22,500 francs. The prize was divided and awarded to Mr. F. Creedy, electrical and mechanical engineer, London, for papers on "Some Developments in Multi-speed Cascade Induction Motors" and "Variable Speed Alternating Current Motors without Commutators" (6000 francs); Prof. J. B. Whitehead (4000 francs); and to Mr. Checholowsky, electrical engineer, Antwerp, for his "Study on Operating and Releasing Times of Telephone Relays" (4000 francs). An exceptional prize (2000 francs) for the description of "A New Form of Converter" was awarded to Mr. Raymond Wilmotte, London, in virtue of article 5 of the Foundation permitting the jury to allot a prize to a thesis showing a new idea capable of important developments in electrical engineering.

THE London County Council publishes each year an Annual Report and volumes of Accounts, Estimates, Statistics, etc. These publications, however, do not appeal to the great mass of Londoners, and the Council is therefore publishing a series of booklets on "The London County Council and what it Does for London," of which that entitled "Public Health" (Hodder and Stoughton, Ltd., price 6*d*. net) has recently been received. It deals in three chapters with main drainage, disease prevention, and treatment of disease, respectively, and gives a popular summary of what the Council has done and is doing for these aspects of public health. The booklet is well produced and illustrated, including a map showing the drainage system of London, and is very readable.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—Test assistant at the Aeroplane and Armament Experimental Establishment, R.A.F., Martlesham Heath, Suffolk—Secretary to the Air Ministry, Adastral House, Kingsway, W.C.2 (January 4). Technical assistant for the Aerial Photographic Department—Superintendent, Royal Aircraft Establishment, South Farnborough, Hants (January 9). A principal officer of the University of London—Secretary to the Senate, University of London, South Kensington, S.W.7 (February 1). Several men possessing good scientific training and technical experience—Secretary, Chilian Nitrate Committee, Friars House, New Broad Street, E.C.2.

Our Astronomical Column.

DAYLIGHT FIREBALL.—Mr. W. F. Denning writes: "On November 25 at 4^h 5^m P.M., when the sun was shining, a fine meteor was seen by several persons from Cornwall and Devon. It was directed from the south-west and disappeared in the north sky at a somewhat low altitude. It left a train as it passed with moderate velocity across the heavens, and with an estimated duration of 3 seconds. The meteor was quite conspicuous and appeared like a brilliant silver ball descending at an angle of about 35° as seen from Brentor, near Tavistock. The observations are not sufficiently exact for accurate computations to be made of the real path. The height was, however, probably about 77 to 41 miles and the velocity about 34 miles per second; radiant near β Boötis or, farther back in the line of flight, at Corona ($233° + 34°$). The position of the meteor was over the sea W.N.W. from Fishguard to over Carmarthen in S. Wales. This meteor was the second object of the class observed in sunshine this year, the previous one being on June 4, 4^h 10^m P.M."

THE ERROR OF NEWCOMB'S POSITION OF THE EQUINOX.—All the leading fundamental observatories agree in finding a large correction (amounting to a second of arc) to the position of the equinox given by Newcomb. Prof. Eichelberger and others have concluded that this error is increasing, and that Newcomb's rate of precession is wrong. Mr. R. T. Cullen, in *Monthly Notices of the Roy. Ast. Soc.* (vol. 85, No. 9), gives reasons against this conclusion. He shows that when allowance is made for two changes of practice at Greenwich, the errors of equinox cease to be progressive. These changes are the application of variation of latitude and the introduction of the travelling wire micrometer. The annual part of the variation of latitude causes a systematic shift of the equinox as deduced from observations of the sun, and the use of the travelling wire micrometer has altered mean personality of the observers in the solar observations. Removing the effect of these corrections from the recent observations, the error of Newcomb's equinox since 1851 is found to exhibit no progressive change. The reality of the present error of 1″ in the equinox is not denied, but it is concluded to arise not from a wrong rate of precession, but from the omission from the early solar observations of certain corrections which are applied to the recent ones.

COMETS.—The comets of Van Biesbroeck and Peltier-Wilk are still readily observable with small instruments, the latter being the brighter. The orbits of both comets are now known within narrow limits; that of Van Biesbroeck has been improved by Messrs. G. Merton and A. C. D. Crommelin, using their observations of the morning of December 10. The following elements (referred to the equator) are near the truth, but need slight adjustment.

T	1925 Oct. 1·9848 U.T.	
ω'	94° 2′ 43·1″	1925·0
Ω'	340 3 53·2	
i'	70 18 20·6	
$\log q$	0·185531	

An ephemeris from these elements is not yet available, but that from the Möller-Strömgren orbit will suffice for finding the comet with a little sweeping.

EPHEMERIS FOR 0^h.

	R.A.	N. Decl.	log *r*.	log Δ.
Dec. 18.	12^h $6·3^m$	25° 48′	0·2615	0·1647
26.	12 2·8	23 50	0·2772	0·1538
Jan. 3.	11 56·5	22 0	0·2929	0·1431
11.	11 47·3	20 17	0·3085	0·1329

The comet is now high enough for observation soon after midnight.

M. A. Schaumasse has discussed in detail the several returns of Borrelly's Comet in recent Nos. of the *Journal des Observateurs*. In No. 10 (Vol. 8) he gives the predicted orbit for the present apparition.

T	1925 Oct. 8·193 U.T.	
ω	352° 25′ 25·42″	1925·0
Ω	77 2 7·10	
i	30 30 40·29	
$\log q$	0·1424289	

Period 6·885463 years.

Recent observations give a correction of +0·60 day to T.