

Exhibition at Venice, we hope to give a detailed report next week. An Archæological Congress was opened at Tiflis on Tuesday; among the delegates is Prof. Virchow. The Caucasus Museum was also opened; the collections were very numerous and varied.

THE ensuing session of the Aristotelian Society for the Systematic Study of Philosophy will open on October 10, at 20, John Street, Adelphi, W.C., with an address by the president, Shadworth H. Hodgson, LL.D., and the Society will thereafter continue its historical studies, alternated with discussions of philosophical questions.

WE gladly welcome the appearance of the "Phænogamous and Vascular Cryptogamous Plants of Michigan," by Charles F. Wheeler and Erwin F. Smith (Lansing, 1881). 1559 species of flowering plants are enumerated, and 75 of horsetails, ferns, and lycopods. The arrangement followed is that of the fifth edition of Gray's Manual, and the authors promise to publish addenda from time to time.

WE have received the first part of Fr. Westhoff's "Käfer Westfalens," forming a supplement to the "Verhandlungen des naturhistorischen Vereins der preussischen Rheinlande und Westfalens," Jahrgang 38 (1881). It is only a List, prefaced by remarks on the district, and with list of authors, &c., but it promises to be of value on account of the thorough manner in which it appears to be worked out, and the beetle-fauna appears to be rich. Adopting the latest European Catalogue as a basis, this first part extends to the *Heteroceridae*. No new species are described, but several apparently new varieties in the *Carabida* and water-beetles receive names.

UNDER the direction of the Council of the Meteorological Society, Mr. W. Marriott has issued "Hints to Meteorological Observers, with Instructions for taking Observations, and Tables for their Reduction" (Stanford). Many of our readers might be able to turn these Hints to good practical account. We have also received the first number of the *Meteorological Record*, containing the monthly results of observations made at the stations of the Meteorological Society, with remarks on the weather for the quarter ending March 31.

THE Report of the Committee of the Queenwood College Mutual Improvement Society for the end of the summer term 1881 is interesting, showing that much useful and varied work is being done by the Society.

THE additions to the Zoological Society's Gardens during the past week include a Malbrouck Monkey (*Cercopithecus cynosurus*) from West Africa, presented by Mrs. Paterson; a Macaque Monkey (*Macacus cynomolgus*) from India, presented by Mr. Harding Cox; a Rubiginous Cat (*Felis rubiginosa*) from Ceylon, presented by Mr. Charles E. Pole Carew; a Brown Bear (*Ursus arctos*) from Russia, presented by Messrs. Morgan, Gellibrand, and Co.; two Chukar Partridges (*Caccabis chukar*) from India, presented by Col. Thos. Pierce, 16th Regt. Bombay N.I.; two Dwarf Chamæleons (*Chamaleo pumilis*) from South Africa, presented by Mr. Duncan W. B. Swaine; two Spanish Terrapins (*Clemmys leprosa*) from Spain, presented by Major Rooke; a Diamond Snake (*Morolia spilotes*) from Australia, presented by Mr. C. C. Sharratt; two Cape Crowned Cranes (*Balearica chrysopterygus*), two Wattled Cranes (*Grus carunculata*) from South Africa, deposited; a Black-faced Spider Monkey (*Ateles ater*) from South America, on approval.

PHYSICAL NOTES

DR. R. KÖNIG has just completed a new instrument—a variety of the wave-siren which we recently described—with which he proves an extremely important fact, which probably is new to all acousticians, namely, that the quality of a compound tone is

very distinctly affected by differences of *phase* in the components. An account of these last researches will be found in the forthcoming number of *Wiedemann's Annalen*.

DR. KÖNIG describes (*Wied. Ann.*, No. 8) a way of exploring the interior of organ-pipes (especially stopped ones) while in action, without disturbing the vibrations. The pipe, with a central longitudinal slit made in the back, and a plate-glass front, with scale, is supported horizontally in a trough, so that the slit and half the back of the pipe dips in water. A thin brass tube, bent twice at a right angle, is supported on the pipe, so that one end enters the slit to about the middle of the pipe. This tube can be slid along the pipe, and is connected by a caoutchouc tube to the ear, a manometric capsule with flame. Passing through a ventral segment, one notices a quite sudden weakening of the sound, then a sudden strengthening (like the stroke of a bell). By noting such points the position of the segment can be exactly determined. Dr. König gives some results which apparently fail to accord with theory. He also describes a drum-like arrangement for exploring pipes.

AN extremely ingenious piece of electric mechanism is now being shown in the Electrical Exhibition in Paris. It is an apparatus by which any number from 1 to 999 is automatically signalled on one wire by a single movement of the operator, the figures appearing at the distant end at an opening in a box. To describe the details of this apparatus would take too long a space. It is the invention of Mr. J. Mackenzie.

M. CORNU has constructed a polarising prism made of a single film of Iceland-spar fixed with Canada balsam between two flint-glass prisms. The polarisation is far from perfect, however, and the field is very narrow, so that the instrument, though of interest from a theoretical point of view, is of little or no practical value.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE

OXFORD.—An examination will be held at Exeter College on Thursday, October 13, for the purpose of filling up a Natural Science Scholarship, tenable for four years during residence. The examination will be in biology, chemistry, and physics. Candidates will be expected to show proficiency in at least two of these subjects, and the scholar will be required to read for honours in biology in the Natural Science School. The same papers will be set in chemistry and physics as in the examination for the Natural Science Scholarship at Trinity College. Candidates are desired to call on the Rector between 6 and 7 p.m. on Wednesday, October 12. They may obtain further information by application to the Rector, or to Mr. W. L. Morgan, the Lecturer in Biology at Exeter College.

THE Prospectus of Lectures and Classes for the first Session of University College, Nottingham, promises well. There will be both day and evening lectures and classes in Language and Literature (Prof. Symes), Mathematics, Mechanics, and Physics (Prof. Fleming), Chemistry (Prof. Clowes), Natural Science (Prof. Blake).

CONTENTS

	PAGE
EGYPTIAN EXCAVATIONS AND MUMMIES	481
TWO SPIDER BOOKS	482
LETTERS TO THE EDITOR:—	
The Oldest-known Insects.—Principal J. W. DAWSON, F.R.S.	483
Sound-Producing Ants.—S. E. PEAL	484
Wasps.—J. T. BROWNELL	484
Treatment of Hay Fever.—J. B. HANNAY	485
Red Rainbows.—Dr. HENRY MUIRHEAD	485
Infusorial Parasites on Stickleback.—N. H. POOLE	485
Photographing Diffraction Rings—Optical Phenomenon.—Prof. JOHN LE CONTE	485
A Primitive Diving-Bell.—N. S. HEINEKEN	485
FREDERICK CURREY, M.A., F.R.S.	485
THE AMERICAN ASSOCIATION. By Prof. E. W. CLAYPOLE	486
THE BRITISH ASSOCIATION:—	
Reports	487
Section A—Mathematical and Physical	489
Section B—Chemical Science	492
Section C—Geology	494
Section D—Biology—Department of Anatomy and Physiology	498
Department of Anthropology	500
Department of Zoology and Botany	500
NOTES	502
PHYSICAL NOTES	504
UNIVERSITY AND EDUCATIONAL INTELLIGENCE	504