecutions of "Mr. Henry," and the unexpected return of the "Master." Brander Matthews will have in the number an ingenious and fanciful story, entitled "A Family Tree."

—Charles A. Wenborne, Buffalo, N.Y., announces for immediate publication an "authorized" American edition of Laurence Oliphant's "Scientific Religion; or, Higher Possibilities of Life and Practice." This book, when first published in London eight months ago, immediately became a subject of such wide-spread interest that the author felt impelled to arrange, also, so says Mr. Wenborne, "for its publication in the United States. He visited this country last summer, and upon his return to England was taken down with the fatal illness that terminated his eventful life on Dec. 23. The author's intention to give a distinct introduction to the American edition was carried out by his newly wedded wife, an American lady, born Dale Owen, who had for some time been a distinguished co-worker in that field of religio-philosophical science of which Laurence Oliphant may be regarded as the most brilliant, most profound, and most advanced explorer of modern times."

—*The Green Bag*, "a useless but mildly entertaining magazine for lawyers," to be edited by Horace W. Fuller, is announced by Charles C. Soule, Boston. It is to be a monthly, intended to interest and entertain lawyers. It will cover legal history, antiquities, biography, news, gossip, and facetiae, together with correspondence and book notices. The first number, to be published this month, will contain an excellent portrait of Chief Justice Fuller in his robes of office. Each subsequent number will contain the portrait of some distinguished judge or lawyer. There will also be illustrated articles, among them a series of papers upon the leading American law schools.

—We have received two pamphlets by Charles H. Fitch of Denver, Col., on "Womanhood Suffrage" and on "The Fallacy of Free Land" (published by the author), but we find nothing new or valuable in either of them. The first presents the usual arguments in favor of woman suffrage, but in an obscure and rather grandiloquent style. The second is an argument for the Henry George theory of rent, and the injustice of private property in land, but contains nothing that has not been repeatedly said by others. The subjects treated, like some other political and economic questions of the present time, have been discussed so much, that unless one can say something new on them, or can present the old arguments in a superior form, there seems to be no good reason for his treating them at all.

—One of the best known of the English journalists in America to-day is Mr. W. T. Stead, the managing editor of the *Pall Mall Gazette*. As a journalistic worker, Mr. Stead has seldom had an equal; and recently, when offered a vacation, he took it on the condition that he might work. The vacation became a trip to Russia, the result of which is to be published in a stout volume by Cassell & Co. While the political situation is the burning question of the book, he has time to visit Count Tolstoi, and to give the reader pictures of Russian life painted with a realism that M. Verestchagin might envy.

—The *American Anthropologist* for the first quarter of 1889 comes to us in a handsome brown cover and a generally improved typography and appearance. It contains Washington Matthews's article on the curious "Navajo Gambling Songs," and especially the melodies which accompany the winter game of Kesitcè; Otis T. Mason's examination of the beginnings of the carrying industry, an illustrated article; "On Alternating Sounds," by Franz Boas; "Folk-Lore of the Siletz Indians," by J. Owen Dorsey; a summary of current methods of voting, by James H. Blodgett; and a variety of original notes and news. The feature of this quarterly which will excite most attention is the first instalment of a bibliography of anthropologic literature, by Robert Fletcher, who has undertaken the

valuable service of preparing a similar compilation for each number.

— So strong a feeling has been manifested in this country against the publication of a cheap pirated edition of Professor Bryce's noble work on "The American Commonwealth," says the *New York Tribune*, that it is hardly possible that any publisher will undertake it. The *Boston Advertiser* says, "Professor Bryce's materials were gathered by the most patient, candid, and acute inquiry in this country, and represent many years of labor on his part and that of his American assistants. He has made admirable use of them in the preparation of a work universally recognized as a monument to our Commonwealth, and of the foremost importance to all students of our institutions and people. For such a monograph the nation cannot afford to show itself ungrateful. If a publisher attempts to put an edition of this work on the market to defraud the author and discredit the nation, his attempt should be pilloried as peculiarly disgraceful, and the edition should be boycotted by honest book-buyers."

