

NOTES.

TIME-KEEPING AT SEA.—It has been decided to adopt in H.M. Navy a uniform method of time-keeping by means of time-zones, identical with that in use by the French and Italian Navies. The system to be adopted will correspond to that at present used on land, so that the time will always be a whole number of hours fast or slow on Greenwich. Each system of time will be denoted by a positive or negative number equal to the number of hours slow or fast on Greenwich respectively. The number and prefix together are known as the “zone description” of the time.

The centre zone, or Zone 0, lies between the meridians $7\frac{1}{2}^{\circ}$ E. and W. The zones to the eastward are numbered in sequence from -1 to -12 , and those to the westward $+1$ to $+12$, each extending over 15° of longitude. The 12th zone is divided centrally by the 180th meridian (the date-line), and the prefixes $-$ and $+$ are used in the eastern and western halves respectively. In the neighbourhood of land the boundaries between zones are modified so as to be in concord with the boundaries of the countries or areas using corresponding times.

In all entries concerning time in the ships' logs and records, and in all official correspondence when time is referred to, the zone description of the time is to be added.

A SOLAR OBSERVATORY FOR NEW ZEALAND.—We are glad to learn that there is still some hope of a solar observatory being established in Nelson, New Zealand. The late Mr. Cawthron had intended establishing such an observatory, and had caused careful enquiries to be made as to a suitable site; a position near Nelson was actually decided upon and purchased, but then the whole project was interrupted by Mr. Cawthron's death. We are informed that Dr. Hale, Director of the Mount Wilson Observatory, has promised to prepare a plan for suitable instruments, which would be inexpensive, but yet enable observations to be made, the results of which could be worked out in America and be of value to science. The trustees of the Cawthron Estate are disposed favourably to consider the matter.

OBITUARY.—*George James Newbegin.* The death of Mr. G. J. Newbegin occurred at his residence at Sutton on April 4th at the age of 74. For many years he had been prominent in the ranks of amateur astronomers, and had communicated numerous papers on his observations to the *Journal of the B. A. A.* and *Monthly Notices R. A. S.*

Though he had always had a love for scientific pursuits, it was not till he reached the age of 30—about 4 years after succeeding to his father's business as tobacco manufacturer in Norwich—that

he erected his first telescope (a 5-inch equatorial); but, finding himself able to retire a few years later, he removed to Thorpe St. Andrew, where he re-erected his observatory in a more favourable situation, and in 1888 added a fine 9-inch Cooke equatorial, housed in a 22-ft. dome. He thus possessed an equipment such as is not often found in private hands, and he made good use of it, devoting his energies mainly to solar work, including spectroscopic observations and the photography of sun-spots. In 1904 he removed to Sutton, where he remained till his death and where he carried on systematic observations of the solar prominences.

As an illustration of his readiness to do all in his power to further the interests of astronomy, it may be mentioned that he gladly lent one of his instruments—a $4\frac{1}{4}$ -inch Cooke photo-visual telescope—for use on three eclipse expeditions, the last occasion being that of the eclipse of 1905 Aug. 30, when his friend, Mr. C. Thwaites, took charge of the expedition to Burgos organized by the B. A. A.

Mr. Newbegin was elected a Fellow of the R. A. S. in 1888, and was an original member of the B. A. A., serving for some time on the Council of the latter. Though mainly a solar observer, he took an interest in other departments of observational astronomy, and was a very regular attendant at the meetings of the R. A. S. and B. A. A. He was an excellent example of the true amateur astronomer—a keen worker himself to the very end, and ever ready to give help to others.

Death came to him suddenly, and at the very last meeting of the R. A. S. before its occurrence he was present and gave an account of his solar prominence observations in 1918.

Paul Neugebauer. The death is announced in *Ast. Nach.* No. 4984 of Dr. Paul Neugebauer on 1918 December 8 at the age of 70 years. After graduating at the Breslau University, Neugebauer was appointed an Assistant at the Breslau Observatory. He resigned the position after a short time, and took up teaching as a profession. He retained his interest in astronomy, however, and regularly computed for Dr. Luther, of Düsseldorf, the orbits of the minor planets discovered by the latter. In 1885 he became associated with the Astronomical Rechen-Institut in Berlin, and for more than 30 years a large portion of the minor-planet reductions for the *Berliner Jahrbuch* was entrusted to him.

