

The discussion on colour vision is continued by a paper by Mr. D. C. Henry, who considers that the trichromatic theory is the most satisfactory one in the field, and that when it is supplemented by some form of photo-chemical theory of the retinal mechanism, it may provide explanations of fatigue and contrast phenomena which at present it cannot do.

MESSRS. Watts and Co. announce the early publication in their Shilling Forum Series of "Craftsmanship and Science"—Sir William Bragg's presidential address to the British Association; also of Sir Arthur Keith's Ludwig Mond lecture on "Darwinism and what it implies."

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—A resident lecturer (man) in rural science and gardening, with mathematics as second subject, at the Bangor Normal College—The Principal, Normal College, Bangor, North Wales (Sept. 14). A warden of the Moulton Farm Institute and assistant county agricultural organiser for Northamptonshire—The Secretary for Education, County Education Offices, Northampton (Sept. 14). Junior assistants at the National Physical Laboratory—The Director, National Physical Laboratory, Teddington (Sept. 18). A pathologist at the Miller General Hospital for South-east London—The Secretary, Miller General Hospital for South-east London, Greenwich Road, S.E.10 (Sept. 20). An assistant pathological chemist at St. Mary's Hospital—The Secretary, St. Mary's Hospital, W.2 (Sept. 24). A scientific officer under the Directorate of Scientific Research of the Air Ministry, primarily for research at the Royal Aircraft Establishment in connexion

with aircraft power units—The Chief Superintendent, Royal Aircraft Establishment, South Farnborough, Hants (Sept. 25). A Milroy lecturer on State medicine and public health for 1930—The Registrar, Royal College of Physicians, Pall Mall East (Sept. 26). An instructor at the Government Technical School, Makerere, Uganda, capable of giving instruction in carpentry and joinery, fitting and turning, blacksmithing and tinsmithing, etc.—C. A. (N), The Secretary, Board of Education, Whitehall, S.W.1; for *Scottish candidates*—(N), The Secretary, Scottish Education Department, Whitehall, S.W.1 (Sept. 30). A principal and professor of medicine, and a professor of pathology and bacteriology, at the Veterinary College, Patna—The Secretary to the High Commissioner for India (General Department), 42 Grosvenor Gardens, S.W.1 (Oct. 15). An irrigation engineer under the Government of Ceylon—The Crown Agents for the Colonies, 4 Millbank, Westminster, S.W.1 (quoting M/732). A headship of the Junior Technical School for Boys of the Borough Polytechnic Institute—The Principal, Borough Polytechnic Institute, Borough Road, S.E.1. Two temporary engineering assistants under the Air Ministry, capable of preparing detail drawings, reinforced concrete work and steel structures—The Secretary, Air Ministry, Admiralty House, Kingsway, W.C.2. A museum assistant at the Norwich Castle Museum—The Curator, Castle Museum, Norwich. An entomologist at the Indian Lac Research Institute, Ranchi, Bihar and Orissa, for research work on the bionomics of *tacchardia lacca*—"India," c/o Richardson and Co., 26 King Street, St. James's, S.W.1.

Our Astronomical Column.

A NEW STAR CATALOGUE FROM OBSERVATIONS WITH THE GREENWICH ALTAZIMUTH.—The present Greenwich altazimuth was erected in 1897, taking the place of Airy's smaller instrument which had been in use for half a century. It was used for observing the moon in the first and last quarters of each lunation, at which periods meridian observations are untrustworthy. For the rest of the time it was used in the meridian as a second transit circle. When Brown's new tables of the moon were introduced into the almanac in 1923 there was such an improvement in the representation of all the short-period terms in its motion that it was considered that meridian observations of it would suffice for the future. The altazimuth was then placed in the Prime Vertical for the observation of fundamental stars, and a catalogue of these, based on observations extending from June 1923 to January 1927 has just been issued; it contains all stars of magnitude 5.4 and brighter, the declination of which lies between $N. 11^{\circ} 40'$ and $N. 50^{\circ}$, their number being 601. Observations were made in azimuth only; the declination, which is found with greater accuracy than the right ascension, depends on the interval between the east and west transit of each star; refraction is not directly introduced, and the results form a useful check on meridian observations.

The results show that the declinations of Boss in this zone need to be increased by $0.45''$, this correction being $0.02''$ less than that of Eichelberger's new fundamental catalogue, and $0.27''$ greater than that of the First Greenwich Catalogue for 1925 (observed

with the transit circle). It is generally agreed that Boss's proper motions in declination have appreciable systematic errors, due probably to imperfections in the older catalogues employed by him; small as the corrections are, they are large enough to have some effect in problems concerning the structure and motions of the stellar system.

THE MELBOURNE ASTROGRAPHIC CATALOGUE.—Melbourne Observatory undertook the photography of the most southern zone of the Astrographic Catalogue extending from south declination 64° to the south pole. The printing of the catalogue has been greatly delayed by shortage of funds, but two volumes have now been published. Vol. 1, which has just come to hand, contains the measures of the plates, the centres of which are in declinations -67° and -68° . The x and y co-ordinates of each star are given to the third decimal of a minute of arc, also the measured diameters, and, in the case of C.P.D. stars, the reference number and magnitude given in that catalogue. The stars used as reference stars are in heavier type: these were measured twice. The usual provisional constants are given for reducing the rectangular co-ordinates to right ascension and declination.

Vol. 2 contains 291 pages: a full page contains 240 stars, but as many pages are incompletely filled, the average per page is probably about 200; but the stars in the volume are not all different, since those between -67° and -68° occur twice over, owing to the overlap of zones.