— E. Hollenshade, 136 Lake Street, Chicago, has published what he calls a "gored map" of the northern and southern hemispheres, which is a novelty well worthy the attention of educators and students. It is designed to obviate the necessity of a globe in the study of geography, and conveys an adequate conception of the exact relations borne by one portion of the earth's surface to every other.

— Messrs. Longmans & Co. are about to publish in New York two new books of fiction. One is "A Nine Men's Morrice, Stories Collected and Recollected," by Mr. Walter Herries Pollock, the editor of the *Saturday Review*. Most of these striking stories have a tinge of the supernatural. The other book is "A Dangerous Cat's-paw," by D. Christie Murray, and his brother Mr. Henry Murray. This is at once a story of ingenuity and mystery, with the robust humanity common to Mr. Murray's other novels.

— "Chancellor Chess, or The New Game of Chess," by Ben. R. Foster, A.M., chess editor of the *St. Louis Globe Democrat* for more than ten years, is announced as in press. Seventy pages are devoted to the new piece called "The Chancellor," containing a history of its origin, "with forty problems, and a number of games illustrative of its beauties, powers, and possibilities." It is published by the author, in St. Louis, Mo.

— Charles Scribner's Sons published last week "The History of the Roman Republic," abridged from the history of Professor Mommsen, by C. Bryans and F. J. R. Henty, which presents the salient points of the original in a form suitable for use in schools and colleges and for the convenience of the general reader; "The English Restoration and Louis XIV., from the Peace of Westphalia to the Peace of Nimwegen," by Osmund Airy, in the Epochs of Modern History Series; and "The Validity of Non-Episcopal Ordination," the Dupleian lecture, by Professor G. P. Fisher.

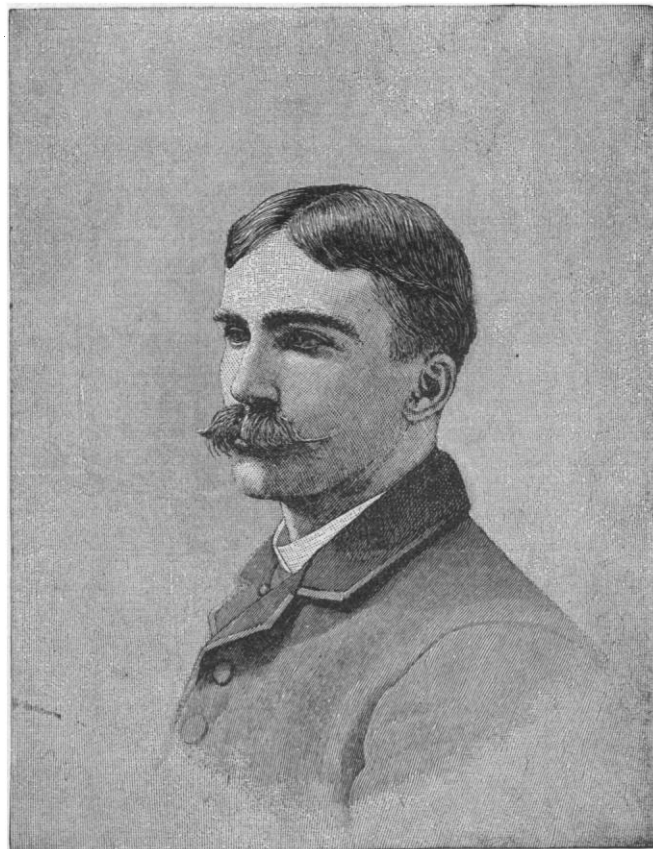
— Scribner & Welford have just issued a new edition of Barry E. O'Meara's "Napoleon at St. Helena," in two volumes, with numerous illustrations in colors and black and white. A refutation of Croker's diatribe which appeared in 1822, and a Napoleon calendar, have been added by the editors. They have also just ready a new edition of D'Anvers' "History of Art;" a new edition, in the Ideal Series, of "Sartor Resartus," with an etched portrait of Carlyle; an *édition de luxe* of "Kensington, Picturesque and Historical," by W. J. Loftie, with upwards of 300 picturesque and delicate illustrations by W. Luker, jun.; and the first volume of Professor Franz Delitzsch's "Commentary on the Book of Genesis," of which this house (by special arrangement of the author) is publishing a translation of the fifth edition, thoroughly revised, and in large part rewritten.

