



distant resemblance in both to the comet of Bela. Lord Lindsay's observatory, with its two accomplished Anglo-German observers—MM. Copeland and Lohse—is doing good work, for just as we go to press it is announced that, by the use of Pickering's method of search, there has been sighted a small bi-nuclear gaseous planetary nebula "in  $\alpha = 21^{\text{h}}. 2^{\text{m}}. 11^{\text{s}}. 8, \delta = +47^{\circ} 22' 2''$  for 1880; or in Pos.  $240^{\circ}$ , Dist.  $22''$  from D.M.  $+47^{\circ} 32' 89''$ ." It must be a very remarkable object.

In biology, the publication of Mr. Darwin's new book will be the greatest event of the month. The celebrated philosopher, in his seventy-second year, seems as vigorous as ever, and in his calm, undogmatic, modest way of putting his theories presents a marked contrast to some of his self-sufficient pupils, who treat as the ravings of a lunatic the slightest objections to any of their crude hypotheses. The kernel of his last treatise is that the distinction between the lower animals and the higher plants is not nearly so salient as had until recently been believed, although the boundary lines have been rapidly breaking down under the assaults of modern chemistry and microscopy. He furnishes a vast series of fresh observations on the "circumnutation" of leaves, stems, and rootlets, in addition to compiling numerous others from published works, and shows that every part of a growing plant is continually moving, describing slowly and imperceptibly narrow circles or ellipses, which he has been able to portray by means of the lines which a glass thread attached to ends of the circumnutating organs describes on sheets of smoked glass. The ultimate cells of the tip of a young rootlet are especially sensitive—so sensitive indeed to moisture, light, hard or soft objects and other physical and meteorological surroundings, that Mr. Darwin compares them to the brain of animals. Certainly, he has given an extraordinary account of the "intelligence" of the delicate organ, and of the almost human power of adapting itself to circumstances in order to profit by them, which the leaf displays. There is little Darwinian in the book, unless it be the demonstration that there is such a thing as teleology, which is not a favourite view of the evolutionists. However, Mr. Darwin is like Jack Wilkes, who told the King that he was "not a Wilkesite." He is not much of a Darwinian, in the sense which his indiscreet followers would misrepresent him to be. Speaking of Darwinism reminds us of a pretty little quarrel which that unhappy *Challenger* Expedition is again exciting in the dovecots of science. The whole affair has been from the beginning to the present date a heart-burning. It was an expedition fitted out by that economical Chancellor of the Exchequer—Mr. Robert Lowe—for his friend Dr. Carpenter. But when Dr. Carpenter could not get leave of absence from the University of London, he recommended Dr. Wyville Thomson for the enviable post. Professor Thomson was not a very eminent naturalist, and in England there were others much better qualified to conduct so important and costly an expedition. But Dr. Thomson was appointed, and after he got furlough from Edinburgh University, to the astonishment of the English naturalists and the cheering of the Continental ones, who delight in representing our country as devoid of science, he invited a Professor-Extraordinaius of Leipsig to conduct his chair. Then, out of the five assistants he took with him, two were foreigners, though young Englishmen quite as well qualified were ready to give their heads to go. After this gigantic scientific picnic had finished, a new scandal broke out. Dr. Thomson—now Sir Wyville—with that kindness and total want of jealousy which distinguishes your thorough-paid *savant*, distributed for description the best part of the collections, not to his own countrymen, who were the best authorities on the subject, but to foreigners again! Next, the two large volumes of preliminary report which Sir Wyville issued were proved in the pages of the scientific journals—and the assertions were never contradicted—to be disfigured by the grossest blunders in elementary natural history. Now, the great work of this costly national "fad" is reported to be approaching completion, and a specimen-sheet or two has been passed around. There is not much of it by Sir Wyville himself. But evidently the less the better, for in a letter to a scientific journal Mr. Darwin points out that the head of the *Challenger* expedition displays the most lamentable ignorance of his doctrines—which are criticised—albeit these have been before the world for twenty-one years. Sir Wyville's reply only makes things worse, and altogether the world is beginning to be convinced that Mr. Wallace is right in the criticisms he passes on these great circumnavigating expeditions. They yield like the *Challenger* a vast amount of valuable material, but if the large sums they cost had been distributed among individual naturalists sent to explore particular regions, the results would have been greater and more satisfactory.

