CLASSICAL ASSOCIATION.

The Classical Association held its final meeting for 1922 at the University of Adelaids on Friday evening. Professor H. Darniev Naylor, who was in the chair, gave an interesting and instructive lecture on "Some gossip from Suctonius." Professor Naylor said that Suctonius was secretary to the Emperor Hadrian, who rei ned from 117 to 138 A.D. Owing to some breach of court etiquette he was dismissed and ended his days in retirement, writing a large number of books. His "Lives of the Cuesars' was his most popular work. The portraits of the emperors were drawn witcout any real historical judgment, but were interesting because of the personal anecdotes which Suctonius related. Julius Caesar the historian wrote that he was tall and fair, odd in his dress, and a breeder of horses. Augustus, the first of the emperors, was noted, among other things, for his affability. His style in speech and writing was chaste and elegant, Augustus was also superstitious. The next emperor, Tiberius, had unusually large eyes. In disposition he was kind, but firm. He loved liberty, often asserting that there should be free speech and free thought. His sardonic humor was notable. Caligula, on the other hand, had an unpleasant sense of Lumor. The next emperor was Claudius, who was described by his mother as "a master of a man, not buished, but merely begun by Dame Nature." Any dull person she called "a bigger fool than her son Claudius." The infamous Nero was painted as an unnitigated blackguard, though Suctonius recorded that there were some who for a long time decorated his tomb with spring flowers. From Galba, Otho, and Vitellius the lecturer passed on to Vespasian. He was a soldier and a martinet. Vespas was the first to establish a regular salary for professors of Latin and Greek, and presented eminent poets and artists with princely largess and great rewards.

## SOLAR ECLIPSE.

## SPLENDID RESULTS AT WALLAL.

### THE EINSTEIN THEORY.

The Einstein theory still hangs in the balance. The photographs taken at Wallal have been partly examined, but it will take some weeks to complete the necessary measurements. This will be done in California.

Dr. W. W. Campbell, Director of the Lick Observatory, California, who was a member of the astronomical party which went to Wallal to observe the recent eclipse of the sun, is exceedingly pleased with the amount of data collected by the expedition, and the excellent photographs obtained.

Dr. Campbell, when seen by a representative of "The Chronicle" on Wednesday morning, stated that with regard to the Einstein theory no definite conclusion had yet been reached. Four Kinstein cameras specially designed and constructed throughout were used, and excellent photographs of the eclipsed sun and its surroundings were taken at Wallal on plates that were 17 in. square. In May and June last, ten corresponding night plates were taken at Tahiti for comparison. The procedure for testing the Einstein theory consets in comparing by means of an accurate measuring microscope each eclipse plate with the corresponding night plate star for star.

"Dust was our terrible enemy at Wallal," said Dr. Campbell, "and we were unable to develop all our plates on the spot in consequence. found it necessary to take the undeveloped plates to Broome, where space for darkroom work was supplied in the wireless

telegraph building."

After developing the plates Dr. Campbell and Dr. Trumper had time to measure the star images on one plate in one direction in right ascension and in declination, and the same measurements were taken on a corresponding Takiti plate.

"These measurements kept the macroscope busy 18 hours a day for four days," said Dr. Campbell laconically, Before there was time to measure those same places in the other direction it was necessary to pack everything for transport to

boild.

werth and California, "It was readily be seen," continued the doctor, "that it will take another 72 hours to complete the measurements of those plates, and there are nine other pairs to measure in a similar iashion. After the actual measurements have been taken, several weeks will be required for making calculations from the data." It is quite probable that a delinite conclusion on the Einstein theory will be reached before all the plates are measured, but with the examination of one pair only half completed, it was impossible for Dr. Campbell to make any pronouncement on the theory.

Speaking of Wallal, be said that terrestrial and sky conditions had both been excellent, and the actual day of the eclipse had, by a lucky chance, been the best of the whole 28. The programme for the instruments, other tean the Einstein cameras, had been carried through as planned. There were five spectrographs and the great 40-ft. camera for recording the necessary details of the inner corona on a large scale. This camera is a duplicate of that which the Lick Observatory loaned to the Adelaide Observatory for use at Cordillo Downs. Dr. Campbell, who explained that the Lick Observatory existed solely for research work, expressed himself as delighted with the photograpia obtained by the Adelaide party on the Cordillo Downs expedition. "They were beautiful photographs," he remarked, "and of undoubted scientific value."