— According to *The Publishers' Weekly*, the new departure of the New York *Ledger* attracts much notice. Mrs. Burnett and Mr. Stevenson are engaged to write for the *Ledger*, and in the current number a learned paper by Dr. McCosh is found beside some very lurid fiction.

— *The American* states that Collier's *Once a Week* is a sort of eagle among the doves. It is said to offer "rates" to the most

popular writers, such as the magazines, with all the pressure of competition, decline to pay, and to threaten a consequent monopoly of much of the high-priced talent. Its liberality confounds the older journals.

— Mr. Thomas Stevens, whose ride around the world on a bicycle is known to all, is now on his way to find Stanley, sent through the enterprise of the *New York World*. We reproduce this week his portrait. Mr. Stevens's famous ride stands unequalled in the history of travel, and his own story of it, in "Around the



Yours sincerely  
Thos Stevens

World on a Bicycle" (published by Charles Scribner's Sons) is told in a manner which charms the reader from the beginning. His escapes from death were marvellous, and thrilling incidents were daily occurrences; and his narrative of them shows him to be as good a writer as wheelman. The work contains over 200 illustrations. The work is divided into two volumes,—"From San Francisco to Teheran," and "From Teheran to Yokohama." The volumes are, however, sold singly.

— From among the several hundred books published during 1888 by J. B. Lippincott Company, we note the following as likely to be of special interest to our readers, aside from works of fiction: "The Animal Life of Our Sea-Shore," by Angelo Heilprin (fully illustrated); "Beethoven," a memoir, by Elliott Graeme, with an introductory essay by Dr. Ferdinand Hiller; "Béranger's Songs and Poems," selected by W. S. Walsh (with steel plate illustrations); "Botany," for academies and colleges, by Annie Chambers-Ketchum (250 illustrations); "Boys' Own Book of In-door Games and Recreations," edited by G. A. Hutchison (over 700 illustrations); "Chambers's Encyclopædia," Vols. I. and II., edited and published under

the auspices of W. and R. Chambers, Edinburgh, and J. B. Lippincott Company, Philadelphia, entirely revised and rewritten, complete in ten volumes, to be issued at intervals; "The Chemical Analysis of Iron," by Andrew Alexander Blair (illustrated); "The Complete Works in Verse and Prose of Percy Bysshe Shelley," edited, prefaced, and annotated by Richard Herne Sheppard, each volume complete in itself, in sets of five volumes; "Diseases of the Skin," a manual for practitioners and students, by W. Allan Jamieson, M.D. (illustrated with woodcuts and colored plates); "Embroidery and Lace," by Ernest Lefévre, translated from the French (with about 150 illustrations); "Francis Bacon, his Life and Philosophy," by John Nichol; "Girls' Own In-door Book," edited by Charles Peters (over 150 illustrations); "Half-Hours with the Best Foreign Authors," translations selected and arranged by Charles Morris, four volumes; "Hand-Book of Games," new edition, comprising whist, draughts, billiards, etc., edited by Henry G. Bohn; "Highways and Horses," by Athol Maudsley (with numerous illustrations); "Inebriety: its Causes, its Results, its Remedy," by Franklin D. Clum, M.D.; "Insects Injurious to Fruits," by William Saunders; in the International Statesmen Series, edited by Lloyd C. Sanders, "Lord Beaconsfield" (by T. E. Kebbel), "Viscount Palmerston" (by Lloyd C. Sanders), "Prince Metternich" (by Col. G. B. Malleson, C.S.I.), "O'Connell" (by J. A. Hamilton, fellow of Magdalen College, Oxford), "Lord Bolingbroke" (by Arthur Hassall), and "Peel" (by F. C. Montague); "Intracranial Tumors," by Byron Bramwell, M.D. (116 illustrations); "Jesus in Modern Life," by Algernon Sydney Logan; "Laconisms, the Wisdom of Many in the Words of One," by J. M. P. Otts, D.D.; "Large Fortunes; or, Christianity and the Labor Problem," by Charles Richardson; "Life of Lamartine," by Lady Margaret Domville (with portrait); "The Life of the Right Hon. W. E. Forster," by T. Wemyss Reid, two volumes (with portraits and other illustrations); "Memoirs of Count Grammont," by Anthony Hamilton, edited with notes by Sir Walter Scott (with portrait of author, and 33 etchings by L. Boisson, on India paper); "Modern Science and Modern Thought," by S. Laing (fifth edition); "Paradoxes of a Philistine," by William S. Walsh; "Patriotic Reader," by Henry B. Carrington; "A Popular History of Music, Musical Instruments, Ballet, and Opera, from St. Ambrose to Mozart," by James E. Matthew (150 illustrations); "Spinoza," by John Caird, principal of Glasgow University (with portrait); "Tenure and Toil; or, Rights and Wrongs of Property and Labor," by John Gibbons; "Therapeutics: its Principles and Practice," by H. C. Wood, M.D. (new seventh edition); "A Treatise on Mine-Surveying, for the Use of Managers of Mines and Collieries," by Bennett H. Brough (with numerous illustrations); "Two Centuries of Irish History, 1691-1870," with introduction by James Bryce, M.P.; "United States Dispensatory," new sixteenth edition, by H. C. Wood, M.D., Joseph P. Remington, and Samuel P. Sadtler; "Untrodden Paths in Roumania," by Mrs. Walker (with 78 illustrations); "Walks in Palestine," the letterpress by H. A. Harper (illustrated by 24 photogravures from photographs taken by C. V. Shadbolt, Esq.); "With the Camel Corps up the Nile," by Count Gleichen, nephew of Queen Victoria (with numerous illustrations); "Worcester's New Academic Dictionary," entirely new edition, the etymology of words a distinctive new feature, reset from new type, and printed from new plates; "Worcester's New Comprehensive Dictionary," entirely new edition, containing over 48,000 words in common use, with an appendix of 15,000 proper names, new illustrations, reset from new type, and printed from entirely new plates; and "The Writer's Hand-book, a Guide to the Art of Composition," forming a new volume of the Reader's Reference Library.