Dimitri Doubiago. Prof. Doubiago, Director of the Kasan University Observatory and of the Engelhardt Observaatory, died on 1918 October 22 in Kasan, after a short illness, at the age of sixty-eight years. Kasan has been the scene of severe fighting in connection with the Bolshevik movement in Russia, and it would appear that worry and anxiety for the safety of the Engelhardt Observatory (which was founded and endowed by Doubiago himself) may have hastened Doubiago's death.

STOP PRESS NEWS.

THE TOTAL SOLAR ECLIPSE OF MAY 28-29.—The following cablegrams have been received from the two eclipse expeditions which were sent to observe the recent total solar eclipse :—

Sobral : “Eclipse splendid.”—Crommelin.

Principe : “Through cloud. Hopeful.”—Eddington.

The cablegram from Messrs. Crommelin and Davidson indicates that the weather was perfect for part of totality, and that the programme was sufficiently carried out. This is confirmed by a later message, stating that on the plates obtained with the astrographic object-glass 12 diffused stars are shown, whilst on those obtained with the Cortie lens 7 good images are shown. The observers are remaining to obtain check-plates.

Prof. Eddington and Mr. Cottingham apparently observed the eclipse through light cloud, but there are hopes that sufficient stars will be shown on the plates obtained adequately to test whether any displacement is shown.

FROM AN OXFORD NOTE-BOOK.

ON Thursday, May 15, the Royal Astronomical Society lost the devoted services of Mrs. W. H. Wesley, wife of the Assistant Secretary. It is not many months since Mr. and Mrs. Wesley celebrated the fiftieth anniversary of their wedding-day; and for nearly the whole of their happy married life (for 44 years, to be precise) they have united to make the rooms of the Society an attractive home for the Fellows. The number of those who have come to Mr. Wesley for miscellaneous help must be large indeed, the number who have failed to get what they want is surely small; and not one has ever been met with rebuff or indifference. Mrs. Wesley's work was perhaps less known to the Fellows in general; but none who held office failed to realize her devotion to the interests of the Society. A single illustration may perhaps be given, even at this moment. Have the Fellows and their guests, who have enjoyed those half-hours in the tea-room before the meetings of the Society, sufficiently reflected on the domestic difficulties there must have been in carrying this simple meal right through the War and its privations? Mrs. Wesley's identification of the interests of the Society with her own extended (unless I am very much mistaken) even to the sharing of specially precious provisions. She would have protested vigorously against any reference to the matter; but she must allow me this one instance as representative of many which were scattered along her busy life and which cannot now be recovered. For the last few years she was ill and at times very ill. It was no light matter for even those in the best of health and with strong nerves to live in London during the raids—for an invalid the strain must

have been severe indeed. Burlington House was itself bombed on at least one occasion, and the immediate neighbourhood more than once; but the Wesleys had no thought of leaving their post of duty. Mrs. Wesley lived to see the Armistice and her Golden Wedding; but the Peace she has now found was not to be our earthly peace.

THE University of Oxford has lost a generous benefactor by the death of Dr. Henry Wilde, F.R.S. The University is indeed his residuary legatee, but Dr. Wilde found in these last years so many cases and causes deserving of help that the magnitude of this final benefaction is somewhat dubious. He had, however, already made many gifts to the University, including one of special interest to Astronomers—the Halley Lecture, founded in the year (1910) of its last return in memory of the great prediction. The Lecture is to be delivered annually, and the date assigned by the Trustees is to be as nearly as convenient to May 20, the date of perihelion passage. The subject of the lecture may vary over a wide range, symbolical of Halley's own broad outlook and work; and the lectures already given have dealt with magnetism, astronomy, seismology, geodesy, meteorology and tides, the last being the subject selected this year by Prof. Horace Lamb, F.R.S. It may perhaps be added that the Geophysical Meetings so successfully organized by the Astronomer Royal and Dr. Chapman under the auspices of the British Association, and now being taken over by the Royal Astronomical Society whose rooms have kindly been lent from the first, originated in an informal gathering and discussion after one of the Halley Lectures. Now that the War is over we may perhaps hope to see more of distinguished lecturers from overseas. It is a tragic memory that Prince Galitzin would have visited England as Halley Lecturer in 1915 but for the events which made it impossible. Dr. Wilde's stimulus was well directed and we may hope for yet more fruit from it. He was capable of brilliant ideas; he claimed the invention of the dynamo and the searchlight, and no good reason has been given for contesting his claims, of which he was tenacious—small blame to him. The tenacity sometimes ruffled peaceful waters; but let us first win equal laurels before we decide how they should be worn. Sometimes, too, he was at variance with orthodox opinion, which did not overawe him in the least. In some mathematical questions his independence no doubt counted against him, but at the very important juncture when there was a slump in gas shares in consequence of the alarm about electric light, Dr. Wilde's confidence in himself against the world stood him in capital stead; and the University of Oxford, as already indicated, has had good reason to applaud his judgment and its consequences.

