Touching upon the pressing needs of a country placed in the position of Germany in obtaining munitions and food, he outlined how chemistry had materially asmisted the enemy in their distress. He pounted out how in the matter of metals alone it might be that at a cost probibetive under normal conditions, efficient suistrutes had been found. So far as concerned explosives, Germany was ready in many ways the moment war broke out to utilize her factories to the fullest extent With glycerine she was in much the same position as other European countries, inchiding Great Britain, all glycerine being obtained by the chemical treatment of animal and vegetable oils and fats. Probably the supply of fat was one of the most difficult problems Germany had to face, for other reasons than that it was a necessity for the productio of glycerine for exploman chemists we raining every nerve to devise a process capable of producing glycerine in quantity, even though it be at a cost prohibitive under ordinary conditions, and the longer the war lasted the greater was the danger that they might be successful. It was amazing that on spite of the urgent representations of Sir William Rameny, one of the most promi-nent of British chemists, steps were not taken early in the war to prevent, so far as possible, the entry of cotton and fat into Germany. It was not too much to say that had that course been taken Germany must have been very seriously hampered for want of material. Now it was too late. -Possibilities of Research Work .-

-Germany's Difficulties.

Turning to the question of food supply. chemistry played a much more important part than was generally realized. Fat was important as an article of food. Although it was a moot point with physiologists whether or not fat could altogether be re-placed by other non-nitrogenous food constituents, yet it was generally recognised that the most perfect nutrition could not be obtained without an admixture of fat. It was highly improbable that synthetic products made up of artificially prepared chemical compounds could to any appreciable extent be used as substitutes for natural foods. German chemists, however, according to their own technical journals, had succeeded in making a very ingenious application of biochemical facts which had a very ingenious hitherto attracted little attention outside of the scientific laboratory, and they had been able to produce enormous quantities of food suitable for horses and cattle, and even, it was said, fit for human consumption. In other directions, too, there had been great progress in the Central Empires in producing chemical products, such as in manure, so essential in a soil like that of Germany, which as a whole could not be described as good. In supplying the immense quantities of ammonia required, the Germans again had had recourse to scientific research, and two other classes of products remained in dyes and drugs. However little importance might at first glance attach to the former, it should be realized that apart from the great trade interests involved the British for a time were confronted with a difficulty in the supply of navy blue and khaki. A private manufacturer was able to tackle the problem, but it was important to observe that in this vital matter the initiative was not with the Government. A special committee was now at work in Australia investigating the possibility of utilizing local natural products for the preparation of khaki and similar -England's Relative Failure .-It remained to my something as to the

causes of the relative failure of Great Britain to provide for the production within he: own borders of those materials the supply of which became necessary on the outbreak of war. In the first place, for many years wealth had been accumulating to an extraordinary degree, and the loss of a few industries, regarded as of minor importance, did not for the time being in any oppreciable degree lessen the prosperity of the Empire. Britain was content to rely upon external sources for the supply of foods which were essential when the crisis arose in 1914. Then came the crash, with the complete breakdown in the supply of chemicals required for divers purposes. pointed out by Professor Pope, of Cambridge, "The appalling calamity which has devastated the world is directly traceable to the contempt with which experimental science has been systematically treated by the more influential circles of the British community." Other great authorities had poken in similar strain. Such had been the condition of affairs in the past, but happily, continued the speaker, there were indications that the nation was beginning to be aware of the necessity for a complete change of front. In this State the present Minister of Agriculture, the Hon. R. P. Blundell, in 1915, cetablished a Department of Chemistry, the first in Australia, under the directorship of Dr. Hargreaves. With a similar object in view, the Prime Minister had appointed an Advisory Council of Science and Industry, whose province it was primarily to deal with pro-blems, chemical, physical, engineering, and biological, which had a bearing upon maternal as distinguished from local industries, and it is intended that there should be a permanent institute of some

kind under the direction of men or high

ecientric attainments.

