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matters. At the conclusion of the Conference they went on to England, stopping at Lyons and Paris by the way. At the former place the great wireless station was visited, and in Paris they were shown over the wonderful Eiffel Tower. Its designer (M. Eiffel) was still alive, and he still worked in his tiny but exquisitely-fitted workroom in the tower. It was largely owing to M. Bailkrid and General Ferrie that the wireless time signals had been continued from France throughout the war. The Royal Astronomical Centenary had been a wonderful affair. There had been all sorts of splendid entertainments and scientific discussions. The arrangements at the Greenwich Observatory had been complete to the last detail. She could not help being struck by the great kindness of everyone to the Australian delegates. The Americans she considered were singularly distinguished in astronomy, and their wealthy men encouraged a love of astronomy by their magnificent gifts and bequests to their observatories.

DAILY HERALD 14.9.22

UNIVERSITY OF ADELAIDE

PRIMARY PUBLIC EXAMINATION.

The following is a list of the candidates to whom certificates will be issued. They have passed in English grammar, composition, and dictation; arithmetic, and two at least of the following subjects:—Geography (Gg); history (H); Latin (L); French (F); French, including oral (Fx); Algebra (Al); and Geometry (Gt).

Bals, Dorothy Stella, Gg H L Fx Al, Methodist Ladies' College. Baxter, Ladaslas Edward, Gg F Al, Clares D.H.S.

Campbell, Stuart Maxwell, H L Al Gt, Convent of Mercy, Millicent. Carmody, Mary, Gg H L, St. Joseph's School, Spalding. Cashmore, Patricia, H Al, St. John's High School, Port Pirie. Cleary Ethel May, L F Al, St. Scholastica's College, Mt. Barker. Clark, Stuart Henry, H L Gt, Marist Brothers, Norwood. Clarkson, Ruth, L Fx Al, Methodist Ladies' College. Cleary, Veronica, H Al, St. Joseph's School, Peterborough. Collins, Elfreda Elizabeth, Gg H L Fx Al, Methodist Ladies' College. Connelly, Francis Patrick Aloysius, H L F Al, St. Joseph's School, Peterborough. Connolly, Margaret, H L Al, St. Joseph's School, Peterborough. Conroy, John Edmund, Al Gt, Sacred Heart College, Glenelg. Crapp Phyllis Grace, Gg H L Fx, Al, Methodist Ladies' College.

Dave, Eileen Gwyneth, H F Al, King William Road School, Hyde Park. Dixon, May, H Al Gt, St. Dominic's Priory, North Adelaide. Dunlop, Walter James, L Al, Marist Brothers, Norwood.

Eberhard, Vera, L F Al, St. Scholastica's College, Mt. Barker. Egan, Alphonsus, H Al Gt, Convent of Mercy, Mt. Gambier. Emery, Edward Robert, H L F Al, Sacred Heart College, Glenelg.

Fischer, Florence Edna, L Fx Al, Methodist Ladies' College. Fitzgerald, Magdalene Mary, F Al, St. Scholastica's College, Mt. Barker. Forder, Edith Ray, Gg L Fx Al, Methodist Ladies' College.

Guiney, Edward George, H L Al, Sacred Heart College, Glenelg.

Hack, Norman Reginald, H L F Al Gt, Sacred Heart College, Glenelg. Hann, Margaret, H F Al, St. Joseph's School, St. Peters. Hannan, Mary, H F Al, St. Joseph's School, St. Peters. Hewish, Ida, H F, St. Joseph's School, Spalding. Heysen, Freya, L F Al, St. Scholastica's College Mt. Barker. Honner, John Francis, H L F Al Gt, Sacred Heart College, Glenelg.

Johncock, George Harold, Gt F Al, Clare D.H.S. Johnson, Gwendoline Ray, Gg H L Fx Al, Methodist Ladies' College. Johnson, Hazel Beryl Gwendoline, H Al, Mt. McKenzie School.

Kiley, George Lawrence, H L F Al, Sacred Heart College, Glenelg.

Lee, Valmai Doris, H Fx, St. John's Church Day School, Halifax street. Leonard, Kathleen, H L Al, St. Joseph's School, Peterborough. Leonard, Mary, H L F Al, St. Joseph's School, Peterborough. Lewis, Colin Ross, Al Gt, Convent of Mercy, Millicent. Low, Alexander Richard, Gg F, Clare D.H.S.

