

A LIST (No. 31) of second-hand books of science, mainly natural history, botany, and gardening, has just been issued by Mr. R. S. Frampton, 37 Fonthill Road, N.4. Upwards of a thousand titles are given, and the prices asked appear very reasonable.

THE latest catalogue (No. 439) of Mr. F. Edwards, 83 High Street, Marylebone, W.1, is devoted to atlases and maps and books of geographical interest. As is usual with the catalogues issued by this bookseller, the present list contains many rare and scarce items, which are fully described.

MR. E. G. WHITE, the third edition of whose "Voice Beautiful in Speech and Song" was noticed in NATURE of December 30, p. 871, objects to the remark of the reviewer "that I regard the vocal cords 'as strings,' whereas the whole book is written for the precise purpose of showing that they are not strings." In

stating that Mr. White regards them as strings the reviewer adopted the argument in Chapter III. of the book, but he did not say that Mr. White actually believed the "vocal cords" to be strings. As to the view that the theory of sinus tone production "is not supported by a particle of evidence," Mr. White refers to evidence "that it is possible to speak and sing when both vocal cords have been excised," but no physiologist would accept this as conclusive. He detaches from the notice of the second edition of his book, in NATURE of April 17, 1919 (vol. 103, p. 124), the words "there is much to admire in this book," but omits to add that the reviewer "J. G. M." entirely rejected his thesis, remarking, "Over and over again he furnishes what he regards as evidence in support of his thesis, but the conclusion, almost invariably, is in the opposite direction." To this it may be added that the supposed evidence never points in the direction of the sinuses.

Our Astronomical Column.

CALENDAR REFORM.—Somewhat of a deadlock has been reached in the matter of calendar reform, owing to the unwillingness of a considerable section to abandon the free week, which has now been running uninterruptedly for some 3000 years, by the introduction of days that would not count in the week or month. Rev. D. R. Fotheringham, editor of the *Chaldaean*, proposes a scheme in No. 17 of that journal which would retain the fixed calendar, without interfering in the least with the succession of weekdays. He proposes to make an ordinary year exactly 52 weeks or 364 days. This could be divided into 4 quarters, in each of which the lengths of the months would be 30, 30, 31 days; or if preferred, there could be 13 months of 4 weeks each: every fifth year (the last digit of which was 0 or 5) would have an extra week; unless the year was divisible by 45, in which case there would be no extra week. There would thus be 8 extra weeks in 45 years, the average length of the year being 365.244444 . . . days. The true length of the tropical year is 365.242199, so that the error is 0.00224 days, or 1 day in 446 years; this is a trifling amount and could be corrected by dropping the extra week once in 3000 years, in addition to its normal dropping every forty-fifth year.

The proposed calendar would satisfy the following desiderata, assuming that the extra week is always reckoned at the end of the year: (1) any particular calendar date would always be on the same day of the week; (2) the interval in days between two dates in the same year would always be the same; (3) the fact of the sequence of weekdays going on unchanged would be likely to remove opposition from ecclesiastical and other quarters. The two chief objections to our present system from the astronomical point of view are the irregular lengths of the months, and the occurrence of the leap-day early in the year. The latter flaw is not due to Julius Caesar, for he made March the first month, as the prefixes Septem-, Octo-, etc., still remind us; so that he saw the advantage of putting the leap-day at the end.

THE POSITION OF THE SOLAR APEX.—The positions derived for the solar apex, or point to which our system is tending, from the study of the stellar proper motions, have been far less accordant than one could wish; it has been found indeed that they differ systematically according to the faintness of the stars the motions of which are utilised. The late Prof. Kapteyn suggested that this discordance might be due to the imperfect correction of systematic errors in

the older catalogues; this would affect the proper motions deduced from comparison of these catalogues with modern ones, and the effect on the position of the apex would be greatest for the stars with smallest motions. Now a determination of the apex from the radial velocities of stars is independent of this source of error, and is therefore a useful check. M. J. S. Paraskevopoulos, of Athens Observatory, uses the radial velocities of the stars in Voigt's Catalogue, together with 537 additional ones recently published from Victoria, B.C. His results, given in *Astr. Journ.* No. 813, are:—

	North Stars.	South Stars.	All Stars.
R.A. of Apex	271°.4	272°.2	271°.6 ± 3°.0
N. Decl. of Apex	31°.6	29°.6	30°.3 ± 3°.0
Sun's velocity km./sec.	20°.7	25°.4	23°.33 ± 1°.03

The apex accords well with that usually adopted, but the velocity is somewhat greater.

LOST PLANET RECOVERED.—Planet 132, Aethra, was discovered by the late Prof. Watson of Ann Arbor on June 13, 1873. It was one of 22 found by him between 1863 and 1877; he was not content merely with finding them, but he also determined their orbits and perturbations, and at his death left a trust fund to secure that the necessary calculations and observations should continue to be made on these planets after his death. Aethra appeared to be the most interesting of them all from its large eccentricity and small perihelion distance; however, in spite of constant endeavour it remained lost from 1873 till now. On December 12, 1922, M. B. Jekhowsky, of Algiers Observatory, found a planet of mag. 10.5 in R.A. 5^h 56.1^m, N. Decl. 18° 27' with daily motion -1.3^m, S. 21'. It was independently found at Simeis on December 19 by M. G. Beljavsky. An approximate orbit by M. Jekhowsky makes it highly probable that it is the lost Aethra, a conclusion which Dr. Luther has reached independently. As further observations are desired, the following predicted positions (from *Astr. Nach. Circular*) may be useful. January 24, R.A. 5^h 11.5^m, N. Decl. 4° 33'; February 1, R.A. 5^h 10.6^m, N. Decl. 3° 0'. The period comes out as 3.89 years if we assume 13 revolutions since 1872, but the assumptions of 12 or 14 revolutions would give 4.27 and 3.67 respectively. The elements deduced in 1873 were: Period 3.926 years, eccentricity 0.3314, perihelion distance 1.664, longitude of perihelion 151° 56', ascending node 259° 40', inclination 23° 42'.