

In the spectra of some of the July meteors a red line was also observed, but a blue one was looked for in vain; yet the professor would not deny that the red line in question may have been a potassium line and that the blue $K\beta$ was simply overlooked on account of its extreme weakness.

The meteors observed on August 12 and 13 resembled those observed in July in almost all details. Thus a yellow meteor of the first magnitude was observed, which evidently originated from the Perseus radiating point. In the spectrum of the head of this meteor, besides the bright sodium line, the lithium lines were distinctly visible; three seconds later another meteor of about the second magnitude passed through the field of the spectroscopic in a direction exactly parallel to the former one, and the spectrum of both head and tail in this case was simply a tolerably bright continuous one, without any appearance even of the bright sodium line.

At 10h. 46m. 10s. Prof. von Konkoly saw a magnificent meteor in the north-eastern sky; it moved very slowly, its colour was emerald green, its brilliancy equal to that of Jupiter; he at once directed his spectroscope towards it. At the first appearance the head showed the sodium line only, but soon a number of lines were seen in the green and blue, of which one was recognised as a magnesium line, while others were suspected to be copper lines. There were also two faint lines visible in the red. On August 14 several other meteors were observed with the spectroscope, but only one was seen in the spectrum of which a faint red line appeared besides the sodium line; of these meteors several were of the first magnitude and did *not* show the sodium line; other ones of a lesser magnitude showed the sodium line very brightly besides a continuous spectrum more or less brilliant.

At the same observatory two stationary meteors were observed: one by Capt. von Reviczky on July 26, at 11h. 48m. O-Gyalla mean time (position: 2h. 0m. R.A. and 29° 0' decl. N., magnitude 3); the other by Herr J. Rosenzweig, the assistant at the observatory, on August 11 at 9h. 47m. 1s. O-Gyalla mean time (position: 2h. 14m. R.A. and 55° 18' decl. N., magnitude 3).

The total numbers of shooting stars of the two showers referred to, which were observed at O-Gyalla were as follows:—

						Meteors.
July	25	...	...	...	...	72
"	26	...	...	...	...	87
"	28	...	...	...	...	26
August	11	...	...	...	...	110
"	12	...	...	...	...	50
"	13	...	...	...	...	50
"	14	...	...	...	...	35

UNIVERSITY AND EDUCATIONAL INTELLIGENCE

THE Calendar of the Yorkshire College for the sixth session (1879-80) has just been published. It appears this year for the first time in stiff covers, and with the prospectus of the Leeds School of Medicine makes a book of 204 pages. The growth in the size of the calendar corresponds with the extension of the College curriculum, for several new classes are announced for the approaching session, which begins on October 7 next. Mr. W. Philp, M.A., B.Sc., has been appointed mathematical and classical tutor, and the College authorities have thus been able to arrange for a systematic oversight of students who are preparing for the examinations of the University of London. The Natural Philosophy lectures are now arranged in two courses. The first year's course comprises the requirements for London Matriculation, viz., Mechanics, Optics, and Heat; the second year courses, those for the B.A. and other degrees, viz., Mechanics, Heat, Acoustics, Light, Electricity, and Magnetism. The Chemistry Classes remain the same as last year. Students have the privilege of pursuing a course of practical chemistry in the laboratory at times convenient to themselves, and for such periods as they are able to devote to that study. The Saturday morning chemistry lecture and practical class are to be continued, schools and teachers having largely availed themselves of this opportunity in past sessions. The arrangements and the classes in Mathematics, Geology and Mining, Biology, Zoology and Comparative Anatomy, Botany, Civil and Mechanical Engineering, Latin, Greek, French, German, Oriental Languages, Coal Mining, and Textile Industries remain for the most part unaltered, but the important subject of Mental and Moral Science has been added, Logi_c

being taken in the earlier part of the session, and Psychology in the later part. The classes in Modern Literature and History have been multiplied and rearranged, so as to give a complete course in Literature and History for the London Matriculation and 1st B.A. examinations, a complete course on the special subjects in Literature and History for the Cambridge Higher Local examination, and a course of History for the Cambridge Senior and Junior Local examinations, besides other classes for students not reading for examinations. The fees in some of these classes are fixed on a very low scale, to meet the requirements of teachers and others preparing for the University Local examination. This is an endeavour to extend the usefulness of the college, which will, no doubt, be warmly appreciated by the large class of persons directly affected by it. The department of Textile Industries continues to receive the attention it deserves, and although the students cannot be located in their new premises at Beech Grove at the opening of the Session, as had been hoped, their interests have been amply provided for in the temporary class rooms and in the weaving annexe in Cookridge Street. The practical value of the instruction given by Mr. Beaumont is widely recognised, and we observe that the committee are doing what they can to impress on the students in this department the value of a thorough acquaintance with the most important branches of textile manufacture. Arrangements for the establishment of a school of dyeing are in an advanced state. In the evening classes there are to be courses of lectures on Mechanics, Chemistry, Geology, Biology, Botany, and Engineering, and classes in Latin, Greek, English Grammar, and Textile Industries. A somewhat bold experiment is to be tried by the introduction of two short courses of lectures of a more popular character than the ordinary evening class lectures.

MR. T. JEFFERY PARKER, B.Sc., Demonstrator of Biology in the Royal School of Mines, has been appointed to the new lectureship on Biology at Bedford College, York Place, Portman Square.

THE City and Guilds of London Institute for the Advancement of Technical Education have issued a detailed programme of subjects in which examinations will be held in 1880. It embraces a great variety of subjects, in the more scientific of which some eminent men of science have been obtained as examiners. Any one interested in the matter will, no doubt, obtain a copy of the programme by applying to the Secretary, Mercers' Hall, E.C.

M. JULES FERRY has published a regulation tending to diminish the importance given to the *Compositions des Prix* in the several French educational establishments and to shorten the time assigned to the young competitors for writing their essays. Much dissatisfaction is felt by teachers and the best pupils at Government trying to repress the sense of emulation. It is expected that petitions will be sent to the French Parliament protesting against the supposed retrograde step taken by the Administration.

SCIENTIFIC SERIALS

Annalen der Physik und Chemie, No. 7.—In the opening paper, on electric limiting layers, Prof. Helmholtz studies the case where there is a difference of potential at the limiting surface of two different bodies, giving, along this surface, what he calls an "electric double layer," as, e.g., when a zinc and a copper plate, in metallic connection, are approximated to each other. He groups together, in this relation, the phenomena of metallic electrodes in an undecomposed electrolyte, frictional electricity, flow of liquids on solids, and applies an explanation of the last-named case to various recorded phenomena of electrical action in liquids.—Herr Beetz describes a new investigation of the heat-conducting power of various liquids. The differences in this property, according as the temperatures were above or below 20°, are made manifest, and the discrepancies of previous data in part explained. The phenomena of heat conduction in liquids are considered to depend on mechanical molecular processes, or friction phenomena, as Kohlrausch has shown to be the case with electrolytic conduction.—A paper by Herr Barus treats of the thermo-electric position and electric conductivity of steel in its relation to hardening. He shows that the steel bars examined fell into two classes, those of the one class (the harder) being electro-negative to copper, those of the other (the softer) electro-positive. A simple method of classing steel is deduced from this.—In a second communication on experimental determination of