

chemist) in the Colloid Chemistry Laboratories of the British Cotton Industry Research Association—The Director, Shirley Institute, Didsbury, Manchester (May 28). A manager recorder of experimental work in breeding poultry for table use, at the South-Eastern Agricultural College, Wye, Kent—The Secretary, South-Eastern Agricultural College, Wye, Kent. A technical assistant at the Marine Aircraft Experimental Establishment, Felixstowe—Secretary, Air Ministry, Astra House, Kingsway, W.C.2. Inspectors of agriculture under the Sudan Government—Controller, London Office, Sudan Government, Wellington House, Buckingham Gate, S.W.1. A demonstrator in the department of inorganic and physical chemistry of Bedford College for Women—Secretary, Bedford College for Women, Regent's Park, N.W.1 (June 3). An assistant lecturer in mathematics and geography at Bristol University—The Registrar (June 3). A demonstrator in chemistry at the

London (R.F.H.) School of Medicine for Women, Hunter Street, W.C.1—The Warden and Secretary (June 6). A woman lecturer in education, in the Department of Education, Bristol University—The Registrar (June 8). An assistant lecturer in the physics department, Leeds University—The Registrar (June 15). A mistress for botany and physics at the County School for Girls, Tunbridge Wells—Headmistress. Professor of organic chemistry in the University of the Witwatersrand, Johannesburg—Secretary, Office of the High Commissioner for the Union of South Africa, Trafalgar Square, W.C.2 (July 15). A mistress to teach botany, chemistry, and mathematics at the North London Collegiate School, Sandall Road, N.W.5—The Head Mistress. Instructor Lieutenants in the Royal Navy—The Adviser on Education, Admiralty, Whitehall, S.W.1. A master for chemistry at Taunton School—The Headmaster.

Our Astronomical Column.

THE 13-MONTH YEAR.—Calendar reform has moved a step forward in the reply just forwarded to the League of Nations by the representatives of British railways; in this they state that they are unanimously in favour of the adoption of a year of 13 months of 28 days each with one extra day (2 in leap years). This exact equality of the months would be a great convenience from the wage point of view. The objection is sometimes made that the division into quarters would be inconvenient: but our present "quarter days" are neither at the end of months nor equidistant from each other, so that the placing of them at the end of the first week of the fourth month, the second of the seventh, and so on, would be no worse than at present.

Most people who advocate the 13-month division of the year couple it with the plan of making every month begin with the same week-day, so that the days that stand outside the month would also be outside the week. However, the proposal to interfere with the regular sequence of week-days meets with strong opposition, and has little chance of adoption, but the 13-month reform would be quite useful even without this point. All the months of any year would still begin with the same week-day, but the day would change from one year to another.

COMETS.—A Harvard circular gives an elliptical orbit of Reid's Comet by Mr. Maxwell from observations extending from March 24 to April 7.

$$T = 1925 \text{ July } 28.34 \text{ G.M.T. (new)}$$

$$\omega \quad 258^\circ 45' 54'' \} 1925.0$$

$$\Omega \quad 5 \quad 13 \quad 37 \}$$

$$i \quad 25 \quad 36 \quad 12$$

$$e \quad 0.912875$$

Period 81.212 years.

Mr. G. Merton and Dr. A. C. D. Crommelin tested this period by including the observations of Mr. B. M. Peek, which extended to April 24. Their research gave a period of more than 12,000 years, so that the departure from a parabola seems to be much slighter than that announced by Mr. Maxwell. This comet is now too low down for English observers, but will come north again at the end of the year.

Very diverse statements have been published as to the date of the next return of Faye's Comet.

Popular Astronomy gave the date as the autumn of 1924, nearly a year too early. Mr. F. R. Cripps has now investigated the perturbations by Jupiter (B.A.A. Journ., vol. 35, No. 6), and finds Aug. 6 next as the date of perihelion. Major Levin and Mr. Gaddum give an ephemeris, which starts on May 15, but the distance from the earth is now so great that detection is unlikely for two or three months. Every effort should then be made to find the comet, as it has not been seen since 1910. No accurate ephemeris was prepared in 1918, astronomy being short-handed owing to the War.

THE VELOCITY OF LIGHT FROM THE STARS.—It has been pointed out by Prof. La Rosa that if the velocity of a distant star compounds with that of light, the observed intensity depends upon the acceleration of the radial motion. When there is acceleration towards the observer, light which is emitted at any moment will tend to catch up with that emitted at a previous instant. Thus the flux of light into an observer's eye will be greater than when the acceleration is zero and still greater than when it is negative. The effect will increase with the distance of the star. In the *C.R. Acad. Sci.*, Paris, March 2, M. Salet points out that de Sitter has concluded that no such compounding takes place, on the ground that the motion observed visually or spectroscopically in double stars is a regular Newtonian one. These stars, however, are not very distant, and it seems possible that, though the velocity of the source may not compound fully with that of light, the latter may be altered to a small extent. This might produce an effect in the case of very distant stars, only the brightness of which can be observed. The brightness of Algol does not vary by 0.1 mag. in the interval between successive minima, although the radial velocity varies continuously. The conclusion is that the velocity of the emitted light is not changed by more than 1/200 of the velocity of the star. There are stars of the same type which are much fainter, and it is probable that their distances are much greater, while their radial velocities are of the same order as that of Algol; it thus becomes possible to arrive at a much closer limit for the effect, which can be regarded as negligible even for the most distant of these stars.