#### DR. CAMPBELL AT THE OBSERVATORY.

His Excellency the Lieutenant-Governor (S.r George Murray), at a gathering on Wednesday at the Observatory, which included members of the S.A. Solar Eclipse Committee and the Observatory Board of Visitors, spoke of the formation of the ecupse committee and the eclipse expeditions in Australia, particularly of that to Wallal, of which the leader was Dr. Campbell, of the Lick Observatory. He asked Dr. Campbell to speak on the subject of astronomy in America and the work at Wallal.

Dr. Campbell said they had many very active observatories in the United States. The F. deral Government had established and maintained a very large, effective, and well-staffed one at Washington. Several states also maintained smaller observatori s, largely for the time service and the rating of c. ronometers, help, u to shi ping. Some small observatories, with obsolete justraments, might more fittingly be called museums. But it was not the size of the buildings or instruments that counted, although the lavorite American label was said to be "the largest in the world." It was the quality of the instruments and the quality of the astronomer, together ait a good situation, where the atmosphere was clear and there were many cloudless days and nights. California and Arizona gave good astronomical conditions, like the greater part of Australia. Most of America's great observatories were in the western half of the United States. "great" he meant "active," doing good Work, as, for instance, the Harvard, Yorke, the Lowell, the Mount Wilson, the Lick, the Allegheny. These owed their a nity to do work to the generosity of private individuals, who had high ideals. Millions of dollars were spent by them in helping astronomers to work at the problems of the sun and the stars. In the Southern Hemisphere observatories, like populations, were far below the Northern Hemisphere. But there was no tthat disproportion in the starry sky. And there was great need of expanding observatories in the Southern Hemisphere; indeed, some of the problems astronomers tried to solve could not be solved without southern work. It was usually said solar eclipses confined themselves to inaccessible and inhospitable regions. Wallala was much more accessible than he had at first thought. Australia had welcomed the Americans and Canadians, an din every way facilitated their work. The transport of instruments of such importance and weight was not easy, but it had been done. They were well satisfied with the photographs taken during the eclipse, but he could not give definite information for some time to come regarding the Einstein effect. He and his party appreciated very much what had been done for theme in Australia. This was the greatest eclipse expedition yet undertaken.

Mr. G. F. Dodwell (Government Astronomer) thanked his Excellency and the eclipse committee for their help in the Cordillo Downs expedition, and again expressed for South Australia appreciation of the help given by Dr. Campbell and Dr. Curtis in lending the valuable instruments for it, and in giving detailed advice

The visitors, who were entertained at uncheon by Mr. and Mrs. Dodwell, inspected some of the Observatory instruments, and the plates showing the corona and the Einstein stars taken at Cordillo. Dr. Campbell considered that these were very satisfactory, and congratulated the South Australian expedition on its success.

about them.

# AMERICAN OBSERVA-

AN INTERESTING ADDRESS Professor Kerr Grant, vice-president of the Astronomical Society, presided at a well-attended meeting of that body on Wednesday evening in the Institute Rooms, North-terrace. It was decided to adjourn the business of the annual meeting in order that those present might enjoy

an illustrated lecture on American Universities and Solar Eclipse Work by the Government Astronomer, Mr. G. F. Dodwell. Referring to the American observatories. Mr. Dodwell pointed out that they were largely financed by private munificence, and there was also a great interest taken in astronomy by the public. It was a remarkable fact that it was no more than 78 years since the measurements of the first fixed star had been taken. Now the number of stars so measured was continually increasing. The great Allegheny Observatory, which was known throughout the world, owed much to a Pittsburg mechanic, who had collected subscriptions for it in the first instance. A peculiar meident happened at this observatory when the lens of the big telescope was stolen, and the thieves demanded a heavy ransom for its return. Eventually through the firmness of the observatory director, who refused to be blackmailed, it was returned unharmed. The Thaw Memorial Telesscope enabled the Pittsburg observatory to do as much photographic work as the rest of the observatories of the world put together. Mr. Langley, the great pioneer of aviation, was the director. The Mount Wilson Observatory specialised in the study of the sun, its atmosphere, climate, &c. Their great 100-in, telescope was a marvellous instrument. At the Lick Observatory, California, they had a telescope 36 in, in diameter. This observatory made a special study of stellar motion. South Australia was under a debt of gratitude for the assistance of the Lick Observatory in loaning instruments which had been used so successfully at Cordillo Downs. He gave a brief outline of the activities of the South Australian party at Cordillo Downs on the occasion of the eclipse. The big 40-ft. telescope had given wonderful results. Some of the exposures had only been timed for one second. They had crected a wireless mast there, and were continually in receipt of messages, but it was a curious and significant fact that during the eclipse the wireless signals gradually faded out. Numbers of galahs were very much afraid during the phenomenon. and so were the natives until reassured. He considered that Australia should take up the study of some of the solar problems. There was a gap between Indian and American observatories which Australia should attempt to bridge. The lecturer answered a number of ques-

tions at the close of his address, which was illustrated throughout with lantern slides of photographs of the various instruments

and incidents described.