In conclusion, Professor Rennie pointed out there was a wide field for work in botany, blology, chemistry, and other branches of science in Australia. The harvest truly was plenteous, but the labourers few. Unless, and until the powers that be were prepared to liberally asset and promote such work, many of the resources of Australia would either be left onotilized, or utilized by others to the country's detri-ment. It was surely high time that the whole community should be aroused to a realization of the absolute necessity for the employment of men of expert knowledge and experience in all departments of national work, if national prosperity was to be attained. (Applause.)

## advertiser 14.12.19

INDIAN INTERESTS. To arrange for Indian post-graduate atudents to complete their training in Commonwealth universities is one of the objects of Professor C. F. Andrews, arrived in Adelaide on Thursday by the Perth train. He was at one time in the Puniab University, but recent'y he lived with Sir Rabindranath Tagore, the celebrated Indian poet, who won the Nobel prize. "If those young men come out here," said Professor Andrews, "they will gain experience of the West and finish their studies. I have a ready interviewed the authorities in Sydney, Melbourne, and Perth, and they have regarded the question very favorably. The White Australia policy would in no way be offended, because they would be only temporary residents. The war has made it extremely difficult for Indian students to go to England, and Australia is very near, and is less ex-pensive. Another part of my proposal is that there should be an interchange of University professors. The long vacation in India corresponds with the full term time in Australia, and vice versa. The Australians could be in India during the cold months." Acting under instructions from the Indian Government, Professor Andrews visited Fiji for the second time to enquire into the conditions of the coolie laborers, and he is now on his way home to make his reports. "The Indians are living under a worse state than that of two years ago," he observed. "That is entirely due a moral question—the disproportion of the sexes. Nearly 40 years ago people were brought out from India in the ratio of 40 women to every 100 men. The consequence is appalling immorality. There are nearly 60,000 Indians in the Fiji islands. and it is of vital importance that they should be restored to the high standard under which they lived in their native country. Proposals have been made to send back the bachelors as soon as possible, and allow them free passages for themselves and wives to Fiji. Things would right themselves a good deal if that were done. At present the suicides are 20 times as many in proportion as in India, and most of them are due to jealousy about women. The housing system in Flii is simply disgraceful."

## UNIVERSITY OF ADELAIDE. A meeting of the Council of the University of

Begister 15.12.17

Adelside was held on December 14. Present—
The Chancellor, Vice-Chancellor, Hon. F. S.
Willia, M.L.C., Messes, Chapple, Beookman,
Bayly, Masschan, Caterer, Talbot Smith, and
Ishleter, Dr. Poulton, Dr. H. Mayo, Professors
Eanis, Stirling, and Rennie. The resolution of
the senate regarding the names of enemy subjects the senate regarding the names of enemy subjects on the list of graduates was further considered, together with letters from he Royal Society of St. George and the All-British League, and it was resolved to omit such names from the list of graduates in the calendar and to add a note to that effect. It was decided to offer the first of the Eugene Scholarships for competition at once. Mr. John Grampton, B.A., was appointed lecturer in the French language in the Faculty of Arts and teacher of French in the Elder Conservatorium. The David Murray Scholarship for acceptance in 1918 was awarded to Mr. S. L. Kessell, Mr. W. J. Isbister was elected Dean of the Faculty of Law, and Mr. G. Brookman was appointed Chairman of the finance committee for 1918. The report of the joint committee of tutorial classes regarding the work of the session tutorial classes regarding the work of the session for 1918 was approved. The various committees

of the council and members of the council on Faculties and boards for 1918 were appointed.

Reguele 15.12.17

FOREIGN PROFESSORS OSTRACIZED.

The council of the University of Adelaids, at a meeting presided over by the Chancellor (Sir George Morrey) on Friday, decided that the names of enemy subjects should be exceed from the roll of graduates of that institution. This step is the outcome of the following motion presented by Dr. Bronte Smeaton at the re-Senate:- That it is the opinion of this senate that no enemy subject of the Empire should hold or retain any position or academic degree in this University." The motion was carried by 32 votes to 6, and the decision of the senate was reported to Chapple). The names of two foreign profersors of science, who were admitted ad eundum in 1914, will accordingly go from the roll after a shortlived presence there. The scientists in question are: -Professor Albrecht Penck (a German, who also had the degree of Doctor of Science conferred upon him at Oxford in 1907) and Professor Felix von Luschan, Ph.D. and D.Sc. (Ade-laide), an Austrian.

