

VETERINARY SCIENCE

Protecting Pastoralists

SERVICE UNDERMANNED

PERTH, Today.

In his presidential address before section I of the Australasian Association for the Advancement of Science at Perth today, Prof. J. D. Stewart (Dean of the Faculty of Veterinary Science in the University of Sydney) gave a resume of the growth of veterinary science from the establishment of the first veterinary school in 1762 at Lyons in France, to its present stage of development.

He outlined its activities and indicated the directions in which it might be further applied with advantage. The chief objective of veterinary services of the Commonwealth was to protect the interests of the pastoral industry, the most important of our primary industries, and to safeguard the revenue it produced by maintaining good health in our flocks and herds.

Keeping Out Plagues

Reference was made to the important part veterinary science had played in assisting the development of Australia by preventing the introduction of many of the various animal plagues that prevailed in other countries and by stamping out several that gained entrance here. Among the latter special mention was made to foot and mouth disease which was causing much trouble and heavy losses in Britain and some of the States in America.

The experience gained in 1923 during the outbreak of rinderpest in Western Australia went to prove how necessary it was for Australia to maintain a complete state of preparedness to immediately combat the incursion of foreign epizootics.

Attention was drawn to the possibility of foreign diseases such as rabies being introduced into Northern Australia by irregular traffic. A veterinary survey of the Northern Territory and the north-west portion of the continent was strongly urged. It was possible that some diseases might exist of which they had no knowledge, but which might spread southward, like tick fever, and do harm.

Federal Assistance Urged

A greater degree of security was to be obtained by expanding the veterinary organisations in the different States to assure rapid diagnosis and speedy application of repressive measures, should any epizootic escape or break through the quarantine cordon. The added protection that expansion would give appeared to justify the Federal Government assisting the States to develop their veterinary services.

Desirable extensions of the application of veterinary science to increase production included animal genetics and improved methods of feeding. After dealing with the necessity of evolving more suitable breeds of beef cattle for the better utilisation of much of our tropical territory, the professor mentioned that, the placing on the market of synthetic wool had been the subject of much discussion among our woolgrowers, and while that material was not likely to compete with the fine wools of high quality, there existed a grave possibility of its affecting the sale of many coarse wools of low quality.

Attention was drawn to the fact that the veterinary service of the Commonwealth was sadly under-manned, the proportion being one for every 434,600 head of live stock (swine excluded), which was low compared with one for 15,000 in Britain.

REG. 3.9.26



REV. E. C. SPICER B.A., first rector of St. John's Laura.

PROGRESS IN EDUCATION.

South Australia's Record.

Director's Review of Ten Years.

South Australia, the Director of Education says, possesses a system of infant schools which will more than bear comparison with that of any other part of the world with which he is acquainted. The expenditure on education in the State has very largely increased in ten years.

The celebrations in connection with the 31st anniversary of the Public Teachers' Union were continued in the Price Hall of the Adelaide High School, Grote-street, last evening, in the presence of a large attendance. The chair was occupied by the president of the union (Mr. H. M. Lushey), and he was supported by the



Mr. W. T. McCoy.

Director of Education (Mr. W. T. McCoy), the deputy-director (Mr. C. Charlton), the W.E.A. lecturer on philosophy and psychology (Dr. A. C. Garnett), the principal of the Adelaide High School (Mr. R. A. West), the president-elect of the union (Mr. E. W. Skitch), and the principal of the Teachers' College (Dr. A. J. Schulz).

The remarkable progress of education in the State was indicated by Mr. McCoy, in an address on "A Ten Years' Retrospect of Education in South Australia," illustrated with lantern slides. He pointed out that in 1915 the population was 445,985, and in 1925 it had risen to 551,633, an increase of 105,648 or 23 per cent. The expenditure on education for 1915 was £340,040, and for 1925, £899,380, an increase of £559,340, or 158 per cent. The expenditure on primary education increased by 119 per cent., on secondary education by 153 per cent., on technical education by 247 per cent., and on building by 416 per cent. The number of schools had increased from 846 to 1,081. The latter figure did not include the 27 infant departments, seven junior technical, two commercial, and nine home-making departments. The total number under instruction increased from 64,412 in 1915, to 82,889 in 1925. The greatest actual increase was in the primary schools, viz., 32,115, or 54 per cent. The high schools showed an actual increase of 1,439, or 56 per cent. The total increase amounted to 35,477, or 55 per cent.

