

fulness is the single-plate or screen-plate process. Here evidently the author writes with considerable experience and even enthusiasm, and as those parts that deal with the "autochrome," "dioptrichrome," "Thames," and "omnicolore" plates have been revised by the respective makers of these plates, there is excellent guarantee that the details given are trustworthy.

There is always a difficulty when entering into particulars on such a subject, that commercial products are liable to vary, and it is often impossible for one person to know the extent of this variation in every section of the subject. Just one example will indicate the need for bearing this in mind. Dr. Johnson says of the "dioptrichrome" plate that the "first black condition is very perfectly fulfilled." That means that the red, green, and blue patches on the colour screen are so proportioned that the general colour presented to the eye is a pure grey. We have just examined two screens of this make, and one is a rather fine green and the other pinkish. The preliminary chapters on the eye, colour vision, and colour blindness, although short, are of much interest.

Tables for Calculation of Rock-Analyses. By Alfred Harker, F.R.S. (Cambridge: University Press, 1910.) Price 1s.

CHEMICAL analyses of rocks are constantly becoming more refined and complete, and, in consequence, if accurately interpreted, are of increasing value to the petrologist. Systems of rock-classification that depend on chemical composition are also now in favour. For these and other reasons it becomes desirable that the percentages of components as stated in a rock-analysis should be translated as easily as possible into percentages of the constituent rock-forming minerals. Mr. Harker's tables are designed to meet this want, and they have so many valuable features that they should be in the hands of all teachers of petrology. They are very compact, and consequently are cheap compared with the books hitherto in use for this purpose; much time may be saved by their use and long calculations avoided. The method adopted is simple and exceedingly ingenious, and with these tables a student who has not hitherto attempted calculations of this sort may make them more rapidly and even more accurately than by any of the methods formerly in use.

Populäre Vorträge aus dem Gebiete der Entwicklungslehre. By Dr. Wilhelm Breitenbach. Pp. vi+264. (Brackwede i. W.: Verlag von Dr. W. Breitenbach, 1910.) Price 3 marks.

This little book consists of six popular lectures, dealing respectively with the origin of life, recent theories of heredity, fifty years of Darwinism, Fritz Müller, the prince of observers, Hermann Müller, and the history of the human race. They are written in a clear and interesting style, and, apart from their scientific value, may be strongly recommended to English students of biology who desire to improve their acquaintance with the German language.

Open-air Studies in Botany: Sketches of British Wild Flowers in their Homes. By R. L. Praeger. Second edition, revised. Pp. xiii+266. (London: Charles Griffin and Co., Ltd., 1910.) Price 6s. net.

THE first edition of this book was reviewed in NATURE of June 16, 1898 (vol. lviii, p. 150). The present issue has been revised throughout, but little alteration has been made. The nomenclature has been changed where necessary to follow that used in the "List of British Seed-plants and Ferns," published by the British Museum in 1907.

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LETTERS TO THE EDITOR.

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of NATURE. No notice is taken of anonymous communications.]

A Perpetual Calendar.

I CANNOT allow the article signed by "W. T. L." in NATURE of February 2 to pass without a protest. The proposal to make "New Year's Day" a *dies non*, named "New Year's Day," and not a day of the week or of the month, emanated, I believe, from Mr. Alexander Philip of Brechin. Supposing that January 1 were a Sunday, and supposing that March, June, September, and December were given 31 days, the other months 30 each, February 1 would always fall on a Tuesday, March 1 on a Thursday, and so on. This would save much trouble in arranging dates for meetings. But, more important still, the four "quarters" of the year would be equal, instead of, as at present, consisting of 90, 91, 92, and 92 days. From testimony by railway companies, insurance offices, chambers of commerce, and business men, an alteration which would equalise terms would meet with universal approval. It is difficult to see where the trouble mentioned by your contributor would come in. It may be stated that authorities in the leading churches have been consulted, and that apparently no objection would be raised by them. I am informed that the Belgian Foreign Office has addressed a diplomatic inquiry at the Vatican, and that the Holy See is not opposed to the reform of the calendar. Surely the organ of English science is not going to oppose a useful innovation, acceptable to all practical men, which would save an enormous amount of labour in accounting and would simplify all business arrangements.

WILLIAM RAMSAY.

University College, Gower Street, London, W.C.,

February 3.

ALTERATIONS in so fundamental a matter as the regulation of time and of the calendar must always give trouble, and should not be adopted unless very great advantages would result from the change. Now it appears to the writer that no such advantage would be obtained by making the days of the week always correspond to those of the month; indeed, in the arrangements of life it is often found convenient that they should *not* correspond. As to the lengths of the quarters being now unequal, they could be rendered as equal as possible by the simple process of restoring the original regulation of Julius Cæsar, according to which February had 29 days in common years and 30 days in leap-years, and August had only 30 days. Very serious inconvenience would probably result from the ignoring of a day every year, particularly as this would have to be extended to two days in leap-year.

W. T. L.

The Progressive Disclosure of the Entire Atmosphere of the Sun.

SOME of the remarkable spectroheliograms which you reproduce in connection with your report of M. Deslandres' lecture, delivered by that gentleman at the Royal Institution on June 12, 1910, call for special comment. This applies more especially to the pair which represents the sun for March 21, 1910. I had the good fortune to observe spectroscopically an exceptionally fine prominence, which persisted for two entire synodic rotations. During some of the early days in March it graced the west limb, then reappeared in the east about a fortnight later, showed again in the west, reappeared in the east once more towards the middle of April, and gave a final appearance in somewhat modified form on the west limb on April 28. It is fully described and illustrated in an interesting note by Dr. F. Slocum in the *Astrophysical Journal* for September, 1910.

This prominence, while of fair altitude, was more conspicuous with regard to its latitudinal extent. But as regards altitude, it should be mentioned here that the Yerkes photographs were taken in calcium light, while my spectroscopic observations were made in hydrogen H_α light, and I have noted on many occasions, before and