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REG. 7-6-28

ST. ANDREW'S COLLEGE OPENING.

On Wednesday afternoon His Excellency the Governor (Sir Alexander Hore-Ruthven, V.C.) performed the opening ceremony of St. Andrew's College, Mitcham. It was founded last year as the result of the building and land having been presented by the family of Sir John and Lady Duncan. Our photograph shows a scene during the inaugural proceedings.

REG. 7-6-28

THE MAN ON THE LAND.

SCIENCE ON THE FARM

Sir John Russell's Lecture.

An Instructive Discourse.

How modern farming has advanced during the past 40 years was ably explained on Wednesday evening by Sir John Russell, who arrived in Adelaide on Sunday evening. Sir John is the director of the Rothamsted Experimental Station, England, which was founded in 1843, and it is the oldest agricultural experimental station in the world.

Sir John arrived in Western Australia recently on a trip through Australia, and on Wednesday evening, at the Brookman Hall, at the School of Mines, he delivered an interesting lecture on modern science as applied to agriculture, and his splendid discourse was made more interesting by the many slides which he showed. They disclosed the practical sides of farming and the different phases of agricultural life were clearly enunciated by the lecturer.

The Chief Justice (Sir George Murray) occupied the chair, and he introduced the speaker. Sir George traced the history of experimental farming, and paid a tribute to the splendid work which had been done by Sir John Russell. Sir George referred to the work which was being carried out at the Waite Institute at Urrbrae. Among those present was Sir John Melrose, who has always evinced a keen interest in the Waite Institute.

Agriculture To-day.

Sir John Russell, who was cordially received, said that modern farming might be said to have started about 40 years ago, when the developments of transport enabled farm products to be sent all over the world, and so broke the monopoly which the home farmers had always previously enjoyed. It caused a revolution in farming, and science aimed at helping in two ways:—1. In increasing production per acre and per man. 2. In cheapening production by eliminating wastes and losses. The first great triumph of science was its introduction of artificial fertilizers, notably superphosphate, sulphate of ammonia, nitrate of soda, and potassic salts. They had added greatly to the productiveness of soils all over the world, giving large crops of cereals, potatoes, and sugar beets, and they were being used extensively in England and in Europe on grass land, adding greatly to the production of milk and meat. Further, it was shown that fertilizers not only increased the crop, but altered its composition and habit of growth.

Needs of To-day.

Sir John said that another direction in which science was helping agriculture was in the production of new varieties of crops better adapted to the conditions of the farm, or more resistant to disease than the old ones. Those new varieties were being produced all over the world. Australia had produced varieties of wheat which were known everywhere. A good farmer expected 40 or 50 bushels of wheat, 50 to 70 bushels of barley, 60 to 80 of oats, and 10 to 12 tons of potatoes an acre. From an acre of good grass land he would hope to get 600 to 1,000 gallons of milk in the season, or 200 liveweight increase in sheep. Although those yields could not be obtained every year, he no longer got disasters such as occurred 50 years ago when the wheat crop almost completely failed; there was always a crop. The problem of increased production per acre was solved sufficiently for to-day's needs. In recent years there had been increases in the number of plant diseases. Every country had always had a few, and nowadays with their efficient transport, diseases were liable to be carried from one country to another. Further, under cultivation, plants were more liable to disease than in the wild state. The most destructive crop disease in history had been the ordinary potato blight. It was a native of South America and had not reached Europe until steamships had begun to make the journey from South America in such short time that they could carry vegetable products.

Potato Diseases.

Sir John said that another troublesome disease was the wart disease of potatoes. It appeared in one corner of England in about 1896. No one thought much about it but it spread gradually all over the country and threatened terrible destruction. By that time the scientific workers were ready. Some were looking for a remedy, and some for resistant varieties; but happily an immune variety was found from which a number of others had been raised. The result had been that the disease, which might have been a catastrophe, had been only a nuisance, causing nothing like the loss of the old one. To-day they were threatened with virus or mosaic diseases, such as the tomato wilt which was being studied at the Waite Institute. They affected many, perhaps all, crops, and were spreading everywhere, but they were being closely studied by experts all over the world and there was now for the first time a co-operative effort to cope with them. The plant pathologists were collaborating in a way that had not been done before and although the problems were more difficult they had every confidence that they would be satisfactorily solved. Perhaps the greatest triumph of science had been to bring into cultivation the waste places of the earth. First of all the trouble had to be diagnosed, sometimes it was lack of plant food, sometimes lack of water, sometimes too much acidity, too much alkalinity, or too much salt. Soil chemistry was now so well advanced that the trouble could be located without much difficulty. Remedies were being devised for all those troubles. Australia had already done much in solving the problem of dry land cultivation.

