

April 4, 1878]

NATURE

455

SINCE Mr. Darwin demonstrated processes similar to digestion in the plant organism, attention has been largely given to the discovery of substances of the nature of ferment in plants. M. van der Harst, of Utrecht, has lately examined the seeds of

the garden bean (*Phaseolus vulgaris*) in this respect. He finds in these, when in germination, a ferment which can be extracted by means of glycerine. It has the power of transforming albuminous matter into peptones, and starch meal into glucose. It occurs exclusively in the seed lobes.



sanctioned by the Ministry of Public Instruction, and these excursions are quite distinct from the lectures which will be organised on a large scale, as we mentioned a few weeks ago.

THE museum in the Paris Jardin des Plantes has lately been enriched by two very valuable collections. The first includes a vast variety of anthropological and ethnographical objects gathered by M. Pinart during his voyages in Polynesia, among which might be mentioned more especially the ancient stone statues from Easter Island, executed by a race unknown to the present inhabitants. The second consists of over 40,000 specimens in natural history, collected by M. Raffray in New Guinea, chiefly birds and insects.

M. SOLEIL, the well-known optician of Paris, who invented and patented the optical saccharimeter, patronised by Arago, has died at St. Gratian. He was eighty years of age, and had retired for the last twenty years.

ONE of the newly-opened streets in the Luxembourg Gardens, Paris, close to the Observatory, has been called "Rue Herschel," as a compliment to English astronomy.

IN the February session of the Deutsche anthropologische Gesellschaft, Prof. Bastian gave an interesting address on the occurrence of similar weapons among widely-separated African tribes, describing more particularly a peculiar kind of javelin, found by Schweinfurth on the eastern coast, by Pogge in the Gaboon region, and by other explorers in the Fan tribe of the interior. On the Gaboon coast it is preserved at present as a fetish, being no longer used. This, as well as other examples, tends to show the common origin of all the African races. The remains of an art closely allied to that of ancient Egypt even, have been discovered on the western coast by Dr. Pogge, who has brought back images, on which the beard and coiffure were the counterparts of those decorating the Egyptian statues 3,000 years ago.

IT has been stated by Mr. Rodwell (NATURE, vol. ix. p. 8), that the ancient Egyptians were acquainted with the principle of the "rider" in the balance. According to M. Wiedemann (*Annalen der Physik*) who has examined over 100 representations of Egyptian balances, this is based on a mistake. The Egyptian balance is a simple equal-armed one; a hook on the upper part of the stand supports a cord with terminal weight, or a plumb-line. In representation (perspective being unknown to the Egyptians), the hook and weight, as seen from the side, were drawn in the plane of the balance, so that the weight, in badly made figures, seems to hang, not from the hook, but from the balance-beam.

WE have received the Report of the Registrar-General of the province of Ontario for 1876. To the usual tables with the Report is added an interesting appendix by Mr. T. H. Monk, on the influence of the weather on the mortality of Toronto. The results show, so far as can be looked for, from one year's mortality numbering only 1,664 deaths, a general correspondence with those obtained by Mr. Buchan and Dr. Arthur Mitchell in their large inquiry into the influence of weather on the mortality of London. We hope Mr. Monk's suggestions will be carried out and that the inquiry will be extended so as to embrace the whole province, the health as well as the mortality of the people, and the registrations of the more prominent, if not of all the diseases, be printed for each week, in order to test more decisively the connection between weather and health and how far changes in the health and mortality of the people and the spread of epidemics may be foretold, as well as changes of weather, now so efficiently carried on in North America.

SINCE Mr. Darwin demonstrated processes similar to digestion in the plant organism, attention has been largely given to the discovery of substances of the nature of ferment in plants. M. van der Harst, of Utrecht, has lately examined the seeds of

the garden bean (*Phaseolus vulgaris*) in this respect. He finds in these, when in germination, a ferment which can be extracted by means of glycerine. It has the power of transforming albuminous matter into peptones, and starch meal into glucose. It occurs exclusively in the seed lobes.

A CORRESPONDENT sends us the following extract from a letter of one of the officers of the ship *Newcastle*, of London. It is dated Brisbane, Sunday, 30th December, 1877. "Last Friday (28th) in the afternoon, it came over very black, so we expected a thunderstorm. Well, it came on to blow from the south, and then to hail. At first the hailstones were about the size of a marble, but they continued to increase, until they became as large and exactly the shape of a tomato. The captain weighed three and found that the three together weighed one pound. I was on the poop, under the awning, but the awning was blown adrift, which compelled me to beat a hasty retreat. Nearly all the glass in our large saloon ports on the starboard side is broken. To-day, when I was on shore, the houses in Queen Street, facing the south, looked as though there had been a great fire, not a pane of glass left, and in many cases the frames gone altogether. Of course, the backs of the houses on the other side of the street must have suffered to the same extent. During the squall, which lasted about three-quarters of an hour, the river was one mass of foam, caused by the hailstones raining upon its surface in such numbers."

AN interesting archæological discovery has been made at Canello in the neighbourhood of Naples, by the uncovering of the cemetery of the ancient city of Luessula. The excavations made thus far have brought to light an immense number of interesting objects of ancient Greek civilisation. At Clermont-Ferrand, also, in Southern France, an old Roman villa has been laid bare and found to possess a rich treasure in the way of ornaments, &c.

AN interesting geological discovery has recently been made at Donaueschingen (Baden). A complete and very well-preserved skeleton of the prehistoric musk-deer (*Cervus elaphus muscosus*) has been found in the neighbourhood of this little town. The horns are of gigantic size and show over forty ends; it is asserted that this skeleton is the first complete one known.

M. LUIGI PONCI describes, in *L'Elettricista*, a new electric battery of great simplicity. It consists of the usual glass jar and porous cylinder; the latter, however, is filled with a solution of ferrous chloride (35° Beaumé), and has for a pole an iron plate, while the external solution is of ferric chloride (also 35° B.), and contains a carbon pole. The electro-motive power is 0.9 of that of a Daniel cell.

A ST. PETERSBURG correspondent, "C. S.," desiring to purchase a dictionary of chemistry, writes that he would gladly avail himself of a critical comparison of existing works of the kind. He suggests that a comparative estimate might be given through the pages of this journal. At the same time one of our Paris correspondents writes us on the appearance in Paris of the 25th number of the French "Dictionnaire de Chimie pure et appliquée," edited by Prof. Würtz; closing with the article on Vanadium. This important work was commenced by Prof. Würtz in 1869, assisted by a corps of twenty-five leading French chemists, and although delayed materially by the war and its results, has been pushed forward vigorously, until it is now on the eve of completion. It will form altogether five volumes, numbering nearly 5,000 pages, and will be the first record of chemistry approaching completeness in the French language. The chemist is still dependent in a great measure on the English language, for the seven bulky volumes of Watts's "Dictionary," including its two supplements, form the most extensive as well as most recent