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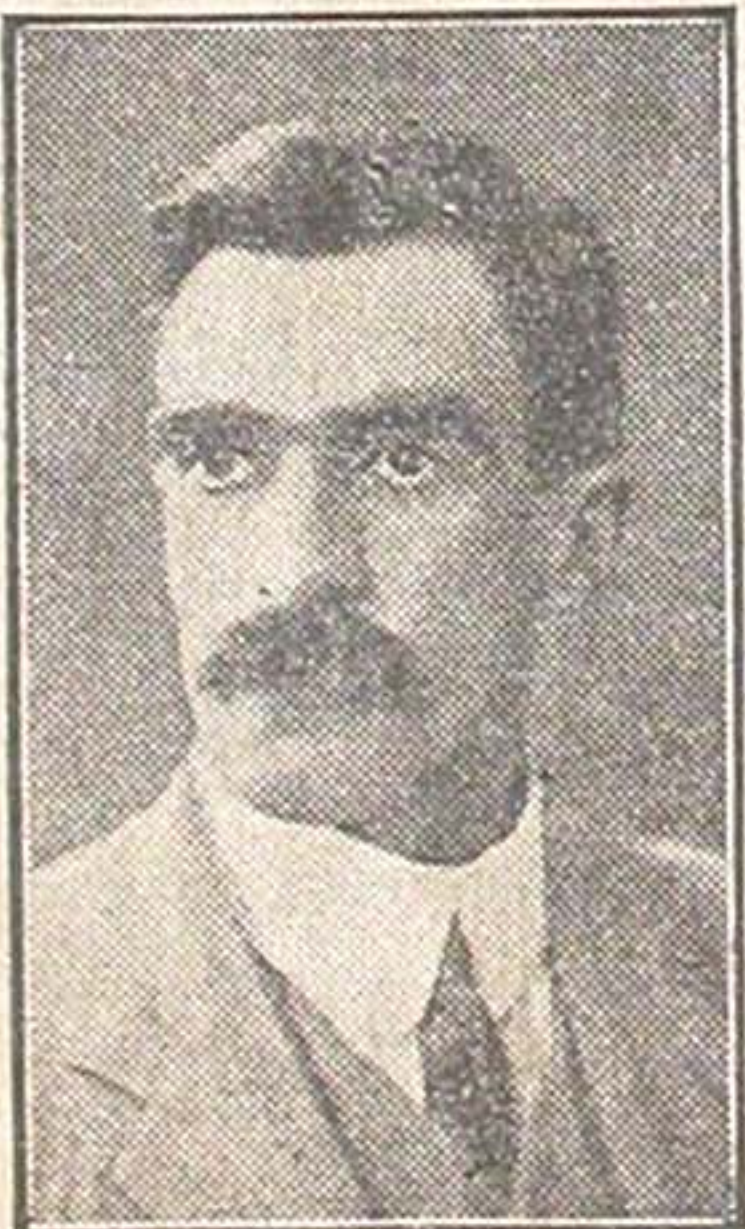
WIRELESS ENTHUSIASTS IN ADELAIDE.

Experiments at the University.

The decision to provide a course of extension lectures on theory and practical demonstration in wireless telegraphy at the Adelaide University has evoked a remarkable response, and all classes are eagerly availing themselves of the opportunity to learn something of this fascinating science.

Professor Kerr Grant and his staff have been working busily at the University for the last few days to instal an experimental plant for the surprising number of enthusiasts who have decided to enter upon a wireless telegraph course, both in theory and practice. There will be one lecture in theory delivered each week, and the course will extend over three months. So many signified their intention of entering upon the practical course that three classes instead of one have had to be formed, and it is probable that further classes will be made up later on. A high-pressure alternator has already been installed, and many interesting and useful experiments will be undertaken by the students under Professor Kerr Grant's supervision.

The first lecture of the series was delivered on Monday at the Prince of Wales theatre at the University, when 150 students assembled. It was in many respects a remarkable audience. The lecture began at 5.40 p.m., and this, no doubt, was responsible for the fact that a number of mechanics, who had evidently come straight from work, were present. A well-known Adelaide



Professor Kerr Grant.

dentist and several business men rubbed shoulders with alert-looking lads, some of them apprentices to various trades, others office boys, and many of them evidently still of schoolgoing age. The fair sex was represented by one young lady in the audience, but it was noticeable that she did not sit the lecture out.