Waite Institute Praised.

Continuing, Sir John said that two methods were adopted. The water requirements of the crop were ascertained, and methods were found for increasing the efficiency of the water in promoting plant growth. That problem had been studied in detail by Dr. A. E. V. Richardson. The soil was also studied, to see how to increase its power of holding moisture. At present an even more serious problem was associated with the salts often present in soil in semi-arid regions. Directly irrigation began, they were liable to cause alkali or salt troubles. Behind every irrigation scheme lurked the spectre of alkali which might bring to nought all the efforts of the engineer and cause losses of hundreds of thousands of pounds. Fortunately, South Australia possessed the Waite Institute, and in the new chemical laboratories presented by one of South Australia's great citizens, Sir John Melrose, they looked to see valuable work done on that urgent problem under the leadership of Professor J. A. Prescott, who had had the advantage of studying it in Egypt where it was already causing trouble.

Exchange Information.

In conclusion, Sir John said that as there were soil experts all over the Empire, working at their different problems, it had been decided at the Imperial Agricultural Conference that there should be a central soil bureau set up for interchange of information to ensure that any knowledge obtained in one part of the Empire—indeed of the world—should be at once made availbale to soil workers throughout the Empire. Representatives had further asked that the bureau should be located at Rothamsted, and while he was in Australia he would seek to learn in what ways it might be made most useful. Sir William Crookes in 1898 predicted that the world in 1931 would require 90 million tons of wheat to feed its population, but said that that represented the utmost that the wheat growers of the world could do; afterwards the world would be faced with starvation. The accuracy of his forecast in regard to consumption showed how carefully he had made his calculations. The world did, as he had predicted, require in 1928 about 90-100 million tons of wheat. Science, however, had advanced so much as to upset altogether his calculations about the possible production. The 90 millions which he thought was the limit, had been much exceeded even in 1911, and could be considerably exceeded to-day if it was wanted. The fear of world starvation had gone, and the achievements of science were only at their beginning. The problem before the world now was to ensure that the farmer should get his fair share of the profit so as to encourage him to use all that science could teach him. (Applause.)

REG 8-6-28

ELDER CONSERVATORIUM.

Organ Recital.

The Elder Hall was thronged on Thursday afternoon for the first of a series of 10 organ recitals by Mr. John Horner, F.R.C.O. Specially arranged for the pleasure and recreation of business folk and University students during the luncheon hour on Thursdays, and commencing at 1.10 p.m., these recitals provide 40 minutes of delightful music. The first programme opened with Handel's "Fifth Concerto," and it was at once evident that in Mr. Horner Adelaide is privileged to listen to an organist who is a master of the craft. Judicious phrasing, admirable registration, allied to digital and pedal dexterity, marked his playing. In the vivacious second movement of the Concerto, particularly high artistry was shown, but it was in Bach that the recitalist revealed to the fullest extent mastery of the instrument, and unusual skill in the attractive interpretation of the master's "In Dulci Jubilo." The three settings of this are noteworthy on the score of skill and effect. In one, not only have we a canon in the octave between treble and tenor, but the two free parts are also in canon during the first half of the movement. Yet, the result of this double allowance of ingenuity is not pedantic, but alluringly bright. Bach's work here is marked by a gaiety and grace suggesting Mozart's canonic, writing at its best. Mr. Horner's rendering was richly adequate.

MR. J. HORNER.

Other items were "Noel" (Dubois), and the "Marche Pontificale" of Widor. The composer of the former was Saint-Saens's successor at the Madeleine, Paris. The latter was written by one who treated the organ as a sort of self-contained orchestra, and the recitalist fully met his exacting requirements. The vocalist was Miss Mabel Siegele, who sang Dvorak's setting of "Inflammatus," from his "Stabat Mater," clearly and melodiously, and was delightfully accompanied on the organ by the recitalist. The large audience expressed pleasure by plaudits at the end of each item, and Mr. Horner received a great ovation at the close, a fitting acknowledgment of his masterly organ playing, redolent of the art that conceals art.

The second recital on Thursday next at 1.15, includes characteristic pieces by Bach, Guilmant, and Julian Nesbitt.