New Activities.

The cost per head of the population increased from 15/8 to 32/7, or 108 per cent. The increase was partly accounted for by the increased pay given to the teachers at various times, but much of it was due to expansion and the establishment of new activities such as central schools, medical inspection, apprentices' classes, &c. During the period the cost of conveying children to school increased from £374 per annum to £2,280 per annum. An increase of some interest was shown in school committee expenditure, which rose from £1,518 in 1915, to £5,249 in 1925. This increase had nearly all taken place within the last two years, the vote having been considerably augmented, so that minor works which were formerly undertaken by the Public Works Department could be more expeditiously performed by the school committees. In 1915, there were 50 students, with three lecturers, and the college provided two separate courses of training with no special practising schools for the practical work; to-day there were 270 students with 12 lecturers, and the college provided eight separate courses of training, with five specially organised and equipped practising schools—two for primary, two for infant, and one composite for rural school work. An improved practical training, which included training for teaching elementary agriculture, domestic arts, and woodwork, was now given, and the actual teaching practice which was conducted in specially equipped practising schools, by specially selected teachers, followed a carefully planned scheme of demonstration and observation work, and practice.

He acknowledged the splendid work which was being done by the principal of the Teachers' College and his staff, and by the masters of method and their

and in spite of the fine work done by his predecessors. Dr. Schulz was to be congratulated on having brought the college to a very high state of achievement—the highest in its history. (Cheers.)

Infant Departments.

The establishment of separate infant departments in 1920 formed another landmark. In 1915, the younger children in the largest schools were taught in grades I. and II. as part of the primary schools. A distinct forward movement was made in 1917, when Miss Longmore was appointed inspector; but her work was still hampered because she was obliged to work with and report through the district inspector. In 1920 separate infant departments were created, and the newly-appointed mistresses were given full control and greater responsibilities. At the same time, the inspector was given a district. The confidence and trust placed in the inspector and mistresses undoubtedly called forth all that was best in them, and they had striven to give of their best and highest service. Two of the infant schools were practising schools, and the fine training given manifested itself in increased efficiency and in spirit in the young teachers trained. The infant schools were responsible for the establishment and growth of those fine institutions, the mothers' clubs, of which there were 30. The meetings to promote friendly and sympathetic relations between the teachers and the mothers had been of untold benefit to the children, and although the aim in forming these clubs was entirely educative, the mothers of their own accord had raised money to erect pavilions, and to provide pianos, cupboards, and hundreds of pounds worth of Montessori material and other equipment. A wonderful social life had sprung up amongst the mothers, which found expression in birthday parties, Christmas parties and many other gatherings, which spread a beautiful influence, had proved a source of inspiration to all. The net result of all this was that South Australia possessed a system of infant schools which would more than bear comparison with that of any other part of the world with which he was acquainted. (Cheers.)

In 1925 the medical branch was re-organised, and a scheme drawn up by which it was hoped that all school children would be both medically and dentally examined twice during their primary school careers. The staff now consisted of a principal medical officer, five medical inspectors, four school nurses, three dentists, and two dental assistants. In addition, a psychologist was attached to the department. During 1915 4,447 children were medically examined; in 1925 the number was increased to 38,715. Up to 1924 no provision was made for the training of sub-normal children, although it was known that they constituted between 1 and 2 per cent. of the school population. In November, 1924, Dr. Davey was appointed as psychologist to examine children who had been specially selected by the head teacher, because of having made little or no progress in the school studies. Up to July of the present year she had examined 719 selected scholars, and had established nine opportunity classes for dull and backward children. The children in the opportunity classes had made definite progress, and there was no doubt that in many cases their self-respect had been re-established. (Cheers.) The establishment of vocational schools, and the erection of separate institutions for dealing with certain cases were questions for the future. There were to-day about 1,675 boys and girls, the majority of whom would not be under instruction but for the existence of central schools. Similarly, the more adequate provision made for the teaching of elementary agriculture, woodwork, and domestic science was well known. The first woodworking centre was opened at Norwood in 1917, with an enrolment of 210 students. In 1925 there were nine metropolitan and six country centres, with a total enrolment of 3,247 boys.