McCarthy, Louise Annie, H F Al Gt, Convent of Mercy, Mt. Gambier. McFeat, Florence Audrey, Gg F Al Gt, Clare D.H.S. Magnussen, Herman Patrick, H Al Gt, Marist Brothers, Port Adelaide. Malone, Michael Andrew, H L F Al Gt, Sacred Heart College, Glenelg. Martin, Cora Lucilla, H Fx, St. John's Church Day School, Halifax street. Martin, Edna Dorothy, H Fx, St. John's Church Day School, Halifax street. Miller, Monica Lally, Gg F Al Gt, Clare D.H.S. Moloney, Mary Gertrude, H F, St. Joseph's School, Spalding. Myles, Barbara Phyllis, H Al, St. Anthony's School, Solomontown.

Nash, Alphonsus, H Al, Marist Brothers, Port Adelaide. Norris, William Herbert Duncan, Gg Al, Clare D.H.S.

Ohlmeyer, Norah Mary, Gg Al, Clare D.H.S. Paterson, Maxwell Alan, Gg Al, Clare D.H.S. Payne, Beryl Mortimer, H F Al, private tuition, Mullaira. Pierce, Norman Thomas, H L F Al Gt, Sacred Heart College, Glenelg. Pohlner, Ruby Elizabeth, H L Al Gt, Convent of Mercy, Millicent. Potter, Michael James, H F Gt, Convent High School, Brighton.

Quinn, Mary, H L, St. Joseph's School, Spalding.

Reynolds, Dorothy Maud, H L Fx, Al, Methodist Ladies' College. Roberts, Andrew, H L Al, St. Joseph's School, Renmark.

Scott, Reginald Niel, Gg F, Clare D.H.S. Smith, James Cyril, H L F Al Gt, Sacred Heart College, Glenelg. Smyth, Edward John, L F Al Gt, Sacred Heart College, Glenelg.

Tassie, Winnie Francis Baine, Gg L Fx Al, Methodist Ladies' College. Taylor, Patricia Scott, Gg H Fx Al, Methodist Ladies' College. Thomas, Walter Stanley, Gg F Al Gt, Clare D.H.S. Turner, John Mervyn, Gg F Al Gt, Clare D.H.S.

Upton, Patricia, H Al, St. Dominic's Priory, North Adelaide.

Walsh, John, H Al, St. Mark's School, Port Pirie. Watson, Nancy, Gg H L Fx Al, Methodist Ladies' College. Wilkins, Margaret, H L F Al, Dominican Convent, Franklin street. Willis, John, H L F Al Gt, Sacred Heart College, Glenelg. Woods, Ellen, H Al, Dominican Convent, Franklin street.

Yelland, Jean Lindsay, Gg L Fx, Al, Methodist Ladies' College.

Advertiser 16.9.22.

CORDILLO DOWNS ECLIPSE EXPEDITION.

From Mount Hopeless and Box Flat Well, over Strzlecki Creek, with the assistance of matting used by the mail and other motors, sometimes camping out, sometimes being fortunate enough to reach stations, where they were always hospitably received, Mr. G. F. Dodwell (Government Astronomer) and Mr. Thrum, after arduous travelling, reached Cordillo Downs Station, where the South Australian party will observe the eclipse on September 21. Mr. Dodwell feels that the party are very much indebted to the manager (Mr. Murray) and the Beltana Pastoral Company. With the advantages of being at the station, and with the wonderfully clear sky, they have favorable conditions for carrying out the work, and everyone predicts good weather for the day of the eclipse. Mr. Murray has left for Innamincka to meet Professor Kerr Grant, Mr. T. Barr Smith, Mr. Ive (managing director of the B.P.C.), and Mr. Adamson (secretary), who are expected to arrive four days before the eclipse. Mr. Kennedy (chief assistant at the Adelaide Observatory) had done an immense amount of work, with the assistance of Mr. Appleby. The preliminary photographs they had taken with the "Einstein" camera showed several of the very faint stars which will be near the eclipsed sun, and the displacement of which to the forecasted amount will support Einstein's relativity theory. Mr. Dodwell has been examining these faint star images, getting scale and orientation of plates, and identifying the stars, this being rather difficult, owing to the presence of minute dust-specks. There is a great deal to be done in the final adjusting of all the instruments for azimuth, latitude, clock-drive, &c., much care being necessary to get everything perfect, especially for the Einstein photographs. Cordillo Downs Station is on a slight rise above the general level of the gibber-strewn plain, with high red sandhills round the horizon. It looks like a little town and has £150,000 worth of buildings, machinery, and improvements. The two wireless masts and the 40 ft. coronagraph tower are now notable landmarks. The lens is mounted on the latter, and the square tubing (lined with black cloth) goes down at an angle of about 35 deg. to the moving plate-carrier, which is now covered by a tent, also lined with black cloth. The tower looks like a windmill staging, or the oil derricks so frequently seen in U.S.A.