— Houghton, Mifflin, & Co. will shortly publish a volume of the late Asa Gray's reviews of botanical literature during the past fifty years, selected and edited by Professor C. S. Sargent.

— F. W. Christern, New York, will be the American agent of Santa-Anna Nery's elaborate work on Brazilian folk-lore, recently published in Paris. The book has a preface written by Prince Roland Bonaparte.

— *The Chautauquan* for February contains, among other things, "Gossip about Greece," by J. P. Mahaffy of Dublin University; "Socrates," by Thomas D. Seymour of Yale University; "Greek

Art," by Clarence Cook; "Music among Animals," by the Rev. J. G. Wood; "Taxation," by Professor Richard T. Ely of Johns Hopkins University; "Hospitals," by Susan Hayes Ward; "The Power-Loom," by Charles Carleton Coffin; "A Summer Meeting in Oxford," by Herbert B. Adams; "The City of the Sultan," by Eugene L. Didier; "The Modern Migration of Nations," by Hjalmar Hjorth Boyesen; "Petroleum in Russia," by P. de Tchihatchef; "The Carlisle Indian School," by Frances E. Willard; "Robert Elsmere: An Open Letter from the Rev. Lyman Abbott"; "The Sons of Eminent Men in Office," by Mrs. Carl Barus.

— A prospectus of a monthly magazine to be called *Poet-Lore*, and to be devoted solely to the illustration of Shakspeare and Browning, and to the comparative study of poetic literature, has just been issued. It is signed by Charlotte Porter, late editor of *Shakespeariana* (from August, 1886, to December, 1888), and Helen A. Clarke, whose address is 223 S. 38th Street, Philadelphia. Dr. W. J. Rolfe will contribute to its study department a series of questions and helps for the study of Shakspeare's plays, beginning in the February number with "Love's Labor's Lost," and continuing with later plays. The "Explanatory Index to Allusions in Browning's Pauline," given in the January number, will be continued through the later poems. Dr. Horace Howard Furness' lectures on Shakspeare, delivered at the University of Pennsylvania, will appear in extracts made by Dr. Furness for this publication. W. H. Wyman's "Bacon-Shakspeare Bibliography" will be continued from the December number of *Shakespeariana*. "Browning's Poetic Form," a seminary (Johns Hopkins) lecture, by Professor A. H. Smyth; "Shakspeare's Verses in Chester's Love's Martyr," by Professor William T. Harris of the Concord School of Philosophy; "French and English Literature of Elizabeth's Day," by Professor M. W. Easton; and other contributions by Professor Hiram Corson of the Cornell University, Dr. H. L. Wayland, Michel N. Damiralis of Athens, Talcott Williams, and others, — are promised.