Standards of Teaching.

In 1920 radical changes were made in the policy of the department. Perhaps the greatest reform introduced at this time was the substitution of inspection for examination. The estimate of a teacher's work was now measured by his ability to train pupils in right habits of thought, speech, and conduct, by his success in developing in them intelligence, resource, and initiative, by the result of his efforts to make the knowledge gained by them of practical use, by the zeal and interest he brought to his work, and by a consideration of the moral forces at work in the school, rather than by the percentages gained in various subjects. (Cheers.)

The Director referred also to the establishment of a correspondence school, and improvements in school buildings, and said high schools were first established in

1908. There were 23 in 1915 with a gross enrolment of 2,571. In 1925 there were 24 high schools with an enrolment of 4,010, and the expenditure had increased from £27,014 in 1915, to £66,729 in 1925. Every year 200 or 300 boys from metropolitan and country high schools passed through camp schools. One agricultural high school was in operation at Murray Bridge. In 1922, 16 higher primary schools were established, with a gross enrolment of 296. In 1925 there were 22 with an enrolment of 429. The domestic art classes had grown from 5 centres in 1915, with an enrolment of 642, to 40, with an enrolment of 2,839, exclusive of those students taught in 21 rural schools, and the seven model country schools at the Currie-street Practising



Dr. A. C. Garnett

School. Satisfactory progress was also noted in technical education. In 1925 many trade classes were in operation with a total enrolment of 747 apprentices. The inauguration of the apprentice classes had been one of the most important pieces of work undertaken by the technical branch of the department. Educationally, it was of a pioneering nature, for nothing similar had been undertaken in any Australian State in the way of compulsory education for boys above the age of 14. The work had aroused considerable interest, and had been favorably reported on by visitors interested in such matters. It had established itself firmly in the opinions of the employers and employees through the areas where it operated. (Cheers.)

The Significance of Play.

Dr. Garnett delivered an address on "The Significance of Play." He remarked that play was a phenomenon which had presented considerable difficulty to the psychologist. It was formerly said to be due to an instinct; but the more exact analysis of instinct in recent years prevented such a solution. Play might include activities ordinarily expressive of instincts such as playful hunting and fighting, but those activities were not then hunting and fighting, but just play. Play was therefore neither many instincts nor one. It was related to instinct yet independent of it. It was an activity just as fundamental to life as instinctive action itself, and should be studied as a primary example of the activity of living organisms. Herbert Spencer attributed play to the over-accumulation of energy in the nerve cells. He believed that when an action took place a certain group of nerve cells discharged its energy and then proceeded to build it up again. When such a group was highly charged he supposed it would eventually discharge itself without special stimulation. The resultant activity would be play, and therefore would be regarded as a mere working off of superfluous nervous energy. That theory had been effectively met by Professor Gross, who pointed out that play was not merely the unnecessary repetition of former actions, but was often the adventurous attempt to perform entirely new ones. Gross also pointed to the benefit of play to the young animal as a means of training it for the serious performance of the same actions in later life.

Play was the very type of the fundamental movement of life. Pure play was the simplest and most typical expression of life. The child in his play was a young life going out to meet experience and to express itself in what it found. Incidentally it impressed itself upon what it found and was itself impressed. In short, in play the young life began and practised the expression of itself, and was eagerly awake to every impression that the environment might make, ready to respond, ready to adapt itself, and sensitive to everything that affected its activity. In his play, therefore, the child was essentially a discoverer. His whole attention was concentrated on what he could do to the world, and what it would do back to him. It was for that reason that play was a great educator. Necessity was a stern schoolmaster, but play was 100 per cent. more efficient. Play concentrated all the attention upon the present activity and experience. Necessity must direct half of it upon the end to be served. Whatever knowledge and skill, therefore, could be acquired in play would be acquired most expeditiously in that way. This much the psychologist could tell the teacher, but it was the task of the latter to apply this