a fully-developed member of it. It need hardly be pointed out that authentic records, such as are given in the present paper, of ceremonial rites of aboriginal tribes are of increasing scientific value, even though the significance of the rites is not understood. Among other subjects of papers in the volume of *Proceedings* referred to above are :—Entropy meters, a method of determining the specific heat of a liquid ; the geology of Coimaidai, with appendices on the marsupial bones of the Coimaidai limestone and the graptolites of the district ; the structure of an Australian land leech (*Philæmonpunge*, n.s.) ; and a catalogue of the marine shells of Victoria.

IN the current number of the *Berichte*, J. H. Aberson describes a very interesting substance, which appears to be a new isomeride of malic acid. This compound occurs in many species of Crassulaceæ, and has the composition, molecular weight and chemical composition of malic acid, $C_4H_6O_5$, but differs from this very markedly in its behaviour when heated. Ordinary malic acid under these circumstances yields water and fumaric acid or maleic anydride, whereas the new isomeride is converted into a volatile double anhydride or malide, $C_8H_8O_8$, formed from two molecules of the acid, small quantities of fumaric and maleic acids and other products being also formed. The new acid is, moreover, more strongly dextro-rotatory than ordinary malic acid, and yields salts which differ from the malates in several important particulars. The author considers that the new compound is geometrically isomeric with ordinary dextro-malic acid, but that in it the free rotation of the two carbon atoms has in some way been arrested, so that the atoms and groups attached to these are not in that "most favoured" position, by the aid of which Wislicenus has been able to formulate so clearly the production of fumaric and maleic acids from the ordinary acid. It has not, however, been hitherto found possible to convert the new acid into the better-known modification, although the author promises to describe at an early date a method for its synthetical production. If this new form of the acid really has the configuration assigned to it, further research will no doubt reveal the corresponding lævo-rotatory and inactive (racemic) acids, the number of isomeric malic acids being thus brought up to six.

THE additions to the Zoological Society's Gardens during the past week include a Bonnet Monkey (*Macacus sinicus*, ♂) from India, presented by the Lady Tichborne ; a Pig-tailed Monkey (*Macacus nemestrinus*, ♀) from Java, presented by Mr. J. Ratillon ; two Rhesus Monkeys (*Macacus rhesus*, ♂ ♀), a Bonnet Monkey (*Macacus sinicus*, ♀) from India, presented by the Parks Committee, Tynemouth ; a Lioness (*Felis leo*) from Somaliland, presented by Mr. Henry S. H. Cavendish ; a Mouflon (*Ovis musimon*, ♂) from Corsica, presented by Mr. H. Brinsley Brooke ; a Jackal Buzzard (*Buteo jacal*) from South Africa, presented by Mr. J. E. Matcham ; a Royal Python (*Python regius*) from West Africa, presented by Mr. W. G. Woodrow ; a Chimpanzee (*Anthropopithecus troglodytes*, ♀) from West Africa, a Brush Turkey (*Talegalla lathami*) from Australia,, a Glaucous Macaw (*Anadorhynchus glaucus*) from Paraguay, a Yellow-crowned Penguin (*Eudyptes antipodum*), a Thick-billed Penguin (*Eudyptes pachyrhynchus*) from New Zealand ; six Argentine Tortoises (*Testudo argentina*) from Patagonia, a Nilotic Trionyx (*Trionyx triunguis*) from North Africa, a White-throated Monitor (*Varanus albigularis*) from South Africa, four Wagler's Terrapins (*Hydraspis wagleri*) from Brazil, deposited ; a Lesser Koodoo (*Strepsiceros imberbis*, ♂), a Beisa Antelope (*Oryx beisa*, ♂), two Hagenbeck's Jackals (*Canis hagenbecki*) from Somaliland, three Japanese Teal (*Querquedula formosa*, ♂ ♀ ♀) from North-east Asia, two Black-winged Pea-fowl (*Pavo nigripennis*) from Cochin China, a Rufous Rat Kangaroo (*Æpyrymnus rufescens*, ♂) from New South Wales, purchased ; two Bennett's Wallabies (*Macropus bennetti*, ♂ ♀), a Brush-tailed Kangaroo (*Petrogale penicillata*, ♀), a Japanese Deer (*Cervus sika*, ♀), born in the Gardens, five Upland Geese (*Chloephaga magellanica*), bred in the Gardens.

