

from the time of pollination to the grand maximum; one of decline in the daily increase and rise in the daily decrease from the grand maximum to the beginning of ripening; and the ripening period. During this latter period an extended decrease, due to transpiration, lasting throughout the daily hours, was quickly followed by the maximum increase. At the time of the grand maximum the fruit gained 782 grammes in weight during twenty-four hours. The variations in length of the internodes occurred simultaneously with corresponding increase and decrease in the weight of the fruit.

THE Natural History Museum acquired last year some very remarkable corals, the largest weighing as much as fifteen hundred pounds. Two of these specimens have furnished Prof. Jeffrey Bell with subject for a note "On the variations observed in large Masses of *Turbinaria*," in the April *Journal* of the Royal Microscopical Society. The note is accompanied by two plates reproduced from photographs, and the point to which it directs attention is the considerable difference in size and form of the calices in different portions of the same mass of coral. The plates show totally distinct forms comparatively close to one another, though the large mass, of which they represent parts, may be taken to be formed by a single species—*Turbinaria mesenterina*. The variability may, Prof. Bell points out, partly account for the difficulty which all students of corals have in determining specimens of the genus *Turbinaria*.

A YEAR ago the Board of Trinity College, Dublin, deposited in the Dublin Science and Art Museum the collection of weapons, &c., chiefly from the South Sea Islands, in their possession. A catalogue of the collection has now been prepared and published, with an introduction by Dr. V. Ball, the Director of the Museum. The collection has been known by common tradition as the "Cook Collection"; but a careful search has failed to bring to light direct evidence that the objects were really sent home by Captain Cook, though some of them are identical with objects figured in "Cook's Voyages." There is little doubt, however, about the reality of the association of the objects with the voyage, for the Minutes of the Board of Trinity College record that they were presented to the College in 1777 by Dr. Patten, who has been identified as the surgeon of the *Resolution* during Cook's second voyage. Part of the collection appears to have reached the College through the relatives of Captain King, who brought home the *Resolution* and *Discovery* after Captain Cook had been murdered. A brief statement as to other museums where collections of Cook's weapons are preserved, is given by Dr. Ball in the introduction to the catalogue. It is stated that in Great Britain the British Museum collection is the best in the world. Next to it in importance, in England, comes the collection in the Pitt-Rivers Museum. The Hunterian Museum in Glasgow University also contains some specimens, but how many is uncertain. So far as Dr. Ball has been able to ascertain, the museums on the continent which possess Cook collections are, arranged alphabetically, at Berne, Florence, Göttingen, Lausanne, Munich, Stockholm, and Vienna.

MESSRS. WILLIAM WESLEY AND SON have issued a very full catalogue of works on geology, offered for sale by them. The catalogue contains classified titles of more than two thousand different volumes, memoirs, and separate papers of interest to geologists. R. Friedländer and Sohn, Berlin, have sent us Nos. 1-5 of this year's *Nature Novitates*. Bibliographers well know that the lists form a good index to current scientific literature. We have also received a catalogue, from Felix L. Dames, Berlin, containing titles of works on the invertebrates.

THE additions to the Zoological Society's Gardens during the past week include a Rhesus Monkey (*Macacus rhesus*, ♀) from India, presented by Mr. Julius Scovell; a Pig-tailed Monkey (*Macacus nemestrinus*, ♀) from Sumatra, presented by Mr. D.

Orville B. Dawson; three Maholi Galagos (*Galago maholi*) from South Africa, presented by Miss Van Beren; a Crowned Hawk Eagle (*Spizaetus coronatus*) from South Africa, presented by Dr. Schinland; an Antipodes Island Parrakeet (*Cyanorhynchus unicolor*) from Antipodes Island, New Zealand, presented by Sir Walter L. Buller; a Leopard Tortoise (*Testudo pardalis*), a Cape Viper (*Causus rhombeatus*) from South Africa, presented by Mr. J. E. Matcham; three Green Lizards (*Lacerta viridis*) from Jersey, presented by Masters J. S. and A. H. Hills; a Common Viper (*Vipera berus*) from Hampshire, presented by Mrs. P. C. Mitchell; two Angora Goats (*Capra hircus*, var.), born in the Gardens.

OUR ASTRONOMICAL COLUMN.

SATURN'S RINGS.—In a recent communication to the Royal Astronomical Society, Prof. Barnard states that his measurements of the rings of Saturn show that no changes have taken place since the first systematic measures were made, and that there is no ground for the supposition that the rings are closing in upon the planet.

SEARCH EPHEMERIS FOR COMET 1884 II.—Dr. Berberich gives the following search ephemeris for Barnard's periodic comet of 1884 (*Ast. Nach.* 3260):

		R. A.		Decl.	
		h.	m.	s.	
May 2	22	5	36 -18 24
10		35	16 15 38
18	23	3	54 12 40
26		31	20 9 35
June 3		57	26 6 27
11	0	22	7 3 22
19		45	20 -0 24
27	1	6	59 +2 25

The positions are for Berlin midnight, and the probable error amounts to 20m. in R.A. and 3" in decl. The comet passes from Aquarius to Cetus early in June, and remains in that constellation throughout the month. It must be looked for before sunrise.

THE HAMBURG OBSERVATORY.—From the report of the Hamburg Municipal Observatory we learn that the chief astronomical researches during 1894 had to do with the movements of comets and minor planets, and with the changes in variable stars of long period. Two memoirs of some importance have also been published (*Mitt. der Hamburger Sternwarte*, Nos. 1 and 2, 1895). The first of these is a catalogue of the positions of 105 nebulae and star-clusters, reduced from observations made in the period 1871-1880, by Dr. Pechüle and the present director, Prof. G. Rümker. The positions have been deduced from micrometric measures in relation to known comparison stars, and are tabulated for the epoch 1875. Comparisons are made with the results of other observers, and, considering the difficulties attending the observations, there is a good all-round accordance of results; but it seems yet too early to expect much information with regard to proper motions. The second memoir is an investigation by Dr. Carl Stechert of the orbit of the minor planet Tycho (258) and of the perturbations produced by Jupiter and Saturn. It is shown that the probable apparent semi-diameter of the planet at opposition is about 0".05, the true semi-diameter being something between 50 and 80 kilometres. An ephemeris is given for observations during the opposition of June 20, 1895.

THE LATE M. TROUVELOT.—By the death of M. L. Trouvelot, on April 22, observational astronomy has lost one of its foremost workers. M. Trouvelot was born at Guyencourt, in 1827, and after the *coup d'état*, he went to Cambridge, U.S.A., where he lived until 1882. His first published works, which appeared in 1866, were on natural history subjects; later he became an astronomer at the Harvard College Observatory, and commenced the observations of the sun and planets which have made his name known to all students of celestial science. Shortly after the Meudon Observatory was founded, he returned to France, and has since then carried on his work in it. Trouvelot's important observations of the planet Venus, published in 1892, are still fresh in the minds of astronomers. He also paid attention to the planets Jupiter and Saturn. His beautiful drawings of celestial objects and phenomena observed by him are to be found in many works on astronomy.