An outburst of applause greeted Professor Kerr Grant when he appeared, and the whole atmosphere was redolent of youth and enthusiasm. Determination was evident on the part of even the youngest present to master the intricacies of their chosen hobby, and the small boys were the most voracious note-takers. There was a hurried jotting-down of names of authors when the lecturer mentioned several text books, and his smiling announcement that he feared most of the books would have to be procured from England, and that they were expensive, was tempered by his assurance that he had already provided the nucleus of a small library for the wireless students at the University. Professor Kerr Grant also

mentioned that there was a particularly good range of books on this subject, as well as the latest magazine publications, at the Public Library.

The lecturer said the first few addresses would necessarily be of an elementary character, for some of them who might know a good deal about the working of wireless sets would know nothing of the theory. Science and art were combined in wireless telegraphy. On the principle of practice and understanding a combination of the two made the best practitioner. There had been a most extraordinary outpouring of books lately dealing with wireless telegraphy. It was really hard for an author to make his book up to date, for while he was writing it some new discoveries were bound to be made. He feared most of the books they required would have to be obtained from England. Once they were acquainted with the electrical theory there was a great deal to learn from even the most elementary books on the subject. They would find that mechanical analogy was exceedingly helpful in working out problems of electrical currents. Each wireless installation had its receiving and transmitting stations. An electric circuit might be compared to a continuous pipe in which water was flowing. If that pipe were fitted with a centrifugal pump the same quantity of water would pass every section. Just as the water must flow through the centrifugal pump the electric current had to flow through the battery. As the current of water depended on the driving force and the frictional resistance of the pipe, so did the current depend on the battery for its electro-motive force, and the frictional resistance in this case was supplied by the wire. Current could be measured by the quotient of the force and resistance which represented Ohm's law. Electro-motive force was measured in volts, currents in amperes, and resistance in ohms. For measuring the first two volt-meters and ammeters were in use. An ammeter which must be connected in the circuit must have a low resistance; a voltmeter which was placed across the generator had a high internal resistance. Everyone engaged in wireless must be able to measure his currents, and voltmeters were absolutely necessary. The same instrument, however, could be used for measuring volts and amperes if a little ingenuity were displayed and combined with the use of a soldering iron and fine wire. The millivolt meter was the best for the purpose. For measuring a higher voltage they simply raised the resistance, and for measuring amperes they lowered it. In using a valve in wireless the internal resistance was sometimes very high indeed. He explained how a shunt could be made. Currents could easily be altered by means of a shunt, which could be made with a little Eureka wire. The lecturer then dealt with the combinations of resistances, showing the difference between those when the coils were placed in series (end to end) and when they were parallel.

In alternating currents it was best to deal merely with conductances. Electric current was conducted to the ordinary lamp by means of a thick copper wire and very little energy was lost until the amp. with its fine wires, was reached. The greater the resistance the greater the heat of the current. Resistance could be estimated in terms of the power used up in the circuit, and the volts multiplied by the amperes. In alternating current Ohm's law did not apply, in a number of radio circuits in particular. There was positive and negative resistance. In the case when power was expended in circuit it was said to be positive. In certain circuits, however, the resistance was purely negative.

At the conclusion of the lecture a number of those taking the practical course adjourned to the laboratory, where experiments in connection with alternating and direct current were carried out.

CRIME, HEREDITY, AND SOCIETY.

OBJECTIONS TO THE DEATH PENALTY.

"The tendency to crime is a moral trouble, a trouble of the will," said Professor Coleman Phillipson to a large audience at the Adelaide University last evening, when he delivered a lecture on "Crime and Punishment."

It had been held, the professor stated, that crime was a disease, and that criminals, especially habitual criminals, had no real responsibility, as their conduct was due to their disease, defect, or abnormal conditions. There were two forms of this view. First, some people claimed that these conditions were due to an adverse social environment, so that the responsibility would be shifted to the community. This view was untenable because other circumstances played a part. Adverse conditions did not usually breed criminals, and offenders abounded despite the absence of much adversity. It was superficial and unfair to make society the scape-goat. Man was not merely a slave of environment, but could and did make his environment.

Heredity and the Criminal Class.