OUR ASTRONOMICAL COLUMN.

COMET PERRINE (JUNE 14).—The following is a continuation of the ephemeris from last week. The comet is rapidly decreasing its northern declination and becoming brighter.

1898.	R.A. (app.) h. m. s.	Decl. (app.)	log r.	log Δ	Br.
July 7	5 44 14	+48° 16′7			
8	49 48	47 28·6			
9	55 18	46 38·4	9·8958	0·1744	4·02
10	6 0 45	45 45·8			
11	6 9	44 51·0			
12	11 30	43 53·9			
13	6 16 49	+42 54·5	9·8435	0·1585	5·51

LATITUDE VARIATION IN A RIGID EARTH.—In an article contributed to the *Physical Review* (vol. vi. No. 3), Prof. Henry Crew discusses the movements of the earth's axis in terms of elementary dynamics, and calls attention to the "beautiful, but much neglected, top which Maxwell first spun at Edinburgh some forty years ago." Besides giving an excellent illustration of the top itself, Prof. Crew adds also an account of the adjustments that are necessary for its accurate working, and describes the various phenomena which it will illustrate, such as nutation and precession, statical stability and dynamical instability conferred by rotation, variation of latitude, and effect of polar ice-caps. In the mathematical treatment above referred to, Prof. Crew recalls the fine illustration employed by Maxwell, that the motion of the earth is practically that of a circular hoop rolling, but not slipping, on a stick of circular cross section, the word "practically" being used as the earth, in sections parallel to the equator, is not circular but elliptical. The theory here expounded shows that this hoop does represent the motion of a freely rotating rigid solid fixed at its centre of mass. Prof. Davidson's extensive and accurate series of observations (*Astr. Journal*, No. 323) receive here due attention.

CONFERENCE OF ASTRONOMERS AT HARVARD.—In consequence of the great success of the conference of the astronomers held last year at the Yerkes Observatory, it is proposed to hold a second meeting this year, and further to continue them annually. As the American Association for the Advancement of Science will meet in Boston on August 22, on the occasion of the fiftieth anniversary of its foundation, it has been decided to hold the conference at the Harvard College Observatory on August 18, 19 and 20. The circular, which we have received from Prof. E. C. Pickering, tells us that the proposed plan will enable visiting astronomers to attend this meeting, and those who are members of the Association can avail themselves of the special rates which have been obtained from hotels and railroads. Those who intend to go are requested to send in their names, and titles of papers if they intend to read any. Besides showing the work of the various departments of the observatory, excursions will be planned to various neighbouring scientific institutions, including the Blue Hill Meteorological Observatory, the Massachusetts Institute of Technology, the laboratories of Harvard College, &c.

A FINE COLLECTION OF METEORITES.—There has just been published a most interesting and valuable catalogue and guide to the collection of meteorites in the Paris Natural History Museum. Prof. Stanislas Meunier, who occupies the chair of Geology, tells us in his preface that in 1861 they only possessed 64 meteorites, and the first published catalogue comprised 86 falls. In 1864 the number rose to 160, and in 1889 the list consisted of 367 distinct meteorites. Since that date the museum has obtained possession of numerous new additions, and the present catalogue deals with 463 distinct falls. The catalogue itself is very well arranged. We have first a list of the different types which up to the present are known and exhibited in the museum, sections of which are copiously illustrated ; we next come to the arrangement of the individual meteorites, followed by an excellent bibliographical index. The final list is arranged chronologically, and gives the date and locality of fall, type, weight, and other interesting data.