— D. C. Heath & Co. will put on the market shortly a series of games and charts for home and school use, based on the most approved principles of kindergarten training, prepared by Mme. Warwedel, the distinguished kindergartner of San Francisco, formerly of Washington. They have also nearly ready Scott's "Lay of the Last Minstrel," edited and annotated by T. E. Wetherell.

— G. P. Putnam's Sons will publish at once "The Pocket Gazetteer of the World," a dictionary of general geography, edited by J. G. Bartholomew, uniform with the "Pocket Atlas"; "The Nursery Lesson-Book," a guide for mothers in teaching young children, with illustrations in outline and a selection of songs set to music, by Philip G. Hubert, jun.; "Principles of Procedure in Deliberative Bodies," by George Glover Crocker; and three volumes of poetry, — "The Rose of Flame, and other Poems," by A. R. Aldrich; "Idyls of the Golden Shore," by H. Maxwell; "Mastor, a Drama," by John Ruse Larus.

— Charles C. Soule has just published a volume entitled "The Australian Ballot System, as embodied in the Legislation of Australia, Europe, and the United States," — a compilation of the ballot acts of South Australia, Queensland, Great Britain, Belgium, Kentucky, New York, and Massachusetts, with portions of the same of Tasmania, New Zealand, West Australia, Victoria, New South Wales, Dominion of Canada, Ontario, Quebec, Luxemborg, Italy, and other countries, with an historical introduction and cuts and diagrams.

— A prize of fifty dollars is offered by *The Academy* for the best essay on "English in Secondary Schools." The increased prominence of English in school programmes, and the lack of any generally accepted plan or system of work, have prompted the editor of *The Academy* to offer this special inducement to those who have devoted thought to the teaching of English, and who have definite ideas of the method of such teaching. The essays may be upon the teaching of English literature, methods of grammatical study, composition work or rhetoric, etc., but no weight will be attached to arguments in favor of teaching English. Contestants must confine themselves simply to practical exposition of results sought, and of the means of attaining these results in the schoolroom. While

literary merit will not be disregarded, the decision of the judges will rest mainly on the practical help afforded to teachers by the article. The competition is open to all persons, without regard to age, sex, color, or previous condition of servitude. The following are the conditions: No paper is to exceed in length 5,000 words; the paper awarded first prize by the committee shall become the property of *The Academy*; any papers of special merit, which may receive honorable mention, shall also become the property of *The Academy*; papers must be legibly written, so as to be published without copying, must be signed with a fictitious name (the real one being enclosed in a sealed envelope), and must be received at the office of *The Academy* on or before April 15, 1889. Manuscripts not receiving prize or honorable mention will be returned if stamps are enclosed. The names of the committee of award will be published. If further information is desired, address *The Academy*, Syracuse, N.Y.

— Dr. J. M. Toner of Washington has just brought out, in a handsome brochure, "Washington's Rules of Civility and Decent Behavior," found among the early writings of the first President, and now published in full, from the original text. They make thirty-four pages, and are believed by Dr. Toner to be an original compilation made when the compiler was only thirteen years old.

— Messrs. Belford, Clarke, & Co. will remove to new quarters Nos. 18-22 E. 18th Street, New York, about the 1st of February.