Classical Association.
ADVERTISER. 18.9.22

"THE TRAGEDIES OF SENECA."

On Friday evening a meeting of the Classical Association was held at the University, when Professor H. Darnley Naylor presided over a good attendance.

Professor A. T. Strong delivered an interesting lecture on "The Tragedies of Seneca," in which he described the influence exerted by the Roman dramatist on the Italian writers between the fourteenth and sixteenth centuries, and, later on the great French tragedians. In Elizabethan England the classical was the most important early development of drama, and Seneca was the chief author in this development. "Gorboduc," sometimes called the first English tragedy, reproduced many of the characteristics of the Senecan drama. Daniel's "Cleopatra" also showed the influence of the Roman writer. In England the Senecan dramas were acted before limited audiences at first, but Kyd did for the Senecan play what Marlowe did for the native drama, and with his "Spanish Tragedy" brought Seneca into the view of the general Elizabethan audience. Indeed, Kyd was largely responsible for the Senecan portions of Hamlet. The problems of the ghost and of madness, frequently occurring in the old Roman plays, really clashed, but Shakespeare, though probably considerably worried by the attempt, finally triumphed in his production. "Titus Andronicus" and "Richard III." were also Senecan in style. Perhaps Shakespeare's direct debt to Seneca was slight, but his indirect debt was enormous.

The lecturer dealt with the life of Seneca—his fortune, his banishment, his restoration, his tutorship of Nero, his consent to the death of Agrippina, his loss of influence with his imperial pupil, and his suicide. Ten tragedies were attributed to Seneca, all of which were extant. Nine of these dealt with subjects taken from Greek mythology, and one—the "Octavia"—was the only extant example of historical drama written in Latin! They all turned on crime, bloodshed, and horror. Yet the three great Greek tragedians and Shakespeare used the same effects. The difference was that the other writers interwove into their plays such great principles as destiny, predestination, fate, and the conflict of man-made law with the eternal notions of justice. Seneca seemed to delight in mere horror. Seneca introduced the gods of Greece to show his knowledge of mythology, but elsewhere their very existence was denied. Seneca often substituted epigram for dramatic dialogue; his characters were puppets often lit up with vivid gleams of hell fire, their fine sentiments did not seem to be real expression of thought. He was pedantic, fond of displaying his erudition, and given to the rhetorical declamation so common in his day. Yet he possessed distinct poetic merits. He especially understood symmetry of construction, and perhaps this partly explained his great influence on later writers. He frequently showed brilliance in dialogue, and had a certain vitality and a sense of color. His merits were, however, often lost amid his sordidness, his sensationalism, his cheapness of epigram, and his lack of humor.

The professor concluded his lecture by reading selections from the dramas illustrating their merits and their faults. Several passages also were read showing remarkable parallels between Seneca and Shakespeare.

Advertiser 18.9.22.

UNIVERSITY STUDENT IMMIGRANTS.

Among the immigrants who arrived by the Benalla from London, on Sunday were 12 from Balliol College, Oxford. These form part of a contingent of 20 that the State Government arranged to bring out. In view of the statement made by Sir William Beach Thomas last week, it is understood that an effort will be made to arrange for the number to be augmented.

Register 18.9.22

At the invitation of the University of Adelaide, Professor W. A. Laver (Ormond professor of music at the Melbourne University), arrived in South Australia on Sunday. He will examine Adelaide candidates in connection with the Australian Music Examination Board.

Register 19.9.22

THE REHEARSAL.

ECLIPSE OBSERVERS BUSY.

All Conditions Promising.

WALLAL, September 18.

On Saturday afternoon rehearsals of the eclipse programme were begun with 13 cameras. They were undertaken at that early date, as the actual eclipse work with these cameras begins to-morrow night. In order that the scale of the eclipse photographs may be determined, it is necessary to have one photographic plate picture of a group of stars taken during the night. This will be done on Tuesday evening if the sky should clear, otherwise on Wednesday. Rehearsals with the other instruments were commenced this morning, and in the afternoon the first full rehearsals were held with all the instruments working simultaneously as for eclipse observations. The personnel of the Lick Observatory Expedition will be augmented by the addition of six naval men, who will assist with the changing of the photographic plates, the calling of the time, &c. Dr. Campbell was delighted to receive on Saturday evening the following telegram from the Prime Minister (Mr. Hughes):—"Best wishes for a fine day and successful observations."