Register 19.12.17 SOLDIERS FOR UNIVERSITIES.

Four more Australian soldiers will go to Oxford and Cambridge during January for a year's intensive education under the scheme by which the Rhodes Trust and Kitchener Fund provides £250 for each stollent.

## advertises 21.12.1. THE UNIVERSITY OF ADELAIDE. PUBLIC EXAMINATIONS BOARD.

N.B.—In all the bonor lists un x precedes the names of candidates who are over 17 years of age. Lo General Honor List, The following is the order of merit of can-

SENIOR PUBLIC EXAMINATION, 1917.

The following is the order of merit of candidates who have distinguished themselves in the whole examination. The first three candidates on the list who are under-age receive the three prices:—1. xiglaess, F. J. H.; S. Gross, K. B.; S. Dawbaro, M. C.; 4. Thyer, F. L.; 5. Crampton, M. H. St. C.; 6. Leidig, L. A. E.; 7. xMitchell, I. P.; S. Boucaut, H. R. P.; 9. Last, R. J.; 10. McLean, M. L.; H. Dahry, K.; E.; Harris, G. B.; 13. xWilmshurst, H. R.; 14. Mitchell, M. L.; 15. Bednall, M. W.; 16. Prisimore, R. V.; 17. McAnaney, R. M.; 18. Clark, A. B. F.; 19. Burgess, N. C.; 20. Perkins, H. J.; 21. xHogan, L. M., Barnard, H. L., equal; 23. Phillips, F.; 24. Dawson, A. L.; 25. xBarton, I. C.; 26. xBeart, K.; 27. Forgan, S. B., Wigg, N. T. M., equal; 29. xStevens, E. K.; 50. xPresser, L. A.; 31. xTheor, W. V.; 22. Jovee, M. E. E.; 33. Pulleine, A. L.; 34. Jenner, R. L.; 35. xTemme, H. H.; 26. Catchpole, J. H. R. F.; 37. xBruhn, H. H., Peirce, A. W., equal; 39. Emrland, C. W.; 60. Chiek, W. E. K.; 61. Moreland, J.; 42. Fahry, G. A.; 42. Garrett, J. D.; 44. Goode, B. F.; 45. Buttery, R. R.; 6. Lendon, A. H.; 47. Blackham, B. H.; 48. Flower, C. H. K.; 49. Mackensie, O. K.; 50. xRice, A. T.; 51. Holmes, E. L.; 32. Beaumont, G. M.; 53. xBrady, F.; 54. Lumshel, M. R. A.; 55. Keind, A. D.; 56. xFerguson, W. T.; 59. Koerner, J. F.; 60. Milway, R. H. O.; 61. Thomas, M. P. C. H.—SPECIAL HONOR LISTS. II.—SPECIAL HONOR LISTS. The following lists show the order of merit of candidates who have distinguished themselves in the separate subjects. Where subjects are commen to both Senier Public and Senier Commercial examinations, the numbers indicate the position of Senior Public camildates, after combining the results of the two examinations. The names of the Senior Commercial camildates are shown in

the special bonor lists of that examination: English Literature, English Literature.

1. Crampton. M. H. SiC. (Tennyson Medal);

2. xBrasher. W. J. H.; 3, Burgess, N. C.; 4, xBeart, K.; 5, xBlaces. F. J. H., Dawbarn, M. C., equal; 5, xMitchell. L. P., xMoll, E. G., equal;

10. Lamshed, M. R. A., McLean, M. L., equal;

12. xCleggett, D., Henderson, M. L., xKelly, M. J. F., equal; 16, Barnard, H. L., Breaden, M. C., xMachell, J. E., equal; 10, xBeer, R. D.; Clark, A. D. E., Garrett, J. D., Gross, K. B., equal;

21. Boucaut, H. R. P., xChradle, M. F., xCorrell, L. M., Keynes, E. M., Spurling, N. K., xStevens, E. K., equal.

K., equal, Modern History.