— We have received the third volume of the "Transactions and Proceedings of the Modern Language Association of America," being an account of the meeting held in Philadelphia in December, 1887, with the papers there read. The different essays, fifteen in number, are on a great variety of topics, but we can only notice a few of them. Some, indeed, are so technical that but few persons can enjoy or even understand them; while one or two were read only in part, and some that were read are not yet published. Of those before us, one of the most generally interesting is the opening one, by Mr. James MacAlister, on "The Study of Modern Literature in the Education of our Time." The author takes extreme ground in favor of modern literature as against the ancient, holding that "the literatures of the modern world are entitled to the first place in the intellectual culture of our time, and should therefore be made the chief instruments of literary training in the schools." Of course, the general sentiment of the meeting was with him in this opinion; but lovers of the classics will perhaps think that the question cannot be so summarily disposed of. Another paper of general interest is that of Professor Kroeh, on "Methods of Teaching Foreign Languages." The author reviews the various methods that have been employed, and pronounces in favor of the "natural" or conversational method; but, in the course of the discussion that followed, Professor Leidensticker suggested, that, though the "natural" method was best for giving a speaking knowledge of a foreign tongue, the grammar and reader were better for imparting a reading knowledge of it. Other papers read were on "The Style of Anglo-Saxon Poetry," on "Lord Macaulay's English," and other literary themes; and others still, on strictly philological subjects, such as "The Origin of the Teutonic Weak Preterite;" but these we can only allude to. There were also some essays with a distinctly local flavor; in particular, one by Professor Fortier on "Louisiana Folk-Lore," and another by Professor Primer on "Charleston Provincialisms;" both of which will be interesting not only to philologists, but to many others. It seemed to be the sentiment of the members present that the study of such local themes is specially incumbent on American philologists, the more so because local and dialectical peculiarities are fast disappearing under the influence of the common schools. The essays as a whole betray two distinct tenden-

cies, — the philological and the literary; or, in other words, the scientific and the æsthetic; and in some of the discussions that followed the reading of each paper these two tendencies came into collision. There seems, however, to have been great harmony of feeling at the meeting, notwithstanding many divergences in views. We are glad to add that the association passed a resolution in favor of repealing the tariff on foreign books; and we should be happy to record a similar act on the part of Congress.

— Miss Dora Wheeler, the well-known decorative artist, has given much of her spare time during the past two or three years to painting, either in pastel or oils, a series of portraits of authors here and abroad, many of whom are numbered among her personal friends. Unfortunately several of those of English authors who had given her sittings during her stay in London, in 1886, including Mrs. Thackeray Ritchie, Mr. Walter Besant, Mr. Thomas Hardy, and Mr. Austin Dobson, whose further acquaintance the American public is always glad to make, were lost in transit. Since that time her sitters have been exclusively American authors; and she has finished, or nearly finished, portraits of Mrs. Stowe, Mrs. Burnett, Mr. Lowell, "Mark Twain," Mr. Warner, Mr. Howells, Mr. Aldrich, Mr. Stockton, Mr. Burroughs, Walt Whitman, and others. The interesting announcement is made that these portraits will be given as frontispieces through the year for *The Literary News*, New York. Mrs. Stowe is portrayed in the January number, and Mrs. Burnett will be given in that for February.

— Ensign Hayden's nautical monograph No. 5, just published by the Hydrographic Office, is a graphic and picturesque report of the famous March blizzard. It is illustrated with four maps showing the advance and culmination of that extraordinary atmospheric convulsion.

— Mr. von Lindheim, an Austrian engineer, has compiled the statistics of street railroads in Europe. The development of such roads dates back not more than fifteen or twenty years. In England, France, Germany, Belgium, Holland, Austria, and Switzerland there are 221 cities having street-railroads. Among these, 118 are in England, 43 in Germany, and 23 in France, there being no city of less than twenty thousand inhabitants having such roads, while in the United States they are found in cities of not more than one thousand inhabitants. In Europe there existed in 1886-87 4,330 miles of street-railroads, while the United States had 5,932 miles. England had 883 miles on which 416,518,423 passengers were carried. In Germany 245,657,503 passengers were carried on 523 miles of road. In England 472,356 passengers were carried over each mile; in Germany, 468,874; in France, 545,815. There were 3,345 street-cars in Germany, 3,494 in England, and 2,780 in France, against 22,940 in the United States. In the latter, 92,203 horses, 12,217 mules, and 248 locomotives were in use on street-roads. Of considerable interest is the comparison of distance travelled each day by the horses. In Berlin a horse gives an average of 16.1 miles; in Posen, even as much as 16.7 miles; in Vienna, 14.5 miles; in Paris, 9.9 miles; and in Hamburg, 13.7 miles. The use of mechanical motors in place of horses is steadily increasing. It is particularly desirable in those places where the daily variations of traffic are considerable. In Berlin, for instance, the Sunday and holiday traffic is 27 per cent of the whole, and in Vienna even amounts to 34 per cent, while on Wednesday the street-cars are very little used. Mr. von Lindheim is a strong advocate of the use of electric traction in street-railroads, and states that in Europe the cost of horse-traction is 1.47 if that of electric traction is assumed as 1.