mis Threadgill

#### STUART'S EXPLORATIONS.

The last of the series known as Art Gallery lectures will be given to-night in the Public Library Lecture Room, Institute Building, North terrace. The public are invited. Admission is free. The lecturer (Miss Bessie Threadgill) will speak on John McDouall Stuart's explorations with particular reference to the man and his work, as it appears from unpublished documents, diaries, official records, correspondence, and so on, which she consulted while engaged in historical research. Illust trations by lantern slides will be shown. Miss Threadgill was the 1918 Tinline Scholar of the University of Adelaide, and her thesis, written under the terms of that edholarship, was published recently by the Public Library Board. The Chairman will be Professor G. C. Henderson, M.A.

AUSTRALIAN MUSIC EXAMINATIONS BOARD

The Universities of Melbourne, Adelaide, Tasmanis, Queeneland, and Western Australia, and the State Conservatorium of New South Wales. PUBLIC EXAMINATIONS IN PRACTICE OF MUSIC.

SEPTEMBER, 1922.

PASS LIST FOR SOUTH AUSTRALIA AND BROKEN HILL

(The name of the school or teacher precedus that of the candidate and is in larger type.) GRADE I.

PASS

CONVENT OF MERCY, Broken Hill (plane), English, K. DOMINICAN CONVENT, Clarence Park (piano), Luke, I. M.

GRADE IL HONOURS.

DOMINICAN CONVENT, Clarence Park (plane). Barry, M. M., Byrne, M. T. ELDER CONSER-VATORIUM (piano), Morley, E. M. PASS WITH CREDIT.

CONVENT OF MERCY, Angus street (plane); Bourke, E. M. Mias K. A. BASEBY (plane). Ingerson, P. L. Mrs K. MEEGAN (piano), Wilton, M. R.

PASS.

CONVENT OF MERCY, Angas street (pigno), Kenny, H. B., McArthur, J. A., Stewart, P.

> GRADE III. HOCTOURS,

ST. JOSEPH'S CONVENT, Brompton (plane), Dallow, A., Shillingford, J. CONVENT OF MERCY, Angas street (piano), Dacbeler, D. CONVENT OF MERCY, Mount Barker (plane), Maughan, D. Mr. H. HEINICKE (Fielin), Jacobs, O. Miss C. P. PALMER (plane), Stacey, M. M. Miss K. MEEGAN (piano), Stoneman, O. C.

PASS WITH CREDIT. CONVENTS .- CONVENT OF MERCY, Angus street (piano), Fricker, P. M.; Jury, P. J.; Quigley, L. A.; Woods, D. A.; (violin), Bower-ing, L. S.; (singing), Wirth, E. M. DOMINI-CAN, Glenelg (piano), Jackson, S.; Harland, G. DOMINICAN, Kapunda (plano), Newman, L. S. DOMINICAN, Semaphore (plano), Thomas, M. E. CONVENT OF MERCY. Mount Barker (plane), Eberhard, V. LORETO, Marryatville (piano). Hanson, R. H. ST. JOHN'S, Port Piric (plano), Naulty, R. ST. JOSEPH'S Alberton (piano), Pierson, M. T. Miss. A. G. WEBB (piano), Moyle, W. J.; Ohlmeyer, L. C. Miss A. MEEGAN (plane), de Ven,

J. Miss K. MEEGAN (piano), Ferguson, V. F. Miss T. MARTIN (plano), McEvoy, M. F. Miss C. P. PALMER (pinno), Mudge, M. H. Miss D. KEMP (plano), Oats, R. M. Mr. F. HOLMAN (phuo), Smyth, E. M.

CONVENTS .- DOMINICAN, GLENELG (piano)

Hack, N.; 'Krantz, P. MERCY, ANGAS STREET (piano), Harris, A. J. (singing), Fitzgerald, L. M. DOMINICAN, CLARENCE PARK (piano), Mahar A. de Sales. DOMINICAN, FRANKLIN STREET (singing), O'Grady, N. MERCY, BROKEN HILL (piano), Watson, R. MERCY, MOUNT BARKER (pfano), Siebert, E. MERCY, PARKSIDE (plano). Denn, G. ST. DOMINIC'S, N.A. (piano), McCabe, M. E. ST. JOSEPH'S, PORT ADELAIDE (plano), Woodall, E. M. Miss N. ATKINSON (phmo), Mc-Liney, C.; Norton, J. Miss M. ALEXANDER (piano), Cartledge, M. J. Miss DASBOROUGH (piano), Smith, M. Miss M. FOSTER (singing), Carter, I. M. Mr. T. GRIGG (violin), Bakhwin, V. J. Mr. F. Holman (piano), Wiesemeyer, L. P. Miss K. MEENSAN (piano), Co. J. M. P. Miss K. MEDGAN (wiolin), Cos. J. M. Miss C. P. PALMER (plane). Ryun, E. Mr. G. TRUSS (plane), Byrth, E. G. Miss E. M. TUCKWELL (piano), Williams, N. E.

