present them with logomachies which they resent. . . . Many of the problems which vex society have an historical origin, sometimes a present cause, though more rarely. Now, I have made it my business in these lectures . . . to examine into and expound the history of social facts." Professor Rogers does not fail to express himself as to the folly and shortsightedness of purely speculative economics. Passages where his opinion concerning such treatment of his science is freely made known abound in these pages. One of the cleverest and most timely is this: "Perhaps the most remarkable Nemesis which has come on the speculative economist is that the definition of Population by Malthus, and the definition of Rent by Ricardo, have been made the keystone to Mr. Henry George's theory, under which he demands the confiscation of Rent in the interests of Population."

The close connection between the rise and power of the great cities of Germany and Italy, and the development of transcontinental commerce, we all know about. We are not so clear, however, about the historical causes of early English labor legislation, of the rise of the various forms of tenancy, and of ship-money; or about the economic effects of the guilds, the apprentice system, and the income-tax. On all of these subjects Professor Rogers writes clearly and learnedly.

The valuable chapter on the origin and history of *laissez faire* is, in our judgment, one of the very best in the book. We should go a step beyond Professor Rogers in criticising that principle and pointing out its inherent fallacies; but his very conservatism on this subject, and the measured force of his words, will carry greater weight with his *laissez-faire* countrymen than would an analysis of a more radical and far-reaching character. We lay the book down with the feeling that in reading it we have obtained a clearer insight both into the economic facts of the past and into the economic science of the future.

AMONG THE PUBLISHERS.

MODERN art has been so largely and so directly influenced by the French schools of painting, that a new work which analyzes and traces to its source this influence will be sure of a hearty welcome. The comprehensiveness of Mrs. Stranahan's 'A History of French Painting' (New York, Scribner) is its distinctive feature. More than any other national art except Italian, and more than any other modern art whatever, the course of French painting has been an evolution. Each school has clearly arisen out of national æsthetic conditions, and each one has legitimately developed its successor. No work, of the same general kind even, so distinctly presents this scientific historical interest as does this 'History of French Painting.' The book is compact with biographical and other statistical details, and has an account of the fostering of art by the State, which in France has always played so large a part in æsthetic development. An account is given of the French Academy of Painting, with its *salons*, schools of instruction, etc.; and not only the masterpieces of French painting, but all works of either individual interest or historical importance, are critically described, and their location in public and private galleries is pointed out. It is useful as a book of reference and for general reading. The paintings which have been reproduced include Meissonier, Millet, Troyon, Bouguereau, Watteau, Gérôme, David, Poussin, Daubigny, Bastien-Lepage, etc.

— *The Popular Science Monthly* for last July contained an article on house-drainage, which excited much interest and criticism. This vital subject will be further treated from various points of view in the January *Monthly*, in an illustrated article by Dr. John S. Billings, U.S.A., who is an acknowledged authority on sanitary science. Among other articles, we note 'The Guiding-Needle on an Iron Ship,' by Lieut.-Commander T. A. Lyons; and 'Science and its Accusers,' by W. D. Le Sueur. In the same number Mr. E. R. Shaw will tell how he made geometry a pleasure to his pupils, using the 'Inventional Geometry' prepared by Herbert Spencer's father.

From 'A History of French Painting.' THE THREE MUSES. *Charles Scribner's Sons.*

— The November number of the *American Meteorological Journal*, Ann Arbor, Mich., contains articles on 'The Influence of Forests upon the Rainfall and the Flow of Streams,' by Prof. George F. Swain, of the Massachusetts Institute of Technology; on 'Tornadoes,' by Dr. Gustavus Hinrichs, director of the Iowa Weather Service; and on 'Diurnal Cloud and Wind Periods, at Blue Hill Observatory during 1887,' by H. H. Clayton; etc.

— A. B. Ward, the author of 'Hospital Life,' in a recent issue of *Scribner's*, will contribute to the January number 'The Invalid's World,' which includes the doctor, nurse, and visitor. It is now known that 'A.B. Ward' is the pen-name of a woman. Dr. George P. Fisher of Yale will write regarding the amenities which should be observed in all respectable controversies, but which are generally violated. In General Alexander's article on 'Railway Management,' the mystery of making time-tables will be explained. Ex-Postmaster-General Thomas L. James will contribute an article on 'The Railway Postal Service,' and W. C. Brownell's group of essays on 'French Traits' will be continued. The Right Rev. Henry C. Potter, bishop of New York, will contribute the final paper to *Scribner's Magazine* for February. It is in the series by eminent men, which replaces Mr. Stevenson's monthly essays.