— Ticknor & Co. announce among their January books, "Steadfast," by Rose Terry Cooke; "Great Captains," by Col. Theodore Ayrault Dodge, U.S.A., — a series of six lectures delivered before

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the Lowell Institute, Boston, in 1889, devoted to Alexander, Hannibal, Cæsar, Gustavus Adolphus, Frederick, Napoleon, and the record of their achievements and the analysis of what each of them contributed to military science; "Ancient and Modern Light-Houses," by Major D. P. Heap, Corps of Engineers, U.S.A.; a new edition of "Discourses on Architecture," by E.-E. Viollet-Le-Duc, richly and copiously illustrated with hundreds of steel engravings and woodcuts, translated from the French by Benjamin Bucknall; a new and cheaper edition of "A Hand-Book of Christian Symbols and Stories of the Saints, as illustrated in Art," by Clara Erskine Clement and Katherine E. Conway; and "His Two Wives," a novel, by Mary Clemmer, being No. 50 of Ticknor's Paper Series.

#### LETTERS TO THE EDITOR.

\*. \*Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.

Twenty copies of the number containing his communication will be furnished free to any correspondent on request.

The editor will be glad to publish any queries consonant with the character of the journal.

#### Dew-Point and Predictions of Weather.

ONE of the most serious drawbacks to a discussion and utilization of humidity records has been the lack of proper observational methods, and also of tables of reduction. As late as 1884 we find in Guyot two distinct tables for reducing observations with the psychrometer (the usual instrument for determining humidity) which give results differing by more than sixty degrees at extreme dryness. Perhaps nothing can indicate better the hopelessness, as late as 1887, of nearly all attempts at solving the problem of the relation between the dry and wet thermometers and the dew-point, than the announced determination of the meteorological committee to omit a table for the psychrometer from their compendium of tables for international use. It will be generally admitted that such a table is the most important and most needed of any in meteorology. The most serious difficulty in nearly all investigations has been a lack of ventilation of the psychrometer.

In September, 1883, the sling psychrometer, which combines all the admirable qualities of perfect ventilation and accuracy, great speed of action, and extreme portability, was adopted in this country.<sup>1</sup>

With this the true relation between the quantities mentioned above was determined in 1884, and published in February, 1885; and this has been used in the latest tables, leaving nothing now to be desired except observations to check the formula at extreme dryness, such as does not occur east of the Rockies.

I propose to discuss a few recent observations with the sling psychrometer. It might be a question as to the best form in which to study the moisture of the air. The relative humidity, the difference between the dew-point and air temperature, the dew-point itself, the absolute humidity, and the vapor pressure, have all had advocates. It may be remarked that the second of these, being a deduction from two quantities which are often rapidly varying in opposite directions, seems a little uncertain. The fourth and fifth are similar to the third.

The following propositions regarding the dew-point are set forth: 1. The diurnal change in air temperature does not affect the dew-point; 2. The temperature change from day to day does not change the dew-point; 3. The air temperature is generally very near the dew-point at sunrise, and farthest from it at 2 or 3 P.M.; 4. The air temperature in its fluctuations from day to day follows the dew-point; 5. Direction and velocity of the wind do not in general affect the dew-point; 6. The same may be said of fluctuations in air-pressure; 7. The most marked rise in the dew-point occurs on the approach of a storm having an abundance of rain and during rain itself (the time of beginning and ending of rain cannot be foretold from the dew-point); 8. The most marked fall in the dew-point is caused by the advance of a high area, as was to be expected; 9. The most marked feature of the dew-point is its constancy, though at times it has a range in several days far greater than the air temperature, yet it quickly recovers from a fall

<sup>1</sup> My attention has just been called to the use of a sling psychrometer by Espy in Philadelphia in 1834. His results, which were not entirely satisfactory, were far ahead of his time, and till quite recently exceeded in accuracy all others since. As is so often the case, they seem to have attracted little or no attention.

or rise to a normal position, depending on the season and other general causes; 10. The dew-point is the same in all parts of a quite extended region.

