

ACCURATE and interesting "guides" greatly assist the intelligent visitor to examine and understand the objects exhibited in a museum. The trustees of the British Museum are rendering a great service to natural science in ordering the publication of the excellent series of hand-books to accompany the admirable collections exhibited at the Natural History Museum, South Kensington. The most recent of these volumes is the "Guide to the Fossil Invertebrate Animals in the Department of Geology and Palæontology," which, with its seven half-tone plates and ninety-six text figures, will enable the visitor to the galleries to appreciate the significance and importance of the various fossils on view. We learn from the director's preface that the book has been written by Dr. F. A. Bather, and that the formerly published "Guide to the Fossil Invertebrates and Plants" is partly replaced by the present volume, the price of which is one shilling.

SEVERAL new volumes belonging to the concise and comprehensive series of Hoepli manuals have recently been received from the publisher, Mr. U. Hoepli, Milan. Two volumes by Prof. P. E. Alessandri, entitled "Merceologia Technica," deal respectively with natural and chemical products of commercial and industrial use. Caoutchouc and gutta-percha is the subject of a volume by Dr. L. Settimij, and the preservation of foods of one by Drs. G. B. Franceschi and G. Venturoli. Other volumes are on taxidermy, by Dr. R. Gestro; radio-activity, by Dr. G. A. Blanc; and limnology, or the scientific study of lakes, by Dr. G. P. Magrini.

MANY publications of deep scientific interest have been issued by the Carnegie Institution of Washington and described in the columns of NATURE. A list has just been received of ninety-two works available now or shortly which the institution has published or has in the press. Applications for the list or for copies of the works not out of print should be sent to the Carnegie Institution of Washington, D.C., U.S.A.

THE Proceedings of the Anglo-Russian Literary Society for February, March, and April have now been published in one small volume. The papers read at the monthly meetings of the society, one of the objects of which is to promote the study of the Russian language and literature, are here reprinted. We notice in an obituary of the great Russian chemist, Mendeléeff, the remark, "A prophet is not without honour, save in his own country; Mendeléeff was black-balled at the elections in the Imperial Academy of Sciences."

MESSRS. WEST, NEWMAN AND Co. have published a fifth edition of the late Rev. Joseph Greene's "Insect Hunter's Companion." The little book, which runs to 120 pages, gives instructions for collecting and preserving butterflies, moths, beetles, bees, flies, &c., and has been revised by Mr. A. B. Farn. Its price is 1s. 6d. net.

OUR ASTRONOMICAL COLUMN.

ANOTHER NEW COMET, 1907d.—A telegram from the Kiel Centralstelle announces the discovery of the fourth comet of this year by Mr. Daniel at Princeton, on June 14. The object was of the twelfth magnitude, and at 14h. 19m. (Princeton M.T.) on the day of discovery its position was

R.A.=23h. 48-53 m., dec.=1° 8' S.,

which lies about half-way between λ and 29 Piscium. The daily motion is given as +34' in R.A. and +14' in declination.

A second telegram from Kiel states that this comet was

NO. 1964, VOL. 76]

observed by Prof. Aitken at the Lick Observatory on June 13, when its position at 15h. 7-2m. (Lick M.T.) was

R.A.=23h. 59m. 44-4s., dec.=0° 10' 16" S.,

which is about 22-5m. E. and 1½° S. of λ Piscium. This object is apparently becoming brighter at a rapid rate, for Prof. Aitken gives its magnitude as 9-5.

TITANIUM FLUTINGS IN THE SPECTRUM OF α ORIONIS.—From the examination of the spectrum of α Orionis taken with the four-prism spectrograph, Mr. Newall believes that he has discovered the presence of three titanium flutings in the red end of the spectrum of that star. The wavelengths determined for the heads of the flutings, viz. $\lambda\lambda$ 7053, 7082, and 7124, agree fairly well with those found by Messrs. Hale and Adams in the spectrum of the titanium-arc flame, whilst collateral evidence, based on the analogy between the spectra of sun-spots and third-type stars, suggests that these bands are to be expected in stellar spectra of the α Orionis type, because they have been found in sun-spot spectra. Two other flutings, with heads at $\lambda\lambda$ 5166-8 and 5447-1 respectively, were also found, and agree with the heads of the two strongest Ti flutings found by Prof. Fowler.

An inter-comparison of sun-spot spectra and the spectrum of α Orionis shows that numerous spot lines occur in the stellar spectrum (Monthly Notices R.A.S., vol. lxxvii, p. 482, May).

TIN IN STELLAR ATMOSPHERES.—On examining some spectrograms of α Scorpii for radial-velocity determinations, Mr. Goatcher, of the Cape Observatory, found a persistent discrepancy occurring when measurements of the wave-length of a line at about λ 4525 were reduced, this line always giving a velocity about 6 km. per second too low. This discordance was examined by Mr. Lunt, who arrived at the conclusion that it is probably due to the hitherto unsuspected presence of a tin line, the wave-length of which, according to Exner and Haschek's tables, is λ 4525-00. In the region covered by the spectrum which was examined, the latter observers give only one other tin line, and as this, according to Sir Norman Lockyer's published tables, is an enhanced line, it is not to be expected in the spectrum of α Scorpii (Antarian type). Should Mr. Lunt's conclusion be confirmed, it will be the first occasion on which tin has been shown to exist in the atmosphere of a star (Monthly Notices R.A.S., vol. lxxvii, p. 487).

NON-POLARISATION OF THE LIGHT OF PROMINENCES.—In a note appearing in No. 21 (May 27) of the *Comptes rendus*, M. Salet states that, although he was able, during the total solar eclipse of 1905, to show that the coronal radiations down to the edge of the moon were polarised, he was unable to observe any trace of polarisation in the prominence radiations. M. Salet then points out that this result appears to introduce a contradiction to the theory of Prof. Julius, that the monochromatic light of a point on a prominence comes in reality from a point on the photosphere, for, according to Schmidt, such a ray would be strongly deviated by the successive refractions of the solar envelopes, and should then become partially polarised, the quantity of polarisation depending, by Fresnel's theory, only on the value of the deviation. The absence of polarisation seems, therefore, to argue that the light is not deviated, and, consequently, that it does not have to pass through the solar atmospheres from the disc.

NOVA T CORONÆ OF 1866.—Some interesting observations concerning Nova Coronæ are made by Prof. Barnard in vol. xxv., No. 4 (p. 279, May), of the *Astrophysical Journal*. Before its outburst this star was of magnitude 9-5, then it increased to the second magnitude, finally relapsing to 9-5. Novæ generally fade away to a much less brightness than this.

Prof. Barnard has repeatedly examined this star with the 40-inch refractor, but can find no difference of focus such as usually exists between the light from faded Novæ and the stars in general. Estimations of magnitude show that the star still has essentially the same magnitude that it had before 1866; there is no definite indication of motion in the Nova. Prof. Barnard found a faint nebula in the field with the Nova, the nebula being of magnitude 14-0 or 15-0, and having a diameter of 5" to 10" with no nucleus.