— Instead of enlarging the *Writer* and increasing its price, as its publisher had planned, he will publish a companion monthly, to be called the *Author*. The first number is promised Jan. 1, and will contain selected and original matter of special importance to writers.

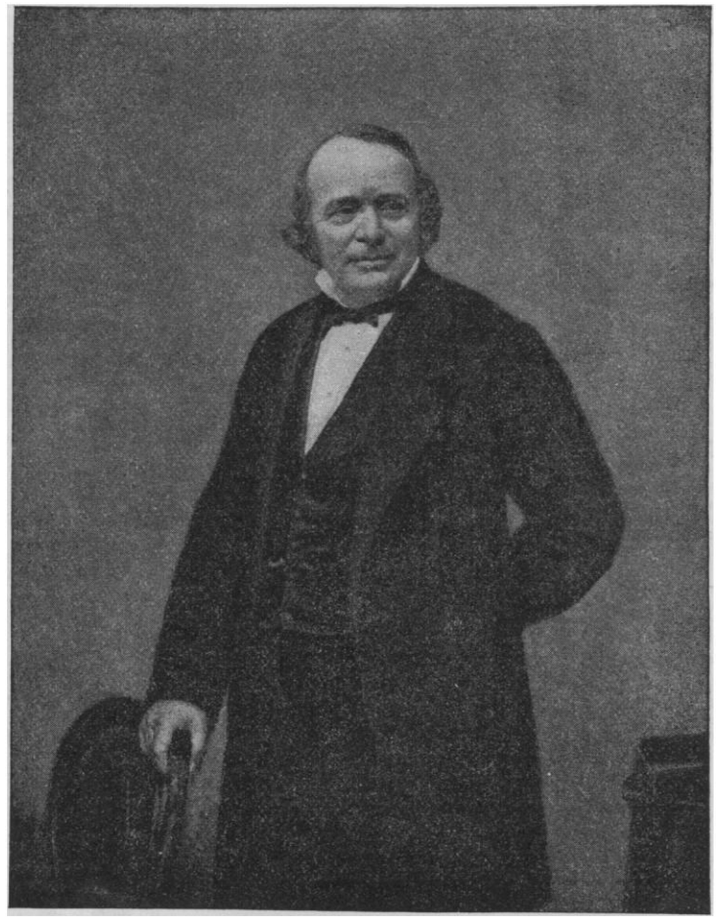
— For young people, the 'Children's Stories of the Great Scientists,' by Henrietta Christian Wright (New York, Scribner), equals in interest the author's two previous books, which have attained popularity as supplementary readers. It deals, in a simple, entertaining manner, with sixteen of the great men of science, giving a brief, readable account of their lives and of what discoveries they made. The narratives are fresh and animated, having that graphic picturesqueness which is rarely found in the treatment of such topics. The portraits of Galileo, Newton, Franklin, Agassiz, Faraday, Darwin, and others, reflect excellently the characters of the men. These short biographical chapters contain a large amount of information on almost every branch of science.

— D. Appleton & Co. have now ready 'The Household History of the United States and its People, for Young Americans,' by Edward Eggleston. A school edition of this work was published last September.

— "The book of the week," says G. W. Smalley in the *Tribune* for Dec. 2, is "Earl Stanhope's 'Notes of Conversations with the Duke of Wellington.' This little volume abounds in anecdotes of the most interesting kind; interesting, above all, as giving the duke's opinions in his own words on people and events in his own time."

— Harper & Brothers published last week the handsomely bound book of 'Old Songs,' illustrated by Edwin A. Abbey and Alfred Parsons. They will publish on the 14th, in their popular Young People Series, another volume by Kirk Munroe, entitled 'Crystal Jack & Co.,' but which also includes a shorter story, 'Delta Bixby;' Mr. Howells's new novel, 'Annie Kilburn;' and Walter Besant's 'All Sorts and Conditions of Men.'