1. xHardy, M.; 2. xBlass, F. J. H., Dawbarn, M. C., equal; 4. xMitchell, L. P.; 5. McLean, M. I.; 6. xCorrell, L. M.; 7. xSperber, C. C. xTracker, R. H., equal; 8. xPresser, L. A.; 10. xKochne, H. D., xUebergang, W. R., equal; 12. Holmes, E. L.; 13. Harris, D. S., xMuecke, J. M., equal; 15. Milway, R. H. O.; 16. Garrett, J. D. Ancient History.

1. ABrady, F. Greek 1. xNaylor, M. D.; 2. xCanney, R. F.; 3, Thomas, M. P. C.; 4, Holmes, E. L.; 5, xMagarey, K. deB.; 6, Ure, G. H.; 7, xWall,

Latin equal) 2, xRlams, F. J. H.; 4, Dawborn, M. C.; 6. Daltry, K.; 6, Gross, K. B.; 7, Burgess, N. C., allornabrook, B. D., equal; 9, Halmes, E. L.; 10, Thomas, M. P. C.; 11, Harper, D. A., M. H. H., equal: 15, Bedfmill, M. B. F., astevens, E. K., equal: 1050 16.

PERSONAL. L. Crampton, M. H. SeC.; E. Downson, M. C., Harris, G. B., espect; 4. allears, K., affellowebilin, F., equal; 6. Boutant, H. R. P., Thomas, M. P. C., equal; 8. Obses, W. E. K., attrace, A. L., Holmen, E. L., Joyce, H. E. E., equal Cherry Can Arithmetic and Algebra.

J. Dansen, A. L. T. S. Breiter.

Arithmetic and Algebra. Anthenesis and Algebra.

1. Ourseen, A. L.; Three, F. L., equal; L. abiliance, I. P.; L. Pornesse, R. O.; L. Lain, R. J.; Cherry, R. W. T. Bengara, H. R. P.; English, P.; Rengara, A. H., equal; 10, happen, J. C.; L. Bengara, A. H., equal; 10, happen, J. C.; L. Problemen, R. V.; H. Gale, H. C.; La cherry, R. P.; 16, Dodd, F. H.; effection, L. R., equal; 19, Rengrand, G. M.; Parrent, T. A.; Lone, T. G.; Moreland, J., equal; 18, and the contract of the contract Moreland, J., equal: 85, assures, J. K.: 21, a Woodley, E. R.; 25, McAnaton, R. M.; Morre, M. C., equal; 87, aClark, A. M; Haridson, A. T; MacKenzis, B. K.; a Willinsonest, H. R., equal, Mackensia, B. K.; xWillinsourst, H. R., equal, Greatments.

1. Rowcess, N. C.; C. xRibers, F. J. H.; X. xMacLachian, B. H.; L. Bedhall, M. W.; 5, Pennsis, R. O.; 6, Clari, L. F.; Decid, F. H.; Loca, H. O.; Pridmore, R. V., equal; 19, Catchpool, J. B. R. F.; Master, R. L., equal; 19, Catchpool, J. C.; Poirce, A. W.; xWilliams, J. L., equal; 15, x. Lander, N. O. J.; Rememon; G. M.; McAnaney, R. M., equal; 18, Fabey, G. A.; Leolig, L. A. K.; xvan Senden, H. R., equal; 21, Duliry, h.; Davelare, M. O.; xhaton, R. J.; Farrent, T. A.; Goode, B. F.; Green, K. B.; xPlunker, N. A.; Reid, A. D.; Thyer, F. L.; Windle, J., equal; H., Lausson, A. L.; xhorealensok, R. D., equal; H., Goulter, L. L.; Jover, M. R. E.; Lee, R. J.; Millient, C. J.; Reyvolts, R. M. H.; Winzood, W. W., equal. II. W., oqual-Trigonometry.

