

The only point of the least interest in the matter (if the matter has any interest at all) is the fact that Prof. Newcomb did not discuss the observations of 1769, as I had believed. I have already admitted this, and withdrawn those expressions of commendation which I had founded on the strongly-worded letter of Prof. Smyth, so that I am rather at a loss to know what purpose Mr. Lynn had specially in view when he wrote his letter. I thank him, however, as warmly as though I knew what he meant.

RICHD. A. PROCTOR

### SCIENCE AT THE UNIVERSITIES

THE following courses of lectures will be delivered at the University of Oxford in Natural and Physical Science during the ensuing term:—The Sedleian Professor of Natural Philosophy, the Rev. Bartholomew Price, M.A., will deliver a course of Lectures on Light, on Tuesdays, Thursdays, and Saturdays, at one o'clock, commencing October 19th, at the Lecture Room, Museum, Upper Corridor South. The Savilian Professor of Astronomy, the Rev. C. Pritchard, M.A., proposes to give two courses of lectures during the present term; the one on Astronomical Instruments, the other on the Lunar Theory. The Professor of Experimental Philosophy, R. B. Clifton, M.A., will give a course of Lectures on Experimental Optics, on Wednesdays and Fridays, at twelve o'clock, commencing October 20, at the Physical Laboratory, University Museum. The Physical Laboratory of the University will be open daily for instruction in Practical Physics, from ten to four o'clock, on and after Thursday, October 19. The Linacre Professor of Anatomy and Physiology, G. Rolleston, D.M., will lecture on Circulation and Respiration, on Tuesdays, Fridays, and Saturdays, at one o'clock, commencing October 20, at the Museum. The Professor proposes to form classes for Practical Instruction, as in former terms. Persons who join these classes will come to the lectures on Saturdays at one o'clock, and will also come to the Museum on three mornings in the week for study and demonstration, under the superintendence of Mr. Charles Robertson, the Demonstrator of Anatomy, and Mr. C. S. Taylor, of Merton College. The Hope Professor of Zoology, J. O. Westwood, M.A., will not lecture during the present term, being engaged in the classification of the Hope, Burchell, Bell, and other collections, at the New University Museum, where he will be happy to see gentlemen desirous of studying the Articulated Animals, daily, between 1 and 5 P.M. A course of lectures will be given on behalf of the Professor of Chemistry, by A. Vernon Harcourt, M.A., in continuation of the Professor's course, on Tuesdays and Saturdays, at eleven o'clock, commencing October 21, at the Museum. There will also be an Explanatory and Catechetical Lecture on Thursdays, at eleven o'clock, to commence on Thursday, October 26. The Laboratory of the University will be open daily for instruction in Practical Chemistry from 9 A.M. to 3 P.M., on and after Monday, October 16. The ordinary course of instruction in the laboratory includes those methods of Qualitative Analysis, a knowledge of which is required of candidates for honours in the School of Natural Science who make Chemistry their special subject. In addition to this two courses of instruction will be given in the Laboratory, the one on the Methods of Qualitative Analysis, the other a course of elementary practical instruction in Chemical Manipulation, intended for those commencing the study of Chemistry.

At Cambridge the following lectures in Natural Science will be delivered during Michaelmas Term in connection with Trinity, St. John's, and Sidney Sussex Colleges:—On Electricity and Magnetism (for the Natural Sciences Tripos), by Mr. Trotter, Trinity College, on Mondays, Wednesdays, and Fridays, at 10, commencing Wednesday, October 18. On General Physics, Sound, and

Light (for the Natural Sciences Tripos 1872, and following years), by Mr. Trotter, Trinity College, on Tuesdays, Thursdays, and Saturdays, commencing Thursday, October 19. On Chemistry, by Mr. Main, St. John's College, on Mondays, Wednesdays, and Fridays, at 12, in St. John's College Laboratory, commencing Wednesday, October 18. Attendance on these lectures is recognised by the University for the certificate required by medical students previous to admission for the first examination for the degree of M.B. Instruction in Practical Chemistry will also be given. On Palæontology (the Protozoa and Coelenterata), by Mr. Bonney, St. John's College, on Mondays, Wednesdays, and Fridays, at 9, commencing Wednesday, October 18. On Geology (for the Natural Sciences Tripos, preliminary matter and Petrology), by Mr. Bonney, St. John's College, on Tuesdays and Thursdays, at 9, commencing Thursday, October 19. A course on Physical Geology will be given in the Lent Term, and on Stratigraphical Geology in the Easter Term. Papers will be given to questionists every Saturday at 11. On Botany, for the Natural Sciences Tripos, by Mr. Hicks, Sidney College, Tuesdays, Thursdays, and Saturdays, at 11, beginning on Tuesday, October 31. The lectures during this term will be on Vegetable Morphology. Mr. Hicks will also give examination papers in Botany to candidates for the next Natural Sciences Tripos on Mondays, at 1 P.M., beginning October 30. These examinations will be free to those who have attended the botanical lectures of the last term. On the Elements of Physiology, by the Trinity Prælector in Physiology (Dr. M. Foster), Mondays, Tuesdays, and Wednesdays, at 11 A.M., commencing Monday, October 23. A course of Elementary Practical Physiology, on Wednesdays and Thursdays, commencing Wednesday, October 25, at 2 P.M.

### AN EXPLOSION (?) ON THE SUN\*

ON the 7th of September, between half-past 12 and 2 P.M., there occurred an outburst of solar energy remarkable for its suddenness and violence. Just at noon the writer had been examining with the telespectroscope an enormous protuberance or hydrogen cloud on the eastern limb of the sun.

It had remained, with very little change since the preceding noon, a long, low, quiet-looking cloud, not very dense or brilliant, nor in any way remarkable except for its size. It was made up mostly of filaments nearly horizontal, and floated above the chromosphere, with its lower surface at a height of some 15,000 miles, but was connected to it, as is usually the case, by three or four vertical columns brighter and more active than the rest. Lockyer compares such masses to a banyan grove. In length it measured 3' 45", and in elevation about 2' to its upper surface, that is, since at the sun's distance, 1" equals 450 miles nearly, it was about 100,000 miles long by 54,000 high.

At 12.30, when I was called away for a few minutes, there was no indication of what was about to happen, except that one of the connecting stems at the southern extremity of the cloud had grown considerably brighter, and was curiously bent to one side; and near the base of another at the northern end a little brilliant lump had developed itself, shaped much like a summer thunder-head.

What was my surprise, then, on returning in less than half an hour (at 12.55), to find that in the meantime the whole thing had been literally blown to shreds by some inconceivable uprush from beneath. In place of the quiet cloud I had left, the air, if I may use the expression, was filled with flying *débris*—a mass of detached vertical fusiform filaments, each from 10" to 30" long by 2" or 3" wide

\* From the *Boston Journal of Chemistry*, communicated by the author.