— The committee on publication of the Grolier Club, New York, announces in *The Publishers' Weekly* of Dec. 8, that, owing to unavoidable delays in the editing, and in the preparation of suitable type and engraved ornaments, it has been impossible to issue, as early as anticipated, the long-promised new edition of the 'Philobiblon.' This work, it may be interesting to note, was written by Richardus d'Aungerville, an English prelate, called also Richard de Bury, who was born at Bury St. Edmunds, in Suffolk, in 1281. He was educated at the University of Oxford, and entered the order of Benedictine monks. On the accession to the throne of Edward III., whose instructor he had been, he was promoted to various offices of dignity, and was finally made bishop of Durham, as well as lord high chancellor and treasurer of England. At Oxford he founded a library for the use of the students, which he furnished with the best collection of books then in England; and for the keepers of this library he wrote the 'Philobiblon,' which contains directions for the management of the library, and an elaborate eulogy of learning, and the most charming treatise on the love of books, in Monkish Latin, which was first printed at Cologne, 1473, then at Spires, 1483, and finally at Oxford, 1599. In his researches abroad, Professor West of Princeton discovered in the various public libraries of Europe a number of early manuscripts of the 'Philobiblon,' and has made an exhaustive study and collation of these, adopting the reading which, upon comparison, seemed to him authentic. The result, it is hoped, has been the production of a text and translation which will probably hereafter be considered as the



LOUIS AGASSIZ.
From 'Children's Stories of the Great Scientists.' *Charles Scribner's Sons.*

only true and genuine edition of Richard de Bury's treatise. All the early printed editions, without exception, have been found full of errors, and the translations based upon them are of course incorrect. The new book will be furnished to subscribers as soon as it can be properly done, about April 1, 1889. Subscriptions will be received up to the 10th of January next, when the lists will be closed, and the printing proceeded with without delay.

— *The Atlantic Monthly* for 1889 (published by Houghton, Mifflin, & Co.) will contain in addition to the short stories, essays, sketches, poetry, and criticism, three serial stories, — 'The Tragic Muse,' by Henry James; 'The Begum's Daughter,' by Edward L Bynner; and 'Passe Rose,' by Arthur Sherburne Hardy (this story began in the September number, and will continue until April). American subjects will be discussed by Mr. John Fiske, whose articles on these topics are equally thoughtful and engaging. Several novelettes, in two and three parts, will appear during the year. From time to time *The Atlantic* has contained important papers on topics relating to education, by men of large experience and of exceptional ability to discuss educational principles and methods. It will contain similar papers in the future, as important questions shall arise; also occasional poems by John G. Whittier, essays and poems by Oliver Wendell Holmes, occasional papers and poems by James Russell Lowell, and several poems by Thomas Bailey Aldrich. Contributions during the year 1889 may be expected from John G. Whittier, Oliver Wendell Holmes, James Russell Lowell, Francis Parkman, Charles Eliot Norton, T. W. Parsons, Thomas Wentworth Higginson, P. G. Hamerton, Charles Dudley Warner, E. C. Stedman, F. Marion Crawford, Harriet W. Preston, Sarah Orne Jewett, 'Charles Egbert Craddock,' Mrs. L. C. Wyman, Edith M. Thomas, Horace E. Scudder, J. P. Quincy, George E. Woodberry, Herbert Tuttle, William C. Lawton, George Frederic Parsons, Maurice Thompson, Lucy Larcom, Celia Thaxter, Julia C. R. Dorr, Agnes Repplier, Olive Thorne Miller, Bradford Torrey, Percival Lowell, Octave Thanet, Margaret Deland, and many others. *The Andover Review* (published by the same firm) is a religious and theological review, under the editorial control of Professors Smyth, Tucker, Churchill, Harris, and Hincks, of the Andover Theological Seminary. The November and December (1888) numbers of both magazines will be sent free of charge to new subscribers for 1889 whose subscriptions are received before Dec. 20. Houghton, Mifflin, & Co. publish also *The Journal of American Folk-Lore*, a quarterly magazine, each number containing about ninety-six pages, octavo, edited by Dr. Franz Boas of New York; Prof. T. F. Crane of Cornell University; the Rev. J. Owen Dorsey of the Bureau of Ethnology, Washington, D.C.; and Mr. W. W. Newell of Cambridge, Mass., general editor.

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.

The Moon's Light for Geodetic Signals. — Electric Storms on High Peaks in Nevada and Utah.

TRIALS of the moon's light with a view of determining its effectiveness for signals in the primary triangulation of the Coast and Geodetic Survey were undertaken by William Eimbeck, assistant in the survey, in 1883, at Pioche station, Nevada. The results obtained over a line of twenty-two miles in length were sufficiently promising to warrant a resumption of the experiments over longer lines.

