

Chapman. The subject will be "Some Phenomena of the Upper Atmosphere".

THE latest addition to the series of catalogues of Francis Edwards, Ltd., 83 High Street, Marylebone, W.1, is No. 538, devoted mainly to "Voyages and Travels before 1750".

THE author of the article on "The Nature and Origin of Ultra-Penetrating Rays" in NATURE for June 6, p. 859, writes that the following errors (present in his MS.) were overlooked by him in the proof: "At the end of the first paragraph '3.7. 10⁹ e-volts' should read '1.9. 10⁹ e-volts'. This error is repeated fourteen lines later. Again, the same error appears in that at the bottom of the first column on p. 860, 'At present this limit is about 4. 10⁹ e-volts' should read 'At present this limit is about 2. 10⁹ e-volts'."

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—A laboratory assistant for the medical unit laboratories of the Welsh National School of Medicine—D. Brynmor Anthony, University Registry, Cathays Park, Cardiff (June 22). Two munitions committee research fellows at the University of Liverpool (Faculty of Engineering)—The Registrar, University, Liverpool (June 22). A lecturer in mathematics (with physics as subsidiary subject) at the Handsworth Technical College—The Principal, Technical College, Handsworth, Birmingham (June 23). A head of the Evening Building Department of the School for Building, Ferndale Road, S.W.4, and a full-time instructor of plumbing for day and evening

classes at the same institute—The Education Officer (T.1), County Hall, S.E.1 (June 24). An assistant lecturer in commerce at University College, Leicester—The Registrar, University College, Leicester (June 27). Two visiting teachers for chemistry and physics at the Norwood Technical Institute—The Education Officer (T.1), County Hall, S.E.1 (June 27). An assistant lecturer in the Department of Political Economy of University College, London—The Secretary, University College, Gower Street, W.C.1 (June 30). A demonstrator of physics at Guy's Hospital Medical School—The Dean, Guy's Hospital Medical School, London Bridge, S.E.1 (June 30). A lecturer in physics in the Egyptian University, Cairo—The Dean of the Faculty of Science, c/o Egyptian Education Office, 39 Victoria Street, S.W.1 (July 1). Seven chemical assistants in the Public Health Department of the London County Council—The Clerk of the L.C.C., County Hall, S.E.1 (July 6). A tutor of women students in the University of Leeds—The Registrar, University, Leeds (July 6). A half-time assistant lecturer in botany at the University College of Swansea—The Registrar, University College, Singleton Park, Swansea (July 7). A demonstrator in physics in the University of Leeds—The Registrar, University, Leeds (July 13). A reader in organic chemistry in the Aligarh Muslim University (candidates restricted to Indian-born subjects of the King)—Prof. R. F. Hunter, Box 114, c/o NATURE Office. A lecturer-in-charge of the Building Department of the Norwich Technical College—The Principal, Technical College, Norwich.

Our Astronomical Column.

Calendar Reform.—A note in this column on June 6 referred to the widespread opposition to any break in the continuity of the seven-day week. An article by Mr. L. C. W. Bonacina in the *Evening Standard* of May 29 goes too far, however, in the opposite direction in resisting all reforms. One of his main points is the sentimental association of certain old traditions with the present months. But it may be pointed out that many of these associations have already been broken by the change of style. Before the change the hawthorn flowered early in May; now it seldom does so till after the middle of the month. Again, the old rhymes:

Barnaby bright; the longest day and the shortest night;
Lucy light; the shortest day and the longest night,
are no longer true. The dates of the feasts are June 11 and Dec. 13. The strongest argument for a change is, however, the utterly illogical arrangement of the length of the months. Since the average length of a month is almost 30½ days, it is clear that all months should have either 30 or 31 days. The abnormal shortness of February is due to the pride of some Roman emperors, who wished their months to have 31 days. It is strange that mankind has tolerated the anomaly for nearly two thousand years.

Different methods of improvement are possible. The simplest is to make the lengths 30, 31, 30, 31, etc., with the final 31 changed to 30, except in leap year. Another arrangement is 31, 30, 30; 31, 30, 30, etc., with an additional 31 at the end; this has the advantage that the first three quarters are each exactly 13 weeks. The leap day should be placed at the end of the year, so that it does not alter the interval from one calendar date to another in the same year.

It is clear that there is room for improvements, and the prospects of carrying them out are rendered brighter if they are not too drastic. It would be wise to drop all tampering with the week; such a change excites strong opposition.

A Very Massive Double Star.—A *Daily Science News Bulletin*, dated Washington, May 20, reports that another very massive double star has had its mass determined, by Dr. J. A. Pierce, at the Dominion Observatory, Victoria, B.C. It will be remembered that the greatest star mass hitherto measured was that of the spectroscopic binary in Monoceros known as the 'Plaskett Star', since it was detected by Dr. J. S. Plaskett, director of the Observatory at Victoria. That consists of two stars of nearly equal mass, each at least 80 times as massive as the sun; since eclipses do not occur in that star, the exact masses cannot be given, but must be somewhat greater than the above. Curiously, the bulletin omits to give the name or position of the newly measured binary, which is one of the most important items in an announcement of this kind; it is stated that its binary character was detected at Mt. Wilson between 1920 and 1924; but it has been the subject of more exhaustive study with the 72-inch reflector at Victoria; since the report mentions "spectroscopic and other photographs", and also gives exact values for the masses (not merely minimum values), it may be concluded that eclipses have been detected. The period of revolution is 56 days, and the masses of the components are respectively 134 and 50 times that of the sun. The centre of gravity is receding from the sun at the rate of 8 km./sec.