Others said the criminal was the product of heredity. This view disregarded social and educative influences, and the way a hereditary handicap was often overcome. Frequently it was a mere arbitrary assumption. Connected with this theory was the assertion that there was a distinctive criminal type or class. The anthropological school of criminology, headed by Lombroso, spoke of "instinctive" or "born" criminals, foredoomed to a life of crime and distinguished by various physical traits, especially in physiognomy. This theory was as erroneous as it was dangerous. It was erroneous because of the haphazard generalisations and the omission to define a normal law-abiding man. It was dangerous because there might be a tendency to use the different physical marks as evidence of criminal conduct and to take the word "criminal," which was a purely conventional sign to stand for a race of men, distinct biologically, facially, mentally, morally, with the brand of Cain upon them, inhuman monsters, predestined to evil and social hostility. Besides, did the peculiar physical and mental constitution lead to crime, or did criminal activities bring about a certain look or certain physical characteristics? Dr. Goring's investigations had entirely overturned Lombroso's view and had revealed a wider physical divergence between Oxford graduates and Cambridge graduates than between criminals and either of these.

Disease Theory and Sentimentalism.

A special danger of regarding crime as disease and sentimentalising on criminals as predestined to crime was that it negated personal responsibility and put them on the same basis as patients at a hospital and lunatics at an asylum. The criminal's trouble was moral and social, and was due to the extreme form of selfishness which disregarded the rights of his fellow-creatures. Further, a criminal made use of this view as a pretext and excuse for his doings, and laid the blame on society or his forbears. The notion that he could not help yielding to temptation weakened, through the influence of suggestion, the power of resistance in the hour of temptation. Further, the criminal came to believe it, and so set himself all the more against society and its laws, and was the more strongly induced to prey upon his neighbors. Even if crime was a disease of heredity, society had the right to punish. The contrary declarations of such men as Tolstoi involved self-contradiction, and if adopted, would land society (which had taken thousands of years to evolve) into primitive savagery and chaos. They applied remedies to diseases of the body and the mind. The tendency to crime was a moral trouble, a trouble of the will. The resisting power of the will was weak, and was overborne by temptation. Hence they must strengthen the will power by adding another motive, namely, the fear of punishment, so as to over-balance this force of the temptation.

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Great interest was shown throughout the lecture, at the termination of which a practical demonstration was given in the demonstration room.

Registered
10 SEP 1923

UNIVERSITY STUDENT'S CONCERT.

Last month when it was announced that Professor Wood Jones had resigned the chair of anatomy at the University of Adelaide, his students decided to hold a concert to bid him farewell. This function was given on Saturday at the Prince of Wales theatre at the University, not as a farewell, but as a rejoicing at the postponement of the departure. The concert opened to a crowded house of students, their friends and relatives, by the "Asterisk" jazz band, which included Messrs. Lamphee and Kirk Reeves (violins), and Morey and Boucant (ukeleles), Salter (xylophone), and Reid (kettle drum). An encore was given. "Shorty" Hamilton as the "Laird of Cockpen," wooed and won "Biddy" Cowle, the maid from Clavershale. Messrs. Morey and Reid won well merited applause for their topical ditties, cleverly sung to the ukelele, in which such celebrities as "Simy" Newland, John Corbin, Bill Ray, Billy Fuller, Wood Jones, Chas. R. Hodge, and the Hones and Lendons, were all featured, and of course, Professor Robertson's white mice were not forgotten, and Professor Marston's recent publicity did not pass without comment. Misses Parton and Verna Hackett danced as pierrot and pierrette. Miss Anne Ross then sang two numbers, "Little brown owl," and "Song of sleep." Miss Verna Hackett next held the audience with "The schooner Hesperus," and other poems, in delightful confusion, amid disturbance from some Hindley street identities looking for a 10/- note, which, it was announced, had been lost by Professor Wood Jones, and was eventually found under Miss Hackett's heel. G. Morey then sang a coon song, and "Mighty lak a rose" to the accompaniment of his banjo. The interval was preceded by a ballet, in which Anne Ross and Kirk Reeves serenaded a window for Gordon Smith, who was looking for his "Telephone girl," after three "roughs." Doug. Salter, Kath. Reed, and Malcolm Cockburn, had also had a try, it turned out that the 'phone girl had given him the wrong number. After the interval the audience were entertained by "the Bandicoots" (Messrs. Salter and Willing suitably dressed), and then with "Woodie's rats" (Leporilli Jones), which went to the dogs—by Misses Cowle, Kath. Reed, and finally by "all the other Marsupials" (Messrs. Gordon Smith, Reed, and Hamilton, each provided with a pouch and suitable contents). G. Morey and Anne Ross sang "I've got everything I want but you," "My Ladies' Eye" was a screaming farce, by Biddie, Shorty, and Gordon Smith. Two violin solos by "Kirk" Reeves were splendidly rendered, and well received. "Riding down from Bangor," was given with success, and was followed by a chorus, "Going home," and "Good-night Woodie, we're going to leave you now." The National Anthem concluded the performance.