In 1887 the occupation of Mount Nebo — a station of the transcontinental triangulation in central Utah, at an elevation of twelve thousand feet above sea-level — afforded the desired opportunity. At three of the stations of the triangulation connecting with Mount Nebo the heliotropers were duly instructed to show the moon's light for two hours continuously between the 29th of June and the 4th of July, the moon's age between these dates ranging from first quarter to full moon. They were to begin during twilight, or about forty-five minutes after sunset, and to substitute for their heliotrope-mirrors reflectors of extra size, proportioned to the length of the respective lines of sight. These were forty-eight statute miles to Draper, seventy to Onaqui, and ninety-seven to Ogden; and the diameter of the mirrors ranged from six to eight inches at Draper, eight to ten inches at Onaqui, and twelve to eighteen inches at Ogden.

The atmospheric conditions proved unfavorable, high winds, a murky atmosphere, and a decidedly hazy sky prevailing, except upon the nights of the 2d and 3d of July, when the lights from the selenotropes at Draper and Onaqui were plainly visible in the illuminated field of the telescope. Distinctness and steadiness were the most striking characteristics of these signals. They shone as mere dots of white light, and, for precise pointing, were of ideal perfection. The light at Ogden was not seen.

Mr. Eimbeck's conclusion from these trials is, that during a period of from twelve to fifteen days in each lunation the moon's light can be used to much advantage for geodetic signals in the altitudes of the arid regions of the interior, upon lines trending in all directions, if they do not exceed about fifty miles in length.

Referring to the electric thunder-storms that prevail in the higher mountains of Nevada and Utah during July and August, and not unfrequently hover about the King Peaks for days in succession, Mr. Eimbeck observes that these storms are at times very severe, and not without danger. They were especially so towards the close of the occupation of Mount Nebo in July, and also at Tushar and Jeff Davis Peaks, lasting for over seven days. The violence of the electric exhibitions, and the almost constant detonations of the discharges of electricity, were so grand and overpowering that the parties of heliotropers stationed at Tushar and Jeff Davis Peak abandoned their stations in alarm for their lives. Those at Tushar returned after the storm had abated, but those who had been at Jeff Davis Peak (13,100 feet in height) refused.

The effect of these storms upon experienced officers of the survey is to produce a great strain upon the nervous system, and the sudden fall of temperature with which they are attended is a source of much physical discomfort. With the mercury almost down to freezing-point and an atmosphere of moist iciness, the body becomes benumbed, and the mind sluggish. There is also the apprehension, not without reason, of instant death by lightning. The summit of one of the peaks was often struck, and also the tent occupied by the men, but fortunately at a time when no one was in it.

EDWARD GOODFELLOW.

Washington, D.C., Dec. 5.

Answers.

40. FELSPAR, OR FELDSPAR? — This mineral name seems to have been first used by Wallerius in 1747, in his 'Mineralogia,' in the form 'felt-spat,' meaning field-spar. The early German form was 'feld-spath.' In the appendix to the English translation of Cronstedt's 'Mineralogy' (p. 8) we have it 'field-spar.' In Edwards's 'Fossilogy,' 1776, we have (p. 54) 'feltspat,' going back to the Swedish form. Kirwan, in 1784, 'Mineralogy' (p. 124), has the form 'felt-spar.' In the second edition of his 'Mineralogy,' however (1794, vol. i. p. 317), Kirwan has the following note: "This name seems to me derived from *fels* ('a rock'), it being commonly found in granites, and not from *feld* ('a field'); and hence I write it thus, 'felspar.'" This unwarrantable assumption of Kirwan was followed by later writers, and so the corruption came into use. In Schmeisser's 'Mineralogy' (1795, vol. i. p. 131) we have only 'feldspar.' Jameson (1804, vol. i. p. 275) says 'felspar,' but in a footnote, "More properly 'feldspar.'" Phillips, in his first edition, gives both derivations, i.e., from *feld* and *fels*, but in the later editions only from the former. Cleaveland (1822) uses 'feldspar,' while Thomson (in 1836) says 'felspar.' In Dana's 'Mineralogy' (fifth edition, 1868, p. 352) we find, "Feldspath, *Germ.;* feldspar, *Engl.;* felspar, *bad orthogr.*" Webster's, Worcester's, Stormouth's, and Skeat's Dictionaries derive the word from '*feld* spath,' though both spellings are given. It is clear, therefore, that the original word was 'feldspar,' and that 'felspar' is a corruption from a mistaken idea of its origin. But the latter has been used so much, and for so long, that it has its place in the language, and no one who prefers it can be criticised for using it.

ALBERT H. CHESTER.

Hamilton College, Clinton, N.Y., Dec. 10.