HARVARD CIRCULAR No. 214 has a tragic and special interest. It was begun by the same active pen which had completed its

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predecessors, but the illness which proved fatal within a few days stopped the writing at the end of the first paragraph. The general object of the writer was, however, already clear, and Miss Cannon had sufficient knowledge of the remaining intention to complete the Circular. Prof. Pickering dwells with natural satisfaction on the successful outcome of the movement he initiated for women's work in Astronomy, and especially for the establishment of Astronomical Fellowships for women, of which there are now three, the last of them having been established from funds contributed on the fortieth anniversary of his appointment as Director at Harvard, and being appropriately named the Edward C. Pickering Fellowship. Volume 84 of the Harvard 'Annals' has been reserved for work connected with these fellowships.

WHAT a luxury to be able to enjoy the good things of this life in peace—that is to say, without the black shadow of War overhanging all! The good things at present indicated are a lovely day and the first University cricket match for five years, with the boys winning—a combination which it is difficult to beat. They did not start over well and looked like being far behind on the first innings, but a fine last-wicket stand pulled them up. Then one of their bowlers got in some fine work and made victory possible with a moderate score, which was easily attained after another poor start. Oxford is so busy just now that one could only view these great events in patches—but they were glorious patches. And how well the light lasted—almost against the order of Nature until one remembered that for the first time we were playing cricket by Summer Time. Many a batsman will benefit for the future by the action of Mr. Willett; and to think that a man who has achieved such a success should have died with the bitter consciousness of failure!

"SINCE October 1st I have given 110 astronomical lectures to troops in France, all except 7 under Y.M.C.A. auspices." The lady who wrote these words did not intend them to find their way into print, but I venture to print them, nevertheless, as a record of a remarkable achievement which will be best appreciated by those of us who have contributed ounces instead of pounds. I am indebted to the same lady for the following extract, which may throw some light on that quoted in the April number (p. 182):—

CRAWLED FIVE MILES GUIDED BY STARS.

YORKSHIRE OFFICER LEADS MEN THROUGH GERMAN LINES.

A remarkable story of coolness and daring on the part of Captain St. A. Warde-Aldam, of the Coldstream Guards, son of Mr. and Mrs. Warde-Aldam, of Frickley Hall, near Doncaster, is told by Corporal Beaumont, who now lies wounded in a Barnsley hospital, and is borne out by one of the captain's brother officers.

During the battle of the Aisne Captain Warde-Aldam with a party of Coldstream Guards was cut off, and they were forced to seek refuge in a wood, with the Germans in close proximity.

Expecting every moment to be discovered by the enemy, the party was confined to its hiding place until nightfall, when Captain Warde-Aldam, who has a considerable knowledge of astronomy, decided to put that knowledge to the test and to take the chance of regaining his base by the guidance of the stars.

Led by the captain the men thereupon dropped on their hands and knees, and for five miles they crawled, passing through the German lines and eventually reaching their comrades in an exhausted condition.

Corporal Beaumont speaks highly of the confidence Captain Warde-Aldam inspired in the men. From the captain himself nothing has been heard of this incident, but Corporal Beaumont relates that after they had returned to their trenches a fellow officer commented on their absence, and Captain Warde-Aldam replied, "Yes, we were rather late home last night!"

The captain is among those who were mentioned in Sir John French's dispatch.

RECENTLY I was privileged to inspect the astronomical books which had been left by Dr. Lee of Hartwell, Pres.R.A.S. in 1861-63, and always a devoted member of the body. Among them are five scrap-books, which as yet have only received a hurried glance, and which ought to contain many things of interest. The following will illustrate the lighter features. We may begin with two "eclipse" anecdotes (in honour of the great event of May 29), the first of them pretty well worn by this time, but possibly fresher when it was collected:—

A Cockney's Idea of an Eclipse.—A Cockney conducted two ladies to the Observatory to see an eclipse. They were too late—the eclipse was over. The ladies disappointed. "Oh!" exclaimed our hero, "don't fret. I know the astronomer very well. He is a polite man, and I am sure will begin again." —[*Bucks Chronicle*, Nov. 18, 1848.]

