

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 high 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) 'felspat,' 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.