When interviewed this morning, Dr. Campbell stated that preparations for Eclipse Day were practically complete. Despite the difficulties of transport to Wallal, everything had been landed and erected without a single breakage, and on no previous occasion had he looked forward to an eclipse day with such freedom from anxiety about the weather. The Wallal weather had conformed to the excellent reports of those who had recommended that observing site. Clouds had been almost entirely absent throughout the past three weeks. The sea fog which appeared at nightfall after days of prolonged sea breezes might cause a little difficulty in securing evening exposure for the Einstein investigations, but he did not regard that as serious.

Dr. Trumpler, of the Lick Observatory, who took comparison photographs in Tahiti last June, expressed himself as greatly pleased with observing conditions at Wallal. He said that the visibility and steadiness of the air were at least as good as at Tahiti, where his plates recorded stars fainter than had been anticipated.

Professor Chant, of Toronto University, also gave the opinion that Wallal appeared to be all that could be desired for eclipse work and from the astronomical and meteorological standpoint.

Herald 19.9.22

THE ECLIPSE EXPLAINED.

Every one will hope that, however much rain may be needed in South Australia, the sky on Thursday afternoon will be clear to enable the eclipse of the sun to be seen. Given this condition, throughout the whole of the State, the eclipse will be visible as a partial one, lasting just over 2 hours. In the extreme far north, in a sector running diagonally between Alice Springs and Charlotte Waters, to Cordillo Downs, the total phase will be visible for about 4 minutes at mid-eclipse. In the south-east the obscuration of the sun's disc will be about seven-tenths, and this will increase as one approaches the total zone. The computed data for Adelaide are:—

Eclipse begins	2.22 p.m.
Greatest phase	3.32 p.m.
Eclipse ends	4.36 p.m.
Angle from vertex of first contact	168 deg.
Angle from vertex of last contact	329 deg.
Magnitude of eclipse	0.72

The vertex is the apparent highest point of the sun's disc, and the angles are measured in an anti-clockwise direction. With respect to the commencement of the eclipse, places on the far west coast will experience this about 15 minutes before Adelaide, and in the eastern and south-eastern districts, from 3 to 5 minutes after Adelaide. The end of the eclipse will take place about 6 minutes before Adelaide on the west coast, and at about the same time as at Adelaide in the east and the south-east. The above times are supplied by the Adelaide Observatory, which also states:—An eclipse of the sun occurs when the moon intervenes between the sun and the point of observation. A person unacquainted with astronomy might expect this to occur at every new moon. Owing, however, to the inclination of the moon's orbit, it occurs only when the earth is at one of the nodes of the moon's orbit, i.e., points at which it crosses the apparent path of the sun. It is generally known and easily observed that the sun and moon have about the same angular diameters in the sky. This means that the ratios of their actual diameters to their distances from the earth are about the same. As the sun is by far the greater body, and the source of light, a shadow cone will always be cast by the moon on the side away from the sun. It is the chance agreement in the angular diameters of the two bodies that causes the tip of this shadow cone to fall near the earth at time of solar eclipse. The moon's orbit around the earth is elliptical, as also is the orbit of the earth around the sun, so that the distances between the three bodies vary. This variation may cause the tip of the shadow cone to fall short of the earth's surface, in which case an annular eclipse is seen, i.e., a ring of the sun's disc remains visible around that of the moon at mid-eclipse. On Thursday of this week, however, the earth passes through the shadow cone of the moon, as the apparent diameter of the moon will be about 1.03 times that of the sun. The circular shadow cone, having a diameter ranging from 100 to 130 miles at the surface of the earth, first touches the earth's surface in Somaliland, East Africa, and—owing chiefly to the moon's motion in its orbit—it travels rapidly across the Indian Ocean and Central Australia (tending toward the south), to a point in the Pacific Ocean, north of New Zealand, at which point the last contact occurs at sunset. The time occupied in covering this arc of the earth's surface is about 3½ hours. Within the area traversed by this shadow cone, a total eclipse will be visible, but having only an instantaneous duration on the northern and southern limits of the area. On the central line, however, the duration will range from about 3 minutes at the extremities, to 5m. 59s. at a point in the Indian Ocean, near Christmas Island. Over a much more extensive area, including Arabia, the east coast of Africa, Southern Asia, Australia, and the islands to the north of Australia, New Zealand, the Indian Ocean, and portion of the Southern Ocean, a partial eclipse will be visible, varying from an instantaneous grazing eclipse to total as one approaches the central line.