A Nautical Exposition of the Eclipse.—A sailor sat in a shaver's shop at Shields on Monday afternoon, when the mistress of the pole shouted down stairs to her liege lord, inquiring why everybody in the streets were gazing in the sky. "Oh!" cried Jack, taking the answer out of her husband's mouth, and a handful of soapsuds from his own, "its only the Moon, ma'am, that's broke adrift and got athwart the Sun. It'll all be right, by-and-bye, if the old boy only puts the helm hard over." He shut his mouth profoundly, and looked up at the flabbergasted barber, whose razor and reason shook before the unshaved sage.—[*Gateshead Observer*, no date given.]

It would be interesting to get at the origin of the following story of W. Herschel. He *may* have visited Genoa, but I can find no hint of it in documents accessible to me. The "anecdote" is in this case transcribed carefully into the book, and I have been particular to copy the words as spelt:—

Anecdote.—William Herschel the celebrated astronomer and discoverer of the Georgium Sidus, was originally as is well known a musician, and it was to his talents in this line that he was chiefly indebted for support in the commencement of his career. During his residence at Genoa, finding himself embarrassed for want of sufficient money to pay his passage to England, he applied to Mr. Langle, whom he had known at Naples, and who was the director of concerts given by the Nobles of Genoa. Mr. Langle kindly

obtained for him the use of the rooms, and Mr. Herschel gave a concert in which he himself performed a quatuor by means of a Harp and Two French Horns which he had fastened to his shoulders.—*Albion New York Paper*, March 29, 1834.

OUR seismographs are apparently not so recent an invention as we think:—

Dr. Kreil, director of the Observatory of Vienna, has just invented an instrument by means of which he can discover the intensity and direction of shocks of earthquakes. It is composed of a pendulum oscillating towards any point, and at the lower extremity of which is fixed a vertical cylinder, containing a watch movement which causes it to turn on its axis once in 24 hours. Close to this cylinder is placed an upright piece of wood to which is fixed an elastic arm, carrying a pencil coming in contact with the cylinder, on which, as long as the cylinder is still, is described an uninterrupted line, but as soon as the Earth moves, and the pendulum consequently makes some oscillations, the pencil traces on the cylinder marks, the length and variety of which show the strength and direction of the shocks.—[*Bucks Advertiser*, 28 April, 1855.]

MADAME DE WITT of Hanover, has just completed, after twenty-two years' arduous labour, a globe of the Moon, in which all the discoveries that have been made in the lunar planets are set forth with the minutest particularity. The globe has excited the admiration of the scientific world, and of the King and aristocracy. It has been purchased for the Royal Astronomical Society in London.—[*The Alliance*, vol. i. no. 7, 1847, April 25.]

Box Tunnel, which is 3192 yards in length, was an object of some interest on Tuesday, the 9th of April, as on that morning at twenty-five minutes past five the Sun shone through it. The only other periods that such an event occurs are the 3rd and 4th of September.—[*Bucks Advertiser*, 20th April, 1850.]

The Milky Way.—A boy of about 8 years of age, son of a respectable Gloucestershire farmer, reading with his class, came to the words "The Milky Way." Upon being asked by his teacher if he knew what was meant by the Milky Way, he indignantly replied, "Why, sir, to be sure I do. 'Tis the whey as comes from the cheese."—[*Oxford Chronicle*, Oct. 14, 1848.]

Punch for May 14 contains two notes:—

We stand at the noon of the greatest day the world has ever seen, with all the hideous darkness of the night behind and all the glory of the dawn before.
—Mr. Arthur Mee in *Lloyd's News*.

It looks as if the dawn would be a day late.

SUN ECLIPSE IN MAY.

WIRELESS OPERATORS' HELP ASKED.

—*Daily Paper*.

We ought all to put our shoulders to the wheel and make this Victory Eclipse a big thing.

The Times of May 15 also has a note on the eclipse of May 29:—

ASTRONOMER'S FLIGHT.

(FROM OUR CORRESPONDENT.)

NEW YORK, May 14.

Professor David Dodd, of Amherst College Astronomical Observatory, left New York yesterday for Montevideo, where he proposes an ascent in an aeroplane to observe the eclipse of the Sun on May 29. He proposes to go 10,000 ft. up to take photographs.