The fourth of these is one of the more important, and seems to follow from the third. We have usually been taught that the air temperature on a clear night will continue to fall till the dew-point is reached, when there will be condensation of moisture, and liberation of latent heat, which will prevent the further fall in temperature; but it will be found, that, except after a long rain and in a fog, the air temperature never reaches the dew-point. Very often on clear nights the latter falls, and draws the former after it. If this proposition can be established, there may be a chance to predict changes in air temperature from the dew-point, though they are very close together.

On many accounts the seventh proposition is the most interesting of all. Does the atmosphere in this case gradually sink down? This usually would *increase* the dryness. The wind does not appear to carry the moisture, for this steady rise occurs in a calm. Moreover, the direction of the wind, as coming from the earth's surface, makes little or no difference. It is very evident that the dew-point cannot be used in predicting rain. Under the eighth proposition it should be noted that the fall in the dew-point ceases in a few hours, and long before the pressure has reached a maximum. The figures from which these propositions arise will shortly be published elsewhere. It would be gratifying if others are stimulated to make similar research.

H. A. HAZEN.

Washington, Jan. 16.

#### Horns of the Prong-Buck (*Antilocapra*).

THE other evening, while reading an article on the *Artiodactyla*, by Professor Cope, in the *American Naturalist* for December, 1888, I was much surprised at finding the following note: "Antilocapra is sometimes separated from the Bovidae as the type of a family, because it is said to sometimes shed its horn-sheath. This character, *were it really normal*, has no significance sufficient for the establishment of a family division" (Italics mine).

This doubt as to the shedding of the horn-sheath was so entirely foreign to what I had been led to believe, both by observation and reading, that I took the pains to look over what little literature I possess touching the subject; and, finding it so uniformly in favor of the shedding theory, I write, asking if your readers can give any additional facts in the case.

Owen (*Anatomy of Vertebrates*, London, 1868, vol. iii. pp. 626, 627) gives a description of the shedding of the horns, and growth of new ones, noticed by Mr. Bartlett in the Zoölogical Gardens of London in 1865; also notes of Dr. Canfield at Monterey, Cal., from 1855 to 1857, on a young male in captivity. Dr. Canfield is also quoted: "In the months of December and January I have never killed a buck with large horns; and at that time of the year all the bucks appear to be young ones, because their horns are so small; whereas in the spring and summer months almost all the bucks appear to be old ones, for their horns are then large and noticeable." Dr. Canfield also states that "in the summer months the line of demarcation between the horn and skin from which it grows is very apparent and abrupt; whereas in winter there is no demarcation, the horn being very soft at its base, and passing insensibly into cuticular tissues, and the horny substance being covered thinly with hair."

Gill (*Arrangement of the Families of Mammals*, Washington, 1872, p. 72) says of *Antilocapridæ*: "Horns deciduous, peculiar to the rutting-season (in both sexes), developed as pseudocorneous sheaths, with agglutinated hairs on osseous cores originating from the frontal bones." Gray (*Hand-List of the Edentate, Thick-skinned, and Ruminant Mammals in the British Museum*, London, 1873, p. 135) evidently believes in this shedding, because he places *Antilocapra* under a separate sub-order, *Dicranocera*, instead of merely a separate family. Mivart (*Lessons in Elementary Anatomy*, London, 1883, pp. 245, 246), on ecdemonic appendages, says, "and only in an anomalous form, the prong-buck (*Antilocapra*), are these horny structures shed at intervals;" Huxley (*A Manual of the Anatomy of Vertebrated Animals*, New York, 1883, p. 327), "But in the remarkable prong-horned antelope of North America (*Antilocapra*) the horny sheath is annually shed,