> GRADE IV. HONOURS.

CONVENTS. - LORETO, MARRYATVILLE (piano), Bennett, V.; Pick, D. C.; Slattery, E. J. MHROY, ANGAS STREET (pinno), Jenkins, M. N.; Rive, D. V. (violin), Terry B. MERCY, BROKEN HILL (piano), Kenny G. Miss BOLTON (piano), McLay, A. H. Miss M. SMITH (singing), Erwin, G. Mas A. G. WEBB (pismo), Chlimeyer,

PASS WITH CREDIT.

CONVENTS. - LORETO, (piano), McGreg, E. M. (violin), Slat-MERCY, BROKEN (piano). Barrett. R. DOMINICAN, CHARENCE PARK (piano) Raleron, P. M. DOMINICAN, GLENELG (plane) Andrews, M. MERCY, ANGAS STREET (plane), Jacobs, M. M. MERCY, GOODWOOD (plane). Clark, E. MERCY, MOUNT BARKER (viola) Manghan, D. ST. JOSEPH'S, BROMPTON (piano), Duval, L ST. JOSEPH'S, POET ADE-Maughau. D. LAIDE (plano), Sohmidt, H. E.; Diereka, G. F. It. ST JUSEPH'S, KULINGTON (plane), Fay, M. ST, JOSEPH'S KINGSWOOD (plane), Conte, L. ST. JOSEPH'S, NORWOOD (pigno). Knight, A. Miss N. ATKINSON (piano), Hains, A. M.; Smedley, D. I. Miss M. RELL (piano) Haines, R. I.; Harris, E. M. Mess C. P. PALMER (piano), Gooding, M.; Tucker, R. E. Miss BOLTON (plane), Baker, M. J. Miss A. M. CON-OLE (piano), Harvey, E. E. Miss A. DUNN (pieno), Adams, D. M. Miss A. G. WEBB (piano), Knapostein, J. J.

GRADE IV. PASS

CONVENTS -CONVENT MERCY, Angas street (plane), Melntyre E.; (singing), Fitzgerald, E.; Guthric, B.; Harris, A. J. DOMINICAN, Clarence Park (piano), Griffin, L. M.; Kinnane, M. M.; Reid, K. L. DOMENICAN, Glenelg (piano), Horgan, J.; Hubehinson, M.A. DOMINICAN, Kapunda (piano), Cahalan, M.; Lee, C. COS-VENT MERCY, Broken Hill (pisno), Bill C .; (violin), Kitchen, P. L. ST. DOMINIC'S, N. L. (plano), Critchely, D. M. DONVENT MERCY. Mount Barker (plano), Solomon, R. CONVENT MERCY, Parkside (singing), Morony, K. ST. JOHN'S, Port Pirie (plano), Benseley, R. J. ST. JOSEPH'S, Kingswood (piano), Drever, M. F., ST. JOSEPH'S, Port Adelaide (piano), Morrell, N. M. Miss E. V. WHILSMORE (piano), Ryan, E. N.; Stone, W. E.; White, N. E. Mr. of. HOL-MAN (piano), Parker, E. W.; Day, K. E. Mr. G. TRUSS (piano), Bormann, N. N.; Wegeber, B. D. Miss A. WIEBUSCH (plane), Kleemann, N. G.; Thomas, M. Miss N. ATKINSON (piano).
Bannigan, F. M. Miss BOLTON (piano), Stafdord, S. K. L. Miss L. L. GILL (piano), Scoble,
E. Miss K. GRAHAM (piano), Holyonk, E. V. Miss M. HANNAFORD (piano), Beloher, A. L. Miss R. HARVEY (plane), Neil, E. R. Miss PHIPPS (plane), Nettlefold, V. M. Miss J. QUEAIN (plane), Feehan, J. Miss S. THOMAS (singing), Matthews, G. E. (singing), Matthews, G. E. Miss F. TUCK (singing), Allnutt, D. S. M. Miss A. WORDIN