1. xCooper, T. H.; Z. Bearmant, G. M.; Bearmy, H. R. P.; Burns, J. C.; Last, R. J.; Fall-Most, F., espai; T. Burnes, X. C.; S. Clark, A. D. Z.; McLean, M. L.; Nicolson, R. G.; xWilmerbrott, H. R., espai; M. E.; Tayer, F. L., espai; M., Lister, J. G.; Josep, M. E. E.; McAnaney, R., M.; xMcDonald, P. A.; Pridmore, H. V., espai; M.; xMcDonald, P. A.; Pridmore, H. V., espai; M.; xHaghes, E. A.; Jenner, R. L.; Minchell, M.; Clark, E. A.; Jenner, R. L.; Minchell, M.; L., equal; 20, Buttery, R. R.; 30, Lepton, A. H.; xPope, A. F. U.; Trelour, Y. L., equal.

Paymics. Trigonomusty. Physics, Phy Inorganic Chemistry

I. Gross, K. B.; J. Carten, F. K.; J. Persins, H.

J.; J. Glamontony, K.; J. Pomray, E. O.; G.

allarton, I. G.; T. Wigg, N. T. M.: Lendon, A.

II.; Oliphant, M. L. E., equal; 10, England, C.

W.; Reid, A. D., equal. 1. xBirch, H. M.; 2. xPresser, L. A.; 3. xBs; four, A. L.; Reymolds, B. M. H., squal, Solary. 2, xPadmau, A.D.; 2, zMuccke, J. M.; Physical Geography and Geology, 1. Gross, K. B.; S. Lameshed, M. R. \*Rischner, C.; 4. xOpie, E. J. S. PASS LEST. I. List of candidates who have passed in fire or more stationts, and who, therefore, receive san Parish Liberture, Ke: Modern Ris ope, Ma;
Ancient History, Ant. Greek, Gh; Latin, Lo
Prench, F: German, Gn: Arithmetic and Algebra,
AA: Geometry, Gt: Trigonometry, Tu: Physics,
Pe: Inorganic Chemistry, G: Physiology, Pi;
Plotine, St: Physical Geography and Geology,
Pr: Drawing, D: Theory of Music, M. certificate. in a denotes combin Addison, Gerald Boweran, Le, Mb, L. AA, Gr., Pc, C; Alcook, Lucy Ella, L. AA, G., Te, Pc, Aldersey, Anda Egerton, Ek, Gr., Te, Pc, D; Allmond, Naona Olive Jeanne, Mh, Gix, Te, Pc. Attendent, Naone Olive Jestine, Mh. Giz, Fr. Pe. B.; Altendent, Flora Wilhelmion, Fg. Mh. L. G. Tr. Anderson, Alan Bruce, A.L. Gi, Tr. Pe. G. Anderson, Ellen Dorothy, L. AA, Tr. Pe. D. Angus, William Roy, Eg. Al. Gi, Tr. Pe. G. Angus, William Roy, Eg. Al. Gi, Tr. Pe. G. Angus, Walther, Eg. L. Gix, Al. Gr. Archibald, Greendolymne Maude, Fr. Mh. L. Ma. Gr. Tr. Pg. A.A. Gi, Tr. Pg.

Hallour, Alice Linn, Fr. M. Tr. Ma. Gr. Ma. Gr. Tr. Pl. Auricht, Johannes Edwin, Er. Mil, Gr. AA. Gt. Tr. Pr.

Ballour, Alice Linn, Eg. Mh. F. Pix, Pr.;

Barnard, Howard Lucas, Tex. L. AA. Gt. Tr. Pr.

C. Rarton, Ian Campbell, Eg. L. Go. AA. Gt. Tr.

Pr. C. Rarton, Ian Campbell, Eg. L. Go. AA. Gt. Tr.

Pr. C. Rarton, Ian Campbell, Eg. L. Go. AA. Gt. Tr.

Pr. C. Rarton, Ian Campbell, Eg. L. Go. AA. Gt.

Pr. Reaugnant, Goodfeev Mark, L. Akx, Gfs. Trx.

