Engineering for September 24. The cruiser was built by Messrs. William Beardmore and Co., Ltd., from designs prepared in 1915. The leading consideration was suitability for ocean work in any part of the world, so that a large radius of action was necessary. Her overall length is 605 ft., beam 65 ft., and draught 17 ft. 3 in., with a displacement of 9700 tons. The speed of 30 knots at load draught required a shaft-h.p. of 60,000; she carries 1600 tons of oil-fuel and 800 tons of coal. During construction it was decided to increase the power to 70,000 shaft-h.p. Actual trials have been carried out at powers ranging from 3000 to 71,350 shaft-h.p., and at full power a speed of 31 knots was attained. A remarkable feature of the machinery performance (geared turbines) was the fact that at 35,000 shaft-h.p. a speed of 28 knots was measured. The machinery ran remarkably well and the noise of the gearing was not obtrusive.

We have received from the firm of Mr. Charles Baker, of High Holborn, a classified list of his second-hand scientific instruments. The catalogue is divided into twelve sections, ten of which are devoted to physical and other appliances and instruments, *e.g.* the first contains particulars of apparatus and materials for microscopic work; the third, instruments used by astronomers; and the tenth is devoted to photographic apparatus. Section xi. contains a list of second-hand scientific works, including a number of bound volumes of periodicals which are for sale; while section xii. is a list of instruments which the firm is desirous of purchasing.

Sir J. A. Ewing and Sir Joseph Larmor are editing, for publication by the Cambridge University Press in the spring of next year, the scientific papers of the late Prof. Bertram Hopkinson, of whom the volume will contain a memoir. The Cambridge University Press promise for the end of the present year "The Origin of Man and of His Superstitions," by Carveth Read. Portions of the work have appeared in the *British Journal of Psychology*, but they have been extended and largely rewritten for this first appearance in book form.

The University of London Press, Ltd., announce a book by Dr. E. E. Slosson entitled "Creative Chemistry," the aim of which is to show how indigo and other coal-tar colours are made, and to arouse the interest of its readers in the practical application of modern science and so induce them to give further attention to the subject. Another book to be issued by the same publishers is "The Psychology of the Six Great Periods of Human Life," by Benchara Branford. It will be published in The New Humanist Series.

Mr. F. Edwards, 83 High Street, Marylebone, has just circulated a finely illustrated Catalogue (No. 405) of Rare and Beautiful Books which is worthy of perusal. Among the six hundred odd works offered for sale we notice a first edition of Gerarde's "Herball," two black-letter editions of Hakluyt's "Principal Navigations, etc.," and a number of scarce gardening books.

Our Astronomical Column.

Ephemeris of Pallas.—Now that the Nautical Almanac no longer gives the places of the four bright asteroids, an ephemeris of Pallas may be of use. It is from Marseilles Circular No. 389, and is for Greenwich midnight. Perturbations were not allowed for, but the places are corrected approximately by observations during August. Opposition takes place on October 25, when the magnitude is 7·8, but the beginning of October is more favourable for observation owing to the rapid motion southward.

		R.A.	S. Decl.			R.A.	S. Decl.
		h. m. s.	° ′			h. m. s.	° ′
Sept.	29	2 16 24	13 51	Oct.	19	2 3 18	19 33
Oct.	9	2 10 42	16 49		29	1 55 18	21 45

Tempel's Periodic Comet.—The Japanese *Astronomical Herald* for June confirms the conjecture that the R.A. of the above comet when detected by Mr. Kudara on May 25 was 22h. 55m. 7s., not 20h. as telegraphed. This is implied in its statement that the time of perihelion passage deduced from the observation was 1920 June 10. It is seldom that an error in a single digit of a message has such serious consequences, which were the loss of two months' observation of the comet in Europe and America. Many observers searched for it, but the error of 30° in the place prevented them from finding it.

Eclipse Observations at Monte Video.—The National Meteorological Institute of Uruguay has published an attractive volume, illustrated with numerous photographs, dealing with the observations made during the eclipses of December 3, 1918, and May 29, 1919, which were respectively annular and partial there. The co-ordinates of the Central Observatory are 3h. 44m. 51s. W. Greenwich, 34° 54′ 33″ S. The observed contacts, and comparison with those calculated from "Conn. des Temps" data, are as follows:

G.M.T.				Phase	Earlier than calculated time	Notes
d.	h.	m.	s.		s.	
Dec. 3	1	27	3·07	First contact	11·58	
	3	12	24·34	Second ,,	16·78	
	3	15	29·95	Third ,,	40·33	Uncertain, very cloudy
May 28	22	57	8·21	First ,,	10·00	
29	0	38	30·05	Second ,,	8·05	

On December 3 clouds prevented observation of Baily's Beads, stars, shadow-bands, etc. The thermometer fell from 20·4° C. before first contact to a minimum of 17·9° C. twenty minutes after mid-eclipse. The other meteorological and magnetic data are carefully recorded, but show no obvious variation due to the eclipses. But on each occasion there was a very distinct improvement in the clearness with which wireless signals from distant stations were received during eclipse—a phenomenon which has been abundantly verified elsewhere.

On December 3 an interesting record of the variation in the general illumination was obtained by exposing slips of sensitised paper to the sky for 1½ minutes at uniform intervals. The result shows a fairly smooth curve, the irregularities being due to clouds. In view of the fact that there will be an annular eclipse of the sun in Scotland next April, many useful hints for observation of the accompanying phenomena may be derived from this volume.