Professor Geikie has ventured on what he calls a "new" theory of volcanoes. Finding the well-known Snake River region in Idaho and Oregon covered with sheets of lava, without the appearance of any apparent crater from which it could have been vented, he concludes that there may be volcanoes without cones. Any one who has seen or heard of lava pouring out of a hillside need not be astonished at this, though in a hurried ride over a well-known region it seems rather presumptuous in a tourist to offhand decide on its geology in a matter so important. In geography there is nothing very fresh. Mr. Thomson has given an account of his stewardship to the Geographical Society. But all his tale had already been told in the pages of their monthly "Proceedings." Mr. Leigh Smith promises an account of his discoveries in Franz Josef-Land. Sir Allen Young is off on a yacht expedition, which may or may not end in the Antarctic regions. There is to be an effort to get up a new Arctic expedition—not the ballooning farce, it is needless to say—in the direction of Franz Josef-Land. Baron Mieluchomacklay, the Russian, is likely soon to return home from his long years of exploration in New Guinea, about which his fellow explorer, D'Albertis, has just published a ponderous treatise. Finally, when we mention that the Danish expedition to Greenland has not added much new to their former interesting accounts of the "inland ice," we have taken into account the main features of the past month's science.

## NEWS FROM TURKEY.

Constantinople: Nov. 19.

The sun disappeared on Sunday evening behind heavy banks of clouds, which threatened for the morrow a wet and uncomfortable ride for His Majesty the Sultan, whose imperative duty as Sovereign and Caliph demands that he shall take his place in the procession to Mosque on the occasion of the Courban Baïram. Rain did come down during the night; but shortly before the Padisha appeared on the open grounds sloping down from Yildiz Kiosk to Dolmabahçhé the sun rose, and, as if saluting the illustrious head of Islam, parted the clouds asunder, and diffused a warm glow over the chill, damp morning, thus allowing the procession to be seen to great advantage by the numerous foreign visitors who had prolonged their stay, in order to behold one of the most interesting sights Constantinople affords. To many of the Sultan's lieges, who had looked forward to this festival time for payment of long arrears due to them, Courban Baïram brought but partial relief. The *employés* of the most favoured department received only one month's pay. Those of the Evcaf, or Pious foundations, were paid half in cash and half in promises, whilst those of the Admiralty had neither the one nor the other. Again, the Police on the Stamboul side of the Horn were favoured above their brethren on the Pera and Galata side, since they had one month's pay, whilst the others got only for a fortnight, a distinction which gives rise to the reflection that the Guardians of the Public Security of Moslem Stamboul are considered more worthy of encouragement than those of the comparatively Christian quarters of Galata and Pera, or, what is more likely, that the Porte thinks the inhabitants of Stamboul better worth protecting than those of Pera. On the justice-tempered-with-mercy principle the Sultan has caused 130 prisoners to be set at liberty on the occasion of the Courban Baïram, and has conferred on each of them the order of the Medjidie, as represented by a new coin of that value, a piece of liberality which the Zaptiehs, who have received only a fortnight's pay, are inclined to look upon as a case of "robbing Peter to pay Paul." But however straitened in its resources the Porte may be in other matters, it never grudges the expenditure on gunpowder used in the observances of its religious festivals. The Baïram salutes seemed louder and brisker this time than ever, expressive, one fancied, of a lighter heart. Five times in each twenty-four hours the roar of cannon broke over Constantinople, and rolled up the Bosphorus as each battery on Asiatic and European shore thundered its salute of twenty-one guns, finally dying away over the storm-tossed waves of the Euxine. Baïram, with its promotions and decorations, often casts a ray of light upon the darker workings of Imperial policy. It is especially noteworthy this Baïram, that the highest distinctions in the gift of the Sultan, that of the Nishani Imtiyaz, has been bestowed upon Kurd Ismail Pasha, the commander of the Imperial Guard and "head centre" of the Kurdish League, I may say its founder. A number of minor decorations have been bestowed on other Kurds; indeed, the share of honorific distinctions falling to Kurds has sufficiently shown what is the real Imperial sentiment towards this people. If you ask in official circles how the Porte views the Kurdish rising in Persia you are told that it is