Pr. C. Beaver, Gwenyth Muriel, Et. Ma. P.,

Pr. Beimpourt, Goodfeev Mark, L. Akx, Gfs. Trx.

Pr. C. Beaver, Gwenyth Muriel, Et. Ma. P.,

Rt. Pr. Bednall, Maurice William, Mh. Ist, F.,

A. Gtx, Trx. Pr. C. Birch, Hugh Melatire, Er.

Iv. P. AA. Pixe Blackham, Reatrice Hamilton,

Six, Mh. L. F. Gt. Trx. St. Blean, brokerick

John Henry, Egx, Mox, Lv. Gux, AA. Ge. Pr.

Pr. C. Bellen, Loria Williamil, Eg. AA. G. Pr.

Gt. Roncaut, Hillary Ray Penn, Egx, L. Fx, Ax.

Gt. Tgx. Pr. C. Brady, Francis, Eg. Ahr, L. F.,

M. Pg. Bridsland, Du Victoria, Mb. L. AA. G.,

Tr. Bl. Brain, Herbert Henry, Eg. Ma. L. G.,

AA. Gt. Tgx. Pc. C. Barre, John Cumming, Ga.

AA. Gt. Tgx. Pc. C. Barre, Norman Ceeft, Egy, Ix.

AA. Gt. Tgx. Pc. C. Barre, Roland Richard,

Fr. L. Ge. AA. Gt. Tgx. Pc

Cam, Gilbert Roy Gladsteine, Kr. L. G. Tg.

Currelchuel, Domaid Rose, Lg. Mb. AA. G.,

Tr. Pe. C. Cartee, Frank Killingbrok, Eg. AA. Gt.

Tr. Pe. C. Cartee, Frank Killingbrok, Eg. AA. Gt.

Tr. Pe. C. Cartee, Frank Killingbrok, Eg. AA. Pt. Car

unn, Lames Doughes, L. AA. Gt. Te., Pc. C. Cam, Lonice

toundoline Clifford, Eg. Aa, LaF. AA. Pt. Car

unn, Lames Doughes, L. AA. Gt. Te., Pc. C.

Chearlie, Margaret Frances, Egx, F. Gf. Pl. R.

Chiele, Windfred Edith Kathleen, Eg. L. Fx. A.

Chiele, Windfred Edith Kathleen, Eg. L. Fx. A. Gt. Tg. C. Bt: Glark, Allson Marjories Mh. F. Ax. Gr. Tex: Glark, Allan David Lowerth, Egg. Mh. L. AA. Gr. Tex. Po. C: Glark, John Francis, E. M. Gix, Pex. G. Clearett, Boris, Rex. Mh. E. AA. Gr. Pex. G. Clearett, Boris, Rex. Mh. L. AA. Tg. Po. Coloman, Vera Roby, Gg. Mh. AA. Gr. Tg. Colcell, Regimabl. Eg. L. F. AA. Pc. C: Crampton, Mars Hope St. Chair, Egs. Mh. Ab. Rx. Ex. Pl. Bt; Crookall, Borothy, Re. Ma. L. F. AA. Pc. C: Daltry, Kate, Eg. Mb. Ix, F. Ch. Gr. Tg. Bt. Davis, John Godfrey, Rr. A. Gr. Tg. Bt. Davis, John Godfrey, Rr. A. Gr. Tg. Pc. Davis, John Godfrey, Rr. A. Gr. Tg. Pc. Davis, John Godfrey, Rr. L. Gr. Tg. C: Danbart, Mary Campbell, Rex. Max, La Fa. A. Gr. Tg. Pc. Davisen, Algred Link, Eg. L. Ch. Gr. Tg. Pc. C: Denton, Guyrith Rennatin, Fg. Al. Gr. Tg. Fc. Di Dedge, Eita Fredericke, Gk. A. Gt. Tg. Fc. Dr. Dedge, Eita Fredericke, Gk. A. Gt. Tg. Fc. Rita Fredericke, Ok. CA, Git.
Affect. Bruce Courbo.
Affect. The Per Press.
En. Ma. L. P. Ott Doller